

Table of Contents

Thermal Expansion Valves

1-57

Solenoid Valves

58-84

Coils

85-87

Industrial Solenoid Valves

88-103

Shut Off Valves

104-105

System Protectors

106-144

Storage Devices

145-147

Oil Controls

148-155

Regulators

156-182

Temperature Pressure Controls

183-199

Thermal Expansion Valves

A-Series	2
AFA Series	5
HFK Series	7
HF Series	10
TRAE+ Valve	16
TRAE Valve	17
T-Series	19
TLE Valve	23
TI Valve	25
ZZ Valve	26
LCL Valve	28
ESVB Valve	30
EX2 Valve	32
ACP(E) Valve	34

Solenoid Valves

50RB	59
100RB	60
200RB	62
240RA	65
500RB	67
540RA	69
710/713RA	71
702RA	73
207CB*	74
3031RB/RC	76
RV Series*	78
703RC	80

Coils

Industrial Solenoid Valves

202C*	89
203C*	91
204C*	93
210C/211C*	95
214C*	97
222C*	99
314U*	101

Shut Off Valves

ABV	104
RD	105
ACK*	134

System Protectors

EK	109
EKP	110
ADK	112
BFK	114
BOK-HH	116
ALF*	118
CU - Spun Copper Service Drier*	119
CU - Spun Copper Liquid Line Drier*	120
STAS	121
ADKS	122

*Also Included in the Extended Products Catalog

	Page
Blocks and Cores	125
BTAS*	126
ASD	128
SFD	129
CSFD	130
ASK-HH	131
ASF	132
APD	133
ACK*	134
HMI	135
AMI	136
A-IHL	138
A-IHN	138

Storage Devices

A-AS*	145
AVR*	147
AOR*	148

Oil Controls

W-OLC*	149
OMB*	150
A-W/A-F*	151
High Efficiency Oil Separator	152
AOFD*	153
ASF*	153
AOF*	154
AAU	155

Regulators

	156
ESR	157
MTB 1	158
IPR	159
EPRB(S)	160
OPR	162
ACP(E)	163
EGR(E)	165
DGR(E)	167
CPH(E)	168
HP/HPC	170

Temperature Pressure Controls

	183
TS1	184
PS1	188
PS2	190
FD113	192
PS3	193
FS	196
FF4	198
FF444	199

Troubleshooting Guide

200

Competitive Cross Reference

207

Alpha Numeric By Product

Product	Page	Product	Page
50RB	59	BTAS*	126
100RB	60	Coils	85
200RB	62	CPH(E)	168
202C*	89	CSFD	130
203C*	91	CU - Liquid Line*	121
204C*	93	CU - Service Drier*	120
207CB*	74	DGR(E)	167
210C/211C*	95	EGR(E)	165
214C*	97	EK	109
222C*	99	EKP	110
240RA	65	EPRB(S)	160
314U*	101	ESR	157
500RB	67	ESVB	32
540RA	69	EX2	34
703RC	80	FD113	192
710/713RA	71	FF4	198
3031RB/RC	76	FF444	199
A-Series	2	FS	196
A-AS*	145	HF	10
AAU	155	HFK	7
ABV*	104	HMI	135
ACK*	134	HP/HPC	170
ACP(E)	34	IPR	159
ADK	112	LCL	28
ADKS	122	MTB 1	158
A-F*	151	OMB*	150
AFA	5	OPR	162
A-IHL	138	OS	152
A-IHN	138	PS1	188
ALF*	118	PS2	190
AMI	136	PS3	193
AOF*	154	RD	105
AOFD*	153	RV*	78
AOR*	148	SFD	129
APD	133	STAS	121
ASD	126	T-Series	19
ASF	132	TI	25
ASF*	153	TLE	23
ASK-HH	131	TRAE	17
AVR*	147	TRAE+	16
A-W*	151	TS1	184
BFK	114	W-OLC*	149
Blocks and Cores	125	ZZ	26
BOK-HH	116		

THERMAL EXPANSION VALVE QUICK SELECT GUIDE

APPLICATION	NOMINAL CAPACITY (R-22)	VALVE FAMILY	CATALOG PAGE	SERVICE REPLACEMENT	STYLE			CONNECTIONS		CONFIGURATION		PORT		ADJUSTABLE SUPERHEAT	INTERNAL CHECK
					HERMETIC	REPLACEABLE POWER ELEMENT	FIELD ASSEMBLED	SAE	ODF	ANGLE	STRAIGHT	CONVENTIONAL	BALANCED		
AIR CONDITIONING AND REFRIGERATION	1/4 to 5	AA	2		X				X		X	X		X	
	1/4 to 5	AN	2		X				X	X	X	X			
	1/4 to 5	AAC	4	X	X				X		X	X		X	X
	1/4 to 5	ANC	4		X				X	X	X	X			X
	1/4 to 5	AFA	5	X	X			X		X		X		X	
	1/3 to 5	TI	25	X			X	X		X		X		X	
	1/4 to 5 1/2	HFK	7	X		X	X	X	X	X	X		X	X	
	1/4 to 5 1/2	HF	10			X		X	X	X	X		X	X	
	8 to 20	HF EXT	10			X			X	X	X		X	X	
	1/2 to 12	TL	23				X	X	X	X	X	X			
	1/2 to 12	TCL	19	X			X	X	X	X	X	X		X	
	11 and 14	TJL	19	X			X		X	X	X	X		X	
	14 and 18	TJR	19	X			X		X	X	X		X	X	
	22 to 45	TER	19	X			X		X	X	X		X	X	
	55	TIR	19	X			X		X	X	X		X	X	
70 and 85	THR	19	X			X		X	X	X		X	X		
100	TMR	19				X		X	X	X		X	X		
10 to 40	TRAE+	16				X			X		X		X	X	
50 to 70	TRAE	17			X				X		X		X	X	
CONSTANT PRESSURE	1/2 to 5	ACP	34		X				X		X	X			
ELECTRICALLY DRIVEN	1 to 20	ESVB	30		X				X	X		N/A		N/A	
	1/4 to 4	EX2	32		X				X	X		N/A		N/A	
ULTRA-LOW TEMP	3/4 to 8	ZZ	26				X	X	X	X	X	X		X	
De-Superheating		LCL	28				X	X	X	X	X	X		X	

A-SERIES THERMO® EXPANSION VALVE

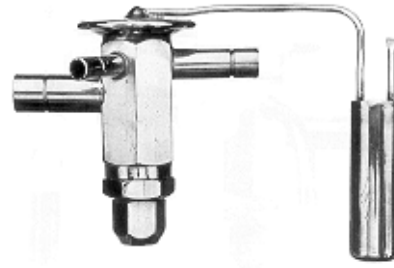
“A” Series Thermo Expansion Valves are used for heat pump, air conditioning, food service and commercial applications. “A” Series valves provide stable and accurate control over a wide range of operating conditions.

FEATURES

- ☆ Hermetic construction eliminates external leakage
- ☆ Compact size allows installation in limited spaces
- ☆ Mass spectrometer tested to ensure less than 0.10 oz/year external leakage rate
- ☆ Stainless steel power element eliminates corrosion and prevents valve failure

OPTIONS

- ☆ HAA wide range charge allows two valves (2 1/2 and 5 ton, R-22) to cover all capacities from 1 to 5 tons on most residential systems
- ☆ New ZW195 charge available for R-410A systems
- ☆ Available adjustable or non-adjustable superheat for application flexibility
- ☆ SAE or ODF connections standard – chatleff or aeroquip are available
- ☆ Available external or internal equalizer to satisfy the broadest possible range of applications
- ☆ Available internal check valve allows reverse flow heat pump applications, eliminating the need for external piping and external check valve, thus reducing installation costs (ANC Series)
- ☆ Bleed type pressure equalization available to accommodate PSC type compressors
- ☆ Pressure limiting charges (MOP) available – consult factory



SPECIFICATIONS

Maximum working pressure: 700 psig
UL Recognized: SA 5312

Extended Capacity Tables begin on page 36.
Ordering Information begins on page 3.

NOMENCLATURE EXAMPLE: AACEB 2 HC 30 IN 3/8 x 1/2 ODF ANG

A	A	C	E	B	2	H	C	30 IN	3/8 x 1/2	ODF	ANG
Valve Series Economy, Hermetic Design	Superheat Adjustment A = Adjustable N = Non-Adjustable	Internal Check Valve (optional) Reverse Flow Bypass Application	Equalizer E = External (Omit for Internal)	Bleed Hole (optional) Omit for no bleed hole	Capacity Nominal Rating in Tons See nominal capacity table below	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A Z = R410A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	Capillary Tube Length 30 IN (std) other lengths are available	Inlet x Outlet Connection Sizes I O 1/4 3/8 3/8 1/2 1/2 5/8 5/8 7/8	Connection Type SAE = flare ODF = solder Chatleff (optional) Aeroquip (optional)	Config-uration S/T = straight- thru ANG = 90° angle

AA/AN SERIES – NOMINAL CAPACITY TABLE IN TONS

R12	R134a	R22	R410A	R502	R507/R404A	R407C
–	1/8	1/5	–	–	1/8	1/5
1/8	1/4	1/4	1/4	1/8	1/4	1/4
1/4	1/2	1/2	1/2	1/4	1/2	1/2
1/2	3/4	1	1	1/2	3/4	1
1	1	1 1/2	1 1/2	1	1	1 1/4
–	1 1/2	2	2	–	1 1/4	2
1 1/2	2	2 1/2	3	1 1/2	2	2 1/2
2	2 1/2	3	4	2	2 1/4	3 1/4
2 1/2	3	4	5	2 1/2	2 1/2	4
3	4	5	–	3	3 1/2	5 1/4

ORDERING INFORMATION FOR A-SERIES VALVES

VALVE SERIES	CAPACITY TONS	CONNECTIONS	CAP TUBE	PCN BY CHARGE											
				FC	MC	MZ	HC	HW100	HAA	SC	SZ	SW45	ZW195		
				<small>R-12 Med. Temp</small>	<small>R-134a Med. Temp</small>	<small>R-134a Low Temp</small>	<small>R-22 Med. Temp</small>	<small>R-22 MOP</small>	<small>R-22 Wide Range</small>	<small>R-404A Med. Temp.</small>	<small>R-404A Low Temp.</small>	<small>R-404A MOP</small>	<small>R-410A Wide Range</small>		
AA	1/4	1/4 X 1/2 ODF S/T	30 IN.								063503				
		1/4 X 3/8 ODF S/T										065202			
		1/4 X 1/2 ODF S/T	5 FT.	064302	065623		055932								
		1/4 X 3/8 ODF S/T		048986			056315				065675	065676			
		1/4 X 3/8-1/2 SAE S/T		049820											
	1/2	1/4 X 1/2 ODF S/T	30 IN.	062797	065624		065626				063504				
		1/4 X 3/8 SAE S/T				058986									
		3/8 X 1/2 ODF S/T									063925				
	3/4	3/8 X 1/2 ODF S/T									065149	065686			
	AAE	1/2	1/4 X 1/2 ODF S/T	5 FT.	065628	065630		065632						065636	
3/8 X 1/2 ODF S/T							065633				065687	065688			
1/4 X 1/2 ODF S/T						065634									
3/8 X 1/2 ODF S/T		062798	065631			065635				065183	065637				
1-1/2		3/8 X 1/2 ODF S/T					064424				065697	065698			
2		3/8 X 1/2 ODF S/T					064425				065689	065690			
2-1/2		1/2 X 5/8 ODF S/T	5 FT.									065691	065148		
		3/8 X 1/2 ODF S/T	30 IN.							063648					
		CHATLEFF							013938						
3		3/8 X 1/2 ODF S/T	5 FT.				062376					065692	065693		
		3/8 X 1/2 ODF S/T	30 IN.											065579	
		3/8 X 3/8 ODF S/T											064595		
5		3/8 X 5/8 ODF S/T	5 FT.						062088						
		3/8 X 3/8 ODF S/T	30 IN.												
		1/2 X 5/8 ODF S/T											065580		
		3/8 X 1/2 ODF S/T									063649				
		CHATLEFF								013939				015794	

Standard Product Offering
* Product Code Number
S/T = Straight Through

ORDERING INFORMATION FOR A-SERIES VALVES

VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* CHARGE			CAP TUBE
			FC R12/R134a Min. Tot.	HCA R22 Hbr Rmp	HW100 R22 MCP	
ANE8	2	3/8 x 1/2 ODF ANG		007506		30 IN.
	2 1/2	3/8 x 1/2 ODF ANG		007507		30 IN.

UNIVERSAL REPLACEMENT HAA AND ZW195 WIDE RANGE CHARGE FOR HVAC APPLICATIONS

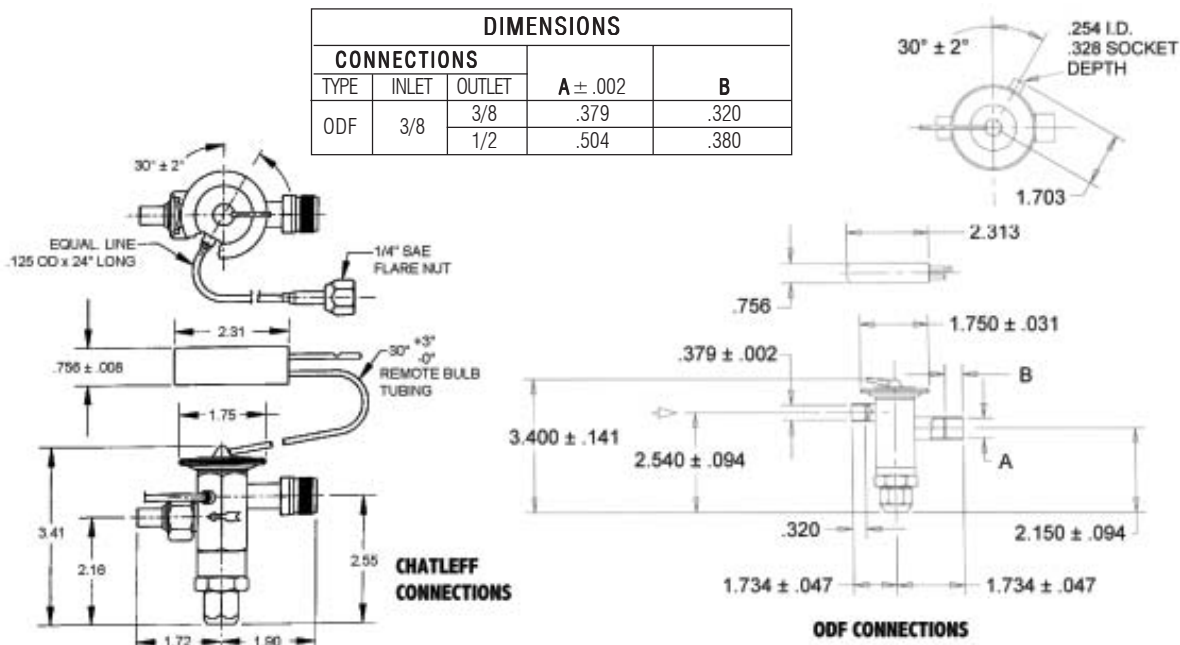
TABLE 1

- ☆ The AACE wide range valve allows several TXV to replace the majority of residential air conditioning and heat pump applications.
- ☆ Special high stability charges designed for HVAC applications and used by leading original equipment manufacturers.
- ☆ These wide range charges provide greater superheat stability, allowing in most cases two valves to cover a wide range of capacities from 1 to 5 tons.
- ☆ Offers customers the benefit of inventory reduction by replacing several valves with two valves, while continuing to meet system performance needs.
- ☆ With the addition of an integral check valve, four expansion valves can meet the majority of residential HVAC, light commercial, and heat pump applications as shown in Table 1.

PCN	DESCRIPTION	R-22 CAPACITY RANGE
064102	AACE 2 1/2 HAA ODF EE 30" 3/8 x 1/2 ODF S/T 6A	1 TO 3 TONS
064103	AACE 5 HAA ODF EE 30" 3/8 x 1/2 ODF S/T 6A	3 1/2 TO 5 TONS
014091	AACE 2 1/2 HAA CAP TUBE EE w/NUT 30" CHATLEFF X CHATLEFF S/T 6A	1 TO 3 TONS
014092	AACE 5 HAA CAP TUBE EE w/NUT 30" CHATLEFF X CHATLEFF S/T 6A	3 1/2 TO 5 TONS
065581	AACE 3 ZW195 3/8 x 1/2 ODF S/T 6A	1 1/2 TO 3 TONS
065582	AACE 5 ZW195 1/2 x 5/8 ODF S/T 6A	3 1/2 TO 5 TONS
015795	AACE 3 ZW195 CHATLEFF 30" CHATLEFF X CHATLEFF S/T 6A	1 TO 3 TONS
015796	AACE 5 ZW195 CHATLEFF 30" CHATLEFF X CHATLEFF S/T 6A	3 1/2 TO 5 TONS

SUPERHEAT SCREW REPLACEMENT KIT 20297

AACE DIMENSIONAL DATA



AFA(E) THERMO® EXPANSION VALVE

The AFA series Thermo® Expansion Valve is designed for air conditioning and commercial refrigeration applications requiring angle configuration SAE connections. The AFA is ideal for those applications requiring compact size combined with stable and accurate control over wide load and evaporator temperature ranges.



FEATURES

- ☆ External superheat adjustment
- ☆ Replaceable inlet strainer
- ☆ SAE connections only
- ☆ Wrench flats on inlet and outlet for easy installation
- ☆ Stainless steel power element for maximum corrosion resistance

OPTIONS

- ☆ Available external or internal equalizer to satisfy the broadest possible range of applications

SPECIFICATIONS

- ☆ Maximum working pressure: 700 psig
- ☆ UL Recognized: SA 5312

NOMENCLATURE EXAMPLE: AFAE 1/2 HC 5 FT 3/8 x 1/2 SAE ANG

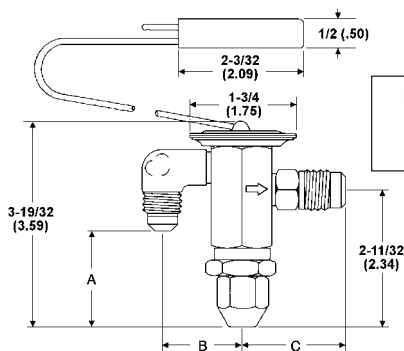
AF	A	E	1/2	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series Economy, Hermetic Design	Superheat Adjustment A = Adjustable	Equalizer E=External (Omit for Internal)	Capacity Nominal Rating in Tons See nominal capacity table (below)	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A Z = R410A	Charge Code C = medium temp CA = heat pump W(MOP)=press. limiting Z = low temp AA = wide range	Capillary Tube Length 30 IN and 5 FT are standard	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type SAE = flare	Config-uration ANG = 90° angle

AFA SERIES – NOMINAL CAPACITY TABLE IN TONS

R12	R134a	R22	R410A	R502	R507/R404A	R407C
–	1/8	1/5	–	–	1/8	1/5
1/8	1/4	1/4	1/4	1/8	1/4	1/4
1/4	1/2	1/2	1/2	1/4	1/2	1/2
1/2	3/4	1	1	1/2	3/4	1
1	1	1½	1½	1	1	1¼
–	1½	2	2	–	1¼	2
1½	2	2½	3	1½	2	2½
2	2½	3	4	2	2¼	3¼
–	3	–	5	–	2½	4
3	4	5	–	3	3½	5¼

Extended Capacity Tables begin on page 36.
For Ordering Information, see page 6.

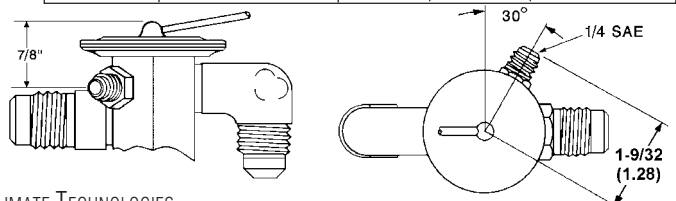
AFA(E) DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES:
FRACTIONS (DECIMAL)

Remote Bulb Tubing Length 30" or 5' Standard

		AFA(E) CONNECTIONS		
		TOLERANCE		
		± 5/32 (.16)	± 1/32 (.03)	± 3/64 (.05)
INLET	OUTLET	A	B	C
	3/8			1-41/64
1/4 elbow	1/2	1-49/64	1-3/32	1-23/64
	5/8			1-63/64
	3/8 – 1/2			1-47/64
3/8 elbow	3/8	1-41/64	1-5/16	1-41/64
	1/2			1-23/64
	5/8			1-63/64
	3/8 – 1/2			1-47/64



ORDERING INFORMATION FOR AFA SERIES VALVES

VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* BY CHARGE						REFRIG.
			INTERNAL EQUALIZED			EXTERNAL EQUALIZED			
			MC R-134a Med. Temp.	MZ R-134a Low Temp.	MC R-134a Med. Temp.				
AFA(E)	1/4	1/4 x 1/2 SAE	057607					R-134a	
	1/4	1/4 x 3/8 SAE	058536						
	1/2	1/4 x 1/2 SAE	057606						
	1/2	3/8 x 1/2 SAE	059625						
	1	3/8 x 1/2 SAE				057613			
VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* BY CHARGE						REFRIG.
			INTERNAL EQUALIZED			EXTERNAL EQUALIZED			
			HC R-22 Med. Temp.	HZ R-22 Low Temp.	HW35 R-22 MOP	HC R-22 Med. Temp.	HZ R-22 Low Temp.	HW35 R-22 MOP	
AFA(E)	1/4	1/4 x 1/2 SAE	057261						R-22
	1/2	1/4 x 3/8 SAE				054243			
	1/2	1/4 x 1/2 SAE	057260						
	1	3/8 x 1/2 SAE	054231			054246			
	1 1/2	3/8 x 1/2 SAE	054232			054247	057950		
	2	3/8 1/2 SAE	054233			054258			
	3	3/8 x 1/2 SAE	062058			054249			
	5	3/8 x 1/2 SAE	062059			054250			
VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* BY CHARGE						REFRIG.
			INTERNAL EQUALIZED			EXTERNAL EQUALIZED			
			SC R-404A Med. Temp.	SZ R-404A Low Temp.	SW45 R-404A MOP	SC R-404A Med. Temp.	SZ R-404A Low Temp.	SW45 R-404A MOP	
AFA(E)	1/4	1/4 x 1/2 SAE	064072						R-404A
VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* BY CHARGE						REFRIG.
			INTERNAL EQUALIZED			EXTERNAL EQUALIZED			
			RC R-502 Med. Temp.	RZ R-502 Low Temp.	RW45 R-502 MOP	RC R-502 Med. Temp.	RZ R-502 Low Temp.	RW45 R-502 MOP	
AFA(E)	1/4	1/4 x 3/8 SAE	049871						R-502
	1/2	1/4 x 3/8 SAE	048431						
VALVE SERIES	CAPACITY TONS	CONNECTIONS	PCN* BY CHARGE						REFRIG.
			INTERNAL EQUALIZED			EXTERNAL EQUALIZED			
			FC R-12 Med. Temp.	FZ R-12 Low Temp.	FW45 R-12 MOP	FC R-12 Med. Temp.	FZ R-12 Low Temp.	FW45 R-12 MOP	
AFA(E)	1/4	1/4 x 3/8 SAE 5FT	047753		049373	054240			R-12
	1/4	1/4 x 3/8 SAE 30IN	057047						
	1/4	3/8 x 3/8 SAE 5FT	054258						
	1/2	1/4 x 3/8 SAE 5FT	047752	048685					
	1/2	1/4 x 3/8 SAE 30IN	057028			057023			
	1/2	3/8 x 3/8 SAE 5FT	054226						
	1/2	3/8 x 3/8 SAE 30IN	057027						
	1	3/8 x 3/8 SAE 5FT	047758			059563			
1	3/8 x 3/8 SAE 30IN	057029			057048				

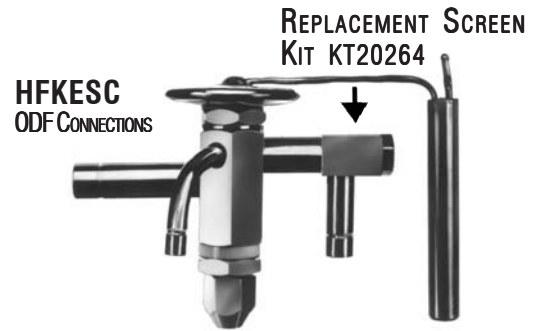
Standard Product Offering

* Product Code Number

HFK BALANCED PORT THERMO® EXPANSION VALVE

FEATURES

- ☆ The HFK features interchangeable bodies, cages, and power elements providing maximum flexibility for ¼ to 5½ ton applications (nom. R-22).
- ☆ The HFK is offered several ways:
 - ◆ *Pre-packaged service kits* – Include a mix of bodies and power elements with a complete set of cages to serve the most applications with a minimum of parts.
 - ◆ *Individual components* - Bodies, cages, & power elements may be ordered separately and can be used to build personalized service kits or replenish pre-packaged kits.
 - ◆ *Finished valves* – Assembled valves ready for immediate installation.
- ☆ All HFK valves use a balanced port cage design that compensates for changes in operating pressures due to varying ambients, gas defrost, heat reclaim, or widely varying evaporator loads.
- ☆ The HFK offers the following additional features:
 - ◆ Bi-Flow capability
 - ◆ Stainless steel power element
 - ◆ Adjustable superheat
 - ◆ Solid copper connections



OPTIONS

- ☆ ODF or SAE connections
- ☆ Straight-through or angle flow configurations
- ☆ Removable inlet strainer available (ODF only)
- ☆ Internal or external equalizer

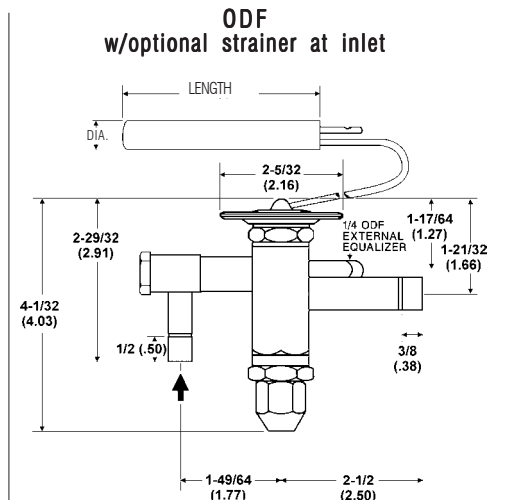
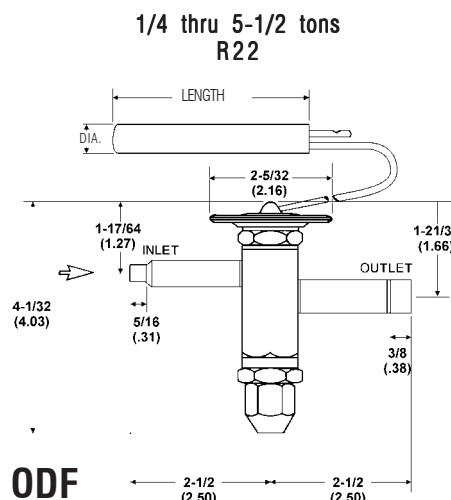
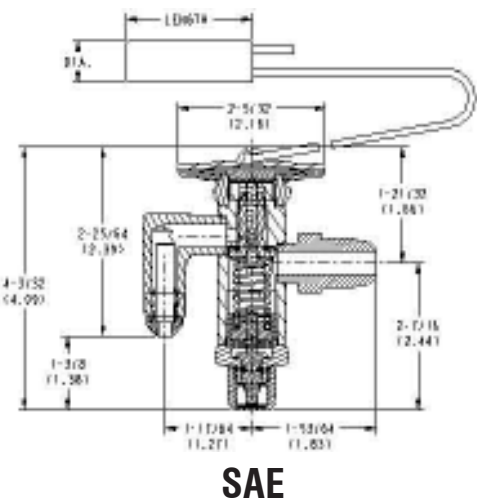
SPECIFICATIONS

- ☆ Maximum working pressure: 450 psig
- ☆ Operating Temperature: -40°F to 50°F
- ☆ Use with R-22, R-134a, R-404A, R-507, R-12, R-502

NOTE: HFK cages are not interchangeable with HF valve bodies. Power elements can be interchanged.

NOMENCLATURE EXAMPLE: HFKESC 2 HC 5 FT 3/8 x 1/2 ODF S/T

HFK	E	S	C	2	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series	Equalizer E=External (Omit for Internal)	Connection Type S=Solder (Omit for SAE Flare)	Removable Inlet Strainer (optional) C=Inlet Strainer (ODF only)	Capacity Nominal Rating in Tons See nominal capacity table (on page 23)	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A	Charge Code C = medium temp CA = heat pump W(MOP)=press. limiting Z = low temp	Capillary Tube Length 5 FT (std) other lengths are available	Inlet x Outlet Connection Sizes See Body Table on page 23	Connection Type SAE = flare ODF = solder	Configuration S/T = straight-thru ANG = 90° angle

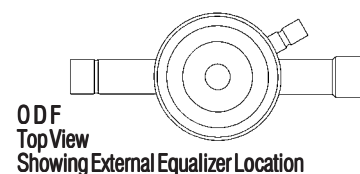


Remote Bulb Dimensions			
Refrigerant	Charge	Length	Dia.
C, Z		3-1/2	1/2
CA		2-5/16	3/4

Remote Bulb Tubing Length 5' Standard

DIMENSIONAL DATA

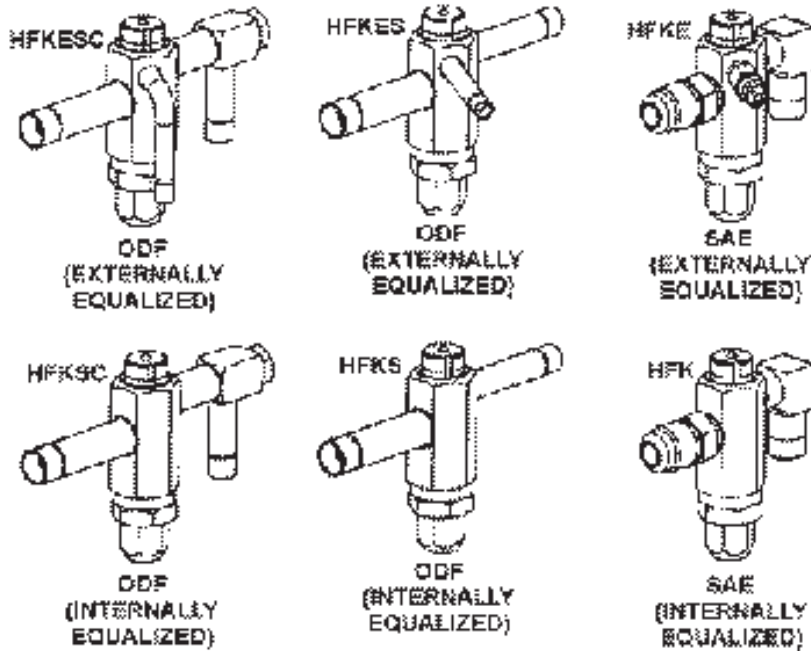
DIMENSIONS SHOWN ARE IN INCHES:
FRACTIONS (DECIMAL)



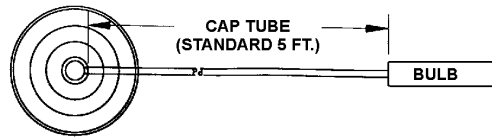
HFK BALANCED PORT TEV

HFK SELECTION PROCESS

Step 1: Body Selection



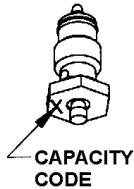
Step 3: Power Element Selection



PCN*	Description	Type	Connections (Inlet x Outlet)
064881	KT-20298-1	HFK	1/4 x 1/2 SAE Ang Inlet
064882	KT-20298-2	HFK	3/8 x 1/2 SAE Ang Inlet
064883	KT-20298-3	HFKE	1/4 x 1/2 SAE Ang Inlet
064884	KT-20298-4	HFKE	3/8 x 1/2 SAE Ang Inlet
064885	KT-20298-5	HFKE SC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064886	KT-20298-6	HFKE SC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064887	KT-20298-7	HFKE S	3/8 x 1/2 ODF S/T
064888	KT-20298-8	HFKE S	3/8 x 5/8 ODF S/T
064889	KT-20298-9	HFKE S	1/2 x 5/8 ODF S/T
064890	KT-20298-10	HFKE S	1/2 x 7/8 ODF S/T
064891	KT-20298-11	HFKE S	3/8 x 1/2 ODF S/T
064892	KT-20298-12	HFKE S	3/8 x 5/8 ODF S/T
064895	KT-20298-13	HFKE S	1/2 x 5/8 ODF S/T
064896	KT-20298-14	HFKE S	1/2 x 7/8 ODF S/T

PCN*	Description	System Refrigerant(s)	Application
053769	X26300-FW15-1	R-12/R-134a	Low Temp MOP
054798	X26300-FW35-1	R-12/R-134a	Low Temp MOP
063869	X26300-FW55-1	R-12/R-134a	Low Temp MOP
058074	X26300-MC-1	R-134a	Medium Temp
057764	X26300-HW100-1	R-22/R-407C	AC MOP
057834	X26300-HCA-1	R-22/R-407C	Heat Pump
058085	X26300-SW45-1	R-404/ R-507/ R-502	Low Temp MOP
053763	X26300-FC-1	R-12/R-134a	Medium Temp
053764	X26300-HC-1	R-22/R-407C	A/C Med. Temp
058083	X26300-SC-1	R-404/ R-507/ R-502	Medium Temp
053766	X26300-FZ-1	R-12/R-134a	Low Temp
053767	X26300-HZ-1	R-22/R-407C	Low Temp
058082	X26300-SZ-1	R-404/ R-507/ R-502	Low Temp

Step 2: Cage Selection



Standard Product Offering

* Product Code Number

¹Additional power element charges available, call for availability.

PCN*	Description ¹	Cage Code	R-12	R-22	R-134a	R-404	R-507	R-502	R-407C
064868	KT-20299-0	0	1/8	1/4	1/4	1/8	1/8	1/8	1/4
064869	KT-20299-1	1	1/4	1/2	1/2	1/4	1/4	1/4	1/2
064870	KT-20299-2	2	1/2	1	3/4	1/2	1/2	1/2	1
064871	KT-20299-3	3	1	1 1/2	1	1	1	1	1 1/2
064872	KT-20299-4	4	1 1/4	2	1 1/2	1 1/4	1 1/4	1 1/4	2
064873	KT-20299-5	5	1 1/2	2 1/2	1 3/4	1 1/2	1 1/2	1 1/2	2 1/2
064874	KT-20299-6	6	2	3	2 1/2	2	2	2	3
064875	KT-20299-7	7	3 1/2	5 1/2	4	3 1/2	3 1/2	3 1/2	5 1/2

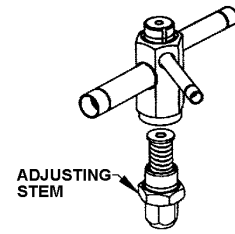
¹Cage Kit includes Cage, Insertion Tool and ID Clips.

Description	PCN*
SAE Service Kit	064876
ODF Service Kit	064877
ODF/SAE Service Kit	064878
SAE/ODF Service Kit	065135
Cage Kit	064879
Service Box	064880
Cage Box (Empty)	064897
Insertion Tool	064898
Oil Bottle	064899

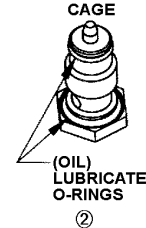
HFK BALANCED PORT TEV

- 1.) Remove adjusting stem from body.
- 2.) Lubricate o-rings on cage.
- 3.) Place cage into insertion tool (using 1/4" nut driver) and insert into body (do not over tighten).
- 4.) Screw adjusting stem into bottom of body and hand tighten plus one wrench flat. (300-360 inch lbs. – Do not over tighten.)
- 5.) Attach cage identification clip on power element cap tube.
- 6.) Screw power element onto top of body and hand tighten plus one wrench flat. (300-360 inch lbs. – Do not over tighten.)

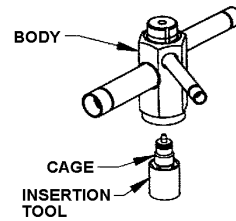
HFK ASSEMBLY PROCEDURE (see 6 assembly steps & diagrams below)



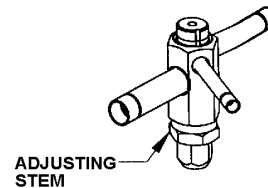
① REMOVE ADJUSTING STEM



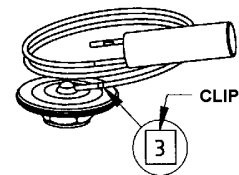
②



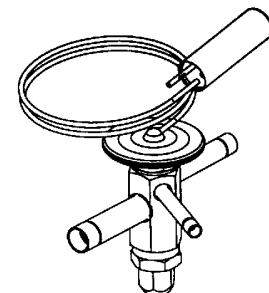
③ INSERT CAGE (CW)



④ INSTALL ADJUSTING STEM AND TIGHTEN (CW)



⑤ INSTALL CLIP SNAPS ON CAP TUBE



⑥ INSTALL ELEMENT (CW) AND TIGHTEN

HFK PRE-PACKAGED KITS

The HFK is available in a pre-packaged kit consisting of a mix of popular bodies and power elements with a complete selection of cages. These kits provide great flexibility allowing valves to be assembled as needed for each application. Three kits are provided as shown below. In addition, custom kits can be assembled by stocking an empty kit case with desired components.



SAE/ODF Kit (PCN 065135)

HFK 3/8 x 1/2 SAE ANG	1	FC Power Element	1
HFKE 3/8 x 1/2 SAE ANG	1	FZ Power Element	1
HFKS 3/8 x 1/2 ODF S/T	1	HC Power Element	1
HFKES 3/8 x 1/2 ODF S/T	1	HZ Power Element	1
Cage Kit (PCN 064879)	1	HZ Power Element	1
Insertion Tool (PCN 065219)	1	SC Power Element	1
Service Box (PCN 064880)	1	SZ Power Element	1
		SW45 Power Element	1

SAE Kit (PCN 064876)

Item	Qty
HFK 1/4 X 1/2 Body	1
HFKE 3/8 X 1/2 Body	1
HFKE 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

ODF Kit (PCN 064877)

Item	Qty
HFKSC 3/8 X 1/2 Body	1
HFKES 3/8 X 1/2 Body	1
HFKESC 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

CAGE KIT (PCN 064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	-

HF BALANCED PORT THERMO® EXPANSION VALVE

FEATURES

- ☆ Large, removable power element
- ☆ Balanced port construction compensates for changes in operating pressures due to varying ambients, gas defrost, heat reclaim, or widely varying evaporator loads
- ☆ Two body sizes provide capacities from 1/4 to 20 tons
- ☆ Bi-Flow capability up to 5-1/2 tons R22 allows one valve to control the superheat in both cooling and heating modes for package unit heat pump applications
- ☆ Wrench flats on inlets and outlets (SAE only) for easy installation
- ☆ Stainless steel power element for maximum corrosion resistance

OPTIONS

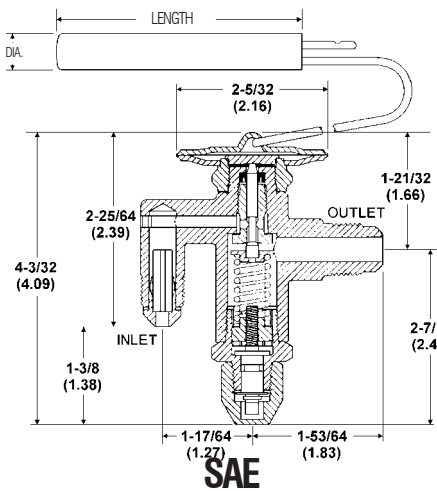
- ☆ Bleed type pressure equalization available to accommodate PSC type compressors
- ☆ ODF or SAE connections
- ☆ Removable strainer
- ☆ Adjustable or non-adjustable superheat

NOMENCLATURE EXAMPLE: HFNESC B 2 HC 5 FT 3/8 x 1/2 ODF S/T

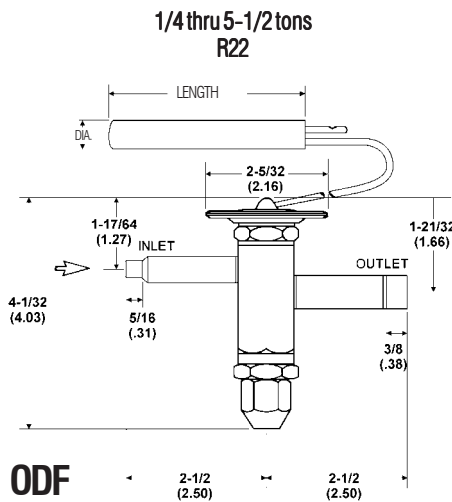
HF	N	E	S	C	B	2	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series	Superheat Adjustment	Equalizer	Connection Type	Removable Inlet Strainer (optional)	Bleed Hole (optional)	Capacity Nominal Rating in Tons	Refrigerant Code	Charge Code	Capillary Tube Length	Inlet x Outlet Connection Sizes	Connection Type	Configuration
	N = Non-Adjustable Omit for Adjustable	E=External (Omit for Internal)	S=Solder (Omit for SAE Flare)	C=Inlet Strainer (ODF only)	Omit for no bleed hole	See nominal capacity table (on page 17)	F = R12 H = R22 M = R134a *P = R507 *R = R502 *S = R404A	C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	5 FT (std) other lengths are available	1/4 3/8 3/8 1/2 1/2 5/8 5/8 7/8	SAE = flare ODF = solder	S/T = straight-thru ANG = 90° angle

* P, R and S charges are interchangeable

DIMENSIONAL DATA

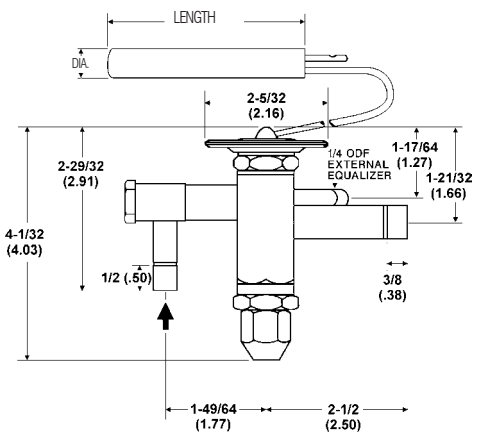


REMOTE BULB TUBING LENGTH 5' STANDARD

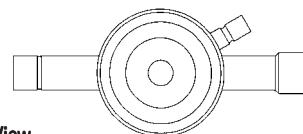


DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

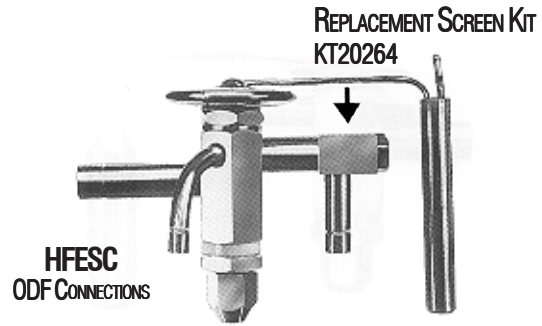
ODF w/optional strainer at inlet



Remote Bulb Dimensions			
Refrigerant	Charge	Length	Dia.
C, Z		3-1/2	1/2
CA		2-5/16	3/4



ODF Top View Showing External Equalizer Location



SPECIFICATIONS

- ☆ Maximum Working Pressure: 450 psig
- ☆ Operating Temperature: -40°F to 50°F
- ☆ 5' capillary tube length (standard)
- ☆ Use with R-22, R134a, R-404A, R-507, R-12, R-502

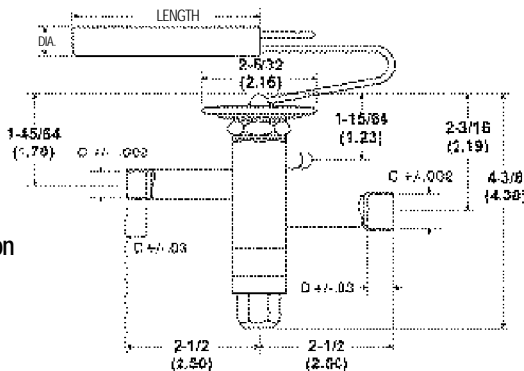
NOTE: If the HF body is stamped HFK, then the valve has replaceable components.

Extended Capacity Tables begin on page 43.
Ordering Information begins on page 9.

HF SERIES — NOMINAL CAPACITY TABLE IN TONS

R12	R134a	R22	R502	R507/R404A
1/8	1/4	1/4	1/8	1/8
1/4	1/2	1/2	1/4	1/4
1/2	3/4	1	1/2	1/2
1	1	1½	1	1
—	1½	2	—	—
1½	1¾	2½	1½	1½
2	2½	3	2	2
3½	4	5½	3½	3½
5	6	8	5	5
6	7½	10	7	7
9	11	15	10	10
12	14	20	13	13

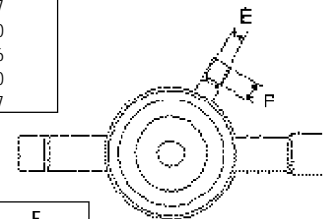
HF DIMENSIONAL DIAGRAM



ODF
8, 10, 15 & 20ton
R-22 Valve

INLET/OUTLET CONNECTIONS		
SIZE ODF	C ± .002	D ± .03
1/2	.504	.37
5/8	.629	.50
7/8	.879	.76
1-1/8	1.129	.90
1-3/8	1.379	.97

External Equalizer	E	F
3/16 ODF	.192 ± .002	.31 ± .03
1/4 ODF	.254 ± .002	.33 ± .03



ODF
Top View
Showing
External Equalizer
Location

Remote Bulb Tubing Length 5' Standard

REPLACEMENT POWER ASSEMBLIES		
R12 POWER ASSEMBLY	R22 POWER ASSEMBLY	R502 POWER ASSEMBLY
X26300-FC-1	X26300-HC-1	X26300-RC-1
X26300-FZ-1	X26300-HZ-1	X26300-RZ-1
X26300-FW15-1	X26300-HW35-1	X26300-RW45-1
X26300-FW35-1	X26300-HW65-1	X26300-RW65-1

Torque Power Element 300-360 inch pounds.

Refrigerant Charge	Tube Length	Length dimension	Dia. dimension
CA	10 FT.	2-5/16	3/4
C, Z - WMOP	5 FT. 10 FT.	3-1/2	1/2

TAILORED BULB CHARGES

The use of tailored charges makes the HF valve reliable for HVAC, refrigerated display cases, walk-in coolers, reach-in coolers, and all other small refrigeration systems — both low and medium temperature.

The thermostatic charge is selected on the basis of the evaporator temperature only, as indicated in table 2.

CONNECTIONS

Extended copper ODF line connections:

Straight-thru Configurations	
Inlet	Outlet
3/8	1/2
1/2	5/8
5/8	7/8
7/8	1-1/8
Angle Configuration	
90° Elbow — 3/8 Inlet ONLY	

SAE line connections:

Inlet	Outlet
1/4	1/2
3/8	1/2

TABLE 2

Evaporator Temperature	Refrigerant			
	R12	R134a	R22	R502, R404A, R507
Med temp (-20 to +50°F)	FC	MC	HC	*C
Low temp (-50 to +10°F)	FZ	MZ	HZ	*Z
MOP low temp (-50 to 0°F)	FW15	MW15	HW35	*W45
MOP med temp (0 to +25°F)	—	MW35	HW65	*W65

* Add refrigerant code: "R" for R502, "S" for R404A, "P" for R507.

REPLACEMENT PARTS — FOR SAE INLET

PART NUMBER	INLET SIZE	DESCRIPTION
X-11176-1	3/8	FILTER SCREEN
KT-20003	3/8 - 1/4	INLET ADAPTER
27676-1	NA	SEAL CAP

REPLACEMENT PARTS — HFSC & HFSC ONLY

PCN	Kit No.	DESCRIPTION
057686	KT-20264	Includes seal cap, gasket O-ring, screen, spring

ORDERING INFORMATION FOR HF SERIES VALVES

HF SERIES — INTERNALLY EQUALIZED

Capacity	Connections	HC R-22 Med. Temp	HZ R-22 Low Temp	HW 35 R-22 MOP	SC R-404A Med. Temp	SZ R-404A Low Temp	SW 45 R-404A MOP	MC R-134a Med. Temp	FC R-12 Med. Temp	RC R-502 Med. Temp	RZ R-502 Low Temp	RW 45 R-502 MOP
1/4	1/4 x 1/2 SAE ANG	058430	059653						009811	059304		
	1/4 X 3/8 ODF S/T										055792	
	3/8 X 1/2 SAE	054921								054137	054369	054962
	3/8 X 1/2 SAE ANG							057618	054134			
	3/8 X 1/2 ODF S/T	055633	056169								056228	
	3/8 X 1/2 ODF ANG	055493						058545		055490		
1/2	1/4 x 1/2 SAE ANG	009812							009810			
	3/8 X 1/2 SAE	054135	054364	054362						054964	054965	054966
	3/8 X 1/2 SAE ANG							057620	054892			
	3/8 X 1/2 ODF S/T	054136						058100	056013		056008	056014
	3/8 X 1/2 ODF ANG	054723							056063		055874	
1	3/8 X 1/2 SAE	054927	054928							054976	054977	054978
	3/8 X 1/2 SAE ANG							057619	054905			
	3/8 X 1/2 ODF S/T	055928			065643			065641	056119			
	3/8 X 1/2 ODF ANG	055702									055785	
1-1/2	3/8 X 1/2 SAE	054933								054984	054986	
	3/8 X 1/2 SAE ANG								054914			
	3/8 X 1/2 ODF S/T	056018										
	3/8 X 1/2 ODF ANG	055969										
2	3/8 X 1/2 SAE	054939							053060	053061		
	3/8 X 1/2 SAE ANG	053060										
2-1/2	3/8 X 1/2 SAE	054947										
3	3/8 X 1/2 SAE	053316										
	3/8 X 1/2 ODF S/T	053915										
3-1/2	3/8 X 1/2 SAE	055936										

ORDERING INFORMATION FOR HF SERIES VALVES (CONT'D)

HF SERIES — EXTERNALLY EQUALIZED

Capacity	Connections	HC R-22 Med. Temp	HZ R-22 Low Temp	HW 35 R-22 MOP	HCA R-22 Heat Pump	SC R-404A Med. Temp	SZ R-404A Low Temp	SW 45 R-404A MOP	MC R-134a Med. Temp	FC R-12 Med. Temp	RC R-502 Med. Temp	RZ R-502 Low Temp	RW 45 R-502 MOP
1/4	3/8 X 1/2 SAE	054924	054925								054366	054370	054963
	3/8 X 1/2 SAE ANG									054360			
	3/8 X 1/2 ODF S/T	055927					065733	065734					
	3/8 X 1/2 ODF ANG										055092	055491	
1/2	1/4 x 1/2 SAE ANG	059079								009955			
	3/8 X 1/2 SAE	054361	054365								054967	054968	054969
	3/8 X 1/2 SAE ANG								057616	054895			
	3/8 X 1/2 ODF S/T	055827	055889				065735	065736	065645	056331	056022	056024	
	3/8 X 1/2 ODF ANG	054838				058976	058995	059086		056021	055992	055497	055996
3/4	3/8 X 1/2 ODF S/T								059422				
	3/8 X 1/2 ODF ANG								057784				
1	3/8 X 1/2 SAE	054930	054931	054932							054979	054980	054981
	3/8 X 1/2 SAE ANG								057617	054909			
	3/8 X 1/2 ODF S/T	055708				065650	064289	065651	065646	056151	056029	056225	055948
	3/8 X 1/2 ODF ANG	055494						059086	058546	055993	054983	055496	055997
1-1/4	3/8 X 1/2 ODF S/T						065737	057976					
	3/8 X 1/2 ODF ANG					058977							
1-1/2	3/8 X 1/2 SAE	054936	054937								054988	054989	054990
	3/8 X 1/2 SAE ANG								057895	054917			
	3/8 X 1/2 ODF S/T	055863	055870			057974	064290	065738			056031	056024	056032
	3/8 X 1/2 ODF ANG	055495								055994	055657	055498	055991
1-3/4	3/8 X 1/2 SAE								058152				
	3/8 X 1/2 SAE ANG								057896				
	3/8 X 1/2 ODF S/T								065647				
2	3/8 X 1/2 SAE	054942	054943								053070	053071	054992
	3/8 X 1/2 SAE ANG	054946								053069			
	3/8 X 1/2 ODF S/T	055706				057958	065739	065740	065647	053266	053270	053271	055948
	3/8 X 1/2 ODF ANG										054768	054844	
2-1/2	3/8 X 1/2 SAE	054950											
	3/8 X 1/2 ODF S/T	055931											
	3/8 X 1/2 ODF ANG	056042											
3	3/8 X 1/2 SAE	053317	053191										
	3/8 X 1/2 ODF S/T	053916			058648								
	3/8 X 1/2 ODF ANG	054756											
	1/2 x 5/8 ODF ANG	064761			061730								
3-1/2	3/8 X 1/2 SAE										054142	054145	054993
	3/8 X 1/2 SAE ANG									054138			
	3/8 X 1/2 ODF S/T					065652					054143	054784	
	3/8 X 1/2 ODF ANG										054783	054785	058907
	1/2 x 5/8 ODF S/T						061694						
	5/8 x 7/8 ODF S/T					062151							

ORDERING INFORMATION FOR HF SERIES VALVES (CONT'D)

HF SERIES —EXTERNALLY EQUALIZED (CONT'D)

Capacity	Connections	HC R-22 Med. Temp	HZ R-22 Low Temp	HW 35 R-22 MOP	HCA R-22 Heat Pump	SC R-404A Med. Temp	SZ R-404A Low Temp	SW 45 R-404A MOP	MC R-134a Med. Temp	FC R-12 Med. Temp	RC R-502 Med. Temp	RZ R-502 Low Temp	RW 45 R-502 MOP
4	3/8 X 1/2 ODF ANG								057897				
5	3/8 X 1/2 ODF S/T										058875		
	1/2 x 5/8 ODF ANG											061196	
	5/8 x 7/8 ODF S/T						058451	064170			058608		058305
5-1/2	3/8 X 1/2 SAE	054140	054777										
	3/8 X 1/2 ODF S/T	054141	054780		065649								
	1/2 x 5/8 ODF ANG	054778			057378								
	1/2 x 7/8 ODF S/T	055187											
	5/8 x 7/8 ODF S/T	054779											
6	5/8 x 7/8 ODF S/T								057903				
7	5/8 x 7/8 ODF S/T						064291				058607		059271
7-1/2	5/8 x 7/8 ODF S/T								057904				
8	1/2 x 5/8 ODF S/T	057312											
	1/2 x 7/8 ODF S/T				056818								
	5/8 x 7/8 ODF S/T	057313			056819								
10	5/8 x 7/8 ODF S/T	057256			056820		062828	064195			058808		
	5/8 x 1-1/8 ODF S/T				056821								
	7/8 x 1-1/8 ODF S/T	057316											
11	7/8 x 1-1/8 ODF S/T								058681				
12	5/8 x 1-1/8 ODF S/T	062737											
13	7/8 x 1-3/8 ODF S/T												058897
15	5/8 x 7/8 ODF S/T	057317			056823								
	5/8 x 1-1/8 ODF S/T				056824								
	7/8 x 1-1/8 ODF S/T	057318			056825								
20	7/8 x 1-1/8 ODF S/T	062055			058490								

ORDERING INFORMATION FOR HF SERIES VALVES (CONT'D)

HF SERIES

HFSC SERIES -- INTERNALLY EQUALIZED

Capacity	Connections	HC <small>R-22 Med. Temp</small>	HZ <small>R-22 Low Temp</small>	HW 35 <small>R-22 MOP</small>	SC <small>R-404A Med. Temp</small>	SZ <small>R-404A Low Temp</small>	SW 45 <small>R-404A MOP</small>	MC <small>R-134a Med. Temp</small>	FC <small>R-12 Med. Temp</small>	RC <small>R-502 Med. Temp</small>	RZ <small>R-502 Low Temp</small>	RW 45 <small>R-502 MOP</small>	
1/8	3/8 X 1/2 ODF ANG				058248								
1/4		057467			058249					057487			
1/2		057293	057482		058250					057488	057485		
1		057468										057486	
1-1/4					058252								
2		057470											

HFESC SERIES -- EXTERNALLY EQUALIZED

Capacity	Connections	HC <small>R-22 Med. Temp</small>	HZ <small>R-22 Low Temp</small>	HW 35 <small>R-22 MOP</small>	SC <small>R-404A Med. Temp</small>	SZ <small>R-404A Low Temp</small>	SW 45 <small>R-404A MOP</small>	MC <small>R-134a Med. Temp</small>	FC <small>R-12 Med. Temp</small>	RC <small>R-502 Med. Temp</small>	RZ <small>R-502 Low Temp</small>	RW 45 <small>R-502 MOP</small>	
1/4	3/8 X 1/2 ODF ANG	057409						057572				057442	
1/2		057291	057429	057414				058069	057397	057437	057455	057443	
1		057410	057430	057416				057570	057398	057438	057456	057446	
1-1/2		057292	057321	057419				057568	057399	057439	057322	057448	
2		057294	057433							057440	057457	057451	
2-1/2		057411	057434							057441	057458	057453	
3		057412											
5												059654	
5-1/2		057781											
8		058609											

Standard Product Offering

* Product Code Number

TRAE + THERMO[®] EXPANSION VALVE

The **TRAE Plus** thermostatic expansion valve (TXV) is a large capacity series designed for refrigeration, air conditioning, heat pump, and chiller applications. The new series introduces a new replaceable stainless steel power element, a fully interchangeable cage assembly and a square body.

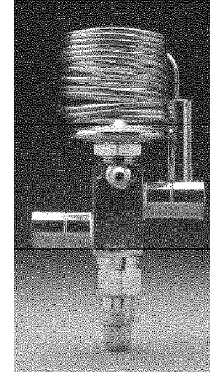
This valve type features double balanced port design, which provides stable and accurate control over wide loads and evaporator temperature ranges. Furthermore, a permanent inlet strainer and external adjustment are standard on every valve.

FEATURES

- ✍ Suitable for Bi-Flow applications.
- ✍ Removable power element and cage assembly for full serviceability.
- ✍ Stainless steel power element for enhanced corrosion resistance
- ✍ Double balanced port design improves operation and stability under low load conditions.
- ✍ Square body with straight-thru connections.
- ✍ Solid copper connections.
- ✍ External superheat adjustment.
- ✍ Large diaphragm provides superior stability
- ✍ HCA charge designed especially for R22 air conditioning applications.

OPTIONS

- ✍ Cages KT20289 thru KT20293
- ✍ Remote Bulb Tubing Length 10' standard, other lengths are available
- ✍ Replaceable Power Assembly X-28458



SPECIFICATIONS

- ✍ Ratings from 10 to 40 tons.
- ✍ Maximum working pressure: 450 psig
- ✍ Torque Power Assembly: 375 - 425 in. lb.
- ✍ Torque Cage: 60 in. lb.

TRAE + and TRAE Series Extended Capacity Tables begin on page 43 in Tons. For Ordering Information, see page 18.

NOMENCLATURE EXAMPLE: TRAE + 30 HC 10 FT 7/8x 1 1/8 ODF S/T

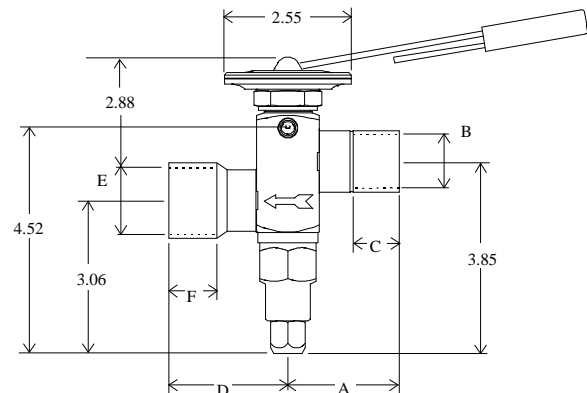
TRA	E	+	30	H	C	10 FT	7/8 x 1 1/8	ODF	S/T
Valve Series	Equalizer E = External 1/4" SAE	Replaceable Components Cage and Power Assembly	Capacity Nominal Rating in Tons See nominal capacity table (below)	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (standard) Other lengths are available	Inlet x Outlet Connection Sizes I Q 5/8 7/8 7/8 1 1/8 1 1/8 1 3/8	Connection Type ODF = solder (Only)	Configuration S/T = Straight-thru (Only)

TRAE + SERIES — NOMINAL CAPACITY TABLE IN TONS

	R12	R134a	R22	R502	R507/R404A	R407C
7 1/2		9	10	8	8	10
10		13	15	12	12	15
12		14	20	14	14	20
18		22	30	20	20	30
25		30	40	30	30	40

TRAE + DIMENSIONAL DATA (INCHES)

TRAE Valve Type	Nominal Inlet (B)	Sizes (ODF) Outlet (E)	Inlet		Outlet	
			A	C	D	F
TRAE + 10-40 TONS	5/8	7/8	1.57	0.50	2.09	0.75
	5/8	1-1/8	1.57	0.50	2.21	0.91
	7/8	7/8	2.09	0.75	2.09	0.75
	7/8	1-1/8	2.09	0.75	2.21	0.91
	7/8	1-3/8	2.09	0.75	2.39	0.97
	1-1/8	1-1/8	2.21	0.91	2.21	0.97
	1-1/8	1-3/8	2.21	0.91	2.39	0.97
	1-1/8	1-3/8	2.21	0.91	2.39	0.97



TRAE THERMO[®] EXPANSION VALVE

TRAE Thermo Valves are a large capacity series for chiller, heat pump, refrigeration, and air conditioning applications. Its balanced port design provides stable and accurate control over wide load and evaporator temperature ranges.

FEATURES

- ✍ Suitable for Bi-Flow applications.
- ✍ External superheat adjustment.
- ✍ Integral body with straight-thru connections.
- ✍ TRAE's balanced port design improves valve operation & stability under low load conditions.
- ✍ Solid copper connections.
- ✍ Large diaphragm provides superior stability.
- ✍ Stainless steel power element for maximum corrosion resistance

OPTIONS

- ✍ HCA charge designed especially for R22 air conditioning applications.



SEAL NUT
27676-1

SPECIFICATIONS

- ✍ Ratings from 50 to 70 tons.
- ✍ Maximum Working Pressure: 450 psig

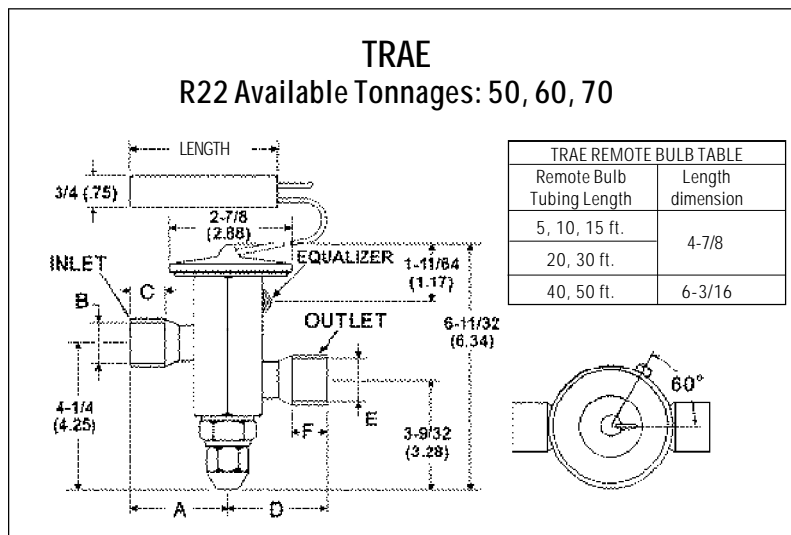
NOMENCLATURE EXAMPLE: TRAE 50 HC 10 FT 7/8 x 1 1/8 ODF S/T

TRA	E	50	H	C	10 FT	7/8 x 1 1/8	ODF	S/T
Valve Series Hermetic Design, Solder Connections Balanced Port, Larger Tonnages	Equalizer E = External 1/4" SAE	Capacity Nominal Rating in Tons See nominal capacity table (below)	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A	Charge Code C = medium temp CA = heat pump/AC W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (standard) other lengths are available	Inlet x Outlet Connection Sizes I Q 1/4 3/8 3/8 1/2	Connection Type ODF = solder (Only)	Configuration S/T = Straight-thru (Only)

TRAE SERIES — NOMINAL CAPACITY TABLE IN TONS

R12	R134a	R22	R502	R507/R404A	R407C
30	40	50	35	35	50
35	45	60	40	40	60
40	50	70	50	50	70

TRAE + and TRAE Series Extended Capacity Tables begin on page 43. For Ordering Information, see page 18.



TRAE DIMENSIONAL DATA REMOTE BULB TUBING LENGTH 10' STANDARD

TRAE VALVE TYPE	NOMINAL SIZES (ODF)		INLET		OUTLET	
	INLET-B	OUTLET-E	A	C	D	F
TRAE	7/8 (.88)	1-1/8 (1.13)	2-1/16 (2.06)	3/4 (.75)	2-1/16 (2.06)	3/4 (.75)
		1-3/8 (1.38)			2-1/2 (2.50)	29/32 (.91)
		1-1/8 (1.13)			2-11/16 (2.69)	31/32 (.97)
	1-1/8 (1.13)	1-3/8 (1.38)	2-1/2 (2.50)	29/32 (.91)	2-1/2 (2.50)	29/32 (.91)
1-3/8 (1.38)	1-3/8 (1.38)	2-11/16 (2.69)	31/32 (.97)	2-19/32 (2.59)	31/32 (.97)	

DIMENSIONS SHOWN ARE IN INCHES:
FRACTIONS (DECIMAL)

ORDERING INFORMATION FOR TRAE/TRAE + SERIES VALVES

VALVE SERIES	CHARGE	CAP TUBE LENGTH	CONNECTIONS	PCN *
TRAE + 10	HC	5 FT.	5/8 x 7/8 ODF S/T	062718
TRAE + 10	HCA	10 FT.	5/8 x 7/8 ODF S/T	063138
TRAE + 10	HCA	10 FT.	7/8 x 1 1/8 ODF S/T	063554
TRAE + 10	HC	15 FT.	7/8 x 1 1/8 ODF S/T	063100
TRAE + 15	HC	10 FT.	7/8 x 1 1/8 ODF S/T	062721
TRAE + 15	HCA	10 FT.	5/8 x 7/8 ODF S/T	063510
TRAE + 15	HCA	10 FT.	7/8 x 1 1/8 ODF S/T	062722
TRAE + 15	HCA	10 FT.	7/8 x 1 3/8 ODF S/T	063141
TRAE + 15	HW100	10 FT.	5/8 x 7/8 ODF S/T	063103
TRAE + 20	HC	10 FT.	7/8 x 1 3/8 ODF S/T	063650
TRAE + 20	HCA	10 FT.	7/8 x 1 1/8 ODF S/T	062725
TRAE + 20	HCA	10 FT.	1 1/8 x 1 1/8 ODF S/T	064581
TRAE + 20	HW90	15 FT.	7/8 x 1 1/8 ODF S/T	064018
TRAE + 20	HC	10 FT.	7/8 x 1 1/8 ODF S/T	062724
TRAE + 30	HC	10 FT.	7/8 x 1 1/8 ODF S/T	062727
TRAE + 30	HC	10 FT.	1 1/8 x 1 3/8 ODF S/T	062728
TRAE + 30	HCA	10 FT.	1 1/8 x 1 3/8 ODF S/T	062730
TRAE + 30	HW100	5 FT.	7/8 x 1 3/8 ODF S/T	063425
TRAE + 40	HC	10 FT.	1 1/8 x 1 3/8 ODF S/T	062733
TRAE + 40	HC	15 FT.	1 1/8 x 1 3/8 ODF S/T	063153
TRAE + 40	HCA	10 FT.	1 1/8 x 1 3/8 ODF S/T	062734
TRAE 50	HC	10 FT.	1 1/8 x 1 3/8 ODF S/T	061700
TRAE 60	HC	10 FT.	1 1/8 x 1 3/8 ODF S/T	061865
TRAE 70	HC	10 FT.	1 1/8 x 1 3/8 ODF S/T	061866

(+) REPLACEABLE POWER ASSEMBLY

Standard Product Offering

* Product Code Number

NOTE: Consult Emerson Climate Technologies for refrigerants other than R-22.

CAGE REPLACEMENT KITS FOR TRAE + SERIES VALVES

Replacement cage assemblies for TRAE + are available as separate sale items. Cage kits are cross referenced by capacity and tonnage in the table to the right. Each cage kit consists of a replacement cage and cage removal wrench. In addition, the cage removal wrench (KT-20294) can be ordered as a separate item.

PCN*	TRAE + KIT	NOMINAL CAPACITY—TONS			
		R-22	R-12/R-134a	R-507/R-404A	R-502
063387	KT-20289 CAGE KIT	10	9	8	8
063388	KT-20290 CAGE KIT	15	13	12	12
063389	KT-20291 CAGE KIT	20	14	14	14
063390	KT-20292 CAGE KIT	30	22	20	20
063391	KT-20293 CAGE KIT	40	30	30	30
063392	KT-20294 CAGE WRENCH KIT				

* Product Code Number

Standard Product Offering

POWER ASSEMBLY REPLACEMENT	
Description	PCN
X-28458 HCA-2	063414
X-28458 HW100-2	063416

T-SERIES TAKE-A-PART THERMO® VALVE

Take-A-Part Series TEVs, with adjustable superheat and replaceable, interchangeable components are ideal for original equipment and field replacements in air conditioning, heat pump, and refrigeration applications.

FEATURES

- Take-A-Part construction for easy field service
- External superheat adjustment
- Bi-Flo capability
- Stainless steel power assembly up to 20 ton

OPTIONS

- Interchangeable, replaceable cages for TEV versatility (1/4 to 100 tons capacity)
- Interchangeable body flanges for any connection you need
- Interchangeable power heads for refrigerants listed
- Charges for other applications available (consult Application Engineering)



SPECIFICATIONS

- Maximum working pressure: 450 psig
- Torque Bolts: 300 in. lb.

NOMENCLATURE EXAMPLE: TCLEB 5 HC 5 FT 3/8 x 1/2 SAE ANG

TCL	E	B	5	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series* Take-A-Part Adjustable	Equalizer E = External Omit for Internal	Bleed Hole (optional) B = Bleed Hole Omit for no bleed hole	Capacity Nominal Rating in Tons See Cage Assembly Interchangeability Tables (pages 32-33)	Refrigerant Code F = R12 H = R22 M = R134a N = R407C P = R507 R = R502 S = R404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length Various lengths are available (see p.34-35)	Inlet x Outlet Connection Sizes Various sizes are available (see p.32-33) also, valve is available less flange	Connection Type SAE = flare ODF = solder	Config-uration ANG = 90° Angle S/T = Straight-thru
*See p. 30 for other T-Series families									

Extended Capacity Tables begin on page 36.

SINGLE OUTLET "T" SERIES BODY FLANGES WITH BLEED HOLE FOR USE WITH PSC COMPRESSORS

VALVE TYPE			BLEED HOLE DIAMETER ¹ FOR % CAPACITY BYPASS											
			10%		15%		20%		25%		30%		40%	
			DIA. IN.	DRILL SIZE	DIA. IN.	DRILL SIZE	DIA. IN.	DRILL SIZE	DIA. IN.	DRILL SIZE	DIA. IN.	DRILL SIZE	DIA. IN.	DRILL SIZE
R12	R22	R502												
TCL1/4F	TCL1/2H	TCL1/2R	—	—	.0156	1/64	.018	77	.020	76	.022	74	.025	72
TCL1/2F	TCL1H	TCL1/2R	.018	77	.021	75	.024	73	.026	71	.0292	69	.035	65
TCL1F	TCL2H	TCL1R	.026	71	.0312	1/32	.036	64	.040	60	.0465	56	.052	55
TCL2F	TCL3H	TCL2R	.028	70	.035	65	.040	60	.043	57	.0468	3/4	.055	54
TCL3F	TCL5H	TCL3R	.035	65	.043	57	.052	55	.055	54	.0625	1/16	.070	50
TCL4F	TCL7-1/2H	TCL4-1/2R	.043	57	.052	55	.0595	53	.067	51	.076	48	.086	44
TCL6-1/2F	TCL10H	TCL7R	.052	55	.0595	53	.070	50	.0785	47	.086	44	.0995	39
TCL7-1/2F	TCL12H	TCL8R	.052	55	.0595	53	.070	50	.0785	47	.086	44	.0995	39

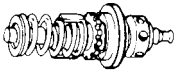
¹ Bleed hole sizes shown above are based on a percent of full effective port area of the valve. This does not necessarily indicate the percent of valve capacity that will be bypassed. The hole sizes shown above should be used for reference only. Normal industry practice is to equalize systems 3 to 5 minutes.

BOLT TORQUE

The cap screws on all Take-A-Part TEVs require 300 inch pound bolt torque.

T-SERIES TAKE-A-PART VALVE SMALL CAPACITY 1/2 TO 18 TONS

STEP 1: SELECT CAGE FROM CAPACITY TABLE



EXTERNALLY ADJUSTABLE CAGE ASSEMBLY

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

VALVE TYPE	NOMINAL CAPACITY-TONS		CAGE ASSEMBLY ¹	
	R12	R134a	R407C	PCN*
	1/4	1/4	1/4	037034
	1/4	1/4	1/4	037035
	1/2	3/4	1	037036
	1/2	3/4	1	037037
TCL	1	1-1/2	2	037038
	1	1-1/2	2	037039
TCL	2	2-1/2	3	037040
	2	2-1/2	3	037041
TCL	3	3-1/2	5	037043
	4	5-1/2	7-1/2	037045
TCL	6-1/2	7-1/2	10	037047
	7-1/2	9	12	037049

Standard Product Offering

* Product Code Number

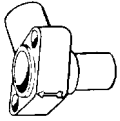
VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R134a	R22	R407C	PCN*	PCN*
TJLE	7	9	11	14	093343	038699
	8	11	14	18	038699	038699

VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R134a	R22	R407C	PCN*	PCN*
TJR	8	11	14	18	088837	089058
	11	13	18	24	088837	089058

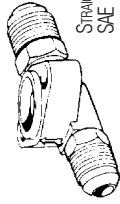
¹ Gaskets included on cage.

Gasket strip X13455-1 (PCN: 027579) replaces all older T-Series Gasket Kits.

STEP 2: SELECT FLANGE



ANGLE, ODF



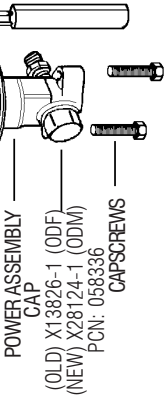
STRAIGHT-THRU SAE

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE		PCN*
		INLET	OUTLET	PART NUMBER	PART NUMBER	
TCL	ANGLE	3/8SAE	1/2SAE	C500-4	C500-4	056932
		3/8SAE	5/8SAE	C500-5	C500-5	057153
		1/2SAE	5/8SAE	C500-6	C500-6	056294
		1/4ODF	3/8ODF	C501-1	C501-1	045401
		3/8ODF	1/2ODF	C501-4	C501-4	065527
		3/8ODF	5/8ODF	C501-5	C501-5	065748
		1/2ODF	5/8ODF	C501-7	C501-7	065861
		7/8ODM	1-1/8ODM	A576	A576	027764
TCL	STRAIGHT-THRU	3/8SAE	1/2SAE	X6669-4	X6669-4	051176
		3/8SAE	5/8SAE	X6669-1	X6669-1	050563
		1/2SAE	1/2SAE	X6669-5	X6669-5	083378
		1/2SAE	5/8SAE	X6669-2	X6669-2	050842
		3/8ODF	1/2ODF	9761-5	9761-5	027769
		3/8ODF	5/8ODF	9761-3	9761-3	027771
		1/2ODF	1/2ODF	9761-6	9761-6	027766
		1/2ODF	5/8ODF	9761-4	9761-4	027268
		1/2ODF	7/8ODF	9761-2	9761-2	027770
		5/8ODF	5/8ODF	X6346-16	X6346-16	044733
		5/8ODF	7/8ODF	X6346-17	X6346-17	044846
		5/8ODF	1-1/8ODF	X6346-18	X6346-18	094038
		7/8ODF	1-1/8ODF	X6346-34	X6346-34	071757

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE		PCN*
		INLET	OUTLET	PART NUMBER	PART NUMBER	
TJLE	ANGLE	5/8ODF or 7/8ODM	7/8ODF or 1-1/8ODM	B504	B504	044984
		5/8ODF	1-1/8ODF	X6347-2	X6347-2	094289
		7/8ODF	1-1/8ODF	X6347-6	X6347-6	057210
	STRAIGHT-THRU	7/8ODF	1-3/8ODF	X6347-7	X6347-7	057323

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE		PCN*
		INLET	OUTLET	PART NUMBER	PART NUMBER	
TJR ²	ANGLE	7/8ODF or 1-1/8ODM	7/8ODF or 1-1/8ODM	10331	10331	029411
		7/8ODF or 1-1/8ODM	7/8ODF or 1-1/8ODM	10332	10332	032988

² TJR is balanced ported. TJR flange includes extended length capscrews.



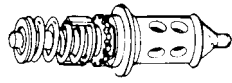
POWER ASSEMBLY CAP (OLD) X13826-1 (ODF) (NEW) X28124-1 (ODM) PCN: 058336 CAPSCREWS

STEP 3: SELECT POWER ASSEMBLY

TCL-TCLE-TJLE-TJR POWER ASSEMBLIES ³						
REFRIG. ERANT	EQUILIZER TYPE	CAP LENGTH	TUBE TYPE	APPLICATION		POWER ASSEMBLY
				TEMP RANGE	IMOP ⁴ (psi)	
R12	Internal	5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 FC 1A
		5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 FC 1B
		10 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 FC 2A
		10 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 FC 2B
		15 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 FC 3B
		5 FT.	1/4 SAE	35	-50 to +30	XB-1019 FW 35 1B
		5 FT.	1/4 SAE	55	-50 to +50	XB-1019 FW 55 1B
		10 FT.	1/4 SAE	55	-50 to +50	XB-1019 FW 55 2B
		5 FT.	1/4 SAE	15	-50 to 0	XB-1019 FW 15 1B
		5 FT.	1/4 SAE	15	-50 to 0	XB-1019 FW 15 1B
R22	Internal	5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 HC 1A
		5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 HC 1B
		10 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 HC 2B
		5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 HCA 1B
		5 FT.	1/4 SAE	35	-50 to +50	XB-1019 HW 35 1B
		5 FT.	1/4 SAE	65	-50 to +30	XB-1019 HW 65 1B
		5 FT.	1/4 SAE	100	-20 to +50	XB-1019 HW 100 1B
		20 FT.	1/4 SAE	NONE	-10 to +50	XB-1019 HW 4B
		10 FT.	1/4 SAE	100	-20 to +50	XB-1019 HW 100 2B
		5 FT.	1/4 SAE	NONE	-50 to +10	XB-1019 HZ 1B
		10 FT.	1/4 SAE	NONE	-50 to +10	XB-1019 HZ 2B
		5 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 MC 1B
		10 FT.	1/4 SAE	NONE	-20 to +50	XB-1019 MC 2B
		5 FT.	1/4 SAE	55	-50 to +50	XB-1019 MW 55 1B
		5 FT.	1/4 SAE	NONE	-50 to +10	XB-1019 MZ 1B
		R502	1/4 SAE	5 FT.	1/4 SAE	NONE
10 FT.	1/4 SAE			NONE	-20 to +50	XB-1019 RC 2B
5 FT.	1/4 SAE			15	-50 to -20	XB-1019 RW 15 1B
5 FT.	1/4 SAE			35	-50 to 0	XB-1019 RW 35 1B
5 FT.	1/4 SAE			45	-50 to +5	XB-1019 RW 45 1B
10 FT.	1/4 SAE			45	-50 to +5	XB-1019 RW 45 2B
5 FT.	1/4 SAE			65	-50 to +25	XB-1019 RW 65 1B
5 FT.	1/4 SAE			NONE	-50 to +10	XB-1019 RZ 1B
10 FT.	1/4 SAE			NONE	-50 to +10	XB-1019 RZ 2B
R404A	1/4 SAE			5 FT.	1/4 SAE	NONE
		5 FT.	1/4 SAE	40	-50 to 0	XB-1019 SW 40 1B
		5 FT.	1/4 SAE	65	-50 to +25	XB-1019 SW 65 1B
		10 FT.	1/4 SAE	NONE	-50 to +10	XB-1019 SZ 2B
		5 FT.	1/4 SAE	NONE	-50 to +10	XB-1019A-1A
		5 FT.	1/4 SAE	NONE	-50 to +10	XB-1019A-1B
MISC.	Internal	5 FT.	1/4 SAE	NONE	Liquid Inject	034803
		5 FT.	1/4 SAE	NONE	Liquid Inject	032207
		5 FT.	1/4 SAE	NONE	Liquid Inject	035162
	1/4 SAE	NONE	Liquid Inject	Liquid Inject	084768	

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

STEP 1: SELECT CAGE FROM CAPACITY TABLE



EXTERNALLY ADJUSTABLE
DOUBLE PORTED
CAGE ASSEMBLY

VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R22	R502	R407C	PART #	PCN*
TER	13	16	22	14	22	X9117B66 077896
	15	19	26	16	26	X9117B7B 078117
	20	25	35	21	35	X9117B88 071155
	25	31	45	27	45	X9117B99 029429

VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R22	R502	R407C	PART #	PCN*
TIR	35	45	55	37	55	X9166B10B 070738

VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R22	R502	R407C	PART #	PCN*
THR	35	45	55	37	55	X9144B10B 071238
	45	55	70	48	70	X9144B11B 020846
	55	68	85	60	85	X9144B13B 021067

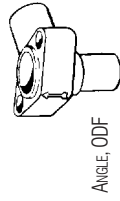
VALVE TYPE	NOMINAL CAPACITY-TONS				CAGE ASSEMBLY ¹	
	R12	R22	R502	R407C	PART #	PCN
TMR	55	68	100	60	100	X9144B14B 065123

¹ Gaskets included on cage.
Gasket strip X13455-1 (PCN: 027579) replaces all older T-Series Gasket kits.

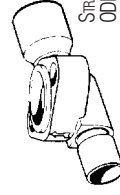
* Product Code Number

T-SERIES TAKE-A-PART VALVE LARGE CAPACITY 22 TO 100 TONS (R22 NOMINAL – BALANCED PORTED AND Bi FLOW)

STEP 2: SELECT FLANGE



ANGLE ODF



STRAIGHT-THRU ODF

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE PART NUMBER	PCN*
		INLET	OUTLET		
TER ²	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9153	027919
	STRAIGHT-THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9152	027918

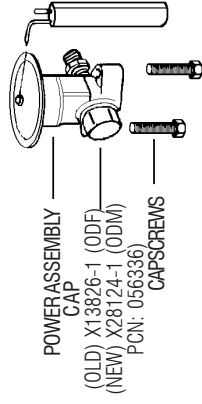
VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE PART NUMBER	PCN*
		INLET	OUTLET		
TIR	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9151	027926
	STRAIGHT-THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9150	028849

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE PART NUMBER	PCN*
		INLET	OUTLET		
THR	ANGLE	1-1/8 ODM	1-1/8 ODM	9149	028030
	STRAIGHT-THRU	1-1/8 ODM	1-1/8 ODM	9148	028032

VALVE TYPE	FLOW	SIZE & STYLE CONNECTIONS		BODY FLANGE PART NUMBER	PCN*
		INLET	OUTLET		
TMR ²	ANGLE	1-1/8 ODM	1-1/8 ODF	9149-1	065124
	STRAIGHT-THRU	1-1/8 ODM	1-1/8 ODM	9148-1	065125

² TER- TMR flange includes extended length capscrews.

STEP 3: SELECT POWER ASSEMBLY



POWER ASSEMBLY CAP
(OLD) X13826-1 (ODF)
(NEW) X28124-1 (ODM)
PCN: 056336
CAPSCREWS

REFRIG-ERANT	EQUALIZER TYPE	TUBE LENGTH	TIR-THR-TMR	POWER ASSEMBLY ³		PCN*
				APPLICATION	ASSEMBLY	
				TEMP RANGE	WOP ⁴ (psi)	
R12	1/4 SAE	10 FT.		-20 to +40	NONE	052957
	1/4 SAE	10 FT.		-50 to +50	55	035000
R22	1/4 SAE	10 FT.		-20 to +50	NONE	056421
	1/4 SAE	10 FT.		-50 to +5	35	024511
	1/4 SAE	10 FT.		-50 to +30	65	023011
	1/4 SAE	10 FT.		-20 to +50	100	058333
R134a	1/4 SAE	10 FT.		-50 to +10	NONE	036750
	1/4 SAE	10 FT.		-20 to +50	NONE	045659
	1/4 SAE	10 FT.		-50 to +50	55	057235
	1/4 SAE	10 FT.		-50 to +10	NONE	063075
R502	1/4 SAE	10 FT.		-20 to +50	NONE	052958
	1/4 SAE	10 FT.		-50 to +20	15	023351
	1/4 SAE	10 FT.		-50 to +5	35	070866
	1/4 SAE	10 FT.		-50 to +25	65	071421
R404A	1/4 SAE	10 FT.		-50 to +10	NONE	046892
	1/4 SAE	10 FT.		-20 to +50	NONE	062303
	1/4 SAE	10 FT.		-50 to +10	40	063127
	1/4 SAE	10 FT.		-50 to +10	NONE	063974

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

ORDERING INFORMATION FOR T-SERIES VALVES (COMPLETE VALVES —LESS FLANGE —VLF)

TCL, TCLE, TJLE & TJRE
SAE EXTERNAL 5 FT CAP TUBE LENGTH

VALVE DESCRIPTION					
R-12	PCN*	R-22	PCN*	R-502	PCN*
		TCL 3 HW	037882		
TCLE ¼ FC	060765	TCLE ½ HC	060768	TCLE ¾ RC	—
TCLE ½ FC	054413	TCLE 1 HC	062884	TCLE ½ RC	—
TCLE 1 FC	052940	TCLE 2 HC	061724	TCLE 1 RC	—
TCLE 2 FC	052941	TCLE 3 HC	054395	TCLE 2 RC	061215
TCLE 3 FC	052942	TCLE 5 HC	054399	TCLE 3 RC	055501
TCLE 4 FC	052943	TCLE 7½ HC	054401	TCLE 4¾ RC	—
		TCLE 7½ HW100	054079		
TCLE 6½ FC	052944	TCLE 10 HC	054404	TCLE 7 RC	—
		TCLE 10 HW100	059076		
TCLE 7½ FC	052945	TCLE 12 HC	060854	TCLE 8 RC	063501
TJLE 8 FC*	055104	TJLE 11 HC*	060855	TJLE 7 RC*	—
TJRE 8 FC	—	TJLE 14 HC*	060856	TJLE 9 RC*	—
TJRE 11 FC	055105	TJRE 14 HC	060857	TJRE 9 RC	—
		TJRE 18 HC	060858	TJRE 12 RC	—

TER, TIR & THR 10 FT CAP TUBE LENGTH

VALVE DESCRIPTION					
R-12	PCN*	R-22	PCN*	R-502	PCN*
		TER 22 HC	061673	TER 14 RC	060788
		TER 22 HW100	058582		
		TER 26 HC	061674	TER 16 RC	—
TER 20 FC	055109	TER 35 HC	061675	TER 21 RC	—
		TER 35 HW100	058038		
TER 25 FC	055111	TER 45 HC	061676	TER 27 RC	—
TIR 35 FC	—	TIR 55 HC	061677	TIR 37 RC	—
THR 45 FC	—	THR 75 HC	064961	THR 48 RC	—
		THR 100 HC	062036	THR 60 RC	—
		THR 100 HW100	052912		

TJLE NEW NOMENCLATURE

	NEW	OLD
R-12	TJLE7	TJLE800
	TJLE8	TJLE1100
R-22	TJLE11	TJLE1400
	TJLE14	TJLE1800
R-502	TJLE7	TJLE900
	TJLE9	TJLE1200

Standard Product Offering

* Product Code Number

TER/TIR/THR Rapid Response Power Assemblies	
Description	PCN
X-7726 FWS 2B	035083
X-7726 HWS 2B	093565
X-7726 RWS 2B	036616

REPLACEMENT CAP SCREW KITS			
PCN*	DESCRIPTION	CONTAINS SCREW#	PCS.PER PKG.**
054569	KT-30021	PS-286-5	10
054570	KT-30022	PS-168-5	10
054571	KT-30023	PS-259	10
054572	KT-30024	PS-370	10
054573	KT-30025	PS-514-5	10
054574	KT-30026	PS-517-5	10

TCLE/TJLE/TJRE Rapid Response Power Assemblies	
Description	PCN
X-8019 FWS 1B	031654
X-8019 HWS 1B	055652
X-8019 HWS 2B	055873
X-8019 RWS 1A	032131
X-8019 RWS 2B	042426

** 10 PC. KITS ARE IN POLY BAGS FOR HANGING ON PEG BOARD.

TLE THERMO[®] EXPANSION VALVE

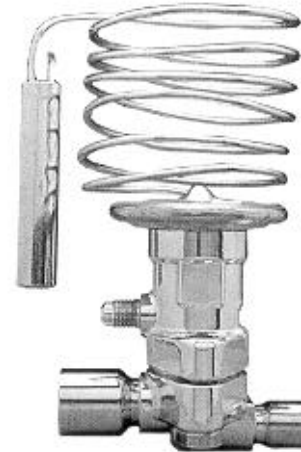
TLE Thermo Valves for air conditioning, heat pumps, transportation and commercial refrigeration have preset factory superheat and feature Bi-Directional capability for reduced system complexity. Take-A-Part construction improves serviceability with replaceable/interchangeable parts. TLE valves do not have an external superheat adjustment.

FEATURES

- ✍ Unique internal construction insures smooth and accurate superheat control with refrigerant flow in either direction through the valve (non-adjustable)
- ✍ Bi-Flow capability ideal for packaged heat pump applications (external equalizer required)
- ✍ Take-A-Part construction for easy field service
- ✍ Stainless steel power assembly

OPTIONS

- ✍ Nineteen bolt-on body flanges available in numerous SAE or ODF connection sizes and angle and straight-through configurations
- ✍ Interchangeable capacity cages, power heads and flanges.



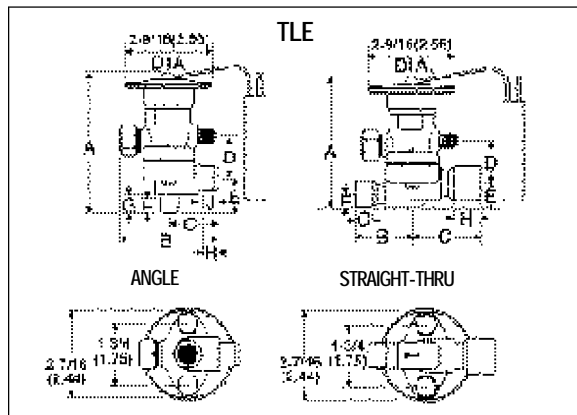
SPECIFICATIONS

- ✍ Maximum working pressure: 450 psig
- ✍ Capscrew Torque = 300 in. lbs.

NOMENCLATURE EXAMPLE: TLEB 5 HCA 5 FT 3/8x 1/2 ODF S/T

TL	E	B	5	H	CA	5 FT	3/8 x 1/2	ODF	S/T
Valve Series* Take-A-Part	Equalizer E = External 1/4" SAE Standard 1/4" ODF Available Omit for Internal	Bleed Hole (optional) B = Bleed Hole Omit for no bleed hole	Capacity Nominal Rating in Tons See Cage Capacity Table (page 37) ¹	Refrigerant Code F = R12 H = R22 M = R134a P = R507 R = R502 S = R404A	Charge Code C = medium temp CA = heat pump/AC W(MOP) = press. limiting Z = low temp	Capillary Tube Length 5FT (std.) Various lengths are available	Inlet x Outlet Connection Sizes Various sizes are available (see p. 32-33) also, valve is available less flange	Connection Type SAE = flare ODF = solder	Config-uration ANG = 90° Angle S/T = Straight-thru

¹NOTE: For TLE extended capacity tables, refer to TCLE extended capacity tables that begin on page 36.



TLE DIMENSIONAL DATA

DIMENSIONS SHOWN ARE IN INCHES:
FRACTIONS (DECIMAL)

TLE STRAIGHT-THRU STYLE										
TLE VALVE [Ⓢ]		DIMENSIONS								
INLET	OUTLET	A	B	C	D	E	F	G	H	J
5/8	1-1/8		1-5/8(1.63)	2-1/2(2.50)				17/32(.53)	29/32(.91)	
7/8	1-1/8	4-55/64	1-15/16	2-1/2(2.50)	1-11/32	1-23/32	45/64	3/4	29/32(.91)	—
7/8	1-3/8	(4.86)	(1.94)	2-11/16(2.69)	(1.34)	(1.72)	(.70)	(.75)	31/32(.97)	
TLE ANGLE STYLE										
ODF/ODM	ODF/ODM	(5.03)	(3.47)	(2.00)	(1.34)	(1.84)	(.81)	(1.06)	(1.00)	(1.13)
5/8/7/8	7/8-1-1/8	5-1/32	3-15/32	2	1-11/32	1-27/32	13/16	1-1/16	1	1-1/8

[Ⓢ]Connections shown are standard sizes, consult Emerson Climate Technologies for non-standard sizes.
Allow 2-1/8" above valve for removal of power assembly.

ORDERING INFORMATION FOR TL(E) SERIES VALVES

VALVE LESS FLANGE ¹	PCN*	EQUALIZER TYPE	REFRIGERANT
TL ½ HW	—	INTERNAL	R-22
TL 1 HW	—		
TL 2 HW	—		
TL 3 HW	058999		
TL 5 HW	—		
TLE ½ HW	—	¾ " SAE EXTERNAL	
TLE 1 HW	—		
TLE 2 HW	—		
TLE 3 HW	041734		
TLE 5 HW	—		
TLE 7½ HW	—		
TLE 10 HW	—		
TLE 12 HW	—		

NOTE:
TL(E) Series does not include flange.

¹ ALSO AVAILABLE WITH "HCA" CHARGE FOR HEAT PUMP AND AIR-CONDITIONING APPLICATIONS.

Standard Product Offering
 * Product Code Number

NOTE: Consult Emerson Climate Technologies for refrigerants other than R-22.

TL CAGE CAPACITY INFORMATION

PCN	DESC.	R 12	R 134a	R 22	R 404/507	R 502
041556	X-22517 B3B	1	1½	2	1	1
041560	X-22517 B4A	2	2½	3	2	2
041562	X-22517 B5B	3	3½	5	3	3
041566	X-22517 B7B	6½	7½	10	7	7

TL(E) FLANGE INFORMATION

PCN	DESCRIPTION	CONNECTIONS
027770	9761-2	1/2 x 7/8 ODF S/T
027771	9761-3	3/8 x 5/8 ODF S/T
027268	9761-4	1/2 x 5/8 ODF S/T
027769	9761-5	3/8 x 1/2 ODF S/T
027766	9761-6	1/2 x 1/2 ODF S/T
027764	A-576	5/8 x 7/8 ODF ANG
056932	C-500-4	3/8 x 1/2 SAE ANG
057153	C-500-5	3/8 x 5/8 SAE ANG
056294	C-500-6	1/2 x 5/8 SAE ANG
045401	C-501-1	1 1/4 x 3/8 ODF ANG
065527	C-501-4	3/8 x 1/2 ODF ANG
065748	C-501-5	3/8 x 5/8 ODF ANG
065861	C-501-7	1/2 x 5/8 ODF ANG
044733	X-6346-16	5/8 x 5/8 ODF S/T
044846	X-6346-17	5/8 x 7/8 ODF S/T
094038	X-6346-18	5/8 x 1 1/8 ODF S/T
071757	X-6346-34	7/8 x 1 1/8 ODF S/T
050563	X-6669-1	3/8 x 5/8 SAE S/T
050842	X-6669-2	1/2 x 5/8 SAE S/T
051176	X-6669-4	3/8 x 1/2 SAE S/T
083378	X-6669-5	1/2 x 1/2 SAE S/T

TLE Replacement Power Assemblies

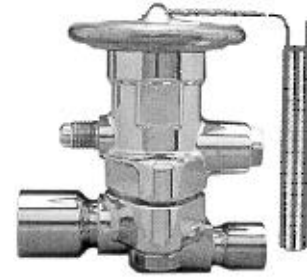
PCN	DESCRIPTION
083765	XB1033 FW25-1B
061760	XB1033 HC-1B
077201	XB1033 HW-15A
089748	XB1033 HW-75B
095534	XB1033 HW100-15B
095813	XB1033 HW100-1B

TL POWER ASSEMBLY INFORMATION

DESCRIPTION XB-1033 xxx-yz xxx = charge code y = cap tube length code z = internal or external equalizer

ZZ THERMO[®] EXPANSION VALVE FOR ULTRA LOW TEMPS

ZZ Series Thermo Valves for Ultra Low Temperature applications fit mechanical refrigeration systems used for cooling climatic environmental test chambers and cabinets (specifically where the desired evaporator temperature is below -40°F). They are used on altitude and space simulators, low-temp metallurgy cabinets, low temperature chambers, and low-temp cabinets for industrial product and biomedical testing.



FEATURES

- ✧ Take-A-Part construction for easy field service
- ✧ Improved internal construction extends valve life
- ✧ External equalizer standard
- ✧ Exclusive cage bellows eliminates friction at low temperatures
- ✧ External superheat adjustment
- ✧ Stainless steel power element for maximum corrosion resistance.

OPTIONS

- ✧ Interchangeable cages, power assemblies and flanges for maximum flexibility

SPECIFICATIONS

- ✧ Maximum working pressure 450 psig

NOMENCLATURE EXAMPLE: ZZC 6 B G125 10 FT 3/8 x 1/2 ODF ANG

ZZC	6	B	G125	10 FT	3/8 x 1/2	ODF	ANG
Valve Series Ultra Low Temperature Take-A-Part	Capacity (nominal @ -40°F) See table on page 47	Refrigerant Code B = R13/R23 H = R22 R = R502	Charge Code Z = low temp G(MOP) = press. limiting	Capillary Tube Length 10 FT (standard)	Inlet x Outlet Connection Sizes	Connection Type SAE = flare ODF = solder	Configuration ANG = 90° angle S/T = straight-thru

R13/R23 VALVE TYPE	R22 VALVE TYPE	Standard Connections
ZZC 1BG	ZZC 3/4HZ	3/8 ODF x 5/8 ODF
ZZC 2-1/2BG	ZZC 1-1/2HZ	
ZZC 4BG	ZZC 2-1/2HZ	
ZZC 6BG	ZZC 4HZ	1/2 ODF x 5.8 ODF
ZZC 9BG	ZZC 6HZ	
ZZC 13BG	ZZC 8HZ	
ZZ ER 20BG		7/8 ODF x 1-1/8 ODM

NOTE: Nominal capacities shown here are based upon the following conditions:

R23 evaporator temp = -40°F, liquid temp at valve inlet = 0°F,

150 psig pressure drop across valve

R22 evaporator temp = -40°F, liquid temp at valve inlet = 20°F,

150 psig pressure drop across valve

NOTE: The FW, HW, & RW charges should not be used below -10°F.

NOTE: For valve capacities or refrigerants not listed, consult Applications Engineering Department.

ORDERING INFORMATION FOR ZZ-SERIES

ZZ CAGE ASSEMBLY AND GASKETS

VALVE	PART NUMBER	PCN*
ZZC1BG, ZC3/4HW, ZC3/4RW	X10110-B1	021288
ZZC2½ BG, ZC1½ HW, ZC1½ RW	X10110-B2	020871
ZZC4BG, ZC2½ HW, ZC2½ RW	X10110-B3	096091
ZZC6BG, ZC4HW, ZC3½ RW	X10110-B4	096312
ZZC9BG, ZC6HW, ZC5RW	X10110-B5	096425
ZZC13BG, ZC8HW, ZC8RW	X10110-B6	096646
ZZER6BG, ZZER4HW, ZC3-1/2RW	X10059-B4B	045362
ZZER9BG, ZZER6HW, ZZER5RW	X10059-B5B	033697
ZZER20BG, ZZER12HW, ZZER11RW	X10059-B6B	030071
ZZER21BG, ZZER13HW, ZZER13RW	X10059-B7B	025100
ZZER29BG, ZZER18HW, ZZER18RW	X10059-B8B	025101
ZZIR48BG, ZZIR30HW, ZZIR29RW	X10060-B10B	025090
ZZJR16BG, ZZJR10HW, ZZJR9RW	X10111-B5B	089306

* Product Code Number

Standard Product Offering

ZZ POWER ASSEMBLIES

PCN	DESCRIPTION
094594	XC - 726 BG 30-2B 10FT SAE EE
039130	XC - 726 BG125-2B 10FT SAE EE
024511	XC - 726 HW 35-2B 10FT SAE EE
025011	XC - 726 HW 65-2B 10FT SAE EE
023357	XC - 726 HW 85-3B 15FT SAE EE
036750	XC - 726 HW100-2B 10FT SAE EE
040569	XC - 726 HZ - 2B 10FT SAE EE

ZZ REPLACEMENT POWER ASSEMBLY—XC726

POWER ASSEMBLY DESCRIPTION
XC-726 xxx yz
xxx = refrigerant charge code
y = remote bulb tube length code
z = internal or external equalizer

Replacement Power Assembly consists of: power assembly, gaskets and bulb clamps

ZZ REPLACEMENT GASKET SET—X13455-1

Gasket Set includes necessary body flange gasket & seat gasket.

ZZ FLANGE INFORMATION

PCN	DESCRIPTION	CONNECTIONS
027770	9761-2	1/2 x 7/8 ODF S/T
027771	9761-3	3/8 x 5/8 ODF S/T
027268	9761-4	1/2 x 5/8 ODF S/T
027769	9761-5	3/8 x 1/2 ODF S/T
027766	9761-6	1/2 x 1/2 ODF S/T
027764	A-576	5/8 x 7/8 ODF ANG
056932	C-500-4	3/8 x 1/2 SAE ANG
057153	C-500-5	3/8 x 5/8 SAE ANG
056294	C-500-6	1/2 x 5/8 SAE ANG
045401	C-501-1	1 1/4 x 3/8 ODF ANG
065527	C-501-4	3/8 x 1/2 ODF ANG
065748	C-501-5	3/8 x 5/8 ODF ANG
065861	C-501-7	1/2 x 5/8 ODF ANG
044733	X-6346-16	5/8 x 5/8 ODF S/T
044846	X-6346-17	5/8 x 7/8 ODF S/T
094038	X-6346-18	5/8 x 1 1/8 ODF S/T
071757	X-6346-34	7/8 x 1 1/8 ODF S/T
050563	X-6669-1	3/8 x 5/8 SAE S/T
050842	X-6669-2	1/2 x 5/8 SAE S/T
051176	X-6669-4	3/8 x 1/2 SAE S/T
083378	X-6669-5	1/2 x 1/2 SAE S/T

LCL TAKE-A-PART DESUPERHEATING THERMO® VALVE

APPLICATION

- Desuperheating (Liquid Injection) valve used in conjunction with hot gas bypass to prevent excessive suction line superheat.
- Interstage cooling for compound systems

FEATURES

- Take-A-Part construction for easy field service
- Contoured, durable power element for long life
- Stainless steel power assembly

OPTIONS

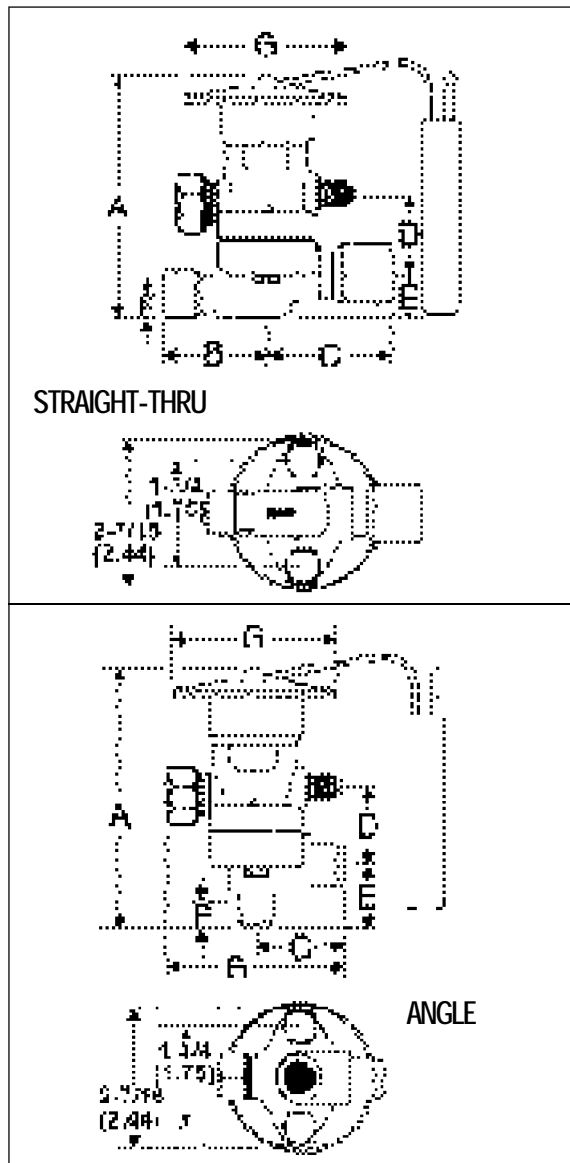
- Interchangeable, replaceable cages for versatility
- External superheat adjustment
- Interchangeable body flanges for any connection you need
- Interchangeable power heads for different temperature ranges
- Charges for all applications



SPECIFICATIONS

- Maximum working pressure: 450 psig

LCL(E) DIMENSIONAL DIAGRAMS & TABLES



LCL(E) REMOTE BULB DIMENSIONS

CAPILLARY TUBING LENGTH	STANDARD REMOTE BULB	
	DIA.	LENGTH
5'	5/8	3-1/16
10'		3-9/16
15 or 20'		4-13/16
30'		6-1/16
40 or 50'	3/4	6-3/16

LCL(E) ROUGHING-IN DIMENSIONS

STANDARD CONNECTIONS	STRAIGHT-THRUSTYLE DIMENSIONS							SOCKET DEPTH		
	A	B	C	D	E	F	G	INLET	OUTLET	
3/8x1/2 SAE	3.70	1.78	1.98	1.20	.69	.38	2.56 DIA.	.31	.38	
3/8x5/8 SAE			2.16							
1/2x1/2 SAE	1.97	1.56								
3/8x1/2 ODF	3.69	1.41	1.58							.67
3/8x5/8 ODF			1.63							
1/2x1/2 ODF	3.70	1.56	1.63		.69	.38		.38	.50	
1/2x5/8 ODF	3.69	1.63	1.63		.67	.36		.50	.50	
5/8x5/8 ODF	3.70	1.59	1.63		.69	.38		.50	.75	.91
5/8x7/8 ODF			1.94							
5/8x1-1/8 ODF			2.38							
7/8x1-1/8 ODF	3.81	1.94	2.38				.75	.91		
ANGLE STYLE										
3/8x1/2 SAE	4.14	3.06	1.50	1.20	1.13	—	2.56 DIA.	—	—	
3/8x5/8 SAE		3.19	1.63							
1/2x5/8 SAE	4.39	2.91	1.34		.94	.44		.56		
1/4x3/8 ODF	3.95								1.47	
3/8x1/2 ODF	4.11								1.59	1.06
3/8x5/8 ODF	4.20	3.16	1.59		1.19	.69		.81		
1/2x5/8 ODF									1.06	1.00
5/8x7/8 ODF (7/8x1-1/8 ODM)	4.83	3.56	2.00		1.34	1.69		.81	1.06	1.00

¹ Connections shown are standard sizes, consult Emerson Climate Technologies for non-standard sizes. Allow 2-1/8" above valve for removal of power assembly.

DIMENSIONS SHOWN ARE IN INCHES

NOMENCLATURE

LCL	E	2	B	5 FT	3/8 x 1/2	ODF	S/T
Valve Series DeSuperheating Liquid Injection Take-A-Part	Equalizer E = External (omit for Internal)	Capacity NOTE: This is not system capacity. See hot gas bypass charts for valve sizing (p. 304-312, and p. 322-330).	Charge Code See Hot Gas Bypass charts for selection (p. 304-312, and p. 322-330) and chart below	Capillary Tube Length 5 FT (standard)	Inlet x Outlet Connection Sizes See table on page 49.	Connection Type SAE = flare ODF = solder	Configuration ANG = 90° angle S/T = straight-thru

For new applications, consult the factory for proper selection and sizing. For field replacement, select a LCL/LCLE valve with the exact same capacity and charge.

ORDERING INFORMATION FOR LCL VALVES

DESCRIPTION	EQUALIZER TYPE	PCN* BY CHARGE			CONNECTIONS		
		SELECT FROM TABLE BELOW					
		A	B	C			
LCL 1	INTERNAL	022018	022017	—	Same as TCL & TCLE		
LCL 2		022005	021996	045527			
LCL 3		055093	021987	—			
LCL 4		—	—	—			
LCL 6		047759	—	—			
LCL 7		—	—	—			
LCL 9		—	—	—			
LCL 10		—	—	—			
LCLE 1		¼ " SAE EXTERNAL	055096	—		—	Same as TJLE
LCLE 2			022003	021997		—	
LCLE 3	021991		021985	—			
LCLE 4	—		061054	055097			
LCLE 6	—		—	—			
LCLE 7	—		—	—			
LCLE 9	—		—	—			
LCLE 10	—		—	—			
LJLE 11	—		—	—			
LJLE 12	—		—	—			

Note: Valve sizes LCL5, LCL8, LCLE5 and LCLE8 are OBSOLETE.
Replace:
LCL5 with LCL6
LCL8 with LCL9
LCLE5 with LCLE6
LCLE8 with LCLE9

LCL Valve	LA Valve
LCL 1	LA(E)S ½
LCL 2	LA(E)S 1
LCL 3	LA(E)S 2
LCL 4	LA(E)S 3
LCL 6	LA(E)S 5

1 Note: Add charge suffix symbol "A", "B" or "C" based on the following table.

EXAMPLE: LCLE 4-A

Standard Product Offering

NOTE: Standard remote bulb tubing is 5'.

* Product Code Number

LCL CHARGE CODES

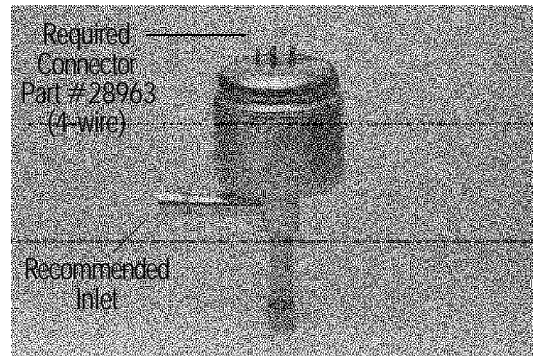
SAT'D SUCTION TEMP.	REFRIGERANT					
	R-134a		R-22		R-404A/R-507	
	REQUIRED SUCTION GAS TEMP		REQUIRED SUCTION GAS		REQUIRED SUCTION GAS	
	45°F	65°F	45°F	65°F	45°F	65°F
40°F	—	B	—	A	—	—
30°F	B	B	—	A	—	A
20°F	B	C	A	B	—	A
10°F	B	C	B	B	A	B
0°F	C	C	B	B	A	B
-10°F	C	C	B	C	B	B
-20°F	C	C	B	C	B	C
-30°F	C	C	C	C	B	C
-40°F	C	C	C	C	B	C

ESVB BI-FLO STEPPER EXPANSION VALVE

The ESVB is a direct driven expansion valve that uses a stepper motor to actuate the valve pin. The stepper motor uses a voltage pulse to move the valve either open or closed, one step for each pulse. The ESVB has the ability to be interfaced with a variety of control electronics. The ESVB is useful in a variety of applications ranging from case control to subcooler applications, truck/trailer refrigeration, and heat pump/air conditioning applications.

FEATURES

- ✦ Hermetic construction eliminates external leakage
- ✦ Bi-Flo capability allows one valve to control the superheat in both cooling and heating modes for heat pump applications
- ✦ Stepper motor moves in discrete "steps" allowing for precise digital control
- ✦ Voltage is required only when moving the valve increasing energy efficiency
- ✦ Removeable external connector for easy replacement
- ✦ Contains internal strainer in both the inlet and outlet connections to protect the valve from contamination in both forward and reverse flow modes
- ✦ Solenoid-tight shut off eliminates the need for both a traditional TEV and a solenoid valve in the liquid line
- ✦ Stainless steel housing minimizes corrosion over the life of the valve
- ✦ 2-phase bi-polar, linear actuating stepper motor, direct drive
- ✦ Two motors available 24 volt or 12 volt alternating square wave (see stepper sequence table)



SPECIFICATIONS

- ✦ UL file number MP604, CSA file number LR3204
- ✦ MOPD: 300 psid, either flow direction
- ✦ Maximum Working Pressure: 500 psi
- ✦ Operating Temperatures:
 - Ambient -40°F to 150°F
 - Refrigerant -40°F to 140°F
- ✦ Shipping Weight: 2 lbs
- ✦ Motor drive voltage (12VDC or 24VDC) must be within +10% and -15% thru step

MOTOR SPECIFICATIONS		
FEATURE	ESVB-1, -4	ESVB-10, -20
COIL RESISTANCE (± 10%)	84 ? @ 25°C (12V) 336 ? @ 25°C (24V)	29 ? @ 25°C (12V) 116 ? @ 25°C (24V)
INDUCTANCE (± 20%)	55 mH per winding	52 mH per winding
STEP RATE (± 20%)	50 steps/second	50 steps/second
# steps from full open to full closed	384 steps	800 steps
HYSTERESIS (steps)	0	0
LINEAR TRAVEL/STEP	.001 inch	.001 inch
POWER INPUT (nominal)	1.7 watts per phase (3.4 watts total)	5 watts per phase (10 watts nominal)

NOMENCLATURE EXAMPLE: ESV 1 24V 3/8x 3/8 ODF ANG NC

ESVB	1	24	3/8 x 3/8	ODF	ANG	NC
BiPolar Stepper Driven	Nominal Capacity ²	Motor Voltage	Side Fitting Size x Bottom Fitting Size	Fitting Type	Body ANG = Angle Style	Connector NC = No Connector (Must order connector separately)
	1	12V or 24V ¹	3/8 x 3/8	ODF		
	4		3/8 x 1/2			
	10		1/2 x 1/2			
	20		7/8 x 1-3/8			

¹CPC EINSTEIN requires 12V.

²See extended capacities tables on page 55.

ORDERING INFORMATION FOR ESVB VALVES

PCN*	DESCRIPTION
064791	ESVB 1 12V 3/8 X 3/8 ODF ANG NC
064792	ESVB 1 24V 3/8 x 3/8 ODF ANG NC
064793	ESVB 4 12V 3/8 X 3/8 ODF ANG NC
064794	ESVB 4 24V 3/8 x 3/8 ODF ANG NC
064795	ESVB 10 12V 1/2 x 1/2 ODF ANG NC
064796	ESVB 10 24V 1/2 x 1/2 ODF ANG NC
064797	ESVB 20 12V 7/8 X 1-3/8 ODF ANG NC
064798	ESVB 20 24V 7/8 X 1-3/8 ODF ANG NC
062093	EXTERNAL CONNECTOR, 4-WIRE, 5 FT.
062094	EXTERNAL CONNECTOR, 4-WIRE, 22 FT.

Standard Product Offering

* Product Code Number

ESVB NOMINAL CAPACITY RANGES IN TONS

VALVE	R-12	R-134 a	R-22
	@ 60 PSI ▲ P	@ 60 PSI ▲ P	@ 100 PSI ▲ P
ESVB-1	0.41	0.51	0.70
ESVB-4	2.00	2.45	3.36
ESVB-10	6.00	7.38	10.08
ESVB-20	13.00	16.00	21.86
VALVE	R-407C	R-404A/R-507	R-502
	@ 100 PSI ▲ P	@ 100 PSI ▲ P	@ 100 PSI ▲ P
ESVB-1	0.67	0.50	0.45
ESVB-4	3.19	2.43	2.17
ESVB-10	9.60	7.29	6.52
ESVB-20	20.82	15.83	14.14

All capacities shown are at 100°F Condensing, 40°F Evaporator Temperature, with a solid column of liquid at the valve inlet, with the ESVB-1 and -4 @ 250 steps open and the ESVB-10 and -20 @ 650 steps open. For capacities at other than nominal conditions, see extended capacity tables starting on page 55.

ESVB SERIES BI-FLO EXPANSION VALVES

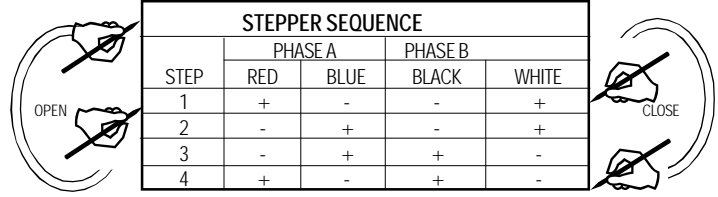
The ESVB is approved for use with all CFC, HCFC, and HFC refrigerants, except R123, R406A, R410A, and those listed in ASHRAE standard 34 as A2, A3, B2, and B3. For more information concerning application, sizing, and selection contact the Applications Engineering Department.

ESVB OPERATION

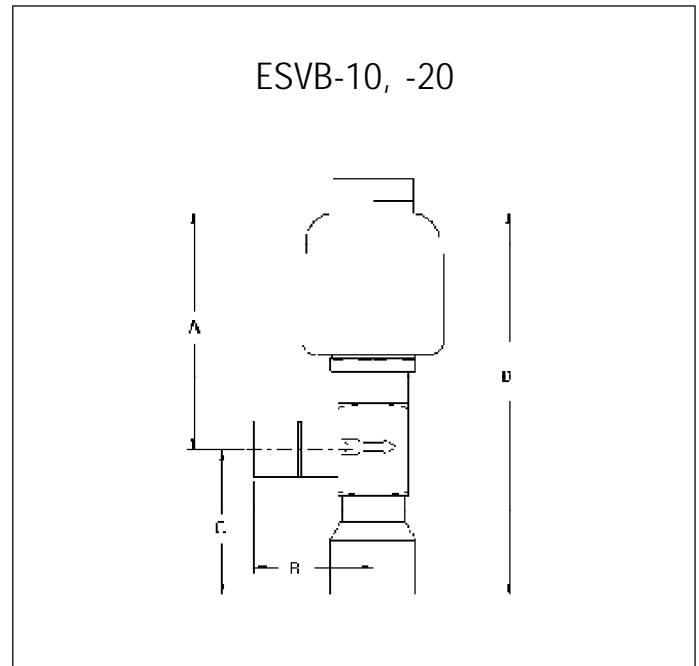
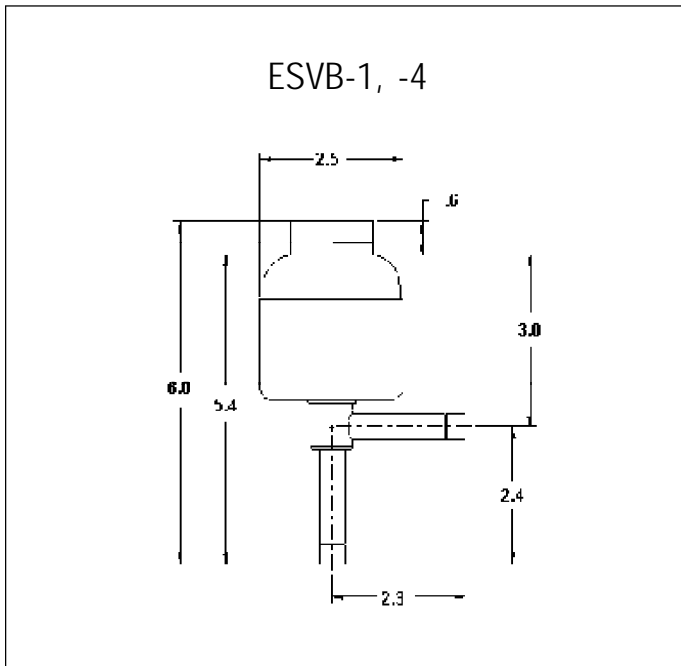
The ESVB is a direct driven expansion valve that uses a stepper motor to control the opening and closing of the valve. Table 1 contains step sequence for driving the valve. This four step sequence is then repeated as necessary for the valve to open the appropriate number of steps. **WARNING: The shaft of the valve can only change position if power is applied to it. Upon loss of power, valve will not move.**

TABLE 1

STEP	PHASE A		PHASE B	
	RED	BLUE	BLACK	WHITE
1	+	-	-	+
2	-	+	-	+
3	-	+	+	-
4	+	-	+	-



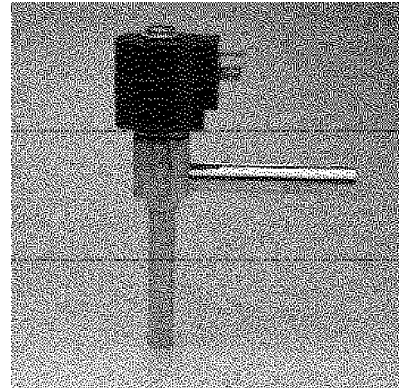
ESVB DIMENSIONAL DATA



VALVE	A	B	C	D
ESVB-10	4.20"	2.60"	2.70"	6.90"
ESVB-20	4.20"	2.10"	2.50"	6.70"

EX2 PULSE MODULATED ELECTRIC EXPANSION VALVE

The EX2 is an Electrically Driven Expansion Valve designed for use with R12, R22, R134a, R404A, R407C, R410A and R502.



FEATURES

- ✍ Pulse width modulation provides very precise temperature control.
- ✍ Dampened plunger reduces noise and effects of "water hammer".
- ✍ Shut off function eliminates the necessity of a separate solenoid valve.
- ✍ ODF connections.

OPTIONS

- ✍ One valve body can be combined with 6 orifices to make 6 capacity ranges up to 2.7 tons R22.
- ✍ Use with an EC2 Electronic Display Case Controller for the ultimate, precise case temperature control system. (use 24V coil only)

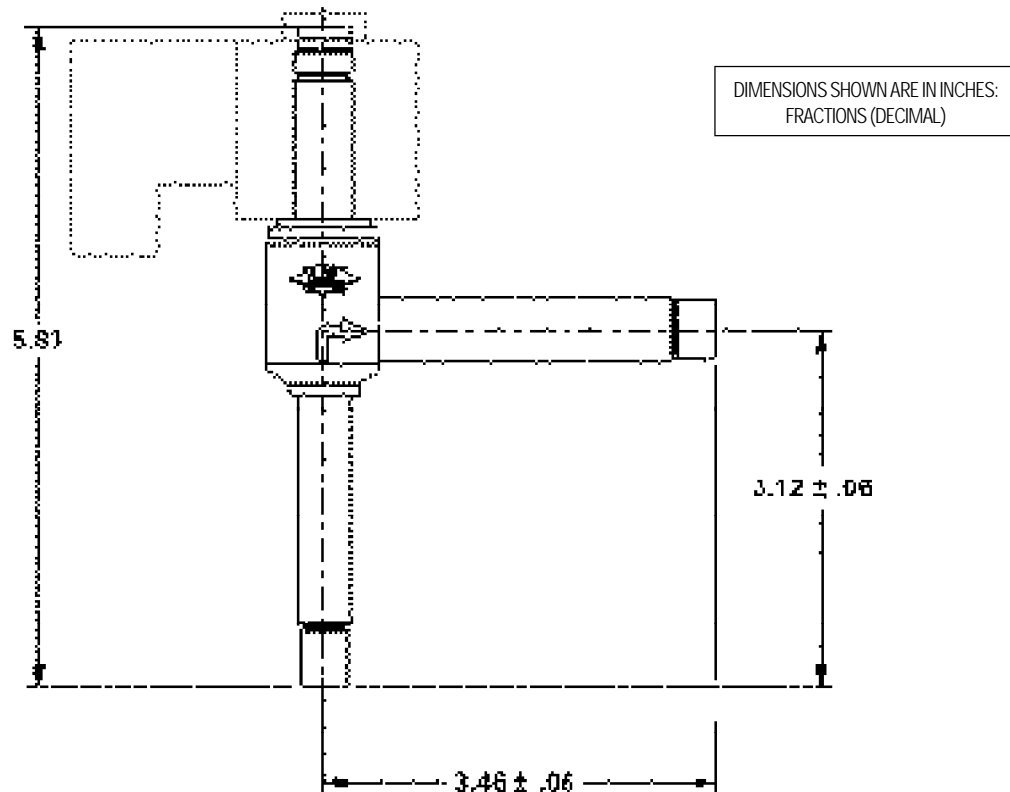
SPECIFICATIONS

- ✍ Designed for 15 year life or 80 million cycles at 15 sec. duty cycle
- ✍ 400 psig MOPD, 500 psig Maximum Working Pressure
- ✍ ASC2X Coils: 24V/60Hz, 120V/60Hz
- ✍ UL Approved File #MP604

NOMENCLATURE EXAMPLE: EX2 1/4 x 3/8 EXO-001 ASC2X120V

EX2	1/4	3/8	EXO-001	ASC2X120V
Valve Series	Inlet Connection	Outlet Connection	Orifice	Coil

EX2 DIMENSIONAL DATA



EX2 SELECTION CHART

DEVICE	MODEL #	PCN*
Electronic Expansion Valve	EX2 3/8 x 1/2	064497
24V/60Hz Coil	ASC2X24/60	064503
120V/60Hz Coil	ASC2X120/60	064504

 Standard Product Offering

* Product Code Number

The liquid capacity table below quotes capacities at 100% duty cycle (i.e. the valve is open continuously). However, it is recommended to operate the valve at partial load (50-80%) to allow for system load fluctuations. When used with an EC2 case controller, the valve operates with a 6 second pulse width cycle. Partial capacity can be calculated by proportioning the actual pulse time relative to 6 seconds (i.e. 3 second pulse width cycle time = 50% valve capacity).

We recommend the use of an EC2 Electronic Display Case Controller with the EX2 Valve operating on a 24V AC supply.

LIQUID CAPACITY TABLE IN TONS @ 100% DUTY CYCLE

PCN*	ORIFICE #	R22/R407C TONS	R502 TONS	R12 TONS	R134a TONS
064570	EXO-00X	0.23	0.15	0.15	0.18
064569	EXO-000	0.40	0.26	0.40	0.50
064499	EXO-001	0.81	0.53	0.50	0.62
064500	EXO-002	1.10	0.72	0.74	0.85
064501	EXO-003	2.00	1.30	1.3	1.5
064502	EXO-004	2.70	1.76	1.8	2.1

Nominal capacities shown in this table are based on 40°F evaporating temperature, 100°F condensing temperature and 100 psig pressure drop across the valve.

 Standard Product Offering

* Product Code Number

EX2 Series Extended Capacity Tables begin on page 55.
For Ordering Information, see selection chart above.

ACP(E) AUTOMATIC EXPANSION VALVE

The ACP is an Automatic Expansion Valve developed for small cooling units where the heat load is reasonably constant. The ACP is ideal for room air conditioners, domestic refrigerators, drink dispensers, food dispensers, ice cream cabinets, bottle coolers, home freezers, ice cube makers, ice cream freezers, and milk coolers.

FEATURES

- ✘ Small, compact size adapts to any installation
- ✘ Friction-free floating design
- ✘ Can be used as a small capacity hot gas bypass valve
- ✘ Covers multiple capacity ranges
- ✘ Fully adjustable from 0-80 psig (factory setting 40 psig)
- ✘ Wrench flats on inlets and outlets
- ✘ Available with fixed setting/non-adjustable

OPTIONS

- ✘ Angle or straight-thru style
- ✘ Internal or external equalizer
- ✘ SAE or ODF connections

NOMENCLATURE

EXAMPLE: ACPE 6 SAE EE 1/4 x 3/8 ODF ANG

ACP	E	6	SAE EE	1/4	x	3/8	ODF	ANG
Valve Series	External Equalizer (optional)	Port Size (diameter) see table below	External Equalizer Type	Inlet Connection Size (inches)		Outlet Connection Size (inches)	Connection Type ODF or SAE	Body Style ANG = Angle S/T = Straight-thru



SPECIFICATIONS

- ✘ Maximum working pressure: 450 psig
- ✘ Maximum working temperature: 300°F
- ✘ UL file #SA5312, CSA file #LR44005

ACP(E) NOMINAL CAPACITY* TABLE IN TONS

VALVE	Port Diameter (inch)	R12	R407C	R502	R410A
		R134a	R22	R404A	
PRESSURE DROP ACROSS VALVE — PSI					
		60	100	100	160
ACP(E)1	.047	.31	.44	.29	.38
ACP(E)2	.059	.41	.57	.38	.51
ACP(E)3	.101	.65	.91	.61	.80
ACP(E)4	.113	.90	1.30	.87	1.10
ACP(E)5	.125	1.40	1.96	1.31	1.70
ACP(E)6	.140	1.90	2.67	1.78	2.30
ACP(E)7	.169	2.30	3.28	2.19	2.80
ACP(E)8	.196	2.70	3.75	2.50	3.30
ACP(E)9	.228	3.80	5.32	3.55	4.70

*All capacities shown are at 100°F Condensing, 40°F Evaporator Temperature, with a solid column of liquid at the valve inlet.

ORDERING INFORMATION

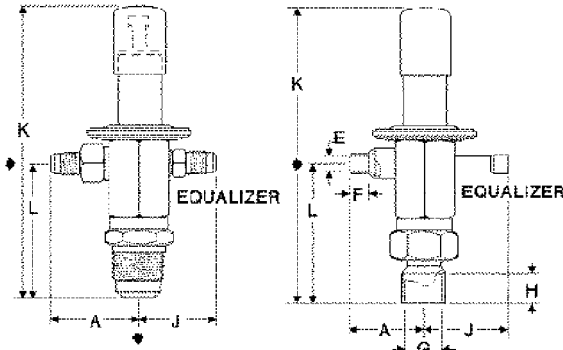
PCN*	DESCRIPTION	PCN*	DESCRIPTION
046838	ACP 1 IE 1/4 x 3/8-1/2 SAE ANG	047654	ACP 7 IE 3/8 x 1/2 ODF ANG
057233	ACP 1 IE 1/4 x 3/8 ODF S/T	047285	ACP 7 IE 3/8 x 3/8-1/2 SAE ANG
047680	ACP 1 IE 1/4 x 3/8 ODF ANG	047655	ACP 8 IE 3/8 x 1/2 ODF ANG
047651	ACP 2 IE 1/4 x 3/8 ODF ANG	057771	ACP 9 IE 1/2 x 5/8 ODF ANG
046840	ACP 3 IE 1/4 x 3/8 SAE ANG	047658	ACP 9 IE 3/8 x 3/8-1/2 SAE ANG
047105	ACP 4 IE 1/4 x 3/8 ODF ANG	047280	ACPE 1 SAE EE 1/4 x 3/8 SAE S/T
047284	ACP 5 IE 1/4 x 3/8 ODF ANG	047790	ACPE 7 SAE EE 3/8 x 1/2 ODF ANG
053374	ACP 5 IE 3/8 x 3/8 ODF ANG	048657	ACPE 9 SAE EE 3/8 x 1/2 ODF S/T
047653	ACP 6 IE 1/4 x 3/8 SAE ANG	058674	ACPE 9 SAE EE 1/2 x 5/8 ODF S/T

Standard Product Offering

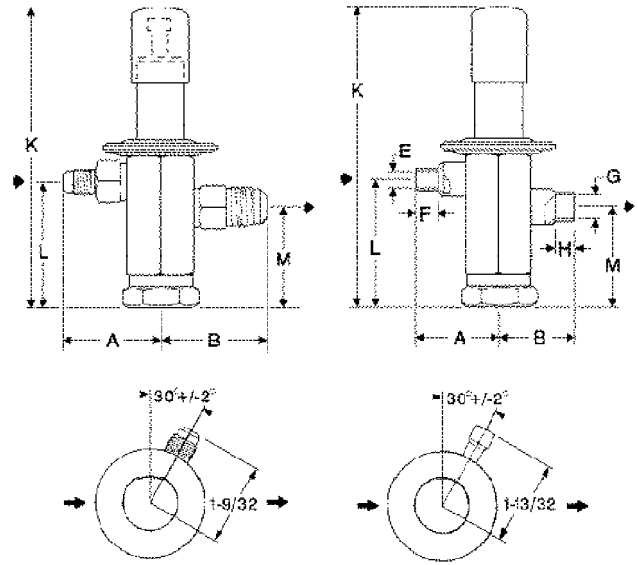
* Product Code Number

ACP DIMENSIONAL DATA

ACP ANGLE



ACP STRAIGHT-THRU



ACP ROUGH IN DIMENSION TABLE

ACP(E) VALVETYPE	INLET	OUTLET	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L
ANGLE SAE	1/4	3/8	1.50	—	—	—	—	—	4.50	2.13
	3/8	3/8	1.64							
	1/2	3/8 - 1/2	1.72							
	1/4	5/8	1.50							
	3/8		1.64							
	1/2		1.72							
ANGLE ODF	1/4	3/8	1.25	—	.25	.32	.37	.32	4.55	2.17
	3/8	1/2	1.19		.37	.32				
	1/2	5/8			1.38	.62	.50	.62	.50	4.73
	5/8	1/2	1.25		.25	.32				
	1/4		1.19		.37	.32				
	3/8		1.25		.25	.32	.50	.38	4.55	2.17
	1/2	7/8	1.19		.50	.38	.87	.75	5.11	2.73

ACP(E) VALVETYPE	INLET	OUTLET	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	M	
STRAIGHT-THRU SAE	1/4	3/8	1.50	1.64	—	—	—	—	—	—	—	
	3/8	1/2	1.64	1.72								
	1/2	5/8	1.72	1.98								
	1/4		1.50									
	3/8		1.64									
	1/2		1.72									
STRAIGHT-THRU ODF	1/4	3/8	1.25	1.19	.25	.32	.37	.32	4.25	1.88	1.48	
	3/8	1/2	1.19		.37	.32						.50
	1/2	5/8			1.38	.62	.50	.62	.50			
	5/8	1/2	1.25		.25	.32						
	1/4		1.19		.37	.32						
	3/8		1.25		.25	.32	.50	.38				
	1/2	7/8	1.19		1.75	.50	.38	.87	.75	—	—	—
	3/8	1.19	1.75		.37	.32	.87	.75				

DIMENSIONS SHOWN ARE IN INCHES.

R-12 CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TI SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AAC/ANC	1/8	0.20	0.23	0.26	0.29	0.32	0.34	0.20	0.23	0.26	0.29	0.32	0.34	0.19	0.22	0.25	0.27	0.30	0.32
AA/AN/AAC/ANC/AFA	1/4	0.35	0.40	0.45	0.51	0.55	0.60	0.34	0.39	0.44	0.49	0.54	0.58	0.33	0.38	0.43	0.48	0.52	0.56
AA/AN/AAC/ANC/AFA	1/2	0.56	0.65	0.72	0.81	0.89	0.96	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91
AA/AN/AAC/ANC/AFA	1	0.80	0.92	1.03	1.15	1.26	1.37	0.79	0.91	1.02	1.14	1.25	1.35	0.76	0.88	0.98	1.10	1.20	1.30
AA/AN/AAC/ANC/AFA	1-1/2	1.66	1.92	2.14	2.40	2.62	2.83	1.63	1.88	2.10	2.35	2.58	2.78	1.56	1.80	2.01	2.25	2.47	2.66
AA/AN/AAC/ANC/AFA	2	2.04	2.36	2.63	2.94	3.23	3.48	2.00	2.31	2.58	2.89	3.16	3.42	1.92	2.22	2.48	2.77	3.04	3.28
AA/AN/AAC/ANC	2-1/2	2.42	2.79	3.12	3.49	3.83	4.13	2.37	2.74	3.06	3.42	3.75	4.05	2.28	2.63	2.94	3.29	3.60	3.89
AA/AN/AAC/ANC/AFA	3	3.31	3.82	4.27	4.78	5.23	5.65	3.24	3.74	4.18	4.68	5.12	5.53	3.11	3.59	4.01	4.49	4.92	5.31
TCL	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
TCL	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.53	0.61	0.68	0.76	0.84	0.91
TCL	1	1.15	1.33	1.48	1.66	1.82	1.96	1.13	1.30	1.46	1.63	1.79	1.93	1.08	1.25	1.39	1.56	1.71	1.84
TCL	2	2.12	2.45	2.74	3.06	3.35	3.62	2.08	2.40	2.69	3.00	3.29	3.55	1.99	2.30	2.57	2.87	3.15	3.40
TCL	3	3.09	3.57	3.99	4.46	4.89	5.28	3.03	3.50	3.91	4.37	4.79	5.17	2.90	3.35	3.74	4.19	4.59	4.95
TCL	4	4.48	5.17	5.78	6.47	7.08	7.65	4.39	5.07	5.67	6.34	6.94	7.50	4.21	4.86	5.44	6.08	6.66	7.19
TCL	6-1/2	6.17	7.12	7.97	8.91	9.76	10.54	6.05	6.99	7.81	8.73	9.57	10.33	5.80	6.70	7.49	8.37	9.17	9.91
TCL	7-1/2	7.44	8.59	9.60	10.74	11.76	12.71	7.30	8.43	9.42	10.54	11.54	12.47	7.00	8.08	9.04	10.10	11.07	11.95
TL	7	6.59	7.61	8.51	9.51	10.42	11.25	6.47	7.47	8.35	9.34	10.23	11.05	6.20	7.16	8.00	8.95	9.80	10.59
TL	8	8.41	9.71	10.86	12.14	13.30	14.36	8.25	9.53	10.65	11.91	13.04	14.09	7.91	9.13	10.21	11.42	12.51	13.51

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F					-20°F					-40°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AAC	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.13	0.15	0.16	0.18	0.19	0.21	0.08	0.09	0.10	0.11	0.12	0.13
AA/AN/AAC/ANC/AFA	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.23	0.26	0.29	0.31	0.34	0.36	0.15	0.17	0.19	0.21	0.22	0.24
AA/AN/AAC/ANC/AFA	1/2	0.47	0.54	0.61	0.68	0.74	0.80	0.37	0.41	0.46	0.51	0.55	0.59	0.24	0.27	0.30	0.33	0.35	0.38
AA/AN/AAC/ANC/AFA	1	0.67	0.77	0.86	0.97	1.06	1.14	0.53	0.59	0.66	0.73	0.78	0.84	0.34	0.38	0.43	0.47	0.50	0.54
AA/AN/AAC/ANC/AFA	1-1/2	1.39	1.61	1.79	2.01	2.20	2.37	1.09	1.22	1.36	1.49	1.61	1.72	0.71	0.79	0.89	0.97	1.05	1.12
AA/AN/AAC/ANC/AFA	2	1.70	1.96	2.19	2.45	2.69	2.90	1.33	1.49	1.66	1.82	1.97	2.10	0.87	0.97	1.09	1.19	1.29	1.38
AA/AN/AAC/ANC	2-1/2	2.02	2.33	2.61	2.92	3.19	3.45	1.58	1.77	1.98	2.16	2.34	2.50	1.03	1.15	1.29	1.41	1.52	1.63
AA/AN/AAC/ANC/AFA	3	2.76	3.19	3.56	3.98	4.36	4.71	2.16	2.41	2.70	2.96	3.19	3.42	1.40	1.57	1.75	1.92	2.07	2.21
TCL	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
TCL	1/2	0.47	0.54	0.61	0.68	0.74	0.80	0.37	0.41	0.46	0.51	0.55	0.59	0.24	0.27	0.30	0.33	0.35	0.38
TCL	1	0.96	1.11	1.24	1.39	1.52	1.64	0.75	0.84	0.94	1.03	1.11	1.19	0.49	0.55	0.61	0.67	0.72	0.77
TCL	2	1.76	2.03	2.27	2.54	2.78	3.01	1.38	1.54	1.73	1.89	2.04	2.18	0.90	1.01	1.13	1.23	1.33	1.42
TCL	3	2.57	2.97	3.32	3.71	4.06	4.39	2.01	2.25	2.51	2.75	2.97	3.18	1.31	1.46	1.64	1.79	1.94	2.07
TCL	4	3.73	4.31	4.82	5.38	5.90	6.37	2.92	3.26	3.65	4.00	4.32	4.62	1.90	2.12	2.38	2.60	2.81	3.00
TCL	6-1/2	5.14	5.94	6.64	7.42	8.13	8.78	4.03	4.51	5.04	5.52	5.96	6.37	2.62	2.93	3.28	3.59	3.88	4.14
TCL	7-1/2	6.20	7.16	8.00	8.95	9.80	10.59	4.86	5.43	6.08	6.65	7.19	7.68	3.16	3.53	3.95	4.33	4.67	5.00
TL	7	5.49	6.34	7.09	7.92	8.68	9.38	4.30	4.81	5.38	5.89	6.36	6.80	2.80	3.13	3.50	3.83	4.14	4.43
TL	8	7.00	8.08	9.04	10.10	11.07	11.95	5.49	6.14	6.86	7.52	8.12	8.68	3.57	3.99	4.46	4.89	5.28	5.64

REFRIGERANT LIQUID TEMPERATURE CORRECTION FACTORS

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R404A/R507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-22 CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TI SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/5	0.15	0.17	0.19	0.22	0.24	0.26	0.15	0.17	0.19	0.21	0.23	0.25	0.14	0.16	0.18	0.20	0.22	0.24
AA/AN/AAC/ANC	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.26	0.30	0.33	0.37	0.40	0.44	0.25	0.29	0.32	0.36	0.40	0.43
AA/AN/AAC/ANC/AFA	1/2	0.46	0.53	0.59	0.66	0.73	0.79	0.45	0.52	0.58	0.65	0.71	0.77	0.44	0.51	0.57	0.64	0.70	0.75
AA/AN/AAC/ANC/AFA	1	0.73	0.84	0.94	1.05	1.15	1.25	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20
AA/AN/AAC/ANC/AFA	1-1/2	1.05	1.21	1.36	1.52	1.66	1.79	1.03	1.19	1.33	1.49	1.63	1.76	1.01	1.17	1.30	1.46	1.60	1.72
AA/AN/AAC/ANC/AFA	2	1.54	1.78	1.99	2.22	2.43	2.63	1.52	1.75	1.96	2.19	2.40	2.59	1.48	1.71	1.91	2.14	2.34	2.53
AA/AN/AAC/ANC/AFA	2-1/2	2.16	2.49	2.79	3.12	3.42	3.69	2.13	2.46	2.75	3.07	3.37	3.64	2.08	2.40	2.69	3.00	3.29	3.55
AA/AN/AAC/ANC/AFA	3	2.65	3.06	3.42	3.82	4.19	4.53	2.61	3.01	3.37	3.77	4.13	4.46	2.55	2.94	3.29	3.68	4.03	4.35
AA/AN/AAC/ANC	4	3.14	3.63	4.05	4.53	4.96	5.36	3.10	3.58	4.00	4.47	4.90	5.29	3.03	3.50	3.91	4.37	4.79	5.17
AA/AN/AAC/ANC/AFA	5	4.30	4.97	5.55	6.21	6.80	7.34	4.24	4.89	5.47	6.12	6.70	7.24	4.14	4.78	5.34	5.98	6.55	7.07
TCLE	1/2	0.39	0.45	0.50	0.56	0.62	0.67	0.39	0.45	0.50	0.56	0.61	0.66	0.38	0.44	0.49	0.55	0.60	0.65
TCLE	1	0.74	0.85	0.96	1.07	1.17	1.26	0.73	0.84	0.94	1.05	1.15	1.24	0.71	0.82	0.92	1.02	1.12	1.21
TCLE	2	1.49	1.72	1.92	2.15	2.36	2.54	1.47	1.70	1.90	2.12	2.33	2.51	1.44	1.66	1.86	2.08	2.28	2.46
TCLE	3	2.75	3.18	3.55	3.97	4.35	4.70	2.71	3.13	3.50	3.91	4.29	4.63	2.65	3.06	3.42	3.82	4.19	4.53
TCLE	5	4.01	4.63	5.18	5.79	6.34	6.85	3.95	4.56	5.10	5.70	6.25	6.75	3.86	4.46	4.98	5.57	6.10	6.59
TCLE	7-1/2	5.82	6.72	7.51	8.40	9.20	9.94	5.75	6.64	7.42	8.30	9.09	9.82	5.60	6.47	7.23	8.08	8.85	9.56
TCLE	10	8.02	9.26	10.35	11.58	12.68	13.70	7.92	9.15	10.23	11.44	12.53	13.53	7.72	8.91	9.97	11.14	12.21	13.18
TCLE	12	9.67	11.17	12.48	13.96	15.29	16.51	9.55	11.03	12.33	13.79	15.10	16.31	9.31	10.75	12.02	13.44	14.72	15.90
TIL	11	8.57	9.90	11.06	12.37	13.55	14.64	8.47	9.78	10.93	12.22	13.39	14.46	8.25	9.53	10.65	11.91	13.04	14.09
TIL	14	10.92	12.61	14.10	15.76	17.27	18.65	10.80	12.47	13.94	15.59	17.07	18.44	10.52	12.15	13.58	15.18	16.63	17.97

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/5	0.13	0.15	0.17	0.19	0.21	0.22	0.10	0.11	0.13	0.14	0.15	0.16	0.07	0.08	0.09	0.10	0.10	0.11
AA/AN/AAC/ANC	1/4	0.23	0.27	0.30	0.33	0.36	0.39	0.18	0.20	0.23	0.25	0.27	0.28	0.12	0.13	0.15	0.16	0.18	0.19
AA/AN/AAC/ANC/AFA	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.32	0.36	0.40	0.44	0.47	0.51	0.21	0.23	0.26	0.29	0.31	0.33
AA/AN/AAC/ANC/AFA	1	0.64	0.74	0.83	0.92	1.01	1.09	0.51	0.57	0.64	0.70	0.75	0.81	0.34	0.38	0.43	0.47	0.50	0.54
AA/AN/AAC/ANC/AFA	1-1/2	0.91	1.05	1.17	1.31	1.44	1.55	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
AA/AN/AAC/ANC/AFA	2	1.35	1.56	1.74	1.95	2.13	2.31	1.07	1.20	1.34	1.47	1.58	1.69	0.71	0.79	0.89	0.97	1.05	1.12
AA/AN/AAC/ANC/AFA	2-1/2	1.89	2.18	2.44	2.73	2.99	3.23	1.51	1.69	1.89	2.07	2.23	2.39	0.99	1.11	1.24	1.36	1.46	1.57
AA/AN/AAC/ANC/AFA	3	2.31	2.67	2.98	3.33	3.65	3.95	1.85	2.07	2.31	2.53	2.74	2.93	1.22	1.36	1.53	1.67	1.80	1.93
AA/AN/AAC/ANC	4	2.75	3.18	3.55	3.97	4.35	4.70	2.19	2.45	2.74	3.00	3.24	3.46	1.44	1.61	1.80	1.97	2.13	2.28
AA/AN/AAC/ANC/AFA	5	3.75	4.33	4.84	5.41	5.93	6.40	3.00	3.35	3.75	4.11	4.44	4.74	1.97	2.20	2.46	2.70	2.91	3.11
TCLE	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.27	0.30	0.34	0.37	0.40	0.43	0.18	0.20	0.23	0.25	0.27	0.28
TCLE	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
TCLE	2	1.30	1.50	1.68	1.88	2.06	2.22	1.04	1.16	1.30	1.42	1.54	1.64	0.69	0.77	0.86	0.94	1.02	1.09
TCLE	3	2.40	2.77	3.10	3.46	3.79	4.10	1.92	2.15	2.40	2.63	2.84	3.04	1.26	1.41	1.58	1.73	1.86	1.99
TCLE	5	3.50	4.04	4.52	5.05	5.53	5.98	2.79	3.12	3.49	3.82	4.13	4.41	1.84	2.06	2.30	2.52	2.72	2.91
TCLE	7-1/2	5.08	5.87	6.56	7.33	8.03	8.68	4.05	4.53	5.06	5.55	5.99	6.40	2.67	2.99	3.34	3.66	3.95	4.22
TCLE	10	7.00	8.08	9.04	10.10	11.07	11.95	5.59	6.25	6.99	7.65	8.27	8.84	3.68	4.11	4.60	5.04	5.44	5.82
TCLE	12	8.44	9.75	10.90	12.18	13.34	14.41	6.74	7.54	8.43	9.23	9.97	10.66	4.44	4.96	5.55	6.08	6.57	7.02
TIL	11	7.48	8.64	9.66	10.80	11.83	12.77	5.97	6.67	7.46	8.17	8.83	9.44	3.93	4.39	4.91	5.38	5.81	6.21
TIL	14	9.54	11.02	12.32	13.77	15.08	16.29	7.62	8.52	9.53	10.43	11.27	12.05	5.02	5.61	6.28	6.87	7.42	7.94

R-134a CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TI SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
AA/AN/AAC/ANC	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
AA/AN/AAC/ANC/AFA	1/2	0.43	0.50	0.56	0.62	0.68	0.73	0.43	0.50	0.56	0.62	0.68	0.73	0.41	0.47	0.53	0.59	0.65	0.70
AA/AN/AAC/ANC/AFA	3/4	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16	0.65	0.75	0.84	0.94	1.03	1.11
AA/AN/AAC/ANC/AFA	1	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.93	1.07	1.20	1.34	1.47	1.59
AA/AN/AAC/ANC/AFA	1-1/2	1.47	1.70	1.90	2.12	2.32	2.51	1.44	1.66	1.86	2.08	2.28	2.46	1.38	1.59	1.78	1.99	2.18	2.36
AA/AN/AAC/ANC/AFA	2	2.06	2.38	2.66	2.97	3.26	3.52	2.02	2.33	2.61	2.92	3.19	3.45	1.93	2.23	2.49	2.79	3.05	3.30
AA/AN/AAC/ANC/AFA	2-1/2	2.53	2.92	3.27	3.65	4.00	4.32	2.47	2.85	3.19	3.57	3.91	4.22	2.37	2.74	3.06	3.42	3.75	4.05
AA/AN/AAC/ANC	3	3.00	3.46	3.87	4.33	4.74	5.12	2.94	3.39	3.80	4.24	4.65	5.02	2.81	3.24	3.63	4.06	4.44	4.80
AA/AN/AAC/ANC/AFA	4	4.10	4.73	5.29	5.92	6.48	7.00	4.02	4.64	5.19	5.80	6.36	6.87	3.84	4.43	4.96	5.54	6.07	6.56
TCLE	1/4	0.37	0.43	0.48	0.53	0.59	0.63	0.37	0.43	0.48	0.53	0.59	0.63	0.35	0.40	0.45	0.51	0.55	0.60
TCLE	3/4	0.70	0.81	0.90	1.01	1.11	1.20	0.69	0.80	0.89	1.00	1.09	1.18	0.66	0.76	0.85	0.95	1.04	1.13
TCLE	1-1/2	1.42	1.64	1.83	2.05	2.25	2.43	1.39	1.61	1.79	2.01	2.20	2.37	1.33	1.54	1.72	1.92	2.10	2.27
TCLE	2-1/2	2.62	3.03	3.38	3.78	4.14	4.47	2.57	2.97	3.32	3.71	4.06	4.39	2.46	2.84	3.18	3.55	3.89	4.20
TCLE	3-1/2	3.82	4.41	4.93	5.51	6.04	6.52	3.74	4.32	4.83	5.40	5.91	6.39	3.58	4.13	4.62	5.17	5.66	6.11
TCLE	5-1/2	5.55	6.41	7.17	8.01	8.78	9.48	5.43	6.27	7.01	7.84	8.59	9.27	5.20	6.00	6.71	7.51	8.22	8.88
TCLE	7-1/2	7.65	8.83	9.88	11.04	12.10	13.06	7.49	8.65	9.67	10.81	11.84	12.79	7.16	8.27	9.24	10.33	11.32	12.23
TCLE	9	9.22	10.65	11.90	13.31	14.58	15.75	9.03	10.43	11.66	13.03	14.28	15.42	8.64	9.98	11.15	12.47	13.66	14.76
TJL	9	8.17	9.43	10.55	11.79	12.92	13.95	8.00	9.24	10.33	11.55	12.65	13.66	7.65	8.83	9.88	11.04	12.10	13.06
TJL	11	10.42	12.03	13.45	15.04	16.48	17.80	10.20	11.78	13.17	14.72	16.13	17.42	9.76	11.27	12.60	14.09	15.43	16.67

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/8	0.11	0.13	0.14	0.16	0.17	0.19	0.08	0.09	0.10	0.11	0.12	0.13	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.14	0.16	0.18	0.19	0.21	0.22	0.09	0.10	0.11	0.12	0.13	0.14
AA/AN/AAC/ANC/AFA	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.25	0.28	0.31	0.34	0.37	0.40	0.15	0.17	0.19	0.21	0.22	0.24
AA/AN/AAC/ANC/AFA	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.40	0.45	0.50	0.55	0.59	0.63	0.25	0.28	0.31	0.34	0.37	0.40
AA/AN/AAC/ANC/AFA	1	0.77	0.89	0.99	1.11	1.22	1.32	0.57	0.64	0.71	0.78	0.84	0.90	0.35	0.39	0.44	0.48	0.52	0.55
AA/AN/AAC/ANC/AFA	1-1/2	1.13	1.30	1.46	1.63	1.79	1.93	0.85	0.95	1.06	1.16	1.26	1.34	0.52	0.58	0.65	0.71	0.77	0.82
AA/AN/AAC/ANC/AFA	2	1.59	1.84	2.05	2.29	2.51	2.72	1.19	1.33	1.49	1.63	1.76	1.88	0.73	0.82	0.91	1.00	1.08	1.15
AA/AN/AAC/ANC/AFA	2-1/2	1.95	2.25	2.52	2.81	3.08	3.33	1.45	1.62	1.81	1.99	2.14	2.29	0.89	1.00	1.11	1.22	1.32	1.41
AA/AN/AAC/ANC	3	2.31	2.67	2.98	3.33	3.65	3.95	1.72	1.92	2.15	2.36	2.54	2.72	1.06	1.19	1.33	1.45	1.57	1.68
AA/AN/AAC/ANC/AFA	4	3.16	3.65	4.08	4.56	5.00	5.40	2.36	2.64	2.95	3.23	3.49	3.73	1.45	1.62	1.81	1.99	2.14	2.29
TCLE	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.22	0.25	0.28	0.30	0.33	0.35	0.13	0.15	0.16	0.18	0.19	0.21
TCLE	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
TCLE	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.82	0.92	1.03	1.12	1.21	1.30	0.50	0.56	0.63	0.68	0.74	0.79
TCLE	2-1/2	2.02	2.33	2.61	2.92	3.19	3.45	1.51	1.69	1.89	2.07	2.23	2.39	0.93	1.04	1.16	1.27	1.38	1.47
TCLE	3-1/2	2.95	3.41	3.81	4.26	4.66	5.04	2.20	2.46	2.75	3.01	3.25	3.48	1.35	1.51	1.69	1.85	2.00	2.13
TCLE	5-1/2	4.28	4.94	5.53	6.18	6.77	7.31	3.19	3.57	3.99	4.37	4.72	5.04	1.96	2.19	2.45	2.68	2.90	3.10
TCLE	7-1/2	5.90	6.81	7.62	8.52	9.33	10.08	4.40	4.92	5.50	6.02	6.51	6.96	2.70	3.02	3.38	3.70	3.99	4.27
TCLE	9	7.11	8.21	9.18	10.26	11.24	12.14	5.30	5.93	6.63	7.26	7.84	8.38	3.26	3.64	4.08	4.46	4.82	5.15
TJL	9	6.30	7.27	8.13	9.09	9.96	10.76	4.70	5.25	5.88	6.44	6.95	7.43	2.89	3.23	3.61	3.96	4.27	4.57
TJL	11	8.03	9.27	10.37	11.59	12.70	13.71	5.99	6.70	7.49	8.20	8.86	9.47	3.68	4.11	4.60	5.04	5.44	5.82

R-404A/R-507 CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TL SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/8	0.11	0.13	0.14	0.16	0.17	0.19	0.11	0.13	0.14	0.16	0.17	0.19	0.10	0.12	0.13	0.14	0.16	0.17
AA/AN/AAC/ANC	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.19	0.22	0.25	0.27	0.30	0.32	0.18	0.21	0.23	0.26	0.28	0.31
AA/AN/AAC/ANC/AFA	1/2	0.33	0.38	0.43	0.48	0.52	0.56	0.33	0.38	0.43	0.48	0.52	0.56	0.31	0.36	0.40	0.45	0.49	0.53
AA/AN/AAC/ANC/AFA	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.52	0.60	0.67	0.75	0.82	0.89	0.50	0.58	0.65	0.72	0.79	0.85
AA/AN/AAC/ANC/AFA	1	0.77	0.89	0.99	1.11	1.22	1.32	0.75	0.87	0.97	1.08	1.19	1.28	0.71	0.82	0.92	1.02	1.12	1.21
AA/AN/AAC/ANC/AFA	1-1/4	1.13	1.30	1.46	1.63	1.79	1.93	1.10	1.27	1.42	1.59	1.74	1.88	1.05	1.21	1.36	1.52	1.66	1.79
AA/AN/AAC/ANC/AFA	2	1.58	1.82	2.04	2.28	2.50	2.70	1.55	1.79	2.00	2.24	2.45	2.65	1.47	1.70	1.90	2.12	2.32	2.51
AA/AN/AAC/ANC/AFA	2-1/4	1.94	2.24	2.50	2.80	3.07	3.31	1.89	2.18	2.44	2.73	2.99	3.23	1.80	2.08	2.32	2.60	2.85	3.07
AA/AN/AAC/ANC	2-1/2	2.30	2.66	2.97	3.32	3.64	3.93	2.25	2.60	2.90	3.25	3.56	3.84	2.14	2.47	2.76	3.09	3.38	3.65
AA/AN/AAC/ANC/AFA	3-1/2	3.15	3.64	4.07	4.55	4.98	5.38	3.08	3.56	3.98	4.45	4.87	5.26	2.92	3.37	3.77	4.21	4.62	4.99
TCLE	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48	0.27	0.31	0.35	0.39	0.43	0.46
TCLE	1/2	0.54	0.62	0.70	0.78	0.85	0.92	0.53	0.61	0.68	0.76	0.84	0.91	0.50	0.58	0.65	0.72	0.79	0.85
TCLE	1	1.09	1.26	1.41	1.57	1.72	1.86	1.07	1.24	1.38	1.54	1.69	1.83	1.01	1.17	1.30	1.46	1.60	1.72
TCLE	2	2.01	2.32	2.59	2.90	3.18	3.43	1.97	2.27	2.54	2.84	3.11	3.36	1.87	2.16	2.41	2.70	2.96	3.19
TCLE	3	2.94	3.39	3.80	4.24	4.65	5.02	2.87	3.31	3.71	4.14	4.54	4.90	2.72	3.14	3.51	3.93	4.30	4.65
TCLE	4-1/2	4.26	4.92	5.50	6.15	6.74	7.28	4.16	4.80	5.37	6.00	6.58	7.10	3.95	4.56	5.10	5.70	6.25	6.75
TCLE	7	5.87	6.78	7.58	8.47	9.28	10.02	5.73	6.62	7.40	8.27	9.06	9.79	5.45	6.29	7.04	7.87	8.62	9.31
TCLE	8	7.08	8.18	9.14	10.22	11.19	12.09	6.91	7.98	8.92	9.97	10.93	11.80	6.57	7.59	8.48	9.48	10.39	11.22
TIL	7	6.27	7.24	8.09	9.05	9.91	10.71	6.13	7.08	7.91	8.85	9.69	10.47	5.82	6.72	7.51	8.40	9.20	9.94
TIL	9	8.00	9.24	10.33	11.55	12.65	13.66	7.81	9.02	10.08	11.27	12.35	13.34	7.42	8.57	9.58	10.71	11.73	12.67

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/8	0.09	0.10	0.12	0.13	0.14	0.15	0.07	0.08	0.09	0.10	0.10	0.11	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.16	0.18	0.21	0.23	0.25	0.27	0.12	0.13	0.15	0.16	0.18	0.19	0.08	0.09	0.10	0.11	0.12	0.13
AA/AN/AAC/ANC/AFA	1/2	0.28	0.32	0.36	0.40	0.44	0.48	0.22	0.25	0.28	0.30	0.33	0.35	0.14	0.16	0.18	0.19	0.21	0.22
AA/AN/AAC/ANC/AFA	3/4	0.44	0.51	0.57	0.64	0.70	0.75	0.35	0.39	0.44	0.48	0.52	0.55	0.23	0.26	0.29	0.31	0.34	0.36
AA/AN/AAC/ANC/AFA	1	0.63	0.73	0.81	0.91	1.00	1.08	0.50	0.56	0.63	0.68	0.74	0.79	0.32	0.36	0.40	0.44	0.47	0.51
AA/AN/AAC/ANC/AFA	1-1/4	0.93	1.07	1.20	1.34	1.47	1.59	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
AA/AN/AAC/ANC/AFA	2	1.31	1.51	1.69	1.89	2.07	2.24	1.03	1.15	1.29	1.41	1.52	1.63	0.67	0.75	0.84	0.92	0.99	1.06
AA/AN/AAC/ANC/AFA	2-1/4	1.61	1.86	2.08	2.32	2.55	2.75	1.26	1.41	1.58	1.73	1.86	1.99	0.82	0.92	1.03	1.12	1.21	1.30
AA/AN/AAC/ANC	2-1/2	1.91	2.21	2.47	2.76	3.02	3.26	1.50	1.68	1.88	2.05	2.22	2.37	0.98	1.10	1.23	1.34	1.45	1.55
AA/AN/AAC/ANC/AFA	3-1/2	2.61	3.01	3.37	3.77	4.13	4.46	2.04	2.28	2.55	2.79	3.02	3.23	1.34	1.50	1.68	1.83	1.98	2.12
TCLE	1/4	0.24	0.28	0.31	0.35	0.38	0.41	0.19	0.21	0.24	0.26	0.28	0.30	0.12	0.13	0.15	0.16	0.18	0.19
TCLE	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.35	0.39	0.44	0.48	0.52	0.55	0.23	0.26	0.29	0.31	0.34	0.36
TCLE	1	0.91	1.05	1.17	1.31	1.44	1.55	0.71	0.79	0.89	0.97	1.05	1.12	0.46	0.51	0.58	0.63	0.68	0.73
TCLE	2	1.67	1.93	2.16	2.41	2.64	2.85	1.31	1.46	1.64	1.79	1.94	2.07	0.86	0.96	1.08	1.18	1.27	1.36
TCLE	3	2.43	2.81	3.14	3.51	3.84	4.15	1.91	2.14	2.39	2.62	2.82	3.02	1.25	1.40	1.56	1.71	1.85	1.98
TCLE	4-1/2	3.53	4.08	4.56	5.10	5.58	6.03	2.77	3.10	3.46	3.79	4.10	4.38	1.81	2.02	2.26	2.48	2.68	2.86
TCLE	7	4.86	5.61	6.27	7.01	7.68	8.30	3.81	4.26	4.76	5.22	5.64	6.02	2.49	2.78	3.11	3.41	3.68	3.94
TCLE	8	5.86	6.77	7.57	8.46	9.27	10.01	4.60	5.14	5.75	6.30	6.80	7.27	3.01	3.37	3.76	4.12	4.45	4.76
TIL	7	5.19	5.99	6.70	7.49	8.21	8.86	4.07	4.55	5.09	5.57	6.02	6.44	2.66	2.97	3.33	3.64	3.93	4.21
TIL	9	6.62	7.64	8.55	9.56	10.47	11.31	5.20	5.81	6.50	7.12	7.69	8.22	3.40	3.80	4.25	4.66	5.03	5.38

R-407C CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TI SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/5	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24
AA/AN/AAC/ANC	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
AA/AN/AAC/ANC/AFA	1/2	0.44	0.51	0.57	0.64	0.70	0.75	0.43	0.50	0.56	0.62	0.68	0.73	0.41	0.47	0.53	0.59	0.65	0.70
AA/AN/AAC/ANC/AFA	1	0.70	0.81	0.90	1.01	1.11	1.20	0.69	0.80	0.89	1.00	1.09	1.18	0.66	0.76	0.85	0.95	1.04	1.13
AA/AN/AAC/ANC/AFA	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.95	1.10	1.23	1.37	1.50	1.62
AA/AN/AAC/ANC/AFA	2	1.48	1.71	1.91	2.14	2.34	2.53	1.45	1.67	1.87	2.09	2.29	2.48	1.39	1.61	1.79	2.01	2.20	2.37
AA/AN/AAC/ANC/AFA	2-1/2	2.07	2.39	2.67	2.99	3.27	3.54	2.04	2.36	2.63	2.94	3.23	3.48	1.95	2.25	2.52	2.81	3.08	3.33
AA/AN/AAC/ANC/AFA	3-1/4	2.54	2.93	3.28	3.67	4.02	4.34	2.49	2.88	3.21	3.59	3.94	4.25	2.39	2.76	3.09	3.45	3.78	4.08
AA/AN/AAC/ANC	4	3.02	3.49	3.90	4.36	4.78	5.16	2.96	3.42	3.82	4.27	4.68	5.06	2.84	3.28	3.67	4.10	4.49	4.85
AA/AN/AAC/ANC/AFA	5-1/4	4.12	4.76	5.32	5.95	6.51	7.04	4.05	4.68	5.23	5.85	6.40	6.92	3.89	4.49	5.02	5.61	6.15	6.64
TCLE	1/2	0.38	0.44	0.49	0.55	0.60	0.65	0.37	0.43	0.48	0.53	0.59	0.63	0.36	0.42	0.46	0.52	0.57	0.61
TCLE	1	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
TCLE	2	1.43	1.65	1.85	2.06	2.26	2.44	1.41	1.63	1.82	2.04	2.23	2.41	1.35	1.56	1.74	1.95	2.13	2.31
TCLE	3	2.64	3.05	3.41	3.81	4.17	4.51	2.59	2.99	3.34	3.74	4.10	4.42	2.49	2.88	3.21	3.59	3.94	4.25
TCLE	5	3.85	4.45	4.97	5.56	6.09	6.58	3.77	4.35	4.87	5.44	5.96	6.44	3.62	4.18	4.67	5.23	5.72	6.18
TCLE	7-1/2	5.58	6.44	7.20	8.05	8.82	9.53	5.48	6.33	7.07	7.91	8.66	9.36	5.26	6.07	6.79	7.59	8.32	8.98
TCLE	10	7.69	8.88	9.93	11.10	12.16	13.13	7.55	8.72	9.75	10.90	11.94	12.89	7.25	8.37	9.36	10.46	11.46	12.38
TCLE	12	9.27	10.70	11.97	13.38	14.66	15.83	9.10	10.51	11.75	13.13	14.39	15.54	8.74	10.09	11.28	12.62	13.82	14.93
TJL	11	8.22	9.49	10.61	11.86	13.00	14.04	8.07	9.32	10.42	11.65	12.76	13.78	7.75	8.95	10.01	11.19	12.25	13.24
TJL	14	10.48	12.10	13.53	15.13	16.57	17.90	10.29	11.88	13.28	14.85	16.27	17.57	9.88	11.41	12.76	14.26	15.62	16.87

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F					-20°F					-40°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/5	0.11	0.13	0.14	0.16	0.17	0.19	0.09	0.10	0.11	0.12	0.13	0.14	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.20	0.23	0.26	0.29	0.32	0.34	0.15	0.17	0.19	0.21	0.22	0.24	0.09	0.10	0.11	0.12	0.13	0.14
AA/AN/AAC/ANC/AFA	1/2	0.35	0.40	0.45	0.51	0.55	0.60	0.26	0.29	0.33	0.36	0.38	0.41	0.17	0.19	0.21	0.23	0.25	0.27
AA/AN/AAC/ANC/AFA	1	0.56	0.65	0.72	0.81	0.89	0.96	0.42	0.47	0.53	0.58	0.62	0.66	0.27	0.30	0.34	0.37	0.40	0.43
AA/AN/AAC/ANC/AFA	1-1/4	0.80	0.92	1.03	1.15	1.26	1.37	0.61	0.68	0.76	0.84	0.90	0.96	0.38	0.42	0.48	0.52	0.56	0.60
AA/AN/AAC/ANC/AFA	2	1.18	1.36	1.52	1.70	1.87	2.02	0.90	1.01	1.13	1.23	1.33	1.42	0.56	0.63	0.70	0.77	0.83	0.89
AA/AN/AAC/ANC/AFA	2-1/2	1.65	1.91	2.13	2.38	2.61	2.82	1.26	1.41	1.58	1.73	1.86	1.99	0.79	0.88	0.99	1.08	1.17	1.25
AA/AN/AAC/ANC/AFA	3-1/4	2.02	2.33	2.61	2.92	3.19	3.45	1.54	1.72	1.93	2.11	2.28	2.43	0.97	1.08	1.21	1.33	1.43	1.53
AA/AN/AAC/ANC	4	2.40	2.77	3.10	3.46	3.79	4.10	1.83	2.05	2.29	2.51	2.71	2.89	1.15	1.29	1.44	1.57	1.70	1.82
AA/AN/AAC/ANC/AFA	5-1/4	3.28	3.79	4.23	4.73	5.19	5.60	2.50	2.80	3.13	3.42	3.70	3.95	1.57	1.76	1.96	2.15	2.32	2.48
TCLE	1/2	0.30	0.35	0.39	0.43	0.47	0.51	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
TCLE	1	0.56	0.65	0.72	0.81	0.89	0.96	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
TCLE	2	1.14	1.32	1.47	1.65	1.80	1.95	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
TCLE	3	2.10	2.42	2.71	3.03	3.32	3.59	1.60	1.79	2.00	2.19	2.37	2.53	1.01	1.13	1.26	1.38	1.49	1.60
TCLE	5	3.06	3.53	3.95	4.42	4.84	5.23	2.33	2.61	2.91	3.19	3.45	3.68	1.47	1.64	1.84	2.01	2.17	2.32
TCLE	7-1/2	4.44	5.13	5.73	6.41	7.02	7.58	3.38	3.78	4.23	4.63	5.00	5.34	2.13	2.38	2.66	2.92	3.15	3.37
TCLE	10	6.12	7.07	7.90	8.83	9.68	10.45	4.66	5.21	5.83	6.38	6.89	7.37	2.93	3.28	3.66	4.01	4.33	4.63
TCLE	12	7.38	8.52	9.53	10.65	11.67	12.60	5.62	6.28	7.03	7.70	8.31	8.89	3.54	3.96	4.43	4.85	5.24	5.60
TJL	11	6.54	7.55	8.44	9.44	10.34	11.17	4.98	5.57	6.23	6.82	7.37	7.87	3.13	3.50	3.91	4.29	4.63	4.95
TJL	14	8.34	9.63	10.77	12.04	13.19	14.24	6.35	7.10	7.94	8.70	9.39	10.04	4.00	4.47	5.00	5.48	5.92	6.32

EXTENDED CAPACITY TABLES

R-410A CONVENTIONAL VALVES (TONS)—A SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		110	140	160	210	245	285	110	140	160	210	245	285	110	140	160	210	245	285
AA/AN/AAC/ANC	1/4	0.34	0.38	0.41	0.47	0.51	0.55	0.34	0.38	0.41	0.47	0.51	0.55	0.33	0.37	0.40	0.46	0.49	0.53
AA/AN/AAC/ANC/AFA	1/2	0.60	0.68	0.72	0.83	0.90	0.97	0.59	0.67	0.71	0.82	0.88	0.95	0.58	0.65	0.70	0.80	0.87	0.93
AA/AN/AAC/ANC/AFA	1	0.96	1.08	1.16	1.33	1.43	1.55	0.95	1.07	1.15	1.31	1.42	1.53	0.93	1.05	1.12	1.28	1.39	1.50
AA/AN/AAC/ANC/AFA	1-1/2	1.38	1.56	1.66	1.91	2.06	2.22	1.36	1.53	1.64	1.88	2.03	2.19	1.33	1.50	1.60	1.84	1.98	2.14
AA/AN/AAC/ANC/AFA	2	2.03	2.29	2.45	2.80	3.03	3.27	2.01	2.27	2.42	2.78	3.00	3.24	1.96	2.21	2.36	2.71	2.93	3.15
AA/AN/AAC/ANC/AFA	3	2.85	3.22	3.44	3.94	4.25	4.59	2.82	3.18	3.40	3.90	4.21	4.54	2.74	3.09	3.30	3.79	4.09	4.41
AA/AN/AAC/ANC/AFA	4	3.49	3.94	4.21	4.82	5.21	5.62	3.45	3.89	4.16	4.77	5.15	5.55	3.36	3.79	4.05	4.64	5.01	5.41
AA/AN/AAC/ANC	5	4.14	4.67	4.99	5.72	6.18	6.66	4.10	4.63	4.94	5.66	6.12	6.60	3.99	4.50	4.81	5.51	5.95	6.42

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		140	160	210	245	285	330	140	160	210	245	285	330	140	160	210	245	285	330
AA/AN/AAC/ANC	1/4	0.34	0.36	0.42	0.45	0.49	0.52	0.24	0.26	0.29	0.32	0.34	0.37	0.16	0.17	0.20	0.21	0.23	0.25
AA/AN/AAC/ANC/AFA	1/2	0.60	0.64	0.73	0.79	0.86	0.92	0.41	0.44	0.50	0.54	0.58	0.63	0.27	0.29	0.33	0.36	0.39	0.41
AA/AN/AAC/ANC/AFA	1	0.95	1.02	1.16	1.26	1.36	1.46	0.66	0.71	0.81	0.87	0.94	1.01	0.44	0.47	0.54	0.58	0.63	0.68
AA/AN/AAC/ANC/AFA	1-1/2	1.36	1.45	1.67	1.80	1.94	2.09	0.95	1.02	1.16	1.26	1.36	1.46	0.63	0.67	0.77	0.83	0.90	0.97
AA/AN/AAC/ANC/AFA	2	2.01	2.15	2.46	2.66	2.87	3.09	1.40	1.50	1.71	1.85	2.00	2.15	0.93	0.99	1.14	1.23	1.33	1.43
AA/AN/AAC/ANC/AFA	3	2.82	3.01	3.45	3.73	4.02	4.33	1.96	2.10	2.40	2.59	2.80	3.01	1.30	1.39	1.59	1.72	1.85	2.00
AA/AN/AAC/ANC/AFA	4	3.46	3.70	4.24	4.58	4.94	5.31	2.40	2.57	2.94	3.17	3.42	3.68	1.60	1.71	1.96	2.12	2.28	2.46
AA/AN/AAC/ANC	5	4.10	4.38	5.02	5.42	5.85	6.29	2.85	3.05	3.49	3.77	4.07	4.38	1.89	2.02	2.31	2.50	2.70	2.90

R-502 CONVENTIONAL VALVES (TONS)—A SERIES, T SERIES & TI SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
AA/AN/AAC/ANC	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
AA/AN/AAC/ANC/AFA	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48
AA/AN/AAC/ANC/AFA	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.47	0.54	0.61	0.68	0.74	0.80	0.45	0.52	0.58	0.65	0.71	0.77
AA/AN/AAC/ANC/AFA	1	0.68	0.79	0.88	0.98	1.08	1.16	0.67	0.77	0.86	0.97	1.06	1.14	0.64	0.74	0.83	0.92	1.01	1.09
AA/AN/AAC/ANC/AFA	1-1/2	1.41	1.63	1.82	2.04	2.23	2.41	1.38	1.59	1.78	1.99	2.18	2.36	1.32	1.52	1.70	1.91	2.09	2.25
AA/AN/AAC/ANC/AFA	2	1.73	2.00	2.23	2.50	2.74	2.95	1.69	1.95	2.18	2.44	2.67	2.89	1.62	1.87	2.09	2.34	2.56	2.77
AA/AN/AAC/ANC	2-1/2	2.05	2.37	2.65	2.96	3.24	3.50	2.01	2.32	2.59	2.90	3.18	3.43	1.92	2.22	2.48	2.77	3.04	3.28
AA/AN/AAC/ANC/AFA	3	2.81	3.24	3.63	4.06	4.44	4.80	2.75	3.18	3.55	3.97	4.35	4.70	2.62	3.03	3.38	3.78	4.14	4.47
TCLE	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41
TCLE	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.47	0.54	0.61	0.68	0.74	0.80	0.45	0.52	0.58	0.65	0.71	0.77
TCLE	1	0.97	1.12	1.25	1.40	1.53	1.66	0.95	1.10	1.23	1.37	1.50	1.62	0.91	1.05	1.17	1.31	1.44	1.55
TCLE	2	1.80	2.08	2.32	2.60	2.85	3.07	1.76	2.03	2.27	2.54	2.78	3.01	1.68	1.94	2.17	2.42	2.66	2.87
TCLE	3	2.62	3.03	3.38	3.78	4.14	4.47	2.56	2.96	3.30	3.70	4.05	4.37	2.44	2.82	3.15	3.52	3.86	4.17
TCLE	4-1/2	3.80	4.39	4.91	5.48	6.01	6.49	3.72	4.30	4.80	5.37	5.88	6.35	3.55	4.10	4.58	5.12	5.61	6.06
TCLE	7	5.23	6.04	6.75	7.55	8.27	8.93	5.12	5.91	6.61	7.39	8.10	8.74	4.89	5.65	6.31	7.06	7.73	8.35
TCLE	8	6.31	7.29	8.15	9.11	9.98	10.78	6.18	7.14	7.98	8.92	9.77	10.55	5.90	6.81	7.62	8.52	9.33	10.08
TJL	7	5.59	6.45	7.22	8.07	8.84	9.55	5.47	6.32	7.06	7.90	8.65	9.34	5.22	6.03	6.74	7.53	8.25	8.91
TJL	9	7.13	8.23	9.20	10.29	11.27	12.18	6.98	8.06	9.01	10.07	11.04	11.92	6.66	7.69	8.60	9.61	10.53	11.37

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F					-20°F					-40°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
	60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200	
AA/AN/AAC/ANC	1/8	0.15	0.17	0.19	0.22	0.24	0.26	0.11	0.12	0.14	0.15	0.16	0.17	0.07	0.08	0.09	0.10	0.10	0.11
AA/AN/AAC/ANC/AFA	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
AA/AN/AAC/ANC/AFA	1/2	0.41	0.47	0.53	0.59	0.65	0.70	0.32	0.36	0.40	0.44	0.47	0.51	0.21	0.23	0.26	0.29	0.31	0.33
AA/AN/AAC/ANC/AFA	1	0.59	0.68	0.76	0.85	0.93	1.01	0.46	0.51	0.58	0.63	0.68	0.73	0.29	0.32	0.36	0.40	0.43	0.46
AA/AN/AAC/ANC/AFA	1-1/2	1.21	1.40	1.56	1.75	1.91	2.07	0.96	1.07	1.20	1.31	1.42	1.52	0.61	0.68	0.76	0.84	0.90	0.96
AA/AN/AAC/ANC/AFA	2	1.49	1.72	1.92	2.15	2.36	2.54	1.17	1.31	1.46	1.60	1.73	1.85	0.75	0.84	0.94	1.03	1.11	1.19
AA/AN/AAC/ANC	2-1/2	1.76	2.03	2.27	2.54	2.78	3.01	1.39	1.55	1.74	1.90	2.06	2.20	0.89	1.00	1.11	1.22	1.32	1.41
AA/AN/AAC/ANC/AFA	3	2.41	2.78	3.11	3.48	3.81	4.12	1.90	2.12	2.38	2.60	2.81	3.00	1.21	1.35	1.51	1.66	1.79	1.91
TCLE	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.17	0.19	0.21	0.23	0.25	0.27	0.11	0.12	0.14	0.15	0.16	0.17
TCLE	1/2	0.41	0.47	0.53	0.59	0.65	0.70	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
TCLE	1	0.84	0.97	1.08	1.21	1.33	1.43	0.66	0.74	0.83	0.90	0.98	1.04	0.42	0.47	0.53	0.58	0.62	0.66
TCLE	2	1.54	1.78	1.99	2.22	2.43	2.63	1.22	1.36	1.53	1.67	1.80	1.93	0.78	0.87	0.98	1.07	1.15	1.23
TCLE	3	2.25	2.60	2.90	3.25	3.56	3.84	1.78	1.99	2.23	2.44	2.63	2.81	1.13	1.26	1.41	1.55	1.67	1.79
TCLE	4-1/2	3.26	3.76	4.21	4.71	5.15	5.57	2.58	2.88	3.23	3.53	3.82	4.08	1.64	1.83	2.05	2.25	2.43	2.59
TCLE	7	4.50	5.20	5.81	6.50	7.12	7.69	3.55	3.97	4.44	4.86	5.25	5.61	2.26	2.53	2.83	3.09	3.34	3.57
TCLE	8	5.42	6.26	7.00	7.82	8.57	9.26	4.28	4.79	5.35	5.86	6.33	6.77	2.73	3.05	3.41	3.74	4.04	4.32
TJL	7	4.81	5.55	6.21	6.94	7.61	8.21	3.80	4.25	4.75	5.20	5.62	6.01	2.42	2.71	3.03	3.31	3.58	3.83
TJL	9	6.13	7.08	7.91	8.85	9.69	10.47	4.84	5.41	6.05	6.63	7.16	7.65	3.08	3.44	3.85	4.22	4.56	4.87

R-12 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
BA/BN	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
BA/BN	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.54	0.62	0.70	0.78	0.85	0.92
BA/BN	1	0.90	1.04	1.16	1.30	1.42	1.54	0.88	1.02	1.14	1.27	1.39	1.50	0.84	0.97	1.08	1.21	1.33	1.43
BA/BN	1-1/4	1.20	1.39	1.55	1.73	1.90	2.05	1.17	1.35	1.51	1.69	1.85	2.00	1.13	1.30	1.46	1.63	1.79	1.93
BA/BN	1-1/2	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
BA/BN	2	1.83	2.11	2.36	2.64	2.89	3.13	1.80	2.08	2.32	2.60	2.85	3.07	1.72	1.99	2.22	2.48	2.72	2.94
BA/BN	2-1/2	2.37	2.74	3.06	3.42	3.75	4.05	2.33	2.69	3.01	3.36	3.68	3.98	2.23	2.57	2.88	3.22	3.53	3.81
BA/BN	3	3.00	3.46	3.87	4.33	4.74	5.12	2.94	3.39	3.80	4.24	4.65	5.02	2.82	3.26	3.64	4.07	4.46	4.82
BA/BN	3-1/2	3.73	4.31	4.82	5.38	5.90	6.37	3.66	4.23	4.73	5.28	5.79	6.25	3.51	4.05	4.53	5.07	5.55	5.99
HF/HN	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
HF/HN	1/4	0.32	0.37	0.41	0.46	0.51	0.55	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51
HF/HN	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.54	0.62	0.70	0.78	0.85	0.92
HF/HN	1	0.88	1.02	1.14	1.27	1.39	1.50	0.86	0.99	1.11	1.24	1.36	1.47	0.82	0.95	1.06	1.18	1.30	1.40
HF/HN	1-1/4	1.18	1.36	1.52	1.70	1.87	2.02	1.16	1.34	1.50	1.67	1.83	1.98	1.11	1.28	1.43	1.60	1.76	1.90
HF/HN	1-1/2	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
HF/HN	2	2.00	2.31	2.58	2.89	3.16	3.42	1.96	2.26	2.53	2.83	3.10	3.35	1.88	2.17	2.43	2.71	2.97	3.21
HF/HN	3-1/2	3.55	4.10	4.58	5.12	5.61	6.06	3.48	4.02	4.49	5.02	5.50	5.94	3.34	3.86	4.31	4.82	5.28	5.70
HF/HN	5	4.94	5.70	6.38	7.13	7.81	8.44	4.85	5.60	6.26	7.00	7.67	8.28	4.65	5.37	6.00	6.71	7.35	7.94
HF/HN	6	6.26	7.23	8.08	9.04	9.90	10.69	6.13	7.08	7.91	8.85	9.69	10.47	5.88	6.79	7.59	8.49	9.30	10.04
HF/HN	9	9.28	10.72	11.98	13.39	14.67	15.85	9.10	10.51	11.75	13.13	14.39	15.54	8.73	10.08	11.27	12.60	13.80	14.91
HF/HN	12	12.22	14.11	15.78	17.64	19.32	20.87	11.98	13.83	15.47	17.29	18.94	20.46	11.49	13.27	14.83	16.58	18.17	19.62
TFE	6	4.85	5.60	6.26	7.00	7.67	8.28	4.76	5.50	6.15	6.87	7.53	8.13	4.56	5.27	5.89	6.58	7.21	7.79
TFE	8	6.64	7.67	8.57	9.58	10.50	11.34	6.51	7.52	8.40	9.40	10.29	11.12	6.25	7.22	8.07	9.02	9.88	10.67
TFE	10	8.25	9.53	10.65	11.91	13.04	14.09	8.09	9.34	10.44	11.68	12.79	13.82	7.75	8.95	10.01	11.19	12.25	13.24
TFE	16	12.59	14.54	16.25	18.17	19.91	21.50	12.34	14.25	15.93	17.81	19.51	21.07	11.84	13.67	15.29	17.09	18.72	20.22
TRAE+	7-1/2	7.14	8.24	9.22	10.31	11.29	12.19	7.00	8.08	9.04	10.10	11.07	11.95	6.71	7.75	8.66	9.69	10.61	11.46
TRAE+	10	10.41	12.02	13.44	15.03	16.46	17.78	10.20	11.78	13.17	14.72	16.13	17.42	9.78	11.29	12.63	14.12	15.46	16.70
TRAE+	12	11.62	13.42	15.00	16.77	18.37	19.84	11.39	13.15	14.70	16.44	18.01	19.45	10.92	12.61	14.10	15.76	17.27	18.65
TRAE+	18	17.61	20.33	22.73	25.42	27.84	30.07	17.26	19.93	22.28	24.91	27.29	29.48	16.55	19.11	21.37	23.89	26.17	28.26
TRAE+	25	24.20	27.94	31.24	34.93	38.26	41.33	23.73	27.40	30.64	34.25	37.52	40.53	22.75	26.27	29.37	32.84	35.97	38.85
TRAE	30	32.67	37.72	42.18	47.16	51.66	55.79	32.03	36.99	41.35	46.23	50.64	54.70	30.72	35.47	39.66	44.34	48.57	52.46
TRAE	35	35.64	41.15	46.01	51.44	56.35	60.87	34.94	40.35	45.11	50.43	55.24	59.67	33.51	38.69	43.26	48.37	52.98	57.23
TRAE	40	42.41	48.97	54.75	61.21	67.06	72.43	41.58	48.01	53.68	60.02	65.74	71.01	39.88	46.05	51.48	57.56	63.06	68.11
TR	8	8.89	10.27	11.48	12.83	14.06	15.18	8.72	10.07	11.26	12.59	13.79	14.89	8.36	9.65	10.79	12.07	13.22	14.28
TR	11	10.65	12.30	13.75	15.37	16.84	18.19	10.44	12.06	13.48	15.07	16.51	17.83	10.01	11.56	12.92	14.45	15.83	17.10
TER	13	13.31	15.37	17.18	19.21	21.04	22.73	13.05	15.07	16.85	18.84	20.63	22.29	12.51	14.45	16.15	18.06	19.78	21.36
TER	15	15.73	18.16	20.31	22.70	24.87	26.86	15.42	17.81	19.91	22.26	24.38	26.33	14.79	17.08	19.09	21.35	23.39	25.26
TER	20	21.18	24.46	27.34	30.57	33.49	36.17	20.76	23.97	26.80	29.96	32.82	35.45	19.91	22.99	25.70	28.74	31.48	34.00
TER	25	27.23	31.44	35.15	39.30	43.05	46.50	26.69	30.82	34.46	38.52	42.20	45.58	25.60	29.56	33.05	36.95	40.48	43.72
TIR	35	31.29	36.13	40.40	45.16	49.47	53.44	23.63	27.29	30.51	34.11	37.36	40.36	31.29	36.13	40.40	45.16	49.47	53.44
THR	45	42.35	48.90	54.67	61.13	66.96	72.33	41.52	47.94	53.60	59.93	65.65	70.91	39.82	45.98	51.41	57.48	62.96	68.01
THR	55	51.43	59.39	66.40	74.23	81.32	87.83	50.42	58.22	65.09	72.78	79.72	86.11	48.35	55.83	62.42	69.79	76.45	82.57
TMR	55	60.50	69.86	78.11	87.32	95.66	103.32	59.32	68.50	76.58	85.62	93.79	101.31	56.89	65.69	73.44	82.11	89.95	97.16

R-12 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
BA/BN	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.38	0.42	0.48	0.52	0.56	0.60	0.24	0.27	0.30	0.33	0.35	0.38
BA/BN	1	0.75	0.87	0.97	1.08	1.19	1.28	0.58	0.65	0.73	0.79	0.86	0.92	0.38	0.42	0.48	0.52	0.56	0.60
BA/BN	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.78	0.87	0.98	1.07	1.15	1.23	0.51	0.57	0.64	0.70	0.75	0.81
BA/BN	1-1/2	1.26	1.45	1.63	1.82	1.99	2.15	0.99	1.11	1.24	1.36	1.46	1.57	0.64	0.72	0.80	0.88	0.95	1.01
BA/BN	2	1.53	1.77	1.98	2.21	2.42	2.61	1.20	1.34	1.50	1.64	1.77	1.90	0.78	0.87	0.98	1.07	1.15	1.23
BA/BN	2-1/2	1.98	2.29	2.56	2.86	3.13	3.38	1.55	1.73	1.94	2.12	2.29	2.45	1.01	1.13	1.26	1.38	1.49	1.60
BA/BN	3	2.50	2.89	3.23	3.61	3.95	4.27	1.96	2.19	2.45	2.68	2.90	3.10	1.27	1.42	1.59	1.74	1.88	2.01
BA/BN	3-1/2	3.11	3.59	4.01	4.49	4.92	5.31	2.44	2.73	3.05	3.34	3.61	3.86	1.58	1.77	1.98	2.16	2.34	2.50
HF/HN	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.11	0.12	0.14	0.15	0.16	0.17	0.07	0.08	0.09	0.10	0.10	0.11
HF/HN	1/4	0.27	0.31	0.35	0.39	0.43	0.46	0.21	0.23	0.26	0.29	0.31	0.33	0.14	0.16	0.18	0.19	0.21	0.22
HF/HN	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.38	0.42	0.48	0.52	0.56	0.60	0.24	0.27	0.30	0.33	0.35	0.38
HF/HN	1	0.73	0.84	0.94	1.05	1.15	1.25	0.57	0.64	0.71	0.78	0.84	0.90	0.37	0.41	0.46	0.51	0.55	0.59
HF/HN	1-1/4	0.98	1.13	1.27	1.41	1.55	1.67	0.77	0.86	0.96	1.05	1.14	1.22	0.50	0.56	0.63	0.68	0.74	0.79
HF/HN	1-1/2	1.26	1.45	1.63	1.82	1.99	2.15	0.99	1.11	1.24	1.36	1.46	1.57	0.64	0.72	0.80	0.88	0.95	1.01
HF/HN	2	1.66	1.92	2.14	2.40	2.62	2.83	1.30	1.45	1.63	1.78	1.92	2.06	0.85	0.95	1.06	1.16	1.26	1.34
HF/HN	3-1/2	2.96	3.42	3.82	4.27	4.68	5.06	2.32	2.59	2.90	3.18	3.43	3.67	1.51	1.69	1.89	2.07	2.23	2.39
HF/HN	5	4.12	4.76	5.32	5.95	6.51	7.04	3.23	3.61	4.04	4.42	4.78	5.11	2.10	2.35	2.63	2.88	3.11	3.32
HF/HN	6	5.21	6.02	6.73	7.52	8.24	8.90	4.08	4.56	5.10	5.59	6.03	6.45	2.66	2.97	3.33	3.64	3.93	4.21
HF/HN	9	7.73	8.93	9.98	11.16	12.22	13.20	6.06	6.78	7.58	8.30	8.96	9.58	3.94	4.41	4.93	5.40	5.83	6.23
HF/HN	12	10.17	11.74	13.13	14.68	16.08	17.37	7.97	8.91	9.96	10.91	11.79	12.60	5.18	5.79	6.48	7.09	7.66	8.19
TFE	6	4.04	4.66	5.22	5.83	6.39	6.90	3.17	3.54	3.96	4.34	4.69	5.01	2.06	2.30	2.58	2.82	3.05	3.26
TFE	8	5.53	6.39	7.14	7.98	8.74	9.44	4.34	4.85	5.43	5.94	6.42	6.86	2.82	3.15	3.53	3.86	4.17	4.46
TFE	10	6.87	7.93	8.87	9.92	10.86	11.73	5.38	6.02	6.73	7.37	7.96	8.51	3.50	3.91	4.38	4.79	5.18	5.53
TFE	16	10.49	12.11	13.54	15.14	16.59	17.92	8.22	9.19	10.28	11.26	12.16	13.00	5.34	5.97	6.68	7.31	7.90	8.44
TRAE+	7-1/2	5.95	6.87	7.68	8.59	9.41	10.16	4.66	5.21	5.83	6.38	6.89	7.37	3.03	3.39	3.79	4.15	4.48	4.79
TRAE+	10	8.67	10.01	11.19	12.51	13.71	14.81	6.79	7.59	8.49	9.30	10.04	10.74	4.42	4.94	5.53	6.05	6.54	6.99
TRAE+	12	9.67	11.17	12.48	13.96	15.29	16.51	7.58	8.47	9.48	10.38	11.21	11.99	4.93	5.51	6.16	6.75	7.29	7.80
TRAE+	18	14.66	16.93	18.93	21.16	23.18	25.04	11.49	12.85	14.36	15.73	16.99	18.17	7.47	8.35	9.34	10.23	11.05	11.81
TRAE+	25	20.15	23.27	26.01	29.08	31.86	34.41	15.80	17.66	19.75	21.64	23.37	24.98	10.27	11.48	12.84	14.06	15.19	16.24
TRAE	30	27.21	31.42	35.13	39.27	43.02	46.47	21.33	23.85	26.66	29.21	31.55	33.73	13.87	15.51	17.34	18.99	20.51	21.93
TRAE	35	29.68	34.27	38.32	42.84	46.93	50.69	23.26	26.01	29.08	31.85	34.40	36.78	15.13	16.92	18.91	20.72	22.38	23.92
TRAE	40	35.32	40.78	45.60	50.98	55.85	60.32	27.68	30.95	34.60	37.90	40.94	43.77	18.00	20.12	22.50	24.65	26.62	28.46
TR	8	7.41	8.56	9.57	10.70	11.72	12.65	5.81	6.50	7.26	7.96	8.59	9.19	3.77	4.21	4.71	5.16	5.58	5.96
TR	11	8.87	10.24	11.45	12.80	14.02	15.15	6.95	7.77	8.69	9.52	10.28	10.99	4.52	5.05	5.65	6.19	6.69	7.15
TER	13	11.08	12.79	14.30	15.99	17.52	18.92	8.69	9.72	10.86	11.90	12.85	13.74	5.65	6.32	7.06	7.74	8.36	8.93
TER	15	13.10	15.13	16.91	18.91	20.71	22.37	10.27	11.48	12.84	14.06	15.19	16.24	6.68	7.47	8.35	9.15	9.88	10.56
TER	20	17.64	20.37	22.77	25.46	27.89	30.13	13.82	15.45	17.28	18.92	20.44	21.85	8.99	10.05	11.24	12.31	13.30	14.21
TER	25	22.67	26.18	29.27	32.72	35.84	38.72	17.77	19.87	22.21	24.33	26.28	28.10	11.56	12.92	14.45	15.83	17.10	18.28
TIR	35	27.71	32.00	35.77	40.00	43.81	47.32	21.72	24.28	27.15	29.74	32.12	34.34	14.12	15.79	17.65	19.33	20.88	22.33
THR	45	35.27	40.73	45.53	50.91	55.77	60.23	27.64	30.90	34.55	37.85	40.88	43.70	17.98	20.10	22.48	24.62	26.59	28.43
THR	55	42.83	49.46	55.29	61.82	67.72	73.15	33.57	37.53	41.96	45.97	49.65	53.08	21.83	24.41	27.29	29.89	32.29	34.52
TMR	55	50.39	58.19	65.05	72.73	79.67	86.06	39.49	44.15	49.36	54.07	58.41	62.44	25.68	28.71	32.10	35.16	37.98	40.60

R-22 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/2	0.39	0.45	0.50	0.56	0.62	0.67	0.39	0.45	0.50	0.56	0.61	0.66	0.38	0.44	0.49	0.55	0.60	0.65
BA/BN	1	0.75	0.87	0.97	1.08	1.19	1.28	0.74	0.85	0.95	1.06	1.16	1.26	0.72	0.83	0.93	1.04	1.14	1.23
BA/BN	1-1/2	1.16	1.34	1.50	1.67	1.83	1.98	1.15	1.32	1.48	1.65	1.81	1.96	1.12	1.29	1.45	1.62	1.77	1.91
BA/BN	2	1.56	1.80	2.01	2.25	2.47	2.66	1.53	1.77	1.98	2.21	2.42	2.62	1.50	1.73	1.94	2.17	2.37	2.56
BA/BN	2-1/2	1.96	2.26	2.53	2.83	3.10	3.35	1.94	2.24	2.50	2.80	3.06	3.31	1.89	2.18	2.44	2.73	2.99	3.23
BA/BN	3	2.38	2.75	3.07	3.44	3.76	4.06	2.35	2.71	3.03	3.39	3.71	4.01	2.29	2.64	2.96	3.31	3.62	3.91
BA/BN	4	3.08	3.56	3.98	4.45	4.87	5.26	3.04	3.51	3.92	4.38	4.80	5.19	2.97	3.43	3.83	4.29	4.70	5.07
BA/BN	5	3.90	4.50	5.03	5.63	6.17	6.66	3.85	4.45	4.97	5.56	6.09	6.57	3.75	4.33	4.84	5.41	5.93	6.40
BA/BN	6	4.85	5.60	6.26	7.00	7.67	8.28	4.78	5.52	6.17	6.90	7.56	8.16	4.67	5.39	6.03	6.74	7.38	7.98
HF/HN	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.22	0.25	0.28	0.31	0.34	0.37	0.21	0.24	0.27	0.30	0.33	0.36
HF/HN	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.41	0.47	0.53	0.59	0.65	0.70	0.40	0.46	0.52	0.58	0.63	0.68
HF/HN	1	0.75	0.87	0.97	1.08	1.19	1.28	0.74	0.85	0.95	1.06	1.16	1.26	0.72	0.83	0.93	1.04	1.14	1.23
HF/HN	1-1/2	1.14	1.32	1.47	1.65	1.80	1.95	1.12	1.30	1.45	1.62	1.78	1.92	1.10	1.27	1.42	1.59	1.74	1.88
HF/HN	2	1.53	1.77	1.98	2.21	2.42	2.61	1.52	1.75	1.96	2.19	2.40	2.59	1.48	1.71	1.91	2.14	2.34	2.53
HF/HN	2-1/2	1.96	2.26	2.53	2.83	3.10	3.35	1.94	2.25	2.51	2.81	3.07	3.32	1.89	2.18	2.44	2.73	2.99	3.23
HF/HN	3	2.59	2.99	3.34	3.74	4.10	4.42	2.56	2.96	3.31	3.70	4.05	4.38	2.50	2.89	3.23	3.61	3.95	4.27
HF/HN	5-1/2	4.61	5.32	5.95	6.65	7.29	7.87	4.56	5.27	5.89	6.59	7.21	7.79	4.44	5.13	5.73	6.41	7.02	7.58
HF/HN	8	6.42	7.41	8.29	9.27	10.15	10.96	6.34	7.33	8.19	9.16	10.03	10.83	6.18	7.14	7.98	8.92	9.77	10.55
HF/HN	10	8.13	9.39	10.50	11.73	12.85	13.88	8.06	9.30	10.40	11.63	12.74	13.76	7.83	9.04	10.11	11.30	12.38	13.37
HF/HN	15	12.05	13.91	15.56	17.39	19.05	20.58	11.91	13.77	15.40	17.22	18.86	20.37	11.61	13.41	14.99	16.76	18.36	19.83
HF/HN	20	15.87	18.33	20.49	22.91	25.09	27.10	15.68	18.07	20.20	22.58	24.74	26.72	15.28	17.64	19.73	22.05	24.16	26.10
TFE	8	6.30	7.27	8.13	9.09	9.96	10.76	6.23	7.19	8.04	8.99	9.85	10.64	6.07	7.01	7.84	8.76	9.60	10.37
TFE	10	8.63	9.97	11.14	12.46	13.65	14.74	8.53	9.85	11.01	12.31	13.48	14.56	8.31	9.60	10.73	11.99	13.14	14.19
TFE	12	10.71	12.37	13.83	15.46	16.93	18.29	10.59	12.23	13.67	15.28	16.74	18.08	10.32	11.92	13.32	14.90	16.32	17.62
TFE	20	16.35	18.88	21.11	23.60	25.85	27.92	16.17	18.67	20.87	23.33	25.56	27.61	15.75	18.19	20.33	22.73	24.90	26.90
TRAE+	10	9.27	10.70	11.97	13.38	14.66	15.83	9.16	10.58	11.83	13.23	14.49	15.65	8.93	10.31	11.53	12.89	14.12	15.25
TRAE+	15	13.52	15.61	17.45	19.51	21.38	23.09	13.36	15.43	17.25	19.29	21.13	22.82	13.02	15.03	16.81	18.79	20.59	22.24
TRAE+	20	15.09	17.42	19.48	21.78	23.86	25.77	14.91	17.22	19.25	21.52	23.58	25.47	14.53	16.78	18.76	20.97	22.97	24.81
TRAE+	30	22.87	26.41	29.53	33.01	36.16	39.06	22.60	26.10	29.18	32.62	35.74	38.60	22.02	25.43	28.43	31.78	34.82	37.61
TRAE+	40	31.43	36.29	40.58	45.37	49.70	53.68	31.07	35.88	40.11	44.84	49.12	53.06	30.27	34.95	39.08	43.69	47.86	51.70
TRAE	50	42.43	48.99	54.78	61.24	67.09	72.46	41.94	48.42	54.14	60.53	66.31	71.62	40.87	47.19	52.76	58.99	64.62	69.80
TRAE	60	46.28	53.44	59.75	66.80	73.18	79.04	45.75	52.82	59.06	66.03	72.33	78.13	44.58	51.48	57.55	64.35	70.49	76.13
TRAE	70	55.09	63.61	71.12	79.52	87.10	94.08	54.45	62.87	70.29	78.59	86.09	92.98	53.06	61.27	68.50	76.59	83.90	90.62
TJR	14	11.55	13.34	14.91	16.67	18.26	19.73	11.42	13.18	14.74	16.48	18.05	19.50	11.13	12.85	14.37	16.06	17.60	19.01
TJR	18	13.83	15.97	17.85	19.96	21.87	23.62	13.67	15.79	17.65	19.73	21.62	23.35	13.32	15.38	17.20	19.23	21.06	22.75
TER	22	17.29	19.96	22.32	24.96	27.34	29.53	17.09	19.73	22.06	24.66	27.02	29.18	16.65	19.23	21.50	24.03	26.33	28.44
TER	26	20.43	23.59	26.38	29.49	32.30	34.89	20.19	23.32	26.07	29.15	31.93	34.49	19.68	22.72	25.41	28.41	31.12	33.61
TER	35	27.50	31.75	35.50	39.69	43.48	46.97	27.18	31.39	35.09	39.23	42.98	46.42	26.49	30.59	34.20	38.24	41.88	45.24
TER	45	35.36	40.83	45.65	51.04	55.91	60.39	34.95	40.36	45.12	50.45	55.26	59.69	34.06	39.33	43.97	49.16	53.85	58.17
TIR	55	43.22	49.91	55.80	62.38	68.34	73.81	42.72	49.33	55.15	61.66	67.54	72.96	41.63	48.07	53.74	60.09	65.82	71.10
THR	75	55.01	63.52	71.02	79.40	86.98	93.95	54.37	62.78	70.19	78.47	85.96	92.85	52.98	61.18	68.40	76.47	83.77	90.48
THR	100	66.79	77.12	86.23	96.40	105.60	114.07	66.02	76.23	85.23	95.29	104.39	112.75	64.33	74.28	83.05	92.85	101.71	109.86
TMR	100	78.58	90.74	101.45	113.42	124.25	134.20	77.67	89.68	100.27	112.11	122.81	132.64	75.69	87.40	97.72	109.25	119.68	129.27

R-22 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.27	0.30	0.34	0.37	0.40	0.43	0.18	0.20	0.23	0.25	0.27	0.28
BA/BN	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
BA/BN	1-1/2	1.02	1.18	1.32	1.47	1.61	1.74	0.81	0.91	1.01	1.11	1.20	1.28	0.53	0.59	0.66	0.73	0.78	0.84
BA/BN	2	1.36	1.57	1.76	1.96	2.15	2.32	1.08	1.21	1.35	1.48	1.60	1.71	0.71	0.79	0.89	0.97	1.05	1.12
BA/BN	2-1/2	1.72	1.99	2.22	2.48	2.72	2.94	1.37	1.53	1.71	1.88	2.03	2.17	0.90	1.01	1.13	1.23	1.33	1.42
BA/BN	3	2.08	2.40	2.69	3.00	3.29	3.55	1.66	1.86	2.08	2.27	2.46	2.62	1.09	1.22	1.36	1.49	1.61	1.72
BA/BN	4	2.69	3.11	3.47	3.88	4.25	4.59	2.15	2.40	2.69	2.94	3.18	3.40	1.41	1.58	1.76	1.93	2.09	2.23
BA/BN	5	3.40	3.93	4.39	4.91	5.38	5.81	2.72	3.04	3.40	3.72	4.02	4.30	1.79	2.00	2.24	2.45	2.65	2.83
BA/BN	6	4.23	4.88	5.46	6.11	6.69	7.22	3.38	3.78	4.23	4.63	5.00	5.34	2.23	2.49	2.79	3.05	3.30	3.53
HF/HN	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.15	0.17	0.19	0.21	0.22	0.24	0.10	0.11	0.13	0.14	0.15	0.16
HF/HN	1/2	0.36	0.42	0.46	0.52	0.57	0.61	0.29	0.32	0.36	0.40	0.43	0.46	0.19	0.21	0.24	0.26	0.28	0.30
HF/HN	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
HF/HN	1-1/2	1.00	1.15	1.29	1.44	1.58	1.71	0.79	0.88	0.99	1.08	1.17	1.25	0.52	0.58	0.65	0.71	0.77	0.82
HF/HN	2	1.34	1.55	1.73	1.93	2.12	2.29	1.07	1.20	1.34	1.47	1.58	1.69	0.70	0.78	0.88	0.96	1.04	1.11
HF/HN	2-1/2	1.72	1.99	2.22	2.48	2.72	2.94	1.37	1.53	1.71	1.88	2.03	2.17	0.90	1.01	1.13	1.23	1.33	1.42
HF/HN	3	2.26	2.61	2.92	3.26	3.57	3.86	1.81	2.02	2.26	2.48	2.68	2.86	1.19	1.33	1.49	1.63	1.76	1.88
HF/HN	5-1/2	4.03	4.65	5.20	5.82	6.37	6.88	3.22	3.60	4.03	4.41	4.76	5.09	2.12	2.37	2.65	2.90	3.14	3.35
HF/HN	8	5.61	6.48	7.24	8.10	8.87	9.58	4.48	5.01	5.60	6.13	6.63	7.08	2.95	3.30	3.69	4.04	4.36	4.66
HF/HN	10	7.10	8.20	9.17	10.25	11.23	12.13	5.67	6.34	7.09	7.76	8.39	8.97	3.73	4.17	4.66	5.11	5.52	5.90
HF/HN	15	10.53	12.16	13.59	15.20	16.65	17.98	8.40	9.39	10.50	11.50	12.42	13.28	5.53	6.18	6.91	7.57	8.18	8.74
HF/HN	20	13.86	16.00	17.89	20.01	21.91	23.67	11.06	12.37	13.83	15.14	16.36	17.49	7.28	8.14	9.10	9.97	10.77	11.51
TFE	8	5.50	6.35	7.10	7.94	8.70	9.39	4.39	4.91	5.49	6.01	6.49	6.94	2.89	3.23	3.61	3.96	4.27	4.57
TFE	10	7.54	8.71	9.73	10.88	11.92	12.88	6.02	6.73	7.53	8.24	8.90	9.52	3.96	4.43	4.95	5.42	5.86	6.26
TFE	12	9.35	10.80	12.07	13.50	14.78	15.97	7.47	8.35	9.34	10.23	11.05	11.81	4.92	5.50	6.15	6.74	7.28	7.78
TFE	20	14.28	16.49	18.44	20.61	22.58	24.39	11.40	12.75	14.25	15.61	16.86	18.02	7.51	8.40	9.39	10.28	11.11	11.87
TRAE+	10	8.10	9.35	10.46	11.69	12.81	13.83	6.47	7.23	8.09	8.86	9.57	10.23	4.26	4.76	5.33	5.83	6.30	6.74
TRAE+	15	11.80	13.63	15.23	17.03	18.66	20.15	9.42	10.53	11.78	12.90	13.93	14.89	6.21	6.94	7.76	8.50	9.18	9.82
TRAE+	20	13.18	15.22	17.02	19.02	20.84	22.51	10.52	11.76	13.15	14.41	15.56	16.63	6.93	7.75	8.66	9.49	10.25	10.96
TRAE+	30	19.97	23.06	25.78	28.82	31.58	34.11	15.94	17.82	19.93	21.83	23.58	25.20	10.50	11.74	13.13	14.38	15.53	16.60
TRAE+	40	27.45	31.70	35.44	39.62	43.40	46.88	21.92	24.51	27.40	30.02	32.42	34.66	14.43	16.13	18.04	19.76	21.34	22.82
TRAE	50	37.06	42.79	47.84	53.49	58.60	63.29	29.59	33.08	36.99	40.52	43.76	46.79	19.48	21.78	24.35	26.67	28.81	30.80
TRAE	60	40.42	46.67	52.18	58.34	63.91	69.03	32.27	36.08	40.34	44.19	47.73	51.02	21.25	23.76	26.56	29.10	31.43	33.60
TRAE	70	48.11	55.55	62.11	69.44	76.07	82.16	38.41	42.94	48.01	52.60	56.81	60.73	25.29	28.28	31.61	34.63	37.40	39.99
TR	14	10.09	11.65	13.03	14.56	15.95	17.23	8.05	9.00	10.06	11.02	11.91	12.73	5.30	5.93	6.63	7.26	7.84	8.38
TR	18	12.08	13.95	15.60	17.44	19.10	20.63	9.64	10.78	12.05	13.20	14.26	15.24	6.35	7.10	7.94	8.70	9.39	10.04
TER	22	15.10	17.44	19.49	21.79	23.88	25.79	12.05	13.47	15.06	16.50	17.82	19.05	7.94	8.88	9.93	10.87	11.74	12.55
TER	26	17.84	20.60	23.03	25.75	28.21	30.47	14.25	15.93	17.81	19.51	21.08	22.53	9.38	10.49	11.73	12.84	13.87	14.83
TER	35	24.02	27.74	31.01	34.67	37.98	41.02	19.18	21.44	23.98	26.26	28.37	30.33	12.63	14.12	15.79	17.29	18.68	19.97
TER	45	30.88	35.66	39.87	44.57	48.83	52.74	24.66	27.57	30.83	33.77	36.47	38.99	16.24	18.16	20.30	22.24	24.02	25.68
TIR	55	37.75	43.59	48.74	54.49	59.69	64.47	30.13	33.69	37.66	41.26	44.56	47.64	19.84	22.18	24.80	27.17	29.34	31.37
THR	75	48.04	55.47	62.02	69.34	75.96	82.04	38.35	42.88	47.94	52.51	56.72	60.64	25.26	28.24	31.58	34.59	37.36	39.94
THR	100	58.33	67.35	75.30	84.19	92.23	99.62	46.57	52.07	58.21	63.77	68.88	73.63	30.67	34.29	38.34	42.00	45.36	48.49
THR	100	68.63	79.25	88.60	99.06	108.51	117.21	54.79	61.26	68.49	75.02	81.04	86.63	36.08	40.34	45.10	49.40	53.36	57.05

R-134a BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
BA/BN	1/2	0.37	0.43	0.48	0.53	0.59	0.63	0.37	0.43	0.48	0.53	0.59	0.63	0.35	0.40	0.45	0.51	0.55	0.60
BA/BN	3/4	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
BA/BN	1	1.11	1.28	1.43	1.60	1.76	1.90	1.09	1.26	1.41	1.57	1.72	1.86	1.04	1.20	1.34	1.50	1.64	1.78
BA/BN	1-1/2	1.48	1.71	1.91	2.14	2.34	2.53	1.45	1.67	1.87	2.09	2.29	2.48	1.39	1.61	1.79	2.01	2.20	2.37
BA/BN	2	1.87	2.16	2.41	2.70	2.96	3.19	1.84	2.12	2.38	2.66	2.91	3.14	1.76	2.03	2.27	2.54	2.78	3.01
BA/BN	2-1/4	2.27	2.62	2.93	3.28	3.59	3.88	2.22	2.56	2.87	3.20	3.51	3.79	2.13	2.46	2.75	3.07	3.37	3.64
BA/BN	3	2.94	3.39	3.80	4.24	4.65	5.02	2.88	3.33	3.72	4.16	4.55	4.92	2.75	3.18	3.55	3.97	4.35	4.70
BA/BN	3-1/2	3.72	4.30	4.80	5.37	5.88	6.35	3.64	4.20	4.70	5.25	5.76	6.22	3.48	4.02	4.49	5.02	5.50	5.94
BA/BN	4-1/4	4.62	5.33	5.96	6.67	7.30	7.89	4.53	5.23	5.85	6.54	7.16	7.74	4.33	5.00	5.59	6.25	6.85	7.39
HF/HN	1/4	0.21	0.24	0.27	0.30	0.33	0.36	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34
HF/HN	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.37	0.43	0.48	0.53	0.59	0.63
HF/HN	3/4	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
HF/HN	1	1.09	1.26	1.41	1.57	1.72	1.86	1.06	1.22	1.37	1.53	1.68	1.81	1.02	1.18	1.32	1.47	1.61	1.74
HF/HN	1-1/2	1.46	1.69	1.88	2.11	2.31	2.49	1.43	1.65	1.85	2.06	2.26	2.44	1.37	1.58	1.77	1.98	2.17	2.34
HF/HN	1-3/4	1.87	2.16	2.41	2.70	2.96	3.19	1.84	2.12	2.38	2.66	2.91	3.14	1.76	2.03	2.27	2.54	2.78	3.01
HF/HN	2-1/2	2.47	2.85	3.19	3.57	3.91	4.22	2.42	2.79	3.12	3.49	3.83	4.13	2.32	2.68	3.00	3.35	3.67	3.96
HF/HN	4	4.40	5.08	5.68	6.35	6.96	7.51	4.31	4.98	5.56	6.22	6.81	7.36	4.12	4.76	5.32	5.95	6.51	7.04
HF/HN	6	6.12	7.07	7.90	8.83	9.68	10.45	6.00	6.93	7.75	8.66	9.49	10.25	5.74	6.63	7.41	8.28	9.08	9.80
HF/HN	7-1/2	7.75	8.95	10.01	11.19	12.25	13.24	7.59	8.76	9.80	10.96	12.00	12.96	7.26	8.38	9.37	10.48	11.48	12.40
HF/HN	11	11.50	13.28	14.85	16.60	18.18	19.64	11.26	13.00	14.54	16.25	17.80	19.23	10.77	12.44	13.90	15.55	17.03	18.39
HF/HN	14	15.13	17.47	19.53	21.84	23.92	25.84	14.82	17.11	19.13	21.39	23.43	25.31	14.18	16.37	18.31	20.47	22.42	24.22
TFE	6	6.01	6.94	7.76	8.67	9.50	10.26	5.89	6.80	7.60	8.50	9.31	10.06	5.63	6.50	7.27	8.13	8.90	9.62
TFE	8	8.23	9.50	10.62	11.88	13.01	14.06	8.06	9.31	10.41	11.63	12.74	13.77	7.71	8.90	9.95	11.13	12.19	13.17
TFE	10	10.22	11.80	13.19	14.75	16.16	17.45	10.01	11.56	12.92	14.45	15.83	17.10	9.57	11.05	12.35	13.81	15.13	16.34
TFE	15	15.60	18.01	20.14	22.52	24.67	26.64	15.28	17.64	19.73	22.05	24.16	26.10	14.61	16.87	18.86	21.09	23.10	24.95
TRAE+	9	8.84	10.21	11.41	12.76	13.98	15.10	8.66	10.00	11.18	12.50	13.69	14.79	8.29	9.57	10.70	11.97	13.11	14.16
TRAE+	13	12.89	14.88	16.64	18.61	20.38	22.01	12.63	14.58	16.31	18.23	19.97	21.57	12.08	13.95	15.60	17.44	19.10	20.63
TRAE+	14	14.39	16.62	18.58	20.77	22.75	24.58	14.09	16.27	18.19	20.34	22.28	24.06	13.48	15.57	17.40	19.46	21.31	23.02
TRAE+	22	21.81	25.18	28.16	31.48	34.48	37.25	21.36	24.66	27.58	30.83	33.77	36.48	20.43	23.59	26.38	29.49	32.30	34.89
TRAE+	30	29.98	34.62	38.70	43.27	47.40	51.20	29.36	33.90	37.90	42.38	46.42	50.14	28.09	32.44	36.26	40.54	44.41	47.97
TRAE	40	40.48	46.74	52.26	58.43	64.00	69.13	39.64	45.77	51.18	57.22	62.68	67.70	37.92	43.79	48.95	54.73	59.96	64.76
TRAE	45	44.15	50.98	57.00	63.73	69.81	75.40	43.24	49.93	55.82	62.41	68.37	73.85	41.36	47.76	53.40	59.70	65.40	70.64
TRAE	50	52.54	60.67	67.83	75.83	83.07	89.73	51.46	59.42	66.43	74.28	81.37	87.88	49.22	56.83	63.54	71.04	77.82	84.06
TJR	11	11.02	12.72	14.23	15.91	17.42	18.82	10.79	12.46	13.93	15.57	17.06	18.43	10.32	11.92	13.32	14.90	16.32	17.62
TJR	13	13.19	15.23	17.03	19.04	20.86	22.53	12.92	14.92	16.68	18.65	20.43	22.07	12.36	14.27	15.96	17.84	19.54	21.11
TER	16	16.49	19.04	21.29	23.80	26.07	28.16	16.15	18.65	20.85	23.31	25.54	27.58	15.45	17.84	19.95	22.30	24.43	26.39
TER	19	19.49	22.51	25.16	28.13	30.82	33.29	19.09	22.04	24.65	27.55	30.18	32.60	18.26	21.08	23.57	26.36	28.87	31.18
TER	25	26.23	30.29	33.86	37.86	41.47	44.80	25.69	29.66	33.17	37.08	40.62	43.87	24.58	28.38	31.73	35.48	38.86	41.98
TER	31	33.73	38.95	43.55	48.69	53.33	57.60	33.03	38.14	42.64	47.67	52.23	56.41	31.60	36.49	40.80	45.61	49.96	53.97
TIR	45	41.23	47.61	53.23	59.51	65.19	70.41	40.37	46.62	52.12	58.27	63.83	68.94	38.62	44.59	49.86	55.74	61.06	65.96
THR	55	52.47	60.59	67.74	75.73	82.96	89.61	51.38	59.33	66.33	74.16	81.24	87.75	49.15	56.75	63.45	70.94	77.71	83.94
THR	68	63.71	73.57	82.25	91.96	100.73	108.81	62.40	72.05	80.56	90.07	98.66	106.57	59.69	68.92	77.06	86.16	94.38	101.94
TMR	68	74.95	86.54	96.76	108.18	118.51	128.00	73.41	84.77	94.77	105.96	116.07	125.37	70.22	81.08	90.65	101.35	111.03	119.92

R-134a BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.29	0.33	0.37	0.42	0.46	0.50	0.22	0.25	0.28	0.30	0.33	0.35	0.13	0.15	0.16	0.18	0.19	0.21
BA/BN	3/4	0.55	0.64	0.71	0.79	0.87	0.94	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
BA/BN	1	0.86	0.99	1.11	1.24	1.36	1.47	0.64	0.72	0.80	0.88	0.95	1.01	0.39	0.44	0.49	0.53	0.58	0.62
BA/BN	1-1/2	1.14	1.32	1.47	1.65	1.80	1.95	0.85	0.95	1.06	1.16	1.26	1.34	0.52	0.58	0.65	0.71	0.77	0.82
BA/BN	2	1.44	1.66	1.86	2.08	2.28	2.46	1.08	1.21	1.35	1.48	1.60	1.71	0.66	0.74	0.83	0.90	0.98	1.04
BA/BN	2-1/4	1.75	2.02	2.26	2.53	2.77	2.99	1.31	1.46	1.64	1.79	1.94	2.07	0.80	0.89	1.00	1.10	1.18	1.26
BA/BN	3	2.27	2.62	2.93	3.28	3.59	3.88	1.69	1.89	2.11	2.31	2.50	2.67	1.04	1.16	1.30	1.42	1.54	1.64
BA/BN	3-1/2	2.87	3.31	3.71	4.14	4.54	4.90	2.14	2.39	2.68	2.93	3.17	3.38	1.31	1.46	1.64	1.79	1.94	2.07
BA/BN	4-1/4	3.57	4.12	4.61	5.15	5.64	6.10	2.66	2.97	3.33	3.64	3.93	4.21	1.63	1.82	2.04	2.23	2.41	2.58
HF/HN	1/4	0.16	0.18	0.21	0.23	0.25	0.27	0.12	0.13	0.15	0.16	0.18	0.19	0.07	0.08	0.09	0.10	0.10	0.11
HF/HN	1/2	0.31	0.36	0.40	0.45	0.49	0.53	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
HF/HN	3/4	0.55	0.64	0.71	0.79	0.87	0.94	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
HF/HN	1	0.84	0.97	1.08	1.21	1.33	1.43	0.63	0.70	0.79	0.86	0.93	1.00	0.38	0.42	0.48	0.52	0.56	0.60
HF/HN	1-1/2	1.13	1.30	1.46	1.63	1.79	1.93	0.84	0.94	1.05	1.15	1.24	1.33	0.52	0.58	0.65	0.71	0.77	0.82
HF/HN	1-3/4	1.44	1.66	1.86	2.08	2.28	2.46	1.08	1.21	1.35	1.48	1.60	1.71	0.66	0.74	0.83	0.90	0.98	1.04
HF/HN	2-1/2	1.91	2.21	2.47	2.76	3.02	3.26	1.42	1.59	1.78	1.94	2.10	2.25	0.87	0.97	1.09	1.19	1.29	1.38
HF/HN	4	3.39	3.91	4.38	4.89	5.36	5.79	2.53	2.83	3.16	3.46	3.74	4.00	1.55	1.73	1.94	2.12	2.29	2.45
HF/HN	6	4.72	5.45	6.09	6.81	7.46	8.06	3.52	3.94	4.40	4.82	5.21	5.57	2.16	2.41	2.70	2.96	3.19	3.42
HF/HN	7-1/2	5.98	6.91	7.72	8.63	9.46	10.21	4.46	4.99	5.58	6.11	6.60	7.05	2.74	3.06	3.43	3.75	4.05	4.33
HF/HN	11	8.87	10.24	11.45	12.80	14.02	15.15	6.62	7.40	8.28	9.06	9.79	10.47	4.06	4.54	5.08	5.56	6.00	6.42
HF/HN	14	11.67	13.48	15.07	16.84	18.45	19.93	8.71	9.74	10.89	11.93	12.88	13.77	5.34	5.97	6.68	7.31	7.90	8.44
TFE	6	4.64	5.36	5.99	6.70	7.34	7.92	3.46	3.87	4.33	4.74	5.12	5.47	2.12	2.37	2.65	2.90	3.14	3.35
TFE	8	6.35	7.33	8.20	9.17	10.04	10.84	4.74	5.30	5.93	6.49	7.01	7.49	2.91	3.25	3.64	3.98	4.30	4.60
TFE	10	7.88	9.10	10.17	11.37	12.46	13.46	5.88	6.57	7.35	8.05	8.70	9.30	3.61	4.04	4.51	4.94	5.34	5.71
TFE	15	12.03	13.89	15.53	17.36	19.02	20.55	8.97	10.03	11.21	12.28	13.27	14.18	5.51	6.16	6.89	7.54	8.15	8.71
TRAE+	9	6.82	7.88	8.80	9.84	10.78	11.65	5.09	5.69	6.36	6.97	7.53	8.05	3.12	3.49	3.90	4.27	4.61	4.93
TRAE+	13	9.94	11.48	12.83	14.35	15.72	16.98	7.42	8.30	9.28	10.16	10.97	11.73	4.55	5.09	5.69	6.23	6.73	7.19
TRAE+	14	11.1	12.82	14.33	16.02	17.55	18.96	8.28	9.26	10.35	11.34	12.25	13.09	5.08	5.68	6.35	6.96	7.51	8.03
TRAE+	22	16.82	19.42	21.71	24.28	26.59	28.73	12.55	14.03	15.69	17.18	18.56	19.84	7.70	8.61	9.63	10.54	11.39	12.17
TRAE+	30	23.12	26.70	29.85	33.37	36.56	39.48	17.25	19.29	21.56	23.62	25.51	27.27	10.59	11.84	13.24	14.50	15.66	16.74
TRAE	40	31.21	36.04	40.29	45.05	49.35	53.30	23.29	26.04	29.11	31.89	34.45	36.82	14.29	15.98	17.86	19.57	21.14	22.59
TRAE	45	34.04	39.31	43.95	49.13	53.82	58.13	25.40	28.40	31.75	34.78	37.57	40.16	15.59	17.43	19.49	21.35	23.06	24.65
TRAE	50	40.52	46.79	52.31	58.49	64.07	69.20	30.23	33.80	37.79	41.39	44.71	47.80	18.55	20.74	23.19	25.40	27.44	29.33
TR	11	8.50	9.81	10.97	12.27	13.44	14.52	6.34	7.09	7.93	8.68	9.38	10.02	3.89	4.35	4.86	5.33	5.75	6.15
TR	13	10.17	11.74	13.13	14.68	16.08	17.37	7.59	8.49	9.49	10.39	11.23	12.00	4.66	5.21	5.83	6.38	6.89	7.37
TER	16	12.72	14.69	16.42	18.36	20.11	21.72	9.49	10.61	11.86	12.99	14.04	15.01	5.82	6.51	7.28	7.97	8.61	9.20
TER	19	15.03	17.36	19.40	21.69	23.76	25.67	11.21	12.53	14.01	15.35	16.58	17.72	6.88	7.69	8.60	9.42	10.18	10.88
TER	25	20.23	23.36	26.12	29.20	31.99	34.55	15.09	16.87	18.86	20.66	22.32	23.86	9.26	10.35	11.58	12.68	13.70	14.64
TER	31	26.01	30.03	33.58	37.54	41.13	44.42	19.41	21.70	24.26	26.58	28.71	30.69	11.91	13.32	14.89	16.31	17.62	18.83
TIR	45	31.79	36.71	41.04	45.88	50.26	54.29	23.72	26.52	29.65	32.48	35.08	37.50	14.56	16.28	18.20	19.94	21.53	23.02
THR	55	40.46	46.72	52.23	58.40	63.97	69.10	30.19	33.75	37.74	41.34	44.65	47.73	18.53	20.72	23.16	25.37	27.41	29.30
THR	68	49.13	56.73	63.43	70.91	77.68	83.91	36.66	40.99	45.83	50.20	54.22	57.96	22.50	25.16	28.13	30.81	33.28	35.58
TMR	68	57.80	66.74	74.62	83.43	91.39	98.71	43.12	48.21	53.90	59.04	63.78	68.18	26.47	29.59	33.09	36.25	39.15	41.85

R-404A/R-507 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48	0.27	0.31	0.35	0.39	0.43	0.46
BA/BN	1/2	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91	0.51	0.59	0.66	0.74	0.81	0.87
BA/BN	1	0.85	0.98	1.10	1.23	1.34	1.45	0.83	0.96	1.07	1.20	1.31	1.42	0.79	0.91	1.02	1.14	1.25	1.35
BA/BN	1-1/4	1.14	1.32	1.47	1.65	1.80	1.95	1.11	1.28	1.43	1.60	1.76	1.90	1.06	1.22	1.37	1.53	1.68	1.81
BA/BN	1-1/2	1.44	1.66	1.86	2.08	2.28	2.46	1.41	1.63	1.82	2.04	2.23	2.41	1.34	1.55	1.73	1.93	2.12	2.29
BA/BN	2	1.74	2.01	2.25	2.51	2.75	2.97	1.70	1.96	2.19	2.45	2.69	2.90	1.62	1.87	2.09	2.34	2.56	2.77
BA/BN	2-1/2	2.26	2.61	2.92	3.26	3.57	3.86	2.20	2.54	2.84	3.18	3.48	3.76	2.09	2.41	2.70	3.02	3.30	3.57
BA/BN	3	2.85	3.29	3.68	4.11	4.51	4.87	2.79	3.22	3.60	4.03	4.41	4.76	2.65	3.06	3.42	3.82	4.19	4.53
BA/BN	4	3.55	4.10	4.58	5.12	5.61	6.06	3.47	4.01	4.48	5.01	5.49	5.93	3.29	3.80	4.25	4.75	5.20	5.62
HF/HN	1/8	0.16	0.18	0.21	0.23	0.25	0.27	0.16	0.18	0.21	0.23	0.25	0.27	0.15	0.17	0.19	0.22	0.24	0.26
HF/HN	1/4	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
HF/HN	1/2	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91	0.51	0.59	0.66	0.74	0.81	0.87
HF/HN	1	0.83	0.96	1.07	1.20	1.31	1.42	0.82	0.95	1.06	1.18	1.30	1.40	0.77	0.89	0.99	1.11	1.22	1.32
HF/HN	1-1/4	1.12	1.29	1.45	1.62	1.77	1.91	1.10	1.27	1.42	1.59	1.74	1.88	1.04	1.20	1.34	1.50	1.64	1.78
HF/HN	1-1/2	1.44	1.66	1.86	2.08	2.28	2.46	1.41	1.63	1.82	2.04	2.23	2.41	1.34	1.55	1.73	1.93	2.12	2.29
HF/HN	2	1.90	2.19	2.45	2.74	3.00	3.24	1.86	2.15	2.40	2.68	2.94	3.18	1.76	2.03	2.27	2.54	2.78	3.01
HF/HN	3-1/2	3.38	3.90	4.36	4.88	5.34	5.77	3.30	3.81	4.26	4.76	5.22	5.64	3.13	3.61	4.04	4.52	4.95	5.35
HF/HN	5	4.70	5.43	6.07	6.78	7.43	8.03	4.59	5.30	5.93	6.63	7.26	7.84	4.36	5.03	5.63	6.29	6.89	7.45
HF/HN	7	5.95	6.87	7.68	8.59	9.41	10.16	5.81	6.71	7.50	8.39	9.19	9.92	5.52	6.37	7.13	7.97	8.73	9.43
HF/HN	10	8.83	10.20	11.40	12.75	13.96	15.08	8.62	9.95	11.13	12.44	13.63	14.72	8.19	9.46	10.57	11.82	12.95	13.99
HF/HN	13	11.62	13.42	15.00	16.77	18.37	19.84	11.35	13.11	14.65	16.38	17.95	19.38	10.78	12.45	13.92	15.56	17.04	18.41
TFE	5	4.62	5.33	5.96	6.67	7.30	7.89	4.51	5.21	5.82	6.51	7.13	7.70	4.28	4.94	5.53	6.18	6.77	7.31
TFE	7	6.32	7.30	8.16	9.12	9.99	10.79	6.17	7.12	7.97	8.91	9.76	10.54	5.86	6.77	7.57	8.46	9.27	10.01
TFE	9	7.84	9.05	10.12	11.32	12.40	13.39	7.66	8.85	9.89	11.06	12.11	13.08	7.28	8.41	9.40	10.51	11.51	12.43
TFE	14	11.98	13.83	15.47	17.29	18.94	20.46	11.70	13.51	15.10	16.89	18.50	19.98	11.11	12.83	14.34	16.04	17.57	18.97
TRAE+	8	6.79	7.84	8.77	9.80	10.74	11.60	6.63	7.66	8.56	9.57	10.48	11.32	6.30	7.27	8.13	9.09	9.96	10.76
TRAE+	12	9.90	11.43	12.78	14.29	15.65	16.91	9.67	11.17	12.48	13.96	15.29	16.51	9.19	10.61	11.86	13.26	14.53	15.69
TRAE+	14	11.05	12.76	14.27	15.95	17.47	18.87	10.79	12.46	13.93	15.57	17.06	18.43	10.25	11.84	13.23	14.79	16.21	17.51
TRAE+	20	16.75	19.34	21.62	24.18	26.48	28.61	16.36	18.89	21.12	23.61	25.87	27.94	15.54	17.94	20.06	22.43	24.57	26.54
TRAE+	30	23.02	26.58	29.72	33.23	36.40	39.31	22.49	25.97	29.03	32.46	35.56	38.41	21.36	24.66	27.58	30.83	33.77	36.48
TRAE	35	31.08	35.89	40.12	44.86	49.14	53.08	30.36	35.06	39.19	43.82	48.00	51.85	28.84	33.30	37.23	41.63	45.60	49.25
TRAE	40	33.90	39.14	43.76	48.93	53.60	57.90	33.11	38.23	42.74	47.79	52.35	56.55	31.45	36.32	40.60	45.39	49.73	53.71
TRAE	50	40.34	46.58	52.08	58.23	63.78	68.89	39.41	45.51	50.88	56.88	62.31	67.31	37.44	43.23	48.33	54.04	59.20	63.94
TJR	9	8.46	9.77	10.92	12.21	13.38	14.45	8.26	9.54	10.66	11.92	13.06	14.11	7.85	9.06	10.13	11.33	12.41	13.41
TJR	12	10.13	11.70	13.08	14.62	16.02	17.30	9.89	11.42	12.77	14.27	15.64	16.89	9.40	10.85	12.14	13.57	14.86	16.05
TER	14	12.66	14.62	16.34	18.27	20.02	21.62	12.37	14.28	15.97	17.85	19.56	21.13	11.75	13.57	15.17	16.96	18.58	20.07
TER	16	14.96	17.27	19.31	21.59	23.65	25.55	14.62	16.88	18.87	21.10	23.12	24.97	13.88	16.03	17.92	20.03	21.95	23.70
TER	21	20.14	23.26	26.00	29.07	31.84	34.40	19.68	22.72	25.41	28.41	31.12	33.61	18.69	21.58	24.13	26.98	29.55	31.92
TER	27	25.90	29.91	33.44	37.38	40.95	44.23	25.30	29.21	32.66	36.52	40.00	43.21	24.03	27.75	31.02	34.68	37.99	41.04
TIR	37	31.65	36.55	40.86	45.68	50.04	54.05	30.92	35.70	39.92	44.63	48.89	52.81	29.37	33.91	37.92	42.39	46.44	50.16
THR	48	40.29	46.52	52.01	58.15	63.70	68.81	39.35	45.44	50.80	56.80	62.22	67.20	37.38	43.16	48.26	53.95	59.10	63.84
THR	60	48.92	56.49	63.16	70.61	77.35	83.55	47.78	55.17	61.68	68.96	75.55	81.60	45.39	52.41	58.60	65.51	71.77	77.52
TMR	60	57.55	66.45	74.30	83.07	90.99	98.29	56.22	64.92	72.58	81.15	88.89	96.01	53.40	61.66	68.94	77.08	84.43	91.20

R-404A/R-507 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.24	0.28	0.31	0.35	0.38	0.41	0.19	0.21	0.24	0.26	0.28	0.30	0.12	0.13	0.15	0.16	0.18	0.19
BA/BN	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.36	0.40	0.45	0.49	0.53	0.57	0.23	0.26	0.29	0.31	0.34	0.36
BA/BN	1	0.71	0.82	0.92	1.02	1.12	1.21	0.55	0.61	0.69	0.75	0.81	0.87	0.36	0.40	0.45	0.49	0.53	0.57
BA/BN	1-1/4	0.94	1.09	1.21	1.36	1.49	1.61	0.74	0.83	0.93	1.01	1.09	1.17	0.48	0.54	0.60	0.66	0.71	0.76
BA/BN	1-1/2	1.19	1.37	1.54	1.72	1.88	2.03	0.93	1.04	1.16	1.27	1.38	1.47	0.61	0.68	0.76	0.84	0.90	0.96
BA/BN	2	1.44	1.66	1.86	2.08	2.28	2.46	1.13	1.26	1.41	1.55	1.67	1.79	0.74	0.83	0.93	1.01	1.09	1.17
BA/BN	2-1/2	1.87	2.16	2.41	2.70	2.96	3.19	1.47	1.64	1.84	2.01	2.17	2.32	0.96	1.07	1.20	1.31	1.42	1.52
BA/BN	3	2.36	2.73	3.05	3.41	3.73	4.03	1.85	2.07	2.31	2.53	2.74	2.93	1.21	1.35	1.51	1.66	1.79	1.91
BA/BN	4	2.94	3.39	3.80	4.24	4.65	5.02	2.31	2.58	2.89	3.16	3.42	3.65	1.51	1.69	1.89	2.07	2.23	2.39
HF/HN	1/8	0.13	0.15	0.17	0.19	0.21	0.22	0.10	0.11	0.13	0.14	0.15	0.16	0.07	0.08	0.09	0.10	0.10	0.11
HF/HN	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
HF/HN	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.36	0.40	0.45	0.49	0.53	0.57	0.23	0.26	0.29	0.31	0.34	0.36
HF/HN	1	0.69	0.80	0.89	1.00	1.09	1.18	0.54	0.60	0.68	0.74	0.80	0.85	0.35	0.39	0.44	0.48	0.52	0.55
HF/HN	1-1/4	0.93	1.07	1.20	1.34	1.47	1.59	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
HF/HN	1-1/2	1.19	1.37	1.54	1.72	1.88	2.03	0.93	1.04	1.16	1.27	1.38	1.47	0.61	0.68	0.76	0.84	0.90	0.96
HF/HN	2	1.57	1.81	2.03	2.27	2.48	2.68	1.23	1.38	1.54	1.68	1.82	1.94	0.81	0.91	1.01	1.11	1.20	1.28
HF/HN	3-1/2	2.80	3.23	3.61	4.04	4.43	4.78	2.19	2.45	2.74	3.00	3.24	3.46	1.43	1.60	1.79	1.96	2.11	2.26
HF/HN	5	3.89	4.49	5.02	5.61	6.15	6.64	3.05	3.41	3.81	4.18	4.51	4.82	2.00	2.24	2.50	2.74	2.96	3.16
HF/HN	7	4.93	5.69	6.36	7.12	7.80	8.42	3.87	4.33	4.84	5.30	5.72	6.12	2.53	2.83	3.16	3.46	3.74	4.00
HF/HN	10	7.31	8.44	9.44	10.55	11.56	12.48	5.73	6.41	7.16	7.85	8.47	9.06	3.75	4.19	4.69	5.13	5.55	5.93
HF/HN	13	9.62	11.11	12.42	13.89	15.21	16.43	7.55	8.44	9.44	10.34	11.17	11.94	4.93	5.51	6.16	6.75	7.29	7.80
TFE	5	3.82	4.41	4.93	5.51	6.04	6.52	3.00	3.35	3.75	4.11	4.44	4.74	1.96	2.19	2.45	2.68	2.90	3.10
TFE	7	5.23	6.04	6.75	7.55	8.27	8.93	4.10	4.58	5.13	5.61	6.06	6.48	2.68	3.00	3.35	3.67	3.96	4.24
TFE	9	6.50	7.51	8.39	9.38	10.28	11.10	5.10	5.70	6.38	6.98	7.54	8.06	3.33	3.72	4.16	4.56	4.93	5.27
TFE	14	9.92	11.45	12.81	14.32	15.68	16.94	7.78	8.70	9.73	10.65	11.51	12.30	5.08	5.68	6.35	6.96	7.51	8.03
TRAE+	8	5.62	6.49	7.26	8.11	8.89	9.60	4.41	4.93	5.51	6.04	6.52	6.97	2.88	3.22	3.60	3.94	4.26	4.55
TRAE+	12	8.20	9.47	10.59	11.84	12.97	14.00	6.43	7.19	8.04	8.80	9.51	10.17	4.20	4.70	5.25	5.75	6.21	6.64
TRAE+	14	9.15	10.57	11.81	13.21	14.47	15.63	7.18	8.03	8.98	9.83	10.62	11.35	4.69	5.24	5.86	6.42	6.94	7.42
TRAE+	20	13.87	16.02	17.91	20.02	21.93	23.69	10.88	12.16	13.60	14.90	16.09	17.20	7.11	7.95	8.89	9.74	10.52	11.24
TRAE+	30	19.06	22.01	24.61	27.51	30.14	32.55	14.95	16.71	18.69	20.47	22.11	23.64	9.77	10.92	12.21	13.38	14.45	15.45
TRAE	35	25.73	29.71	33.22	37.14	40.68	43.94	20.19	22.57	25.24	27.65	29.86	31.92	13.19	14.75	16.49	18.06	19.51	20.86
TRAE	40	28.07	32.41	36.24	40.52	44.38	47.94	22.02	24.62	27.53	30.15	32.57	34.82	14.39	16.09	17.99	19.70	21.28	22.75
TRAE	50	33.41	38.58	43.13	48.22	52.83	57.06	26.20	29.29	32.75	35.88	38.75	41.43	17.13	19.15	21.41	23.46	25.34	27.08
TR	9	7.01	8.09	9.05	10.12	11.08	11.97	5.50	6.15	6.88	7.53	8.13	8.70	3.59	4.01	4.49	4.92	5.31	5.68
TR	12	8.39	9.69	10.83	12.11	13.27	14.33	6.58	7.36	8.23	9.01	9.73	10.40	4.30	4.81	5.38	5.89	6.36	6.80
TER	14	10.48	12.10	13.53	15.13	16.57	17.90	8.22	9.19	10.28	11.26	12.16	13.00	5.30	5.93	6.63	7.26	7.84	8.38
TER	16	12.39	14.31	16.00	17.88	19.59	21.16	9.72	10.87	12.15	13.31	14.38	15.37	6.35	7.10	7.94	8.70	9.39	10.04
TER	21	16.68	19.26	21.53	24.08	26.37	28.49	13.08	14.62	16.35	17.91	19.35	20.68	8.55	9.56	10.69	11.71	12.65	13.52
TER	27	21.45	24.77	27.69	30.96	33.92	36.63	16.82	18.81	21.03	23.03	24.88	26.59	11.00	12.30	13.75	15.06	16.27	17.39
TIR	37	26.21	30.26	33.84	37.83	41.44	44.76	20.56	22.99	25.70	28.15	30.41	32.51	13.44	15.03	16.80	18.40	19.88	21.25
THR	48	33.36	38.52	43.07	48.15	52.75	56.97	26.17	29.26	32.71	35.83	38.71	41.38	17.10	19.12	21.38	23.42	25.29	27.04
THR	60	40.51	46.78	52.30	58.47	64.05	69.18	31.77	35.52	39.71	43.50	46.99	50.23	20.77	23.22	25.96	28.44	30.72	32.84
THR	60	47.66	55.03	61.53	68.79	75.36	81.39	37.38	41.79	46.73	51.18	55.29	59.10	24.43	27.31	30.54	33.45	36.13	38.63

R-407C BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F					40°F					20°F							
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
BA/BN	1/2	0.38	0.44	0.49	0.55	0.60	0.65	0.37	0.43	0.48	0.53	0.59	0.63	0.36	0.42	0.46	0.52	0.57	0.61
BA/BN	1	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16
BA/BN	1-1/2	1.12	1.29	1.45	1.62	1.77	1.91	1.10	1.27	1.42	1.59	1.74	1.88	1.05	1.21	1.36	1.52	1.66	1.79
BA/BN	2	1.49	1.72	1.92	2.15	2.36	2.54	1.47	1.70	1.90	2.12	2.32	2.51	1.41	1.63	1.82	2.04	2.23	2.41
BA/BN	2-1/2	1.88	2.17	2.43	2.71	2.97	3.21	1.85	2.14	2.39	2.67	2.93	3.16	1.78	2.06	2.30	2.57	2.81	3.04
BA/BN	3	2.28	2.63	2.94	3.29	3.60	3.89	2.24	2.59	2.89	3.23	3.54	3.83	2.15	2.48	2.78	3.10	3.40	3.67
BA/BN	4	2.96	3.42	3.82	4.27	4.68	5.06	2.90	3.35	3.74	4.19	4.59	4.95	2.79	3.22	3.60	4.03	4.41	4.76
BA/BN	5	3.74	4.32	4.83	5.40	5.91	6.39	3.67	4.24	4.74	5.30	5.80	6.27	3.52	4.06	4.54	5.08	5.57	6.01
BA/BN	6	4.65	5.37	6.00	6.71	7.35	7.94	4.57	5.28	5.90	6.60	7.23	7.80	4.38	5.06	5.65	6.32	6.93	7.48
HF/HN	1/4	0.21	0.24	0.27	0.30	0.33	0.36	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34
HF/HN	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.38	0.44	0.49	0.55	0.60	0.65
HF/HN	1	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16
HF/HN	1-1/2	1.09	1.26	1.41	1.57	1.72	1.86	1.07	1.24	1.38	1.54	1.69	1.83	1.03	1.19	1.33	1.49	1.63	1.76
HF/HN	2	1.47	1.70	1.90	2.12	2.32	2.51	1.44	1.66	1.86	2.08	2.28	2.46	1.39	1.61	1.79	2.01	2.20	2.37
HF/HN	2-1/2	1.88	2.17	2.43	2.71	2.97	3.21	1.85	2.14	2.39	2.67	2.93	3.16	1.78	2.06	2.30	2.57	2.81	3.04
HF/HN	3	2.49	2.88	3.21	3.59	3.94	4.25	2.44	2.82	3.15	3.52	3.86	4.17	2.35	2.71	3.03	3.39	3.72	4.01
HF/HN	5-1/2	4.43	5.12	5.72	6.39	7.00	7.57	4.34	5.01	5.60	6.26	6.86	7.41	4.17	4.82	5.38	6.02	6.59	7.12
HF/HN	8	6.16	7.11	7.95	8.89	9.74	10.52	6.05	6.99	7.81	8.73	9.57	10.33	5.81	6.71	7.50	8.39	9.19	9.92
HF/HN	10	7.80	9.01	10.07	11.26	12.33	13.32	7.65	8.83	9.88	11.04	12.10	13.06	7.35	8.49	9.49	10.61	11.62	12.55
HF/HN	15	11.57	13.36	14.94	16.70	18.29	19.76	11.35	13.11	14.65	16.38	17.95	19.38	10.90	12.59	14.07	15.73	17.23	18.62
HF/HN	20	15.22	17.57	19.65	21.97	24.06	25.99	14.94	17.25	19.29	21.56	23.62	25.51	14.35	16.57	18.53	20.71	22.69	24.51
TFE	8	6.05	6.99	7.81	8.73	9.57	10.33	5.94	6.86	7.67	8.57	9.39	10.14	5.70	6.58	7.36	8.23	9.01	9.73
TFE	10	8.28	9.56	10.69	11.95	13.09	14.14	8.13	9.39	10.50	11.73	12.85	13.88	7.80	9.01	10.07	11.26	12.33	13.32
TFE	12	10.28	11.87	13.27	14.84	16.25	17.56	10.09	11.65	13.03	14.56	15.95	17.23	9.69	11.19	12.51	13.99	15.32	16.55
TFE	20	15.69	18.12	20.26	22.65	24.81	26.80	15.40	17.78	19.88	22.23	24.35	26.30	14.79	17.08	19.09	21.35	23.39	25.26
TRAE+	10	8.90	10.28	11.49	12.85	14.07	15.20	8.73	10.08	11.27	12.60	13.80	14.91	8.39	9.69	10.83	12.11	13.27	14.33
TRAE+	15	12.97	14.98	16.74	18.72	20.51	22.15	12.73	14.70	16.43	18.37	20.13	21.74	12.22	14.11	15.78	17.64	19.32	20.87
TRAE+	20	14.48	16.72	18.69	20.90	22.89	24.73	14.21	16.41	18.35	20.51	22.47	24.27	13.64	15.75	17.61	19.69	21.57	23.29
TRAE+	30	21.94	25.33	28.32	31.67	34.69	37.47	21.45	24.77	27.69	30.96	33.92	36.63	20.68	23.88	26.70	29.85	32.70	35.32
TRAE+	40	30.16	34.83	38.94	43.53	47.69	51.51	29.60	34.18	38.21	42.72	46.80	50.55	28.43	32.83	36.70	41.04	44.95	48.55
TRAE	50	40.71	47.01	52.56	58.76	64.37	69.53	39.97	46.15	51.60	57.69	63.20	68.26	38.37	44.31	49.54	55.38	60.67	65.53
TRAE	60	44.41	51.28	57.33	64.10	70.22	75.84	43.59	50.33	56.27	62.92	68.92	74.44	41.86	48.34	54.04	60.42	66.19	71.49
TRAE	70	52.85	61.03	68.23	76.28	83.56	90.26	51.88	59.91	66.98	74.88	82.03	88.60	49.82	57.53	64.32	71.91	78.77	85.08
TJR	14	11.08	12.79	14.30	15.99	17.52	18.92	10.88	12.56	14.05	15.70	17.20	18.58	10.45	12.07	13.49	15.08	16.52	17.85
TJR	18	13.27	15.32	17.13	19.15	20.98	22.66	13.03	15.05	16.82	18.81	20.60	22.25	12.51	14.45	16.15	18.06	19.78	21.36
TER	22	16.59	19.16	21.42	23.95	26.23	28.33	16.28	18.80	21.02	23.50	25.74	27.80	15.63	18.05	20.18	22.56	24.71	26.69
TER	26	19.60	22.63	25.30	28.29	30.99	33.47	19.24	22.22	24.84	27.77	30.42	32.86	18.48	21.34	23.86	26.67	29.22	31.56
TER	35	26.39	30.47	34.07	38.09	41.73	45.07	25.90	29.91	33.44	37.38	40.95	44.23	24.87	28.72	32.11	35.90	39.32	42.47
TER	45	33.93	39.18	43.80	48.97	53.65	57.95	33.30	38.45	42.99	48.06	52.65	56.87	31.98	36.93	41.29	46.16	50.56	54.62
TIR	55	41.47	47.89	53.54	59.86	65.57	70.82	40.71	47.01	52.56	58.76	64.37	69.53	39.08	45.13	50.45	56.41	61.79	66.74
THR	75	52.78	60.95	68.14	76.18	83.45	90.14	51.81	59.83	66.89	74.78	81.92	88.48	49.74	57.43	64.21	71.79	78.65	84.95
THR	100	64.08	73.99	82.73	92.49	101.32	109.44	62.91	72.64	81.22	90.80	99.47	107.44	60.40	69.74	77.98	87.18	95.50	103.15
TMR	100	75.39	87.05	97.33	108.82	119.20	128.75	74.01	85.46	95.55	106.82	117.02	126.40	71.06	82.05	91.74	102.57	112.36	121.36

R-407C BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F					-20°F					-40°F							
		PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)					PRESSURE DROP ACROSS VALVE (PSI)							
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.30	0.35	0.39	0.43	0.47	0.51	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
BA/BN	1	0.57	0.66	0.74	0.82	0.90	0.97	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
BA/BN	1-1/2	0.89	1.03	1.15	1.28	1.41	1.52	0.68	0.76	0.85	0.93	1.01	1.08	0.43	0.48	0.54	0.59	0.64	0.68
BA/BN	2	1.19	1.37	1.54	1.72	1.88	2.03	0.90	1.01	1.13	1.23	1.33	1.42	0.57	0.64	0.71	0.78	0.84	0.90
BA/BN	2-1/2	1.50	1.73	1.94	2.17	2.37	2.56	1.14	1.27	1.43	1.56	1.69	1.80	0.72	0.80	0.90	0.99	1.06	1.14
BA/BN	3	1.82	2.10	2.35	2.63	2.88	3.11	1.38	1.54	1.73	1.89	2.04	2.18	0.87	0.97	1.09	1.19	1.29	1.38
BA/BN	4	2.35	2.71	3.03	3.39	3.72	4.01	1.79	2.00	2.24	2.45	2.65	2.83	1.13	1.26	1.41	1.55	1.67	1.79
BA/BN	5	2.98	3.44	3.85	4.30	4.71	5.09	2.27	2.54	2.84	3.11	3.36	3.59	1.43	1.60	1.79	1.96	2.11	2.26
BA/BN	6	3.70	4.27	4.78	5.34	5.85	6.32	2.82	3.15	3.53	3.86	4.17	4.46	1.77	1.98	2.21	2.42	2.62	2.80
HF/HN	1/4	0.17	0.20	0.22	0.25	0.27	0.29	0.13	0.15	0.16	0.18	0.19	0.21	0.08	0.09	0.10	0.11	0.12	0.13
HF/HN	1/2	0.32	0.37	0.41	0.46	0.51	0.55	0.24	0.27	0.30	0.33	0.35	0.38	0.15	0.17	0.19	0.21	0.22	0.24
HF/HN	1	0.57	0.66	0.74	0.82	0.90	0.97	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
HF/HN	1-1/2	0.87	1.00	1.12	1.26	1.38	1.49	0.66	0.74	0.83	0.90	0.98	1.04	0.42	0.47	0.53	0.58	0.62	0.66
HF/HN	2	1.17	1.35	1.51	1.69	1.85	2.00	0.89	1.00	1.11	1.22	1.32	1.41	0.56	0.63	0.70	0.77	0.83	0.89
HF/HN	2-1/2	1.50	1.73	1.94	2.17	2.37	2.56	1.14	1.27	1.43	1.56	1.69	1.80	0.72	0.80	0.90	0.99	1.06	1.14
HF/HN	3	1.98	2.29	2.56	2.86	3.13	3.38	1.51	1.69	1.89	2.07	2.23	2.39	0.95	1.06	1.19	1.30	1.41	1.50
HF/HN	5-1/2	3.52	4.06	4.54	5.08	5.57	6.01	2.68	3.00	3.35	3.67	3.96	4.24	1.69	1.89	2.11	2.31	2.50	2.67
HF/HN	8	4.90	5.66	6.33	7.07	7.75	8.37	3.73	4.17	4.66	5.11	5.52	5.90	2.35	2.63	2.94	3.22	3.48	3.72
HF/HN	10	6.20	7.16	8.00	8.95	9.80	10.59	4.72	5.28	5.90	6.46	6.98	7.46	2.97	3.32	3.71	4.07	4.39	4.70
HF/HN	15	9.20	10.62	11.88	13.28	14.55	15.71	7.01	7.84	8.76	9.60	10.37	11.08	4.41	4.93	5.51	6.04	6.52	6.97
HF/HN	20	12.11	13.98	15.63	17.48	19.15	20.68	9.22	10.31	11.53	12.63	13.64	14.58	5.81	6.50	7.26	7.96	8.59	9.19
TFE	8	4.81	5.55	6.21	6.94	7.61	8.21	3.66	4.09	4.58	5.01	5.41	5.79	2.31	2.58	2.89	3.16	3.42	3.65
TFE	10	6.59	7.61	8.51	9.51	10.42	11.25	5.02	5.61	6.28	6.87	7.42	7.94	3.16	3.53	3.95	4.33	4.67	5.00
TFE	12	8.18	9.45	10.56	11.81	12.93	13.97	6.23	6.97	7.79	8.53	9.21	9.85	3.92	4.38	4.90	5.37	5.80	6.20
TFE	20	12.49	14.42	16.12	18.03	19.75	21.33	9.51	10.63	11.89	13.02	14.07	15.04	5.98	6.69	7.48	8.19	8.84	9.46
TRAE+	10	7.08	8.18	9.14	10.22	11.19	12.09	5.39	6.03	6.74	7.38	7.97	8.52	3.39	3.79	4.24	4.64	5.01	5.36
TRAE+	15	10.32	11.92	13.32	14.90	16.32	17.62	7.86	8.79	9.83	10.76	11.63	12.43	4.95	5.53	6.19	6.78	7.32	7.83
TRAE+	20	11.52	13.30	14.87	16.63	18.21	19.67	8.77	9.81	10.96	12.01	12.97	13.87	5.52	6.17	6.90	7.56	8.16	8.73
TRAE+	30	17.46	20.16	22.54	25.20	27.61	29.82	13.30	14.87	16.63	18.21	19.67	21.03	8.37	9.36	10.46	11.46	12.38	13.23
TRAE+	40	24.00	27.71	30.98	34.64	37.95	40.99	18.28	20.44	22.85	25.03	27.04	28.90	11.50	12.86	14.38	15.75	17.01	18.18
TRAE	50	32.40	37.41	41.83	46.77	51.23	55.33	24.67	27.58	30.84	33.78	36.49	39.01	15.53	17.36	19.41	21.27	22.97	24.56
TRAE	60	35.34	40.81	45.62	51.01	55.88	60.35	26.91	30.09	33.64	36.85	39.80	42.55	16.94	18.94	21.18	23.20	25.05	26.78
TRAE	70	42.06	48.57	54.30	60.71	66.50	71.83	32.03	35.81	40.04	43.86	47.37	50.64	20.16	22.54	25.20	27.61	29.82	31.88
TR	14	8.82	10.18	11.39	12.73	13.95	15.06	6.72	7.51	8.40	9.20	9.94	10.63	4.23	4.73	5.29	5.79	6.26	6.69
TR	18	10.56	12.19	13.63	15.24	16.70	18.03	8.04	8.99	10.05	11.01	11.89	12.71	5.06	5.66	6.33	6.93	7.48	8.00
TER	22	13.20	15.24	17.04	19.05	20.87	22.54	10.05	11.24	12.56	13.76	14.86	15.89	6.33	7.08	7.91	8.67	9.36	10.01
TER	26	15.60	18.01	20.14	22.52	24.67	26.64	11.88	13.28	14.85	16.27	17.57	18.78	7.48	8.36	9.35	10.24	11.06	11.83
TER	35	21.00	24.25	27.11	30.31	33.20	35.86	15.99	17.88	19.99	21.90	23.65	25.28	10.06	11.25	12.58	13.78	14.88	15.91
TER	45	27.00	31.18	34.86	38.97	42.69	46.11	20.56	22.99	25.70	28.15	30.41	32.51	12.94	14.47	16.18	17.72	19.14	20.46
TIR	55	33.00	38.11	42.60	47.63	52.18	56.36	25.13	28.10	31.41	34.41	37.17	39.73	15.82	17.69	19.78	21.66	23.40	25.01
THR	75	42.00	48.50	54.22	60.62	66.41	71.73	31.98	35.75	39.98	43.79	47.30	50.56	20.13	22.51	25.16	27.56	29.77	31.83
THR	100	51.00	58.89	65.84	73.61	80.64	87.10	38.84	43.42	48.55	53.18	57.45	61.41	24.44	27.32	30.55	33.47	36.15	38.64
TMR	100	60.00	69.28	77.46	86.60	94.87	102.47	45.69	51.08	57.11	62.56	67.58	72.24	28.76	32.15	35.95	39.38	42.54	45.47

R-502 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41
BA/BN	1/2	0.49	0.57	0.63	0.71	0.77	0.84	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
BA/BN	1	0.76	0.88	0.98	1.10	1.20	1.30	0.74	0.85	0.96	1.07	1.17	1.26	0.71	0.82	0.92	1.02	1.12	1.21
BA/BN	1-1/4	1.02	1.18	1.32	1.47	1.61	1.74	0.99	1.14	1.28	1.43	1.57	1.69	0.95	1.10	1.23	1.37	1.50	1.62
BA/BN	1-1/2	1.28	1.48	1.65	1.85	2.02	2.19	1.26	1.45	1.63	1.82	1.99	2.15	1.20	1.39	1.55	1.73	1.90	2.05
BA/BN	2	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.45	1.67	1.87	2.09	2.29	2.48
BA/BN	2-1/2	2.01	2.32	2.59	2.90	3.18	3.43	1.97	2.27	2.54	2.84	3.11	3.36	1.88	2.17	2.43	2.71	2.97	3.21
BA/BN	3	2.54	2.93	3.28	3.67	4.02	4.34	2.49	2.88	3.21	3.59	3.94	4.25	2.38	2.75	3.07	3.44	3.76	4.06
BA/BN	4	3.17	3.66	4.09	4.58	5.01	5.41	3.10	3.58	4.00	4.47	4.90	5.29	2.96	3.42	3.82	4.27	4.68	5.06
HF/HN	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
HF/HN	1/4	0.27	0.31	0.35	0.39	0.43	0.46	0.27	0.31	0.35	0.39	0.43	0.46	0.25	0.29	0.32	0.36	0.40	0.43
HF/HN	1/2	0.49	0.57	0.63	0.71	0.77	0.84	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
HF/HN	1	0.74	0.85	0.96	1.07	1.17	1.26	0.73	0.84	0.94	1.05	1.15	1.25	0.70	0.81	0.90	1.01	1.11	1.20
HF/HN	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.93	1.07	1.20	1.34	1.47	1.59
HF/HN	1-1/2	1.28	1.48	1.65	1.85	2.02	2.19	1.26	1.45	1.63	1.82	1.99	2.15	1.20	1.39	1.55	1.73	1.90	2.05
HF/HN	2	1.69	1.95	2.18	2.44	2.67	2.89	1.66	1.92	2.14	2.40	2.62	2.83	1.58	1.82	2.04	2.28	2.50	2.70
HF/HN	3-1/2	3.01	3.48	3.89	4.34	4.76	5.14	2.95	3.41	3.81	4.26	4.66	5.04	2.81	3.24	3.63	4.06	4.44	4.80
HF/HN	5	4.19	4.84	5.41	6.05	6.62	7.16	4.10	4.73	5.29	5.92	6.48	7.00	3.92	4.53	5.06	5.66	6.20	6.69
HF/HN	7	5.30	6.12	6.84	7.65	8.38	9.05	5.19	5.99	6.70	7.49	8.21	8.86	4.96	5.73	6.40	7.16	7.84	8.47
HF/HN	10	7.87	9.09	10.16	11.36	12.44	13.44	7.70	8.89	9.94	11.11	12.17	13.15	7.35	8.49	9.49	10.61	11.62	12.55
HF/HN	13	10.36	11.96	13.37	14.95	16.38	17.69	10.14	11.71	13.09	14.64	16.03	17.32	9.68	11.18	12.50	13.97	15.31	16.53
TFE	5	4.11	4.75	5.31	5.93	6.50	7.02	4.03	4.65	5.20	5.82	6.37	6.88	3.84	4.43	4.96	5.54	6.07	6.56
TFE	7	5.63	6.50	7.27	8.13	8.90	9.62	5.51	6.36	7.11	7.95	8.71	9.41	5.26	6.07	6.79	7.59	8.32	8.98
TFE	9	6.99	8.07	9.02	10.09	11.05	11.94	6.85	7.91	8.84	9.89	10.83	11.70	6.53	7.54	8.43	9.43	10.32	11.15
TFE	14	10.68	12.33	13.79	15.42	16.89	18.24	10.45	12.07	13.49	15.08	16.52	17.85	9.97	11.51	12.87	14.39	15.76	17.03
TRAE+	8	6.05	6.99	7.81	8.73	9.57	10.33	5.93	6.85	7.66	8.56	9.38	10.13	5.66	6.54	7.31	8.17	8.95	9.67
TRAE+	12	8.82	10.18	11.39	12.73	13.95	15.06	8.64	9.98	11.15	12.47	13.66	14.76	8.24	9.51	10.64	11.89	13.03	14.07
TRAE+	14	9.85	11.37	12.72	14.22	15.57	16.82	9.64	11.13	12.45	13.91	15.24	16.46	9.20	10.62	11.88	13.28	14.55	15.71
TRAE+	20	14.93	17.24	19.27	21.55	23.61	25.50	14.61	16.87	18.86	21.09	23.10	24.95	13.95	16.11	18.01	20.14	22.06	23.82
TRAE+	30	20.52	23.69	26.49	29.62	32.44	35.04	20.09	23.20	25.94	29.00	31.77	34.31	19.17	22.14	24.75	27.67	30.31	32.74
TRAE	35	27.70	31.99	35.76	39.98	43.80	47.31	27.12	31.32	35.01	39.14	42.88	46.32	25.88	29.88	33.41	37.35	40.92	44.20
TRAE	40	30.22	34.90	39.01	43.62	47.78	51.61	29.58	34.16	38.19	42.70	46.77	50.52	28.23	32.60	36.44	40.75	44.64	48.21
TRAE	50	35.96	41.52	46.42	51.90	56.86	61.41	35.21	40.66	45.46	50.82	55.67	60.13	35.21	40.66	45.46	50.82	55.67	60.13
TJR	9	7.54	8.71	9.73	10.88	11.92	12.88	7.38	8.52	9.53	10.65	11.67	12.60	3.26	7.05	4.21	4.71	5.15	5.57
TJR	12	9.03	10.43	11.66	13.03	14.28	15.42	8.84	10.21	11.41	12.76	13.98	15.10	3.90	8.44	5.03	5.63	6.17	6.66
TER	14	11.29	13.04	14.58	16.30	17.85	19.28	11.05	12.76	14.27	15.95	17.47	18.87	4.88	10.55	6.30	7.04	7.72	8.33
TER	16	13.34	15.40	17.22	19.25	21.09	22.78	13.06	15.08	16.86	18.85	20.65	22.30	5.76	12.46	7.44	8.31	9.11	9.84
TER	21	17.96	20.74	23.19	25.92	28.40	30.67	17.58	20.30	22.70	25.37	27.80	30.02	7.76	16.78	10.02	11.20	12.27	13.25
TER	27	23.09	26.66	29.81	33.33	36.51	39.43	22.60	26.10	29.18	32.62	35.73	38.60	9.97	21.57	12.87	14.39	15.76	17.03
TIR	37	28.22	32.59	36.43	40.73	44.62	48.19	27.62	31.89	35.66	39.87	43.67	47.17	12.19	26.36	15.74	17.59	19.27	20.82
THR	48	35.91	41.47	46.36	51.83	56.78	61.33	35.15	40.59	45.38	50.73	55.58	60.03	15.52	33.55	20.04	22.40	24.54	26.51
THR	60	43.61	50.36	56.30	62.95	68.95	74.48	42.69	49.29	55.11	61.62	67.50	72.91	18.84	40.74	24.32	27.19	29.79	32.18
TMR	60	51.30	59.24	66.23	74.05	81.11	87.61	50.22	57.99	64.83	72.49	79.40	85.77	22.17	47.93	28.62	32.00	35.05	37.86

R-502 BALANCED PORTED VALVES (TONS)—HF, TFE, TRAE AND T SERIES (CONT.)

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.17	0.19	0.21	0.23	0.25	0.27	0.11	0.12	0.14	0.15	0.16	0.17
BA/BN	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
BA/BN	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.33	0.37	0.41	0.45	0.49	0.52
BA/BN	1-1/4	0.87	1.00	1.12	1.26	1.38	1.49	0.69	0.77	0.86	0.94	1.02	1.09	0.44	0.49	0.55	0.60	0.65	0.70
BA/BN	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
BA/BN	2	1.34	1.55	1.73	1.93	2.12	2.29	1.05	1.17	1.31	1.44	1.55	1.66	0.67	0.75	0.84	0.92	0.99	1.06
BA/BN	2-1/2	1.73	2.00	2.23	2.50	2.74	2.95	1.36	1.52	1.70	1.86	2.01	2.15	0.87	0.97	1.09	1.19	1.29	1.38
BA/BN	3	2.19	2.53	2.83	3.16	3.46	3.74	1.73	1.93	2.16	2.37	2.56	2.74	1.10	1.23	1.38	1.51	1.63	1.74
BA/BN	4	2.72	3.14	3.51	3.93	4.30	4.65	2.15	2.40	2.69	2.94	3.18	3.40	1.37	1.53	1.71	1.88	2.03	2.17
HF/HN	1/8	0.12	0.14	0.15	0.17	0.19	0.20	0.10	0.11	0.13	0.14	0.15	0.16	0.06	0.07	0.08	0.08	0.09	0.09
HF/HN	1/4	0.23	0.27	0.30	0.33	0.36	0.39	0.18	0.20	0.23	0.25	0.27	0.28	0.12	0.13	0.15	0.16	0.18	0.19
HF/HN	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
HF/HN	1	0.64	0.74	0.83	0.92	1.01	1.09	0.50	0.56	0.63	0.68	0.74	0.79	0.32	0.36	0.40	0.44	0.47	0.51
HF/HN	1-1/4	0.86	0.99	1.11	1.24	1.36	1.47	0.68	0.76	0.85	0.93	1.01	1.08	0.43	0.48	0.54	0.59	0.64	0.68
HF/HN	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
HF/HN	2	1.46	1.69	1.88	2.11	2.31	2.49	1.15	1.29	1.44	1.57	1.70	1.82	0.73	0.82	0.91	1.00	1.08	1.15
HF/HN	3-1/2	2.59	2.99	3.34	3.74	4.10	4.42	1.65	1.84	2.06	2.26	2.44	2.61	1.30	1.45	1.63	1.78	1.92	2.06
HF/HN	5	3.60	4.16	4.65	5.20	5.69	6.15	2.84	3.18	3.55	3.89	4.20	4.49	1.81	2.02	2.26	2.48	2.68	2.86
HF/HN	7	4.56	5.27	5.89	6.58	7.21	7.79	3.60	4.02	4.50	4.93	5.32	5.69	2.29	2.56	2.86	3.14	3.39	3.62
HF/HN	10	6.76	7.81	8.73	9.76	10.69	11.54	5.34	5.97	6.68	7.31	7.90	8.44	3.40	3.80	4.25	4.66	5.03	5.38
HF/HN	13	8.90	10.28	11.49	12.85	14.07	15.20	7.03	7.86	8.79	9.63	10.40	11.12	4.48	5.01	5.60	6.13	6.63	7.08
TFE	5	3.54	4.09	4.57	5.11	5.60	6.05	2.79	3.12	3.49	3.82	4.13	4.41	1.78	1.99	2.23	2.44	2.63	2.81
TFE	7	4.84	5.59	6.25	6.99	7.65	8.27	3.82	4.27	4.78	5.23	5.65	6.04	2.43	2.72	3.04	3.33	3.59	3.84
TFE	9	6.01	6.94	7.76	8.67	9.50	10.26	4.75	5.31	5.94	6.50	7.03	7.51	3.02	3.38	3.78	4.14	4.47	4.78
TFE	14	9.18	10.60	11.85	13.25	14.51	15.68	7.25	8.11	9.06	9.93	10.72	11.46	4.61	5.15	5.76	6.31	6.82	7.29
TRAE+	8	5.20	6.00	6.71	7.51	8.22	8.88	4.11	4.60	5.14	5.63	6.08	6.50	2.62	2.93	3.28	3.59	3.88	4.14
TRAE+	12	7.58	8.75	9.79	10.94	11.99	12.95	5.99	6.70	7.49	8.20	8.86	9.47	3.81	4.26	4.76	5.22	5.64	6.02
TRAE+	14	8.47	9.78	10.93	12.23	13.39	14.47	6.69	7.48	8.36	9.16	9.89	10.58	4.26	4.76	5.33	5.83	6.30	6.74
TRAE+	20	12.83	14.81	16.56	18.52	20.29	21.91	10.13	11.33	12.66	13.87	14.98	16.02	6.45	7.21	8.06	8.83	9.54	10.20
TRAE+	30	17.64	20.37	22.77	25.46	27.89	30.13	13.93	15.57	17.41	19.07	20.60	22.03	8.87	9.92	11.09	12.15	13.12	14.02
TRAE	35	23.81	27.49	30.74	34.37	37.65	40.66	18.80	21.02	23.50	25.74	27.81	29.73	11.97	13.38	14.96	16.39	17.70	18.93
TRAE	40	25.97	29.99	33.53	37.48	41.06	44.35	20.51	22.93	25.64	28.08	30.33	32.43	13.06	14.60	16.33	17.88	19.32	20.65
TRAE	50	30.91	35.69	39.90	44.61	48.87	52.79	24.41	27.29	30.51	33.42	36.10	38.60	15.54	17.37	19.43	21.28	22.98	24.57
TJR	9	6.48	7.48	8.37	9.35	10.25	11.07	5.12	5.72	6.40	7.01	7.57	8.10	3.26	3.64	4.08	4.46	4.82	5.15
TJR	12	7.76	8.96	10.02	11.20	12.27	13.25	6.13	6.85	7.66	8.39	9.07	9.69	3.90	4.36	4.88	5.34	5.77	6.17
TER	14	9.70	11.20	12.52	14.00	15.34	16.57	7.66	8.56	9.58	10.49	11.33	12.11	4.88	5.46	6.10	6.68	7.22	7.72
TER	16	11.47	13.24	14.81	16.56	18.14	19.59	9.05	10.12	11.31	12.39	13.39	14.31	5.76	6.44	7.20	7.89	8.52	9.11
TER	21	15.43	17.82	19.92	22.27	24.40	26.35	12.19	13.63	15.24	16.69	18.03	19.27	7.76	8.68	9.70	10.63	11.48	12.27
TER	27	19.84	22.91	25.61	28.64	31.37	33.88	15.67	17.52	19.59	21.46	23.18	24.78	9.97	11.15	12.46	13.65	14.75	15.76
TIR	37	24.25	28.00	31.31	35.00	38.34	41.41	19.15	21.41	23.94	26.22	28.32	30.28	12.19	13.63	15.24	16.69	18.03	19.27
THR	48	30.87	35.65	39.85	44.56	48.81	52.72	24.37	27.25	30.46	33.37	36.04	38.53	15.52	17.35	19.40	21.25	22.95	24.54
THR	60	37.48	43.28	48.39	54.10	59.26	64.01	29.60	33.09	37.00	40.53	43.78	46.80	18.84	21.06	23.55	25.80	27.86	29.79
TMR	60	44.10	50.92	56.93	63.65	69.73	75.32	34.82	38.93	43.53	47.68	51.50	55.06	22.17	24.79	27.71	30.36	32.79	35.05

EXTENDED CAPACITY TABLES

R-12 ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.14	0.27	0.30	0.33	0.36	0.39	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
EX2-000	0.4	0.24	0.46	0.52	0.58	0.63	0.68	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
EX2-001	.81	0.49	0.94	1.05	1.17	1.28	1.38	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
EX2-002	1.1	0.67	1.27	1.42	1.59	1.74	1.88	0.65	0.75	0.84	0.94	1.03	1.11	0.63	0.73	0.81	0.91	1.00	1.08
EX2-003	2.0	1.21	2.31	2.58	2.89	3.16	3.42	1.19	1.37	1.54	1.72	1.88	2.03	1.14	1.32	1.47	1.65	1.80	1.95
EX2-004	2.7	1.63	3.12	3.49	3.90	4.27	4.61	1.60	1.85	2.07	2.31	2.53	2.73	1.54	1.78	1.99	2.22	2.43	2.63
EX2-M00	4.3	2.60	4.97	5.55	6.21	6.80	7.34	2.55	2.94	3.29	3.68	4.03	4.35	2.45	2.83	3.16	3.54	3.87	4.18
ESVB-1	1	0.42	1.15	1.29	1.44	1.58	1.71	0.41	0.47	0.53	0.59	0.65	0.70	0.40	0.46	0.52	0.58	0.63	0.68
ESVB-4	4	2.02	4.62	5.16	5.77	6.32	6.83	1.98	2.29	2.56	2.86	3.13	3.38	1.90	2.19	2.45	2.74	3.00	3.24
ESVB-10	10	6.08	11.55	12.91	14.43	15.81	17.08	5.96	6.88	7.69	8.60	9.42	10.18	5.72	6.60	7.38	8.26	9.04	9.77
ESVB-20	20	13.19	23.09	25.82	28.87	31.62	34.16	12.93	14.93	16.69	18.66	20.44	22.08	12.40	14.32	16.01	17.90	19.61	21.18
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.13	0.27	0.30	0.33	0.36	0.39	0.14	0.16	0.18	0.20	0.22	0.24	0.11	0.13	0.14	0.16	0.17	0.19
EX2-000	0.4	0.22	0.46	0.52	0.58	0.63	0.68	0.24	0.28	0.31	0.35	0.38	0.41	0.20	0.23	0.26	0.29	0.32	0.34
EX2-001	.81	0.44	0.94	1.05	1.17	1.28	1.38	0.48	0.55	0.62	0.69	0.76	0.82	0.40	0.46	0.52	0.58	0.63	0.68
EX2-002	1.1	0.60	1.27	1.42	1.59	1.74	1.88	0.66	0.76	0.85	0.95	1.04	1.13	0.54	0.62	0.70	0.78	0.85	0.92
EX2-003	2.0	1.09	2.31	2.58	2.89	3.16	3.42	1.20	1.39	1.55	1.73	1.90	2.05	0.98	1.13	1.27	1.41	1.55	1.67
EX2-004	2.7	1.47	3.12	3.49	3.90	4.27	4.61	1.40	1.62	1.81	2.02	2.21	2.39	1.33	1.54	1.72	1.92	2.10	2.27
EX2-M00	4.3	2.34	4.97	5.55	6.21	6.80	7.34	2.57	2.97	3.32	3.71	4.06	4.39	2.12	2.45	2.74	3.06	3.35	3.62
ESVB-1	1	0.38	1.15	1.29	1.44	1.58	1.71	0.42	0.48	0.54	0.61	0.66	0.72	0.34	0.39	0.44	0.49	0.54	0.58
ESVB-4	4	1.82	4.62	5.16	5.77	6.32	6.83	2.00	2.31	2.58	2.89	3.16	3.42	1.64	1.89	2.12	2.37	2.59	2.80
ESVB-10	10	5.47	11.55	12.91	14.43	15.81	17.08	5.21	6.02	6.73	7.52	8.24	8.90	4.95	5.72	6.39	7.14	7.83	8.45
ESVB-20	20	11.85	23.09	25.82	28.87	31.62	34.16	13.04	15.06	16.83	18.82	20.62	22.27	10.73	12.39	13.85	15.49	16.97	18.32

R-22 ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.18	0.21	0.23	0.26	0.28	0.31	0.18	0.21	0.23	0.26	0.28	0.31	0.17	0.20	0.22	0.25	0.27	0.29
EX2-000	0.4	0.31	0.36	0.40	0.45	0.49	0.53	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51
EX2-001	.81	0.64	0.74	0.83	0.92	1.01	1.09	0.63	0.73	0.81	0.91	1.00	1.08	0.61	0.70	0.79	0.88	0.96	1.04
EX2-002	1.1	0.86	0.99	1.11	1.24	1.36	1.47	0.85	0.98	1.10	1.23	1.34	1.45	0.83	0.96	1.07	1.20	1.31	1.42
EX2-003	2.0	1.57	1.81	2.03	2.27	2.48	2.68	1.55	1.79	2.00	2.24	2.45	2.65	1.51	1.74	1.95	2.18	2.39	2.58
EX2-004	2.7	2.12	2.45	2.74	3.06	3.35	3.62	2.10	2.42	2.71	3.03	3.32	3.59	2.04	2.36	2.63	2.94	3.23	3.48
EX2-M00	4.3	3.38	3.90	4.36	4.88	5.34	5.77	3.34	3.86	4.31	4.82	5.28	5.70	3.25	3.75	4.20	4.69	5.14	5.55
ESVB-1	1	0.55	0.64	0.71	0.79	0.87	0.94	0.54	0.62	0.70	0.78	0.85	0.92	0.53	0.61	0.68	0.76	0.84	0.91
ESVB-4	4	2.63	3.04	3.40	3.80	4.16	4.49	2.60	3.00	3.36	3.75	4.11	4.44	2.53	2.92	3.27	3.65	4.00	4.32
ESVB-10	10	7.90	9.12	10.20	11.40	12.49	13.49	7.81	9.02	10.08	11.27	12.35	13.34	7.61	8.79	9.82	10.98	12.03	13.00
ESVB-20	20	17.13	19.78	22.11	24.73	27.08	29.26	16.93	19.55	21.86	24.44	26.77	28.91	16.50	19.05	21.30	23.82	26.09	28.18
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.19	0.21	0.24	0.26	0.28	0.30	0.18	0.20	0.23	0.25	0.27	0.28
EX2-000	0.4	0.29	0.33	0.37	0.42	0.46	0.50	0.33	0.37	0.41	0.45	0.49	0.52	0.32	0.36	0.40	0.44	0.47	0.51
EX2-001	.81	0.60	0.69	0.77	0.87	0.95	1.02	0.67	0.75	0.84	0.92	0.99	1.06	0.64	0.72	0.80	0.88	0.95	1.01
EX2-002	1.1	0.81	0.94	1.05	1.17	1.28	1.38	0.90	1.01	1.13	1.23	1.33	1.42	0.87	0.97	1.09	1.19	1.29	1.38
EX2-003	2.0	1.47	1.70	1.90	2.12	2.32	2.51	1.64	1.83	2.05	2.25	2.43	2.59	1.59	1.78	1.99	2.18	2.35	2.51
EX2-004	2.7	1.99	2.30	2.57	2.87	3.15	3.40	2.22	2.48	2.78	3.04	3.28	3.51	2.14	2.39	2.68	2.93	3.17	3.38
EX2-M00	4.3	3.16	3.65	4.08	4.56	5.00	5.40	3.54	3.96	4.43	4.85	5.24	5.60	3.42	3.82	4.28	4.68	5.06	5.41
ESVB-1	1	0.51	0.59	0.66	0.74	0.81	0.87	0.57	0.64	0.71	0.78	0.84	0.90	0.55	0.61	0.69	0.75	0.81	0.87
ESVB-4	4	2.46	2.84	3.18	3.55	3.89	4.20	2.75	3.07	3.44	3.77	4.07	4.35	2.66	2.97	3.33	3.64	3.93	4.21
ESVB-10	10	7.39	8.53	9.54	10.67	11.68	12.62	8.27	9.25	10.34	11.32	12.23	13.08	7.98	8.92	9.98	10.93	11.80	12.62
ESVB-20	20	16.03	18.51	20.69	23.14	25.35	27.38	17.93	20.05	22.41	24.55	26.52	28.35	17.31	19.35	21.64	23.70	25.60	27.37

EXTENDED CAPACITY TABLES

R-134a ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
EX2-000	0.4	0.30	0.35	0.39	0.43	0.47	0.51	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48
EX2-001	.81	0.61	0.70	0.79	0.88	0.96	1.04	0.59	0.68	0.76	0.85	0.93	1.01	0.57	0.66	0.74	0.82	0.90	0.97
EX2-002	1.1	0.82	0.95	1.06	1.18	1.30	1.40	0.81	0.94	1.05	1.17	1.28	1.38	0.77	0.89	0.99	1.11	1.22	1.32
EX2-003	2.0	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.47	1.70	1.90	2.12	2.32	2.51
EX2-004	2.7	2.02	2.33	2.61	2.92	3.19	3.45	1.98	2.29	2.56	2.86	3.13	3.38	1.90	2.19	2.45	2.74	3.00	3.24
EX2-M00	4.3	3.22	3.72	4.16	4.65	5.09	5.50	3.16	3.65	4.08	4.56	5.00	5.40	3.02	3.49	3.90	4.36	4.78	5.16
ESVB-1	1	0.52	0.60	0.67	0.75	0.82	0.89	0.51	0.59	0.66	0.74	0.81	0.87	0.49	0.57	0.63	0.71	0.77	0.84
ESVB-4	4	2.51	2.90	3.24	3.62	3.97	4.29	2.45	2.83	3.16	3.54	3.87	4.18	2.35	2.71	3.03	3.39	3.72	4.01
ESVB-10	10	7.54	8.71	9.73	10.88	11.92	12.88	7.38	8.52	9.53	10.65	11.67	12.60	7.06	8.15	9.11	10.19	11.16	12.06
ESVB-20	20	16.34	18.87	21.09	23.58	25.84	27.91	16.00	18.48	20.66	23.09	25.30	27.33	15.31	17.68	19.77	22.10	24.21	26.15

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.15	0.17	0.19	0.22	0.24	0.26	0.17	0.19	0.21	0.23	0.25	0.27	0.16	0.18	0.20	0.22	0.24	0.25
EX2-000	0.4	0.27	0.31	0.35	0.39	0.43	0.46	0.29	0.32	0.36	0.40	0.43	0.46	0.28	0.31	0.35	0.38	0.41	0.44
EX2-001	.81	0.54	0.62	0.70	0.78	0.85	0.92	0.59	0.66	0.74	0.81	0.87	0.93	0.56	0.63	0.70	0.77	0.83	0.89
EX2-002	1.1	0.74	0.85	0.96	1.07	1.17	1.26	0.81	0.91	1.01	1.11	1.20	1.28	0.76	0.85	0.95	1.04	1.12	1.20
EX2-003	2.0	1.41	1.63	1.82	2.04	2.23	2.41	1.56	1.74	1.95	2.14	2.31	2.47	1.49	1.67	1.86	2.04	2.20	2.36
EX2-004	2.7	1.81	2.09	2.34	2.61	2.86	3.09	1.98	2.21	2.48	2.71	2.93	3.13	1.88	2.10	2.35	2.57	2.78	2.97
EX2-M00	4.3	2.88	3.33	3.72	4.16	4.55	4.92	3.16	3.53	3.95	4.33	4.67	5.00	2.99	3.34	3.74	4.09	4.42	4.73
ESVB-1	1	0.47	0.54	0.61	0.68	0.74	0.80	0.51	0.57	0.64	0.70	0.75	0.81	0.48	0.54	0.60	0.66	0.71	0.76
ESVB-4	4	2.24	2.59	2.89	3.23	3.54	3.83	2.45	2.74	3.06	3.35	3.62	3.87	2.32	2.59	2.90	3.18	3.43	3.67
ESVB-10	10	6.73	7.77	8.69	9.71	10.64	11.49	7.38	8.25	9.23	10.11	10.92	11.67	6.98	7.80	8.73	9.56	10.32	11.04
ESVB-20	20	14.59	16.85	18.84	21.06	23.07	24.92	16.00	17.89	20.00	21.91	23.66	25.30	15.14	16.93	18.93	20.73	22.39	23.94

R-404A/R-507 ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.13	0.15	0.17	0.19	0.21	0.22	0.13	0.15	0.17	0.19	0.21	0.22	0.12	0.14	0.15	0.17	0.19	0.20
EX2-000	0.4	0.23	0.27	0.30	0.33	0.36	0.39	0.22	0.25	0.28	0.32	0.35	0.38	0.21	0.24	0.27	0.30	0.33	0.36
EX2-001	.81	0.47	0.54	0.61	0.68	0.74	0.80	0.46	0.53	0.59	0.66	0.73	0.79	0.43	0.50	0.56	0.62	0.68	0.73
EX2-002	1.1	0.63	0.73	0.81	0.91	1.00	1.08	0.62	0.72	0.80	0.89	0.98	1.06	0.59	0.68	0.76	0.85	0.93	1.01
EX2-003	2.0	1.15	1.33	1.48	1.66	1.82	1.96	1.12	1.29	1.45	1.62	1.77	1.91	1.07	1.24	1.38	1.54	1.69	1.83
EX2-004	2.7	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.44	1.66	1.86	2.08	2.28	2.46
EX2-M00	4.3	2.47	2.85	3.19	3.57	3.91	4.22	2.42	2.79	3.12	3.49	3.83	4.13	2.30	2.66	2.97	3.32	3.64	3.93
ESVB-1	1	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.37	0.43	0.48	0.53	0.59	0.63
ESVB-4	4	1.92	2.22	2.48	2.77	3.04	3.28	1.88	2.17	2.43	2.71	2.97	3.21	1.79	2.07	2.31	2.58	2.83	3.06
ESVB-10	10	5.79	6.69	7.47	8.36	9.15	9.89	5.65	6.52	7.29	8.16	8.93	9.65	5.37	6.20	6.93	7.75	8.49	9.17
ESVB-20	20	12.55	14.49	16.20	18.11	19.84	21.43	12.26	14.16	15.83	17.70	19.38	20.94	11.64	13.44	15.03	16.80	18.40	19.88

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.12	0.14	0.15	0.17	0.19	0.20	0.13	0.15	0.16	0.18	0.19	0.21	0.12	0.13	0.15	0.16	0.18	0.19
EX2-000	0.4	0.20	0.23	0.26	0.29	0.32	0.34	0.22	0.25	0.28	0.30	0.33	0.35	0.20	0.22	0.25	0.27	0.30	0.32
EX2-001	.81	0.41	0.47	0.53	0.59	0.65	0.70	0.44	0.49	0.55	0.60	0.65	0.70	0.41	0.46	0.51	0.56	0.61	0.65
EX2-002	1.1	0.55	0.64	0.71	0.79	0.87	0.94	0.60	0.67	0.75	0.82	0.89	0.95	0.56	0.63	0.70	0.77	0.83	0.89
EX2-003	2.0	1.01	1.17	1.30	1.46	1.60	1.72	1.09	1.22	1.36	1.49	1.61	1.72	1.02	1.14	1.28	1.40	1.51	1.61
EX2-004	2.7	1.36	1.57	1.76	1.96	2.15	2.32	1.48	1.65	1.85	2.03	2.19	2.34	1.38	1.54	1.73	1.89	2.04	2.18
EX2-M00	4.3	2.17	2.51	2.80	3.13	3.43	3.71	2.35	2.63	2.94	3.22	3.48	3.72	2.19	2.45	2.74	3.00	3.24	3.46
ESVB-1	1	0.35	0.40	0.45	0.51	0.55	0.60	0.38	0.42	0.48	0.52	0.56	0.60	0.36	0.40	0.45	0.49	0.53	0.57
ESVB-4	4	1.69	1.95	2.18	2.44	2.67	2.89	1.83	2.05	2.29	2.51	2.71	2.89	1.70	1.90	2.13	2.33	2.51	2.69
ESVB-10	10	5.07	5.85	6.55	7.32	8.02	8.66	5.49	6.14	6.86	7.52	8.12	8.68	5.12	5.72	6.40	7.01	7.57	8.10
ESVB-20	20	10.99	12.69	14.19	15.86	17.38	18.77	11.91	13.32	14.89	16.31	17.62	18.83	11.11	12.42	13.89	15.21	16.43	17.57

EXTENDED CAPACITY TABLES

R-407C ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
EX2-000	0.4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
EX2-001	.81	0.61	0.70	0.79	0.88	0.96	1.04	0.60	0.69	0.77	0.87	0.95	1.02	0.58	0.67	0.75	0.84	0.92	0.99
EX2-002	1.1	0.83	0.96	1.07	1.20	1.31	1.42	0.81	0.94	1.05	1.17	1.28	1.38	0.78	0.90	1.01	1.13	1.23	1.33
EX2-003	2.0	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
EX2-004	2.7	2.04	2.36	2.63	2.94	3.23	3.48	2.00	2.31	2.58	2.89	3.16	3.42	1.92	2.22	2.48	2.77	3.04	3.28
EX2-M00	4.3	3.24	3.74	4.18	4.68	5.12	5.53	3.18	3.67	4.11	4.59	5.03	5.43	3.06	3.53	3.95	4.42	4.84	5.23
ESVB-1	1	0.53	0.61	0.68	0.76	0.84	0.91	0.52	0.60	0.67	0.75	0.82	0.89	0.50	0.58	0.65	0.72	0.79	0.85
ESVB-4	4	2.52	2.91	3.25	3.64	3.98	4.30	2.47	2.85	3.19	3.57	3.91	4.22	2.38	2.75	3.07	3.44	3.76	4.06
ESVB-10	10	7.58	8.75	9.79	10.94	11.99	12.95	7.44	8.59	9.60	10.74	11.76	12.71	7.14	8.24	9.22	10.31	11.29	12.19
ESVB-20	20	16.44	18.98	21.22	23.73	25.99	28.08	16.13	18.63	20.82	23.28	25.50	27.55	15.49	17.89	20.00	22.36	24.49	26.45

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.16	0.18	0.21	0.23	0.25	0.27	0.17	0.19	0.21	0.23	0.25	0.27	0.16	0.18	0.20	0.22	0.24	0.25
EX2-000	0.4	0.27	0.31	0.35	0.39	0.43	0.46	0.30	0.34	0.38	0.41	0.44	0.47	0.28	0.31	0.35	0.38	0.41	0.44
EX2-001	.81	0.55	0.64	0.71	0.79	0.87	0.94	0.60	0.67	0.75	0.82	0.89	0.95	0.57	0.64	0.71	0.78	0.84	0.90
EX2-002	1.1	0.75	0.87	0.97	1.08	1.19	1.28	0.82	0.92	1.03	1.12	1.21	1.30	0.78	0.87	0.98	1.07	1.15	1.23
EX2-003	2.0	1.36	1.57	1.76	1.96	2.15	2.32	1.49	1.67	1.86	2.04	2.20	2.36	1.42	1.59	1.78	1.94	2.10	2.25
EX2-004	2.7	1.83	2.11	2.36	2.64	2.89	3.13	2.02	2.26	2.53	2.77	2.99	3.19	1.91	2.14	2.39	2.62	2.82	3.02
EX2-M00	4.3	2.92	3.37	3.77	4.21	4.62	4.99	3.21	3.59	4.01	4.40	4.75	5.08	3.05	3.41	3.81	4.18	4.51	4.82
ESVB-1	1	0.47	0.54	0.61	0.68	0.74	0.80	0.52	0.58	0.65	0.71	0.77	0.82	0.49	0.55	0.61	0.67	0.72	0.77
ESVB-4	4	2.27	2.62	2.93	3.28	3.59	3.88	2.50	2.80	3.13	3.42	3.70	3.95	2.37	2.65	2.96	3.25	3.51	3.75
ESVB-10	10	6.83	7.89	8.82	9.86	10.80	11.66	7.51	8.40	9.39	10.28	11.11	11.87	7.12	7.96	8.90	9.75	10.53	11.26
ESVB-20	20	14.81	17.10	19.12	21.38	23.42	25.29	16.28	18.20	20.35	22.29	24.08	25.74	15.44	17.26	19.30	21.14	22.84	24.41

R-502 ELECTRIC VALVES (TONS)—E SERIES

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		50°F						40°F						20°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-000	0.4	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34	0.19	0.22	0.25	0.27	0.30	0.32
EX2-001	.81	0.42	0.48	0.54	0.61	0.66	0.72	0.41	0.47	0.53	0.59	0.65	0.70	0.39	0.45	0.50	0.56	0.62	0.67
EX2-002	1.1	0.56	0.65	0.72	0.81	0.89	0.96	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91
EX2-003	2.0	1.03	1.19	1.33	1.49	1.63	1.76	1.00	1.15	1.29	1.44	1.58	1.71	0.96	1.11	1.24	1.39	1.52	1.64
EX2-004	2.7	1.39	1.61	1.79	2.01	2.20	2.37	1.36	1.57	1.76	1.96	2.15	2.32	1.29	1.49	1.67	1.86	2.04	2.20
EX2-M00	4.3	2.21	2.55	2.85	3.19	3.49	3.77	2.16	2.49	2.79	3.12	3.42	3.69	2.06	2.38	2.66	2.97	3.26	3.52
ESVB-1	1	0.36	0.42	0.46	0.52	0.57	0.61	0.35	0.40	0.45	0.51	0.55	0.60	0.33	0.38	0.43	0.48	0.52	0.56
ESVB-4	4	1.72	1.99	2.22	2.48	2.72	2.94	1.68	1.94	2.17	2.42	2.66	2.87	1.60	1.85	2.07	2.31	2.53	2.73
ESVB-10	10	5.16	5.96	6.66	7.45	8.16	8.81	4.82	5.57	6.22	6.96	7.62	8.23	4.82	5.57	6.22	6.96	7.62	8.23
ESVB-20	20	11.18	12.91	14.43	16.14	17.68	19.09	10.95	12.64	14.14	15.80	17.31	18.70	10.45	12.07	13.49	15.08	16.52	17.85

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		0°F						-20°F						-40°F					
		PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)						PRESSURE DROP ACROSS VALVE (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-000	0.4	0.18	0.21	0.23	0.26	0.28	0.31	0.20	0.22	0.25	0.27	0.30	0.32	0.19	0.21	0.24	0.26	0.28	0.30
EX2-001	.81	0.37	0.43	0.48	0.53	0.59	0.63	0.40	0.45	0.50	0.55	0.59	0.63	0.38	0.42	0.48	0.52	0.56	0.60
EX2-002	1.1	0.50	0.58	0.65	0.72	0.79	0.85	0.55	0.61	0.69	0.75	0.81	0.87	0.51	0.57	0.64	0.70	0.75	0.81
EX2-003	2.0	0.91	1.05	1.17	1.31	1.44	1.55	0.99	1.11	1.24	1.36	1.46	1.57	0.93	1.04	1.16	1.27	1.38	1.47
EX2-004	2.7	1.23	1.42	1.59	1.78	1.94	2.10	1.34	1.50	1.68	1.83	1.98	2.12	1.26	1.41	1.58	1.73	1.86	1.99
EX2-M00	4.3	1.96	2.26	2.53	2.83	3.10	3.35	2.13	2.38	2.66	2.92	3.15	3.37	2.00	2.24	2.50	2.74	2.96	3.16
ESVB-1	1	0.32	0.37	0.41	0.46	0.51	0.55	0.35	0.39	0.44	0.48	0.52	0.55	0.32	0.36	0.40	0.44	0.47	0.51
ESVB-4	4	1.52	1.76	1.96	2.19	2.40	2.60	1.66	1.86	2.08	2.27	2.46	2.62	1.56	1.74	1.95	2.14	2.31	2.47
ESVB-10	10	4.57	5.28	5.90	6.60	7.23	7.80	4.99	5.58	6.24	6.83	7.38	7.89	4.68	5.23	5.85	6.41	6.92	7.40
ESVB-20	20	9.92	11.45	12.81	14.32	15.68	16.94	10.81	12.09	13.51	14.80	15.99	17.09	10.15	11.35	12.69	13.90	15.01	16.05

SOLENOID VALVE QUICK SELECT CHARTS

REFRIGERATION APPLICATIONS

APPLICATION	FEATURE	VALVE	NOMINAL LIQUID CAPACITY R-22 (IN TONS) *	PAGE	
LIQUID LINE DISCHARGE GAS	TWO WAY, NORMALLY CLOSED SOLENOID VALVE	50RB	.54	59	
		100RB2	1.3	60	
		200RB2	3.1	62	
		200RB3	4.8		
		200RB4	5.6		
		200RB5	8.2		
		200RB6	10.0		
		200RB7	15.6		
		200RB9	30.5		
		200RB12	34.9		
LIQUID LINE DISCHARGE GAS SUCTION LINE	TWO WAY, NORMALLY CLOSED SOLENOID VALVE	240RA8	15.6	65	
		240RA9 (5/8)	23.3		
		240RA9 (1-1/8)	30.5		
		240RA12	34.9		
		240RA16	58.0		
	TWO WAY, NORMALLY OPEN SOLENOID VALVE	TWO WAY, NORMALLY OPEN SOLENOID VALVE	500RB2	3.1	67
			500RB3	4.8	
			500RB4	5.6	
			500RB5	8.2	
			500RB6	10.0	
			500RB7	15.6	
			540RA8	15.6	69
			540RA9 (5/8)	23.3	
			540RA9 (1-1/8)	30.5	
			540RA12	34.9	
540RA16	58.0				
540RA20	95.4				

* 3 psi pressure drop per ARI Standard 760.

SPECIALTY APPLICATIONS

PAGE	VALVE	APPLICATION
76	3031RB/RC	Heat Reclaim - Three Way
71	710/713RA	Pressure Differential - Liquid Line
73	702RA	Direct Acting - Three Way
74	207CB	Low Pressure Water Solenoid (Dump Valve)
78	RV	Brass Reversing Valve - Four Way
80	703RC	Unloader Valve

50RB SOLENOID VALVES

APPLICATION

- ☆ Direct-acting, 2-way, normally closed valves
- ☆ Used for liquid or discharge gas refrigerant service
- ☆ Solenoid actuated shut-off valve

FEATURES

- ☆ Long-life molded coils
- ☆ Extended ends for easy installation (standard)
- ☆ Screw-on coil
- ☆ 100 Mesh Inlet Screen Standard

OPTIONS

- ☆ Connection sizes to fit your system
- ☆ Available with straight-thru or right angle design

NOMENCLATURE

Example: 50RB 4T22 120/50-60

50R	B	4	I	2	2	120/50-60
Basic Valve Type	Design Series	Port Size (in 1/64")	Connection Type T=ODF straight thru B=ODF right angle	Inlet Connection Size (In 1/8")	Outlet Connection Size (In 1/8")	Coil Voltages



SPECIFICATIONS

- ☆ PTFE seat material
- ☆ 30" leads
- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500 psig
- ☆ MOPD: 300 psig
- ☆ UL file number: MH25894
- ☆ Guide number: Y10Z

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

ORDERING INFORMATION AND NOMINAL LIQUID CAPACITY TABLE FOR 50RB VALVES - TONS

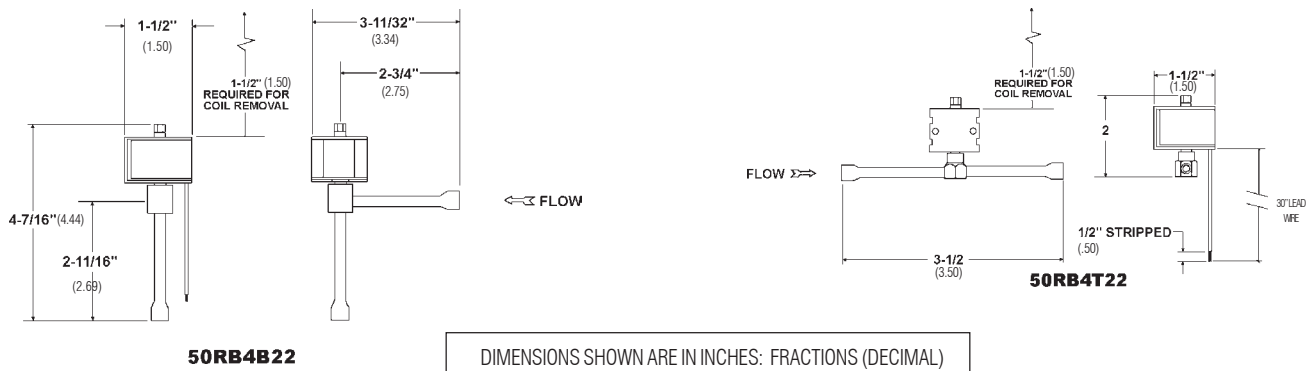
PCN*	DESCRIPTION	CONNECTION SIZE	COIL VOLTAGE/HZ	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
063452	50RB 4 B 2 2 SML	1/4" ODF	120/50-60	.34	.41	.54	.51	.34	.35
063511	50RB 4 B 2 2 SML		220/50-60						
063587	50RB 4 T 2 2 SML		24/50-60						
063454	50RB 4 T 2 2 SML		120/50-60						
063585	50RB 4 B 2 2 SML		24/50-60						
063513	50RB 4 T 2 2 SML		220/50-60						

Standard Product Offering
* Product Code Number

Capacities based on 100°F liquid and 40°F saturated evaporator for ARI standard 760-87.

SEE EXTENDED LIQUID CAPACITIES BEGINNING ON PAGE 81.

50RB DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

100RB SOLENOID VALVES

APPLICATION

- ☆ Used for liquid or discharge gas refrigerant service
- ☆ Direct-acting, 2-way, normally closed valve
- ☆ Solenoid actuated shut-off valve

FEATURES

- ☆ One coil fits all valve sizes
- ☆ Extended ends for easy installation (standard)
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding

OPTIONS

- ☆ Connection sizes to fit your system
- ☆ SAE or ODF connection sizes in 1/4" and 3/8", 1/4 NPTF
- ☆ Coil voltages: all available
- ☆ Use with R-22, R-134a, R-404A, R-507



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500 psig
- ☆ MOPD: 300 psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR44912
- ☆ CV and TUV approved

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOMENCLATURE

Example: 100RB 2F2 VLC

100R	B	2	F	2	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = FPT	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil) See page 87 for available coils.

ORDERING INFORMATION AND NOMINAL CAPACITY TABLE FOR 100RB VALVES - TONS

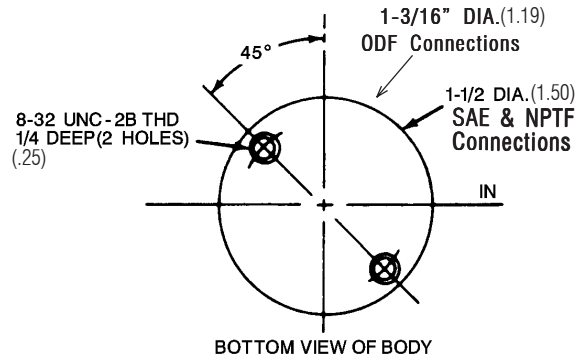
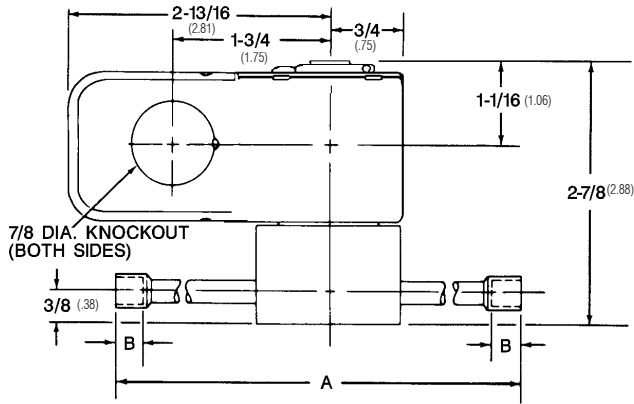
PCN*	PRODUCT DESCRIPTION	CONNECTION SIZE	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
047503	100RB 2S2 VLC	1/4" ODF						
047504	100RB 2S3 VLC	3/8" ODF						
047505	100RB 2S4 VLC	1/2" ODF						
047500	100RB 2F2 VLC	1/4" SAE	.80	.96	1.27	1.21	.85	.83
047501	100RB 2F3 VLC	3/8" SAE						
047502	100RB 2P2 VLC	1/4" NPTF						

Standard Product Offering
* Product Code Number

Capacities based on 100°F liquid and 40°F saturated evaporator for ARI standard 760-87.

SEE EXTENDED LIQUID CAPACITIES BEGINNING ON PAGE 81.

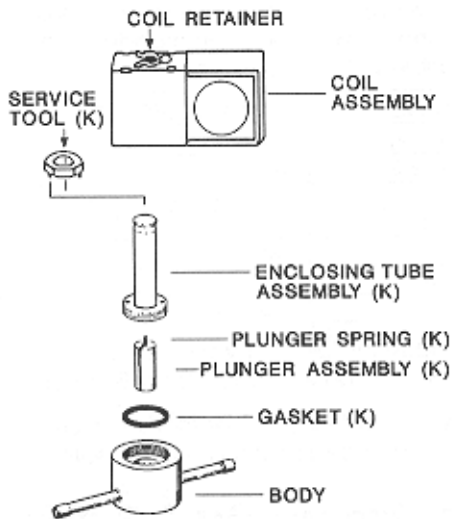
100RB DIMENSIONAL DATA



Valve	Conn. Size	A	B
100RB 2S2 VLC	1/4 ODF	4-5/8 (4.63)	5/16 (.31)
100RB 2S3 VLC	3/8 ODF	4-5/8 (4.63)	5/16 (.31)
100RB 2S4 VLC	1/2 ODF	4-5/8 (4.63)	3/8 (.38)
100RB 2F2 VLC	1/4 SAE	2-7/8 (2.88)	-
100RB 2F3 VLC	3/8 SAE	3-1/4 (3.25)	-
100RB 2P2 VLC	1/4 NPTF	1-1/2 (1.50)	-

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

100RB EXPLODED VIEW & PARTS KIT DATA



"K" indicates part is supplied in valve repair kit **KS30112** (PCN 049191).
 Note: Spanner wrench X11981-1 (PCN 027451) included in complete valve kit.

COIL ASSEMBLY
 Consists of coil, coil nameplate, and conversion spacer (AMG).
 For voltages and frequencies available see the tables beginning on page 85.

PARTS KIT
 KG-10041 PCN: 054812

200RB SOLENOID VALVES

APPLICATION

- ☆ Pilot-operated, 2-way, normally closed valves
- ☆ Ideal for liquid, discharge or suction gas refrigerant service
- ☆ Solenoid actuated shut-off valves

FEATURES

- ☆ One coil fits all valve sizes
- ☆ Extended ends for easy installation (standard)
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ Low pressure differential required for full opening

OPTIONS

- ☆ Connection sizes to fit your system
- ☆ Can be converted for bi-flo applications
- ☆ Available in 8 orifice sizes
- ☆ Manual stem or mounting bracket adapter

NOMENCLATURE

Example: 200RB 4T3M VLC

200R	B	4	T	3	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = FPT T = Copper Extended Ends	Connection Size (in 1/8")	M = manual stem T = mounting bracket adapter (M & T optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil) See page 87 for available coils.



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500psig
- ☆ MOPD: 300psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR44912

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

ORDERING INFORMATION AND NOMINAL CAPACITY TABLE FOR 200RB VALVES - TONS

Standard Valve	PCN*		Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
	Mounting Stud ^①	Manual Stem ^②								
062611	--	N/A	200RB 2 F 2	1/4 SAE	2.0	2.4	3.1	2.9	2.1	2.0
053105	053236	N/A	200RB 2 F 3	3/8 SAE						
053106	054170	N/A	200RB 2 T 2	1/4 ODF						
052726	056438	--	200RB 2 T 3	3/8 ODF	3.0	3.6	4.8	4.5	3.2	3.1
052727	055855	--	200RB 3 F 2	1/4 SAE						
049608	--	--	200RB 3 F 3	3/8 SAE						
049609	049585	065620	200RB 3 F 4	1/2 SAE						
049692	--	065621	200RB 3 T 2	1/4 ODF						
047506	047508	047507	200RB 3 T 3	3/8 ODF	3.6	4.3	5.6	5.3	3.7	3.6
	047509	047509	200RB 3 T 4	1/2 ODF						
047511	047513	047512	200RB 4 F 3	3/8 SAE						
047516	047515	047514	200RB 4 P 3	3/8 NPTF						
047517	049162	049186	200RB 4 S 3	3/8 ODF x 1/2 ODM						
047518	049163	049187	200RB 4 S 4	1/2 ODF x 5/8 ODM						
058950	058045	056518	200RB 4 T 3	3/8 ODF						
047519	047521	047520	200RB 4 T 4	1/2 ODF						
059729	047523	--	200RB 4 T 5	5/8 ODF						
047524	047526	047525	200RB 5 F 4	1/2 SAE						
049201	047528	047527	200RB 5 F 5	5/8 ODF	5.3	6.4	8.2	7.8	5.4	5.3
061227	054323	--	200RB 5 S 4	1/2 ODF x 5/8 ODM						
057206	049164	049188	200RB 5 S 5	5/8 ODF						
059730	049165	049189	200RB 5 T 3	3/8 ODF						
	047531	047530	200RB 5 T 4	1/2 ODF						
	047534	047533	200RB 5 T 5	5/8 ODF						
059732	047534	047533	200RB 6 F 4	1/2 SAE						
059733	047536	--	200RB 6 F 5	5/8 SAE						
047537	047539	047538	200RB 6 F 6	1/2 SAE						
047540	047542	047541	200RB 6 P 3	3/8 NPTF						
047544	047546	047545	200RB 6 S 4	1/2 ODF x 5/8 ODM						
056766	047548	047547	200RB 6 S 5	5/8 ODF						
	--	--	200RB 6 T 4	1/2 ODF	6.4	7.7	10.0	9.5	6.5	6.5
	--	--	200RB 6 T 5	5/8 ODF						
	--	--	200RB 6 T 6	5/8 ODF						
	--	--	200RB 6 T 7	5/8 ODF x 7/8 ODM						
064062	--	--	200RB 7 T 4	1/2 ODF						
064063	064562	064267	200RB 7 T 5	5/8 ODF						
064282	064284	064283	200RB 7 T 6	7/8 ODF						
	064764	064763	200RB 7 T 7	7/8 ODF						
	064766	064765	200RB 9 T 5	5/8 ODF						
	064769	064768	200RB 9 T 6	7/8 ODF						
	064820	064819	200RB 9 T 7	1 1/8 ODF	10.0	12.1	15.6	14.8	10.3	10.1
	064823	064822	200RB 12 T 7	7/8 ODF						
	064823	064822	200RB 12 T 9	1 1/8 ODF						
					14.9	18.0	23.3	22.2	15.3	15.1
					19.6	23.6	30.5	29.0	20.1	19.8
					22.5	27.1	34.9	33.2	23.0	22.7

* Product Code Number
 Standard Product Offering

① Add "T" to the end of description for Mounting Stud ② Add "M" to the end of the description for Manual Stem

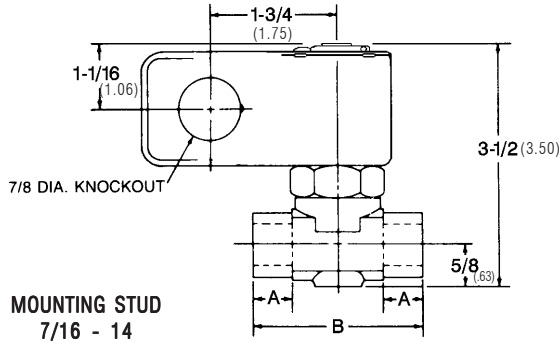
SEE EXTENDED LIQUID CAPACITIES BEGINNING ON PAGE 81.

ORDERING INFORMATION AND NOMINAL CAPACITY TABLE FOR 200RB BiFlow SOLENOIDS - TONS

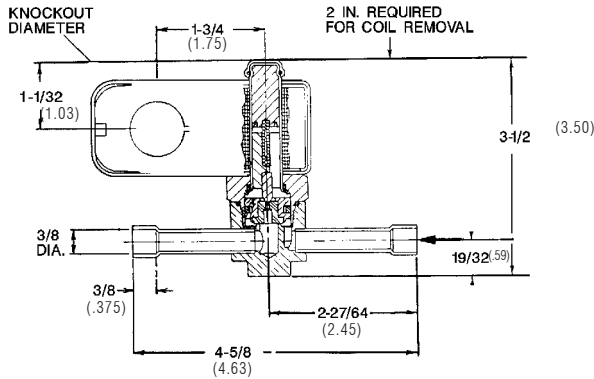
PCN*			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud	Manual Stem								
009689	--	--	200RB GS-1925 3 T 3	3/8 ODF	3.0	3.6	4.8	4.5	3.2	3.1
009690	--	--	200RB GS-1926 4 T 3	3/8 ODF	3.6	4.3	5.6	5.3	3.7	3.6
009692	--	--	200RB GS-1928 5 T 4	1/2 ODF	5.3	6.4	8.2	7.8	5.4	5.3
009693	--	--	200RB GS-1929 5 T 5	5/8 ODF						
009694	--	--	200RB GS-1930 6 T 5	5/8 ODF	6.4	7.7	10.0	9.5	6.5	6.5

* Product Code Number

200RB2-6 DIMENSIONAL DATA



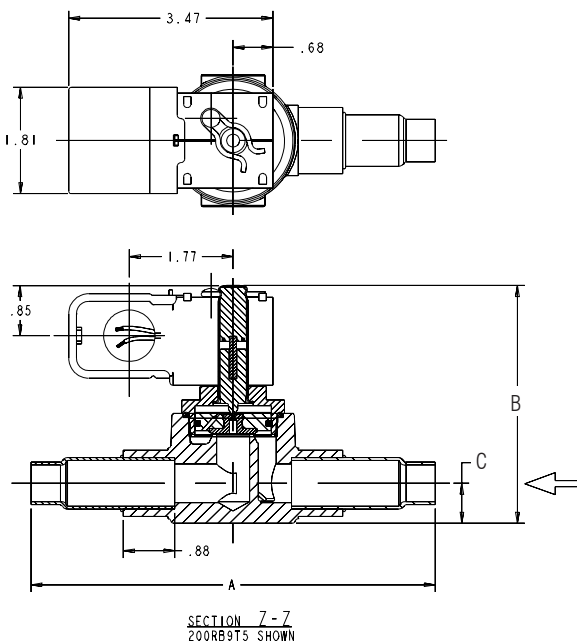
Valve	Port Size	Conn. Size & Style	A	B
200RB 4P2	1/4	1/4 NPTF	--	2-3/8 (2.38)
200RB 4P3		3/8 NPTF	--	2-3/8 (2.38)
200RB 4S3		3/8 ODF x 1/2 ODM	1/2 (.50)	2-3/8 (2.38)
200RB 4S4		1/2 ODF x 5/8 ODM	9/16 (.56)	2-3/8 (2.38)
200RB 4F3	5/16	3/8 SAE (male flare)	--	2-15/16 (2.94)
200RB 5P3		3/8 NPTF	--	2-3/8 (2.38)
200RB 5S4		1/2 ODF x 5/8 ODM	9/16 (.56)	2-3/8 (2.38)
200RB 5S5		5/8 ODF	9/16 (.56)	2-3/8 (2.38)
200RB 5F4	3/8	1/2 SAE (male flare)	--	3-5/16 (3.31)
200RB 5F5		5/8 SAE (male flare)	--	3-9/16 (3.56)
200RB 6P3		3/8 NPTF	--	2-3/8 (2.38)
200RB 6S4		1/2 ODF x 5/8 ODM	9/16 (.56)	2-3/8 (2.38)
200RB 6S5	3/8	5/8 ODF	9/16 (.56)	2-3/8 (2.38)
200RB 6F4		1/2 SAE (male flare)	--	3-5/16 (3.31)
200RB 6F5		5/8 SAE (male flare)	--	3-9/16 (3.56)



200RB With EXTENDED ENDS

Valve	Port Size	Conn. Size & Style	A	B	C
200RB 2T2	1/8	1/4 ODF	3-1/2 (3.50)	4-5/8 (4.63)	1/4 (.25)
200RB 2T3		3/8 ODF	3-1/2 (3.50)	4-5/8 (4.63)	5/16 (.31)
200RB 3T2	3/16	1/4 ODF	3-1/2 (3.50)	4-5/8 (4.63)	1/4 (.25)
200RB 3T3		3/8 ODF	3-1/2 (3.50)	4-5/8 (4.63)	5/16 (.31)
200RB 3T4	1/4	1/2 ODF	3-1/2 (3.50)	4-5/8 (4.63)	3/8 (.38)
200RB 4T4		1/2 ODF	2-1/2 (2.50)	5	3/8 (.38)
200RB 4T5	5/16	5/8 ODF	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)
200RB 5T3		3/8 ODF	2-5/16 (2.51)	4-5/8 (4.63)	5/16 (.31)
200RB 5T4	3/8	1/2 ODF	2-1/2 (2.50)	5	3/8 (.38)
200RB 5T5		5/8 ODF	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)
200RB 6T3	3/8	3/8 ODF	2-5/16 (2.51)	4-5/8 (4.63)	5/16 (.31)
200RB 6T4		1/2 ODF	2-1/2 (2.50)	5	3/8 (.38)
200RB 6T5	3/8	5/8 ODF	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)

200RB7, 9 and 12 DIMENSIONAL DATA



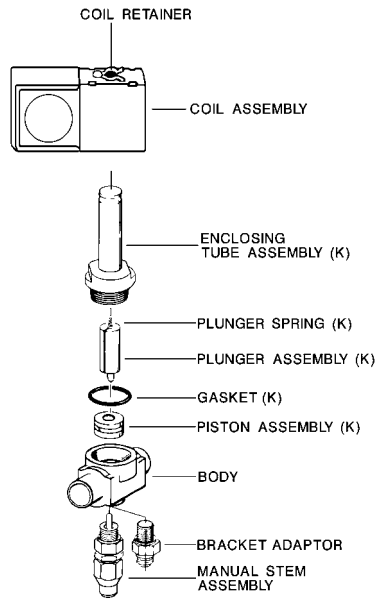
DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

Valve	Port Size	Conn. Size & Style	A	B	C
200RB7S5	7/16"	5/8 ODF x 7/8 ODM	2.98	3.69	0.53
200RB7T5		5/8 ODF x 5/8 ODF	6.88		
200RB7T7		7/8 ODF x 7/8 ODF			
200RB9T5	9/16"	5/8 ODF x 5/8 ODF	6.88	4.05	0.68
200RB9T6		3/4 ODF x 3/4 ODF	7.38		
200RB9T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T9	3/4"	1 1/8 ODF x 1 1/8 ODF	8.50	8.50	
200RB12T7		7/8 ODF x 7/8 ODF	7.50		
200RB12T9		1 1/8 ODF x 1 1/8 ODF	8.50		

200RB Bi-Flow CONVERSION

Standard 200RB uni-directional valves can be converted to Bi-Flow operation by replacing the internal parts with the components in kit KS30293 (PCN 056431). Unlike the standard valve which permits flow in one direction only when energized, the Bi-Flow version allows the valve to flow in either direction, depending on differential pressures, when energized. If the valve is not energized when flowing in the reverse direction, valve "flutter" will occur. Also, with the valve de-energized, a higher downstream pressure than upstream (back-flow) will force the valve open. **NOTE: A 200RB7, 200RB9 and 200RB12 cannot be converted to a Bi-Flow valve.**

200RB EXPLODED VIEW & PARTS KIT DATA



"K" indicates part is supplied in valve repair kit **KS30115**.(PCN **049194**)

Gasket Kit **KG10025** (PCN **049190**)(contains 12 pieces).

Bi-Flo Conversion Kit **KS30293** (PCN **056431**).

Manual stem kit for **200RB3** **KS30377**(PCN **065695**); Manual stem kit for **200RB4-6** **KS30117**(PCN **053959**); (not available for **200RB2**).

COIL ASSEMBLY

For voltages and frequencies available
see the tables beginning on page 85.

200RB VALVE KITS

VALVE	COMPLETE KIT	PCN*	MANUAL OPENING KIT	PCN*	BI-FLOW KIT	PCN*	GASKET KIT	PCN*
200RB2	KS30115	049194	N/A	N/A	KS30293	056431	KG10025	049190
200RB3	KS30115	049194	KS30377	065695	KS30293	056431	KG10025	049190
200RB4	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB5	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB6	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB7	KS30354	064263	KS30361	064831	N/A	N/A	KG00002	064262
200RB9	KS30362	064825	KS30364	064832	N/A	N/A	KG00003	064930
200RB12	KS30365	064826	KS30364	064832	N/A	N/A	KG00004	064833

Standard Product Offering

* Product Code Number

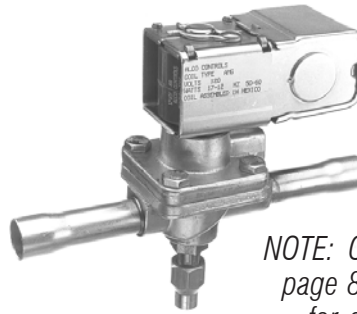
240RA SOLENOID VALVES

APPLICATION

- ☆ 2-way, normally closed diaphragm valves
- ☆ Ideal for liquid, suction and hot gas service
- ☆ Solenoid actuated shut-off valve

FEATURES

- ☆ One coil fits all valve sizes
- ☆ Can be brazed into the line without disassembly
- ☆ Reinforced PTFE diaphragm with woven fiberglass for superior control
- ☆ Durable, stainless enclosing tube
- ☆ Extended ends for easy installation (standard)
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ Low pressure differential required for full opening
- ☆ Mounting stud models can be field converted to manual lift stem



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500psig
- ☆ MOPD: 300psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR44912

OPTIONS

- ☆ Connection sizes to fit your system
- ☆ Manual stem or mounting bracket adapter

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOMENCLATURE

Example: 240RA8T5M VLC

240R Valve Series	A Design Series	8 Port Size (in 1/16")	T Connection Type T = copper extended ends	5 Connection Size (in 1/8")	M M = manual stem (optional) T = mounting bracket adapter (optional)	VLC Coil*
-----------------------------	---------------------------	----------------------------------	---	---------------------------------------	---	---------------------

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 87 for available coils.

ORDERING INFORMATION AND NOMINAL LIQUID CAPACITY TABLE FOR 240RA VALVES - TONS

PCN*			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud ^①	Manual Stem ^②								
060374	040846	040845	240RA 8 T 5	5/8 ODF	10.0	12.1	15.6	14.8	10.3	10.1
060375	044860	045753	240RA 8 T 7	7/8 ODF						
060376	040848	040847	240RA 9 T 5	5/8 ODF	14.9	18.0	23.3	22.1	15.3	15.1
060377	043205	043204	240RA 9 T 7	7/8 ODF						
060378	044861	045752	240RA 9 T 9	1 1/8 ODF	19.6	23.6	30.5	29.0	21.0	19.8
060379	040850	040849	240RA 12 T 7	7/8 ODF						
060380	043959	045549	240RA 12 T 9	1 1/8 ODF	22.5	27.1	34.9	33.2	23.0	22.7
060381	042549	042548	240RA 16 T 9	1 1/8 ODF						
	044428	044788	240RA 16 T 11	1 3/8 ODF	37.3	45.0	58.0	55.2	38.3	37.7
	047761	046636	240RA 20 T 11	1 3/8 ODF						
060384	047747	046637	240RA 20 T 13	1 5/8 ODF	58.8	70.9	95.4	90.8	65.7	62.0
060385	054297	046638	240RA 20 T 17	2 1/8 ODF						

* Product Code Number

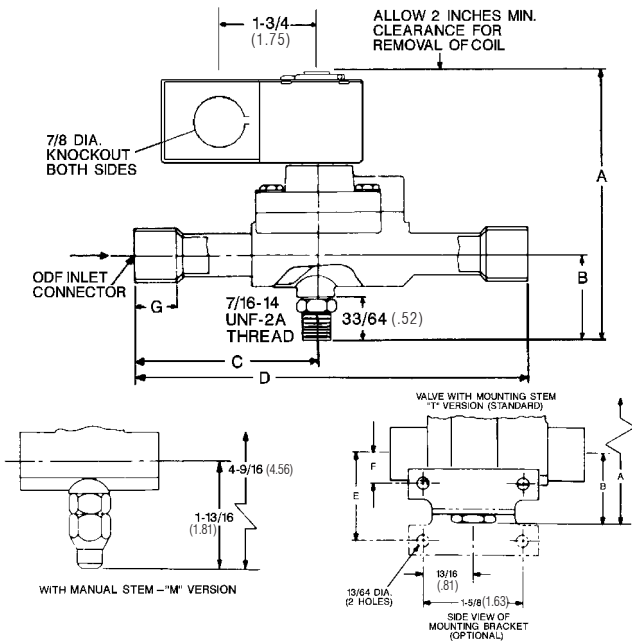
① Add "T" to the end of description for Mounting Stud

② Add "M" to the end of the description for Manual Stem

■ Standard Product Offering

SEE EXTENDED LIQUID CAPACITIES BEGINNING ON PAGE 81.

240RA DIMENSIONAL DATA



VALVE	PORT SIZE	CONN. SIZE	A	B	C	D	E	F	G	H
240RA8T-T	12 (.50)	5/8ODF (.63)	4-5/16(4.80)	1-11/32(1.34)	3/32 (.32)	6/8 (.68)	1-21/64(1.33)	27/64(.42)	12 (.50)	2 1/16 (2.06)
240RA8T-M		5-3/8(6.61)	2-5/32(2.16)			1-23/64(1.33)	29/64(.45)			
240RA12T-T	12 (.50)	7/8ODF (.88)	4-5/16(4.80)	1-11/32(1.34)	3/132 (.341)	7/16 (.713)	1-21/64(1.33)	27/64(.42)	3/4 (.75)	2 1/16 (2.06)
240RA12T-M		5-3/8(6.61)	2-5/32(2.16)			1-23/64(1.33)	29/64(.45)			
240RA16T-T	9/16 (.38)	5/8ODF (.63)	5-5/64(5.61)	1-1/2(1.50)	3/164 (.329)	6/8 (.68)	1-31/64(1.48)	37/64(.58)	12 (.50)	3 1/8 (3.125)
240RA16T-M		5-57/64(6.89)	2-5/16(2.31)			1-33/64(1.52)	39/64(.61)			
240RA16T-T	9/16 (.38)	7/8ODF (.88)	5-5/64(5.61)	1-1/2(1.50)	3/164 (.333)	7/16 (.713)	1-31/64(1.48)	37/64(.58)	3/4 (.75)	3 1/8 (3.125)
240RA16T-M		5-57/64(6.89)	2-5/16(2.31)			1-33/64(1.52)	39/64(.61)			
240RA16T9-T	3/8	1-1/8ODF (1.13)	5-5/64(5.61)	1-1/2(1.50)	4/164 (4.12)	8/12 (.63)	1-31/64(1.48)	37/64(.58)	29/32 (.91)	3 7/8 (3.44)
240RA16T9-M		5-57/64(6.89)	2-5/16(2.31)			1-33/64(1.52)	39/64(.61)			
240RA12T7-T	3/8	7/8ODF (.88)	5-5/64(5.61)	1-1/2(1.50)	3/364 (3.52)	7/12 (.73)	1-31/64(1.48)	37/64(.58)	3/4 (.75)	3 1/8 (3.125)
240RA12T7-M		5-57/64(6.89)	2-5/16(2.31)			1-33/64(1.52)	39/64(.61)			
240RA12T9-T	3/8	1-1/8ODF (1.13)	5-5/64(5.61)	1-1/2(1.50)	4/164 (4.12)	8/12 (.63)	1-31/64(1.48)	37/64(.58)	29/32 (.91)	3 7/8 (3.44)
240RA12T9-M		5-57/64(6.89)	2-5/16(2.31)			1-33/64(1.52)	39/64(.61)			
240RA16T9-T	1/80	1-1/8ODF (1.13)	5-11/32(5.34)	1-21/32(1.66)	4/4 (.42)	9/16 (.93)	1-3/8(1.38)	1 (1.00)	29/32 (.91)	3 7/8 (3.44)
240RA16T9-M		6-1/4(6.25)	2-9/16(2.56)			1-13/32(1.41)	1-1/32(1.03)			
240RA16T11-T	1/80	1-3/8ODF (1.38)	5-11/32(5.34)	1-21/32(1.66)	5/4 (.52)	11/16 (1.16)	1-3/8(1.38)	1 (1.00)	3/32 (.57)	4 1/8 (4.125)
240RA16T11-M		6-1/4(6.25)	2-9/16(2.56)			1-13/32(1.41)	1-1/32(1.03)			
240RA20T11-T	1/4 (1.25)	1-3/8ODF (1.38)	5-29/64(5.43)	1-5/16(1.31)	5/64 (.811)	10/16 (10.81)	-	-	3/32 (.57)	4 1/8 (4.125)
240RA20T11-M		6-51/64(6.80)	2-21/32(2.66)			-	-			
240RA20T13-T	1/4 (1.25)	1-9/8ODF (1.63)	5-29/64(5.43)	1-5/16(1.31)	5/564 (5.59)	12/8 (12.38)	-	-	1/32 (1.59)	4 1/8 (4.125)
240RA20T13-M		6-51/64(6.80)	2-21/32(2.66)			-	-			
240RA20T17-T	1/4 (1.25)	2-1/8ODF (2.13)	5-29/64(5.43)	1-5/16(1.31)	6/3764 (6.38)	13/4 (13.75)	-	-	1-11/32 (1.34)	4 1/8 (4.125)
240RA20T17-M		6-51/64(6.80)	2-21/32(2.66)			-	-			

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

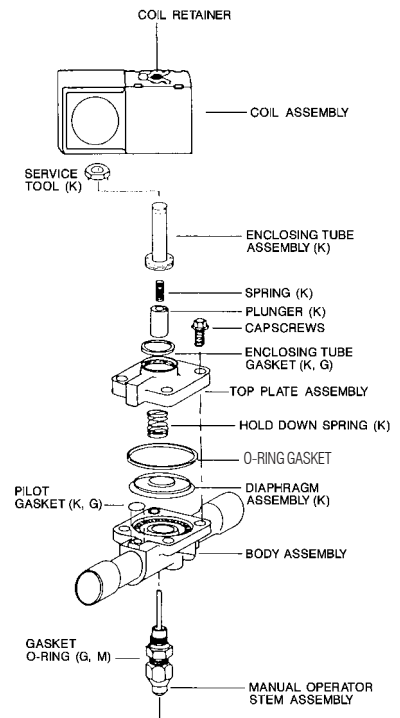
240RA VALVE KITS

VALVE	COMPLETE KIT	PCN	MANUAL OPENER KIT	PCN
240RA8	KS30321	060626	KS30066	044657
240RA9	KS30322	060627	KS30067	044658
240RA12	KS30323	060628	KS30067	044658
240RA16	KS30324	060629	KS30068	044491
240RA20	KS30325	060630	KS30098	047723

Gasket Kit all 240RA valves is KG10028 (PCN 054356)

Standard Product Offering

240RA EXPLODED VIEW & PARTS KIT DATA



MOUNTING BRACKETS

240RA8, 9, 12: X13983-1
240RA16: X13983-3

"K" indicates part is supplied in complete valve repair kit.

"M" indicates part is supplied in manual opener kit.

"G" indicates gasket is supplied in gasket kit.

Note: Spanner wrench (X11981-1 service tool) included in complete valve kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables beginning on page 85.

500RB SOLENOID VALVES

APPLICATION

- ☆ Pilot-operated, 2-way, normally open valves
- ☆ Ideal for liquid or discharge gas refrigerant service
- ☆ Solenoid actuated shut-off valve

FEATURES

- ☆ One coil fits all valve sizes
- ☆ Extended ends for easy installation
- ☆ Can be positioned in remote locations
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ Low pressure differential required for full opening

OPTIONS

- ☆ Connection sizes to fit your system
- ☆ Available connection types: SAE, ODF, FPT and ODF inlet with ODM outlet

NOMENCLATURE

Example: 500RB 4T3 VLC

500R	B	4	I	3	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE T = ODF (Extended Copper Fittings) P = FPT S = ODF inlet/ODM outlet	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 87 for coil information.

NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.



SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500psig
- ☆ M O P D : 275 psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR44912

NOTE: This valve requires a DM, MM or ASC-Type style coil assembly. ASC-Type Coil requires snap cap and cable assembly X28616-1.

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

ORDERING INFORMATION AND NOMINAL LIQUID CAPACITY TABLE FOR 500RB VALVES - TONS

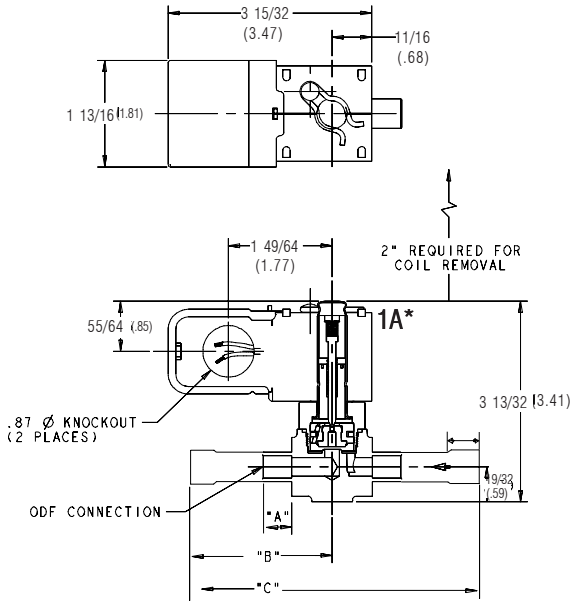
PCN*	PRODUCT DESCRIPTION	CONNECTION SIZE	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
063274	500RB 2 F 2	1/4 SAE	2.0	2.4	3.1	2.9	2.1	2.0
063276	500RB 2 F 3	3/8 SAE						
063278	500RB 2 T 2	1/4 ODF						
063280	500RB 2 T 3	3/8 ODF	3.0	3.6	4.8	4.5	3.2	3.1
063282	500RB 3 F 2	1/4 SAE						
063284	500RB 3 F 3	3/8 SAE						
063286	500RB 3 F 4	1/2 SAE						
063288	500RB 3 T 2	1/4 ODF						
063290	500RB 3 T 3	3/8 ODF						
063292	500RB 3 T 4	1/2 ODF	3.6	4.3	5.6	5.3	3.7	3.6
063294	500RB 4 F 3	3/8 SAE						
063296	500RB 4 P 2	1/4 NPTF						
063298	500RB 4 P 3	3/8 NPTF						
063306	500RB 4 T 3	3/8 ODF						
063308	500RB 4 T 4	1/2 ODF						
063310	500RB 4 T 5	5/8 ODF						
063312	500RB 5 F 4	1/2 SAE						
063314	500RB 5 F 5	5/8 SAE						
063316	500RB 5 P 3	3/8 NPTF						
063322	500RB 5 T 3	3/8 ODF	5.3	6.4	8.2	7.8	5.4	5.3
063323	500RB 5 T 4	1/2 ODF						
063325	500RB 5 T 5	5/8 ODF						
063327	500RB 6 F 4	1/2 SAE						
063329	500RB 6 F 5	5/8 SAE						
063331	500RB 6 P 3	3/8 NPTF						
063337	500RB 6 T 3	3/8 ODF	6.4	7.7	10.0	9.5	6.5	6.5
063339	500RB 6 T 4	1/2 ODF						
063341	500RB 6 T 5	5/8 ODF						
064038	500RB 7 S 5	5/8 ODF x 7/8 ODM						
064064	500RB 7 T 4	1/2 ODF	10.0	12.1	15.6	14.8	10.3	10.1
064065	500RB 7 T 5	5/8 ODF						

* Product Code Number

Standard Product Offering

SEE PAGES 81-84 FOR EXTENDED LIQUID AND DISCHARGE GAS CAPACITIES.

500RB DIMENSIONAL DATA



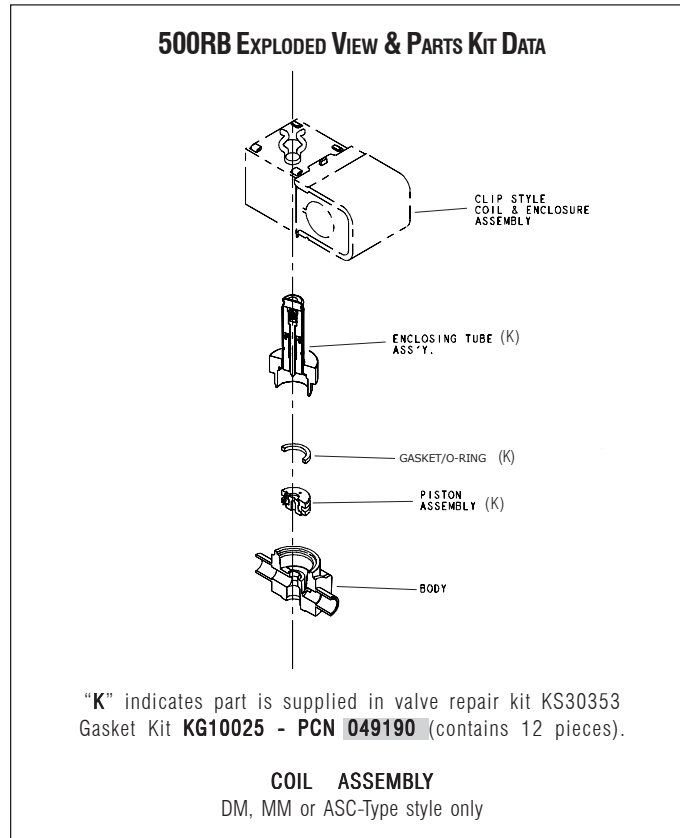
Valve	Port Size	Conn. Size & Style	A	B
500RB 4P2	1/4 (.25)	1/4 NPTF (.25)	-	2-3/8 (2.38)
500RB 4P3		3/8 NPTF (.38)	-	2-3/8 (2.38)
500RB 4S3		3/8 ODF x 1/2 ODM (.38 x .50)	1/2 (.50)	2-3/8 (2.38)
500RB 4S4		1/2 ODF x 5/8 ODM (.50 x .63)	9/16 (.56)	2-3/8 (2.38)
500RB 4F3	5/16 (.31)	3/8 SAE (male flare) (.38)	-	2-15/16 (2.94)
500RB 5P3		3/8 NPTF (.38)	-	2-3/8 (2.38)
500RB 5S4		1/2 ODF x 5/8 ODM (.50 x .63)	9/16 (.56)	2-3/8 (2.38)
500RB 5S5		5/8 ODF (.63)	9/16 (.56)	2-3/8 (2.38)
500RB 5F4	3/8 (.38)	1/2 SAE (male flare) (.50)	-	3-5/16 (3.31)
500RB 5F5		5/8 SAE (male flare) (.63)	-	3-9/16 (3.56)
500RB 6P3		3/8 NPTF (.38)	-	2-3/8 (2.38)
500RB 6S4		1/2 ODF x 5/8 ODM (.50 x .63)	9/16 (.56)	2-3/8 (2.38)
500RB 6S5	7/16 (.44)	5/8 ODF (.63)	9/16 (.56)	2-3/8 (2.38)
500RB 6F4		1/2 SAE (male flare) (.50)	-	3-5/16 (3.31)
500RB 6F5		5/8 SAE (male flare) (.63)	-	3-9/16 (3.56)
500RB 7S5		5/8 ODF x 7/8 ODM (.63 x .88)	5/8 (.63)	3 (3.00)

500RB WITH EXTENDED ENDS

Valve	Port Size	Conn. Size & Style	A	B	C
500RB 2T2	1/8 (.13)	1/4 ODF (.25)	3-1/2 (3.50)	4-5/8 (4.63)	1/4 (.25)
500RB 2T3		3/8 ODF (.38)	3-1/2 (3.50)	4-5/8 (4.63)	5/16 (.31)
500RB 3T2	3/16 (.19)	1/4 ODF (.25)	3-1/2 (3.50)	4-5/8 (4.63)	1/4 (.25)
500RB 3T3		3/8 ODF (.38)	3-1/2 (3.50)	4-5/8 (4.63)	5/16 (.31)
500RB 3T4	1/4 (.25)	1/2 ODF (.50)	3-1/2 (3.50)	4-5/8 (4.63)	3/8 (.38)
500RB 4T4		1/2 ODF (.50)	2-1/2 (2.50)	5 (5.00)	3/8 (.38)
500RB 4T5		5/8 ODF (.63)	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)
500RB 5T3		3/8 ODF (.38)	2-5/16 (2.31)	4-5/8 (4.63)	5/16 (.31)
500RB 5T4	5/16 (.31)	1/2 ODF (.50)	2-1/2 (2.50)	5 (5.00)	3/8 (.38)
500RB 5T5		5/8 ODF (.63)	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)
500RB 6T3	3/8 (.38)	3/8 ODF (.38)	2-5/16 (2.31)	4-5/8 (4.63)	5/16 (.31)
500RB 6T4		1/2 ODF (.50)	2-1/2 (2.50)	5 (5.00)	3/8 (.38)
500RB 6T5		5/8 ODF (.63)	3-1/4 (3.25)	6-1/2 (6.50)	1/2 (.50)
500RB 7T5	7/16 (.44)	5/8 ODF x 5/8 ODF (.63 x .63)	-	6-7/8 (6.88)	-

*NOTE: 1A dimension on drawing indicates extended copper tube version.

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)



Use MagMax style coil for operation on DC voltage. No other DC coil may be used.

540RA SOLENOID VALVES

APPLICATION

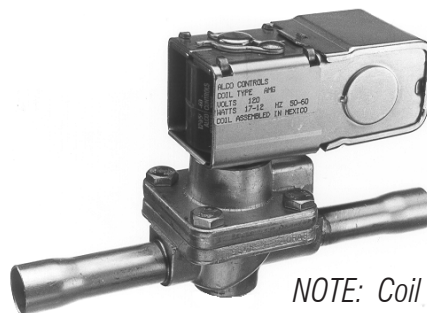
- ☆ 2-way, normally open diaphragm valves
- ☆ Ideal for liquid, suction and hot gas service
- ☆ Solenoid actuated shut-off valve

FEATURES

- ☆ One coil fits all valve sizes
- ☆ Can be brazed into the line without disassembly
- ☆ Reinforced PTFE diaphragm with woven fiberglass for superior control
- ☆ Durable, stainless enclosing tube
- ☆ Extended ends for easy installation
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ Low pressure differential required for full opening

OPTIONS

- ☆ Connection sizes to fit your system



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500psig
- ☆ MOPD: 250psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR44912

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOMENCLATURE

example: 540RA8T5VLC

540R	A	8	T	5	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper extended ends	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 87 for available coils.

ORDERING INFORMATION AND NOMINAL LIQUID CAPACITY TABLE FOR 540RA VALVES - TONS

PCN*		Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud [Ⓢ]								
		540RA 8 T 4	1/2 ODF						
060392	046265	540RA 8 T 5	5/8 ODF	10.0	12.1	15.6	14.8	10.3	10.1
060393	046989	540RA 8 T 7	7/8 ODF						
060394		540RA 9 T 5	5/8 ODF	14.9	18.0	23.3	22.1	15.3	15.1
060395	046268	540RA 9 T 7	7/8 ODF						
060396	047497	540RA 9 T 9	1 1/8 ODF	19.6	23.6	30.5	29.0	20.1	19.8
060397		540RA 12 T 7	7/8 ODF						
060398	047498	540RA 12 T 9	1 1/8 ODF	22.5	27.1	34.9	33.2	23.0	22.7
060399	046270	540RA 16 T 9	1 1/8 ODF						
060400		540RA 16 T 11	1 3/8 ODF	37.3	45.0	58.0	55.2	38.3	37.7
060402	047954	540RA 20 T 13	1 5/8 ODF	58.8	70.9	95.4	90.8	65.7	62.0
060403	047955	540RA 20 T 17	2 1/8 ODF						

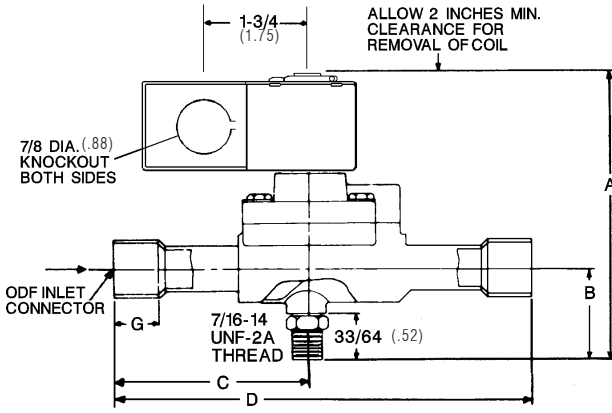
* Product Code Number

Ⓢ Add "T" to the end of description for Mounting Stud

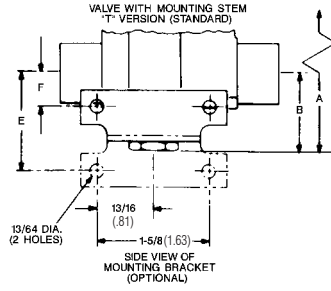
■ Standard Product Offering

SEE EXTENDED LIQUID CAPACITIES BEGINNING ON PAGE 81.

540RA DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)



VALVE	PORT SIZE	CONN. SIZE	A	B	C	D	E	F	G	H
540RA85-T	1/2 (.50)	5/8ODF (.63)	4-5/16(4.80)	1-11/32(1.34)	3-9/32(3.28)	6-7/8(6.88)	1-21/64(1.33)	27/64(.42)	1/2(.50)	2-1/16(2.06)
540RA87-T		7/8ODF	4-5/16(4.80)	1-11/32(1.34)	3-13/32(3.41)	7-1/8(7.13)	1-21/64(1.33)	27/64(.42)	3/4(.75)	
540RA95-T	9/16 (.56)	5/8ODF (.63)	5-5/16(5.08)	1-1/2(1.50)	3-13/64(3.20)	6-7/8(6.88)	1-31/64(1.48)	37/64(.58)	1/2(.50)	2-9/16(2.56)
540RA97-T		7/8ODF (.88)	5-5/16(5.08)	1-1/2(1.50)	3-21/64(3.33)	7-1/8(7.13)	1-31/64(1.48)	37/64(.58)	3/4(.75)	
540RA99-T	3/4 (.75)	1-1/8(1.13)	5-5/16(5.08)	1-1/2(1.50)	4-1/64(4.02)	8-1/2(8.50)	1-31/64(1.48)	37/64(.58)	29/32(.91)	4-1/16(4.06)
540RA127-T		7/8ODF (.88)	5-5/16(5.08)	1-1/2(1.50)	3-33/64(3.52)	7-1/2(7.50)	1-31/64(1.48)	37/64(.58)	3/4(.75)	
540RA129-T	1 (1.00)	1-1/8ODF(1.13)	5-5/16(5.08)	1-1/2(1.50)	4-1/64(4.02)	8-1/2(8.50)	1-31/64(1.48)	37/64(.58)	29/32(.91)	2-1/16(2.06)
540RA169-T		1-1/8ODF(1.13)	5-11/32(5.34)	1-21/32(1.66)	4-1/4(4.25)	9-1/16(9.06)	1-3/8(1.38)	1 (1.00)	29/32(.91)	
540RA1671-T	1-1/4(1.25)	1-3/8ODF(1.38)	5-11/32(5.34)	1-21/32(1.66)	5-1/4(5.25)	11-1/16(11.00)	1-3/8(1.38)	1 (1.00)	31/32(.97)	4-1/16(4.06)
540RA2011-T		1-3/8ODF(1.38)	5-29/64(5.45)	1-5/16(1.31)	5-7/64(5.11)	10-13/16(10.81)	-	-	31/32(.97)	
540RA2013-T	1-1/4(1.25)	1-5/8ODF(1.63)	5-29/64(5.45)	1-5/16(1.31)	5-57/64(5.89)	12-3/8(12.38)	-	-	1-3/32(1.09)	4-1/16(4.06)
540RA2017-T		2-1/8ODF(2.13)	5-29/64(5.45)	1-5/16(1.31)	6-37/64(6.58)	13-3/4(13.75)	-	-	1-11/32(1.34)	

540RA VALVE KITS		
VALVE	KIT #	PCN
540RA8	KS30328	060633
540RA9	KS30329	060634
540RA12	KS30330	060635
540RA16	KS30331	060636
540RA20	KS30332	060637

Gasket Kit for all 540RA valves is KG10028 (PCN 054356)

Standard Product Offering

540RA EXPLODED VIEW & PARTS KIT DATA

COIL ASSEMBLY
For voltages and frequencies available see the tables beginning on page 85.

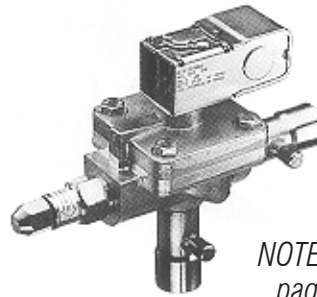
MOUNTING BRACKETS
540RA8, 9, 12: X13983-1
540RA16: X13983-3

"K" indicates part is supplied in complete valve repair kit.
"G" indicates gasket is supplied in gasket kit.
Note: Spanner wrench (X11981-1 service tool) used to remove and replace enclosing tube collar, is included in complete valve kit.

710/713RA SOLENOID VALVES

APPLICATION

- ☆ Liquid pressure differential control for gas defrost
- ☆ 2-way, diaphragm valves
- ☆ 710RA series are normally closed valves
- ☆ 713RA series are normally open valves
- ☆ When the solenoid coil is de-energized (710RA)/energized (713RA), both series function as adjustable pressure regulating devices which modulate to maintain a predetermined pressure drop across the valve
- ☆ When energized (710RA)/de-energized (713RA), the main valve port opens for full flow



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

FEATURES

- ☆ Differential adjustable from 8-40 psi
- ☆ Angle style construction eliminates the need for an elbow fitting at the liquid header
- ☆ Extended ends for easy installation (standard)
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ These valves eliminate the need for an external check valve and the associated piping needed on supermarket racks with gas defrost

SPECIFICATIONS

- ☆ Maximum fluid temp: 250°F
- ☆ Maximum working pressure: 500 psig
- ☆ MOPD (710): 300 psig
- ☆ MOPD (713): 250 psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR3204

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOMENCLATURE

Example: 710RA 16T11 VLC

710R	A	16	T	11	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper extended ends	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 87 for AM or DM series coil.

ORDERING INFORMATION AND NOMINAL LIQUID CAPACITY TABLE FOR 710/713RA VALVES - TONS

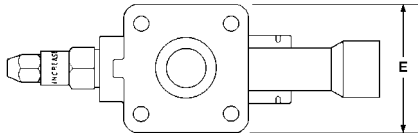
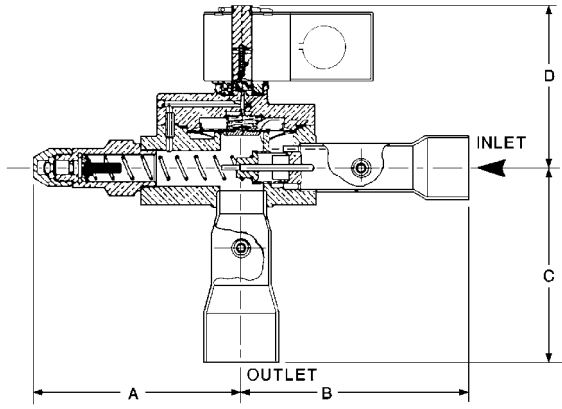
PCN*	PRODUCT DESCRIPTION	CONNECTION SIZE	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
053215	710RA 12 T 9 VLC	1 1/8 ODF	18.6	23.8	32.9	31.3	21.9	21.4
052825	710RA 16 T 9 VLC	1 1/8 ODF	24.9	30.0	45.4	43.2	30.3	29.5
052915	710RA 16 T 11 VLC	1 3/8 ODF						
048411	710RA 16 T 11-13 VLC	1 3/8 x 1 5/8 ODF	43.2	52.0	69.6	66.3	46.5	45.2
049901	710RA 20 T 13 VLC	1 5/8 ODF						
054153	710RA 24 T 17 VLC	2 1/8 ODF	62.3	74.0	100.0	65.0	66.7	65.0
053099	713RA 16 T 11 VLC	1 3/8 ODF	24.9	30.0	45.4	43.2	30.3	29.5
053220	713RA 20 T 13	1 5/8 x 1 5/8 ODF	43.2	52.0	69.6	66.3	46.5	45.2

* Product Code Number ■ Standard Product Offering

All capacities shown are at 40°F Evaporator Temperature.

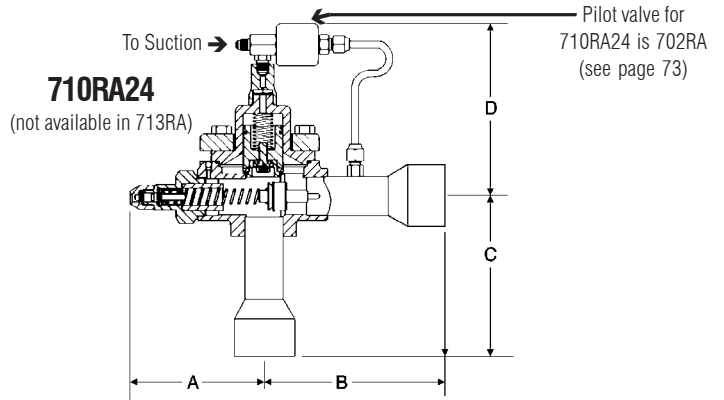
SEE EXTENDED LIQUID CAPACITIES ON PAGE 83.

710/713RA DIMENSIONAL DATA



THE 710/713 REQUIRES AN AM COIL.

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)



THE 710RA24 REQUIRES EITHER AN AMCN/AMGN* OR ASC2 COIL.
 *AMCN/AMGN HAS NO CLIP, RIVET OR PRODUCT LABEL.

Valve	Connection Size	A	B	C	D	E
710/713RA12T9	1-1/8 ODF (1.13)	4-1/8 (4.13)	4-1/64 (4.02)	3-9/16 (3.56)	3-37/64 (3.58)	2-9/32 (2.28)
710/713RA12T11	1-3/8 ODF (1.38)	4-1/8 (4.13)	5-19/64 (5.30)	4-27/32 (4.84)	3-37/64 (3.58)	2-9/32 (2.28)
710/713RA16T9	1-1/8 ODF (1.13)	4-49/64 (4.77)	4-1/4 (4.25)	3-57/64 (3.89)	3-11/16 (3.69)	3-7/16 (3.44)
710/713RA16T11	1-3/8 ODF (1.38)	4-49/64 (4.77)	5-1/4 (5.25)	4-57/64 (4.89)	3-11/16 (3.69)	3-7/16 (3.44)
710/713RA16T	1-3/8 x 1-5/8 ODF (1.38 X 1.63)	4-49/64 (4.77)	5-1/4 (5.25)	4-7/8 (4.88)	3-11/16 (3.69)	3-7/16 (3.44)
710/713RA20T11	1-3/8 (1.38)	4-13/16 (4.81)	5-7/64 (5.27)	4-7/32 (4.22)	4-9/64 (4.14)	4-1/16 (4.06)
710/713RA20T13	1-5/8 (1.63)	4-13/16 (4.81)	5-57/64 (5.89)	5 (5.00)	4-9/64 (4.14)	4-1/16 (4.06)
710RA24T17	2-1/8 (2.13)	4-53/64 (4.83)	6-9/16 (6.56)	5-47/64 (5.73)	6-7/32 (5.73)	4-1/16 (4.06)

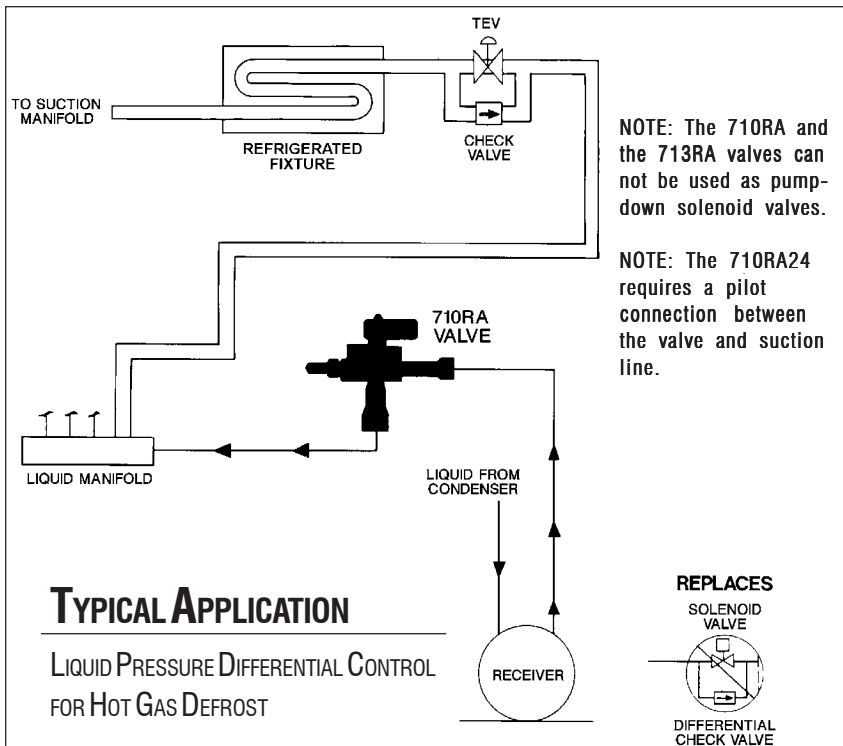
710RA VALVE KITS		
VALVE	KIT #	PCN
710RA12	KS30154	053564
710RA16	KS30155	053565
710RA20	KS30156	053566
710RA24	KS30279	054994
Gasket Kit for all 710RA valves is KG10028		054356

Standard Product Offering

710RA EXPLODED VIEW & PARTS KIT DATA

"K" indicates part is supplied in valve repair kit.
 "G" indicates part is supplied in gasket kit
KG10028 [PCN-054356]
 Note: Spanner wrench (X11981-1 [PCN-027451] service tool) included in complete valve kit.

COIL ASSEMBLY
 For voltages and frequencies available see the tables beginning on page 85.



702RA SOLENOID VALVES

APPLICATION

- ☆ Direct-acting, 3-way, normally open valves
- ☆ Compatible with all CFC, HCFC and HFC refrigerants
- ☆ Used in conjunction with externally equalized Expansion Valve to provide positive shut-off

FEATURES

- ☆ 3-way pilot
- ☆ High capacity, less pressure drop, higher system efficiency
- ☆ Rugged internal construction with bar stock brass body
- ☆ Long-life molded coils provide water, shock, and vibration protection in coil winding
- ☆ Tight-seating Rulon seat disc
- ☆ Space-saving coil design
- ☆ Provides quick, positive shifting and operates in any position

SPECIFICATIONS

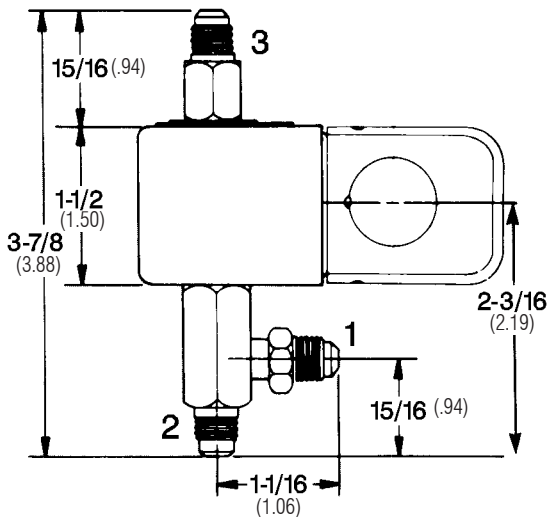
- ☆ Maximum fluid temp: 250° F
- ☆ Maximum working pressure: 500 psig
- ☆ MOPD: 300 psi

NOMENCLATURE

702R	A	01	VLC
Valve Series	Design Series	Port Size (in 1/16")	Coil*
Above example: 702RA01 VLC			

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 87 for AMGN or ASC2 series coil.

702RA DIMENSIONAL DATA

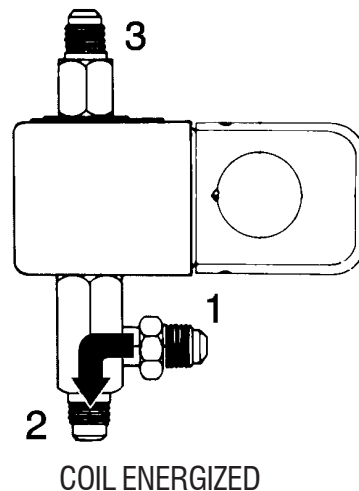
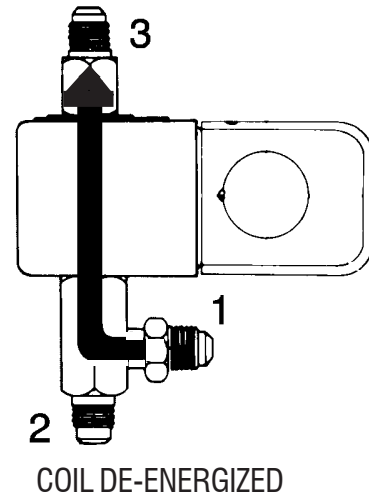


*NOTE: 702RA valves require coil type AMGN or ASC-Type.

702RA SERIES SELECTION TABLE					
PCN*	Valve	Connection Size	Port Size	Service	Coil Type
029781	702RA01	1/4 SAE MALE FLARE	1/16	Common Refrigerants	AMGN or ASC2

Standard Product Offering
* Product Code Number

702RA FLOW DIRECTION DIAGRAMS



207CB SOLENOID VALVES

APPLICATION

- ☆ Designed to meet the rugged requirements of ice machine applications
- ☆ Utilizes the static pressure of water to periodically drain the ice maker's sump (water dump valve)

FEATURES

- ☆ Totally serviceable
- ☆ Mounting bracket standard
- ☆ Direct acting

OPTIONS

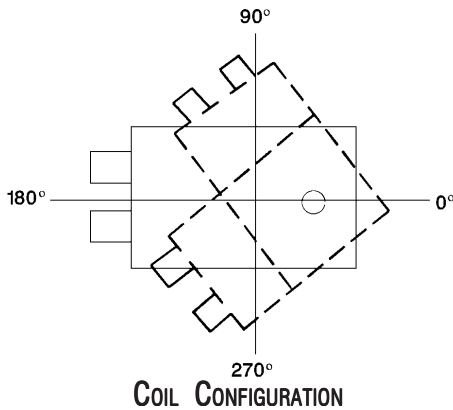
- ☆ Three coil orientations (135°, 180°, 225°) 180° is standard
- ☆ Four mounting bracket configurations (0°, 90°, 180° and 270°) 0° is standard

NOMENCLATURE

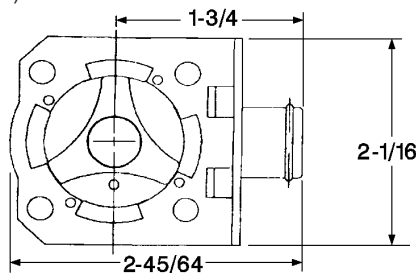
Example: 207CB

2	07	C	B
Two-Way Valve	Product Group	Normally Closed	Design Series

207CB DIMENSIONAL DATA



The coil to yoke orientation is available in 3 configurations (135°, 180° and 225°). The standard configuration is 180° (shown here).



MOUNTING BRACKET

The 207CB's mounting bracket is available in 4 configurations (0°, 90°, 180° and 270°). The standard configuration is 0° (shown here).

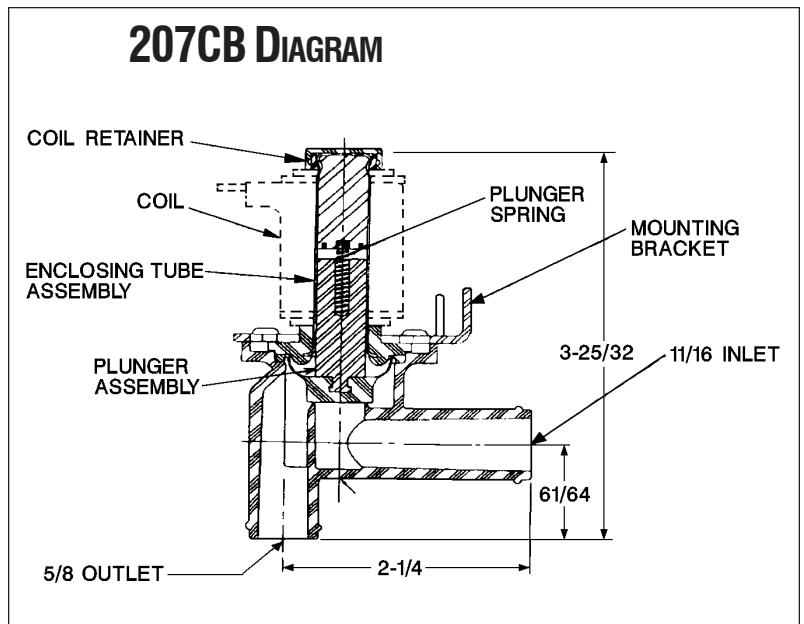


NOTE: The 207 Valve is designed for use with EBS Coil Only.

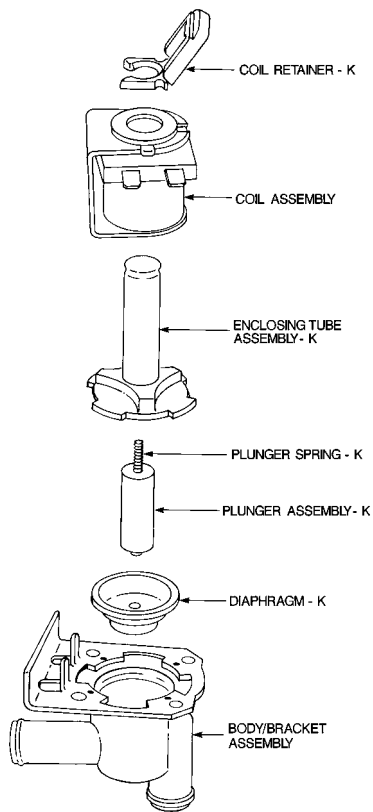
SPECIFICATIONS

- ☆ MMP: 5 psig
- ☆ MOPD: 3 psid
- ☆ Flow Rating: 5.3GPM@3psid
- ☆ Operating Water: Medium
- ☆ Maximum fluid temp: 90°F
- ☆ Outlet (self-retaining for plastic tubing): 11/16" x 5/8"
- ☆ Bracket Rotation Angle Adjustable: In 90° increments
- ☆ NSF Approved (National Sanitation Foundation): Meets standard 51
- ☆ Body: G.E. Noryl
- ☆ Seat Material (diaphragm): C'Flex
- ☆ Weight: 1/4 lb
- ☆ Rated for 50% duty at 8 minute cycles

207CB DIAGRAM



207CB EXPLODED VIEW & PARTS KIT DATA



REPAIR PARTS KIT

K-1292 (PCN-056617) includes:
 same as K-1289 less the coil retainer and
 enclosing tube assembly.

ORDERING INFORMATION FOR 207CB VALVES

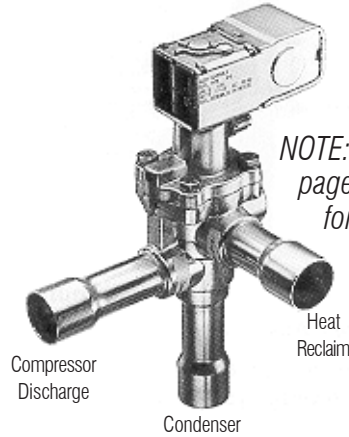
PCN*	DESCRIPTION
062403	207CB EBS 120/50-60
062404	207CB EBS 208-240/50-60

Standard Product Offering
 * Product Code Number

3031RB/RC HEAT RECLAIM SOLENOIDS

APPLICATION

- ☆ 3-Way heat reclaim application valve
- ☆ With the solenoid coil de-energized, the valve is in the normal operating mode and the refrigerant gas is diverted to the normal condenser
- ☆ During normal operation, the piston assembly is shifted upward, shutting the heat reclaim coil port and opening the normal condenser port
- ☆ For heat reclaim operation, the solenoid coil is energized and discharge gas is diverted to the auxiliary condenser



NOTE: Coil sold separately - see page 87. See Nomenclature for ordering information.

FEATURES

- ☆ Superior control in diverting discharge gas to an auxiliary condenser for heat reclaim
- ☆ Extended copper ends for easy brazing and installation
- ☆ High capacity, less pressure drop with higher system efficiency
- ☆ Long-life Molded Coils—water, shock and vibration protection in coil winding
- ☆ Rugged internal construction with heavy-duty forged brass bodies
- ☆ Pilot is field replaceable

OPTIONS

- ☆ Internal reclaim bleed available
- ☆ Angle style standard/straight-thru option

SPECIFICATIONS

- ☆ Maximum working pressure:
 - 3031RC12: 500 psig
 - 3031RB20: 450 psig
- ☆ MOPD: 300 psig
- ☆ UL file number: MP604
- ☆ CSA file number: LR3204

NOMENCLATURE

Example: 3031RB20S9BS/T

3031R	B	20	S	9	B	S/T	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type ODF	Connection Size (in 1/8")	Add if bleed is required (optional)	Straight-Thru (optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 85 for available coils.

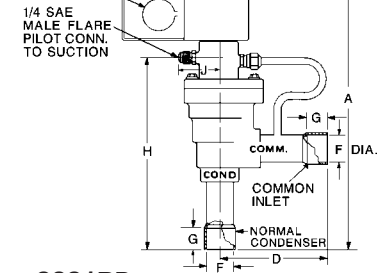
ORDERING INFORMATION AND NOMINAL DISCHARGE CAPACITY TABLE FOR 3031RB/RC VALVES - TONS

PCN*	PRODUCT DESCRIPTION	CONNECTION SIZE	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
055939	3031RC 12 S 7 VLC	7/8 ODF	6.9	8.3	12.2	12.2	10.6	8.3
055945	3031RC 12 S 7 B ST VLC							
055941	3031RC 12 S 7 B VLC							
055943	3031RC 12 S 7 ST VLC							
055940	3031RC 12 S 9 VLC							
055942	3031RC 12 S 9 B VLC							
055944	3031RC 12 S 9 ST VLC	1 1/8 ODF	17.9	21.6	31.8	31.8	27.5	21.6
055946	3031RC 12 S 9 B ST VLC							
044343	3031RB 20 S 9 VLC							
049008	3031RB 20 S 9 B ST VLC							
044830	3031RB 20 S 9 B VLC							
044344	3031RB 20 S 11 VLC							
049011	3031RB 20 S 11 B ST VLC							
044831	3031RB 20 S 11 B VLC							
049009	3031RB 20 S 11 ST VLC							
053985	3031RB 20 S 13 ST VL							

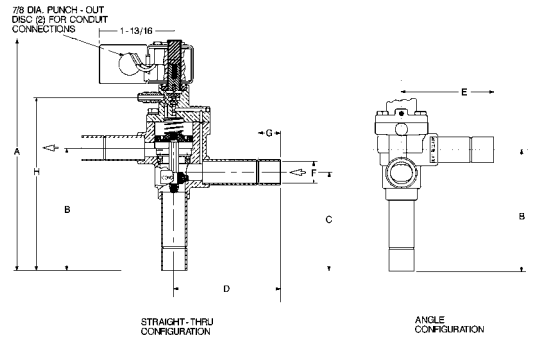
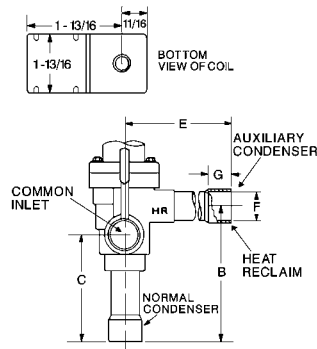
* Product Code Number ■ Standard Product Offering

3031RB/RC DIMENSIONAL DATA

7/8 DIA. PUNCH-OUT DISC (2) FOR CONDUIT CONNECTIONS



3031RB



3031RC

VALVE	A	B	C	D	E	F	G	H
3031RB20S9	9-7/8 (9.88)	5-9/32 (5.28)	3-31/32 (3.97)	4-9/16 (4.56)	4-11/32 (4.34)	1 1/8 (1.13)	29/32 (.91)	7-19/32 (7.59)
3031RB20S11	9-7/8 (9.88)	5-9/32 (5.28)	3-31/32 (3.97)	4-9/16 (4.56)	4-11/32 (4.34)	1 3/8 (1.37)	31/32 (.97)	7-19/32 (7.59)
3031RC12S7	9-1/4 (9.25)	5 (5.00)	4 (4.00)	4-1/4 (4.25)	3-5/8 (3.63)	7/8 (.88)	7/8 (.88)	7 (7.00)
3031RC12S9	9-1/4 (9.25)	5 (5.00)	4 (4.00)	4-1/4 (4.25)	3-5/8 (3.63)	1 1/8 (1.13)	29/32 (.91)	7 (7.00)

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

CONSULT THE FACTORY FOR STRAIGHT-THRU CONFIGURATION DIMENSIONS.

3031 VALVE REPAIR KITS

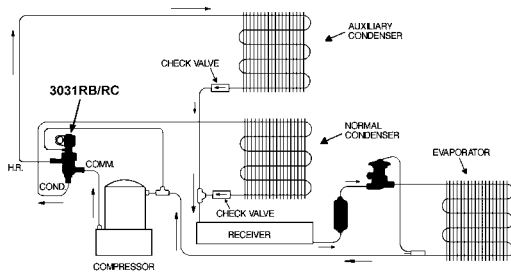
VALVE	KIT #	PCN*
3031RB20	KS30086	045966
3031RC12	KS30291	055999
3031RB12 [Ⓟ]	KS30085	045967
Gasket Kit for all 3031 Valves is KG10029		054407

* Product Code Number

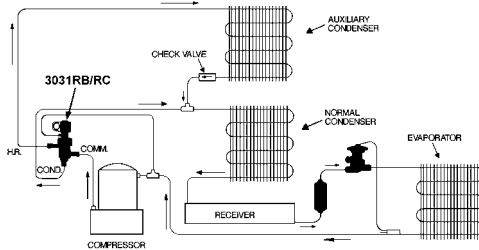
Standard Product Offering

[Ⓟ] 3031RB12 replaced by 3031RC12

CONDENSERS IN PARALLEL

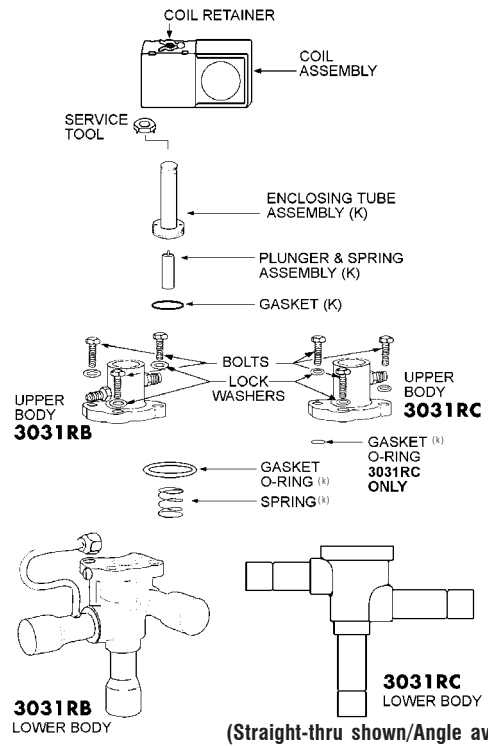


CONDENSERS IN SERIES



Heat Reclaim Valves provide superior control whether your condensers are parallel or in series. Flow thru auxiliary condenser is accomplished when the 3031RB/RC is energized.

3031RB/RC EXPLODED VIEW & PARTS KIT DATA



"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables beginning on page 85.

RV BRASS REVERSING VALVES

APPLICATION

- Designed for use on heat pump systems
- Reverse cycle gas defrost

FEATURES

- High strength slide carrier
- Fewer parts
- High capacity pilot
 - Greater tolerance to contaminants
- Low heat transfer slide
- Greater wear resistance of seals
- Stainless steel pilot bracket

OPTIONS

Tube connection sizes:

- Discharge 3/8, 1/2, 5/8, 3/4 & 7/8 ODF/ODM
- Suction & Coil 1/2, 5/8, 3/4, 7/8, 1-1/8 & 1-3/8 ODF

NOMENCLATURE

Example: RVA4F46

RV	A	4	F	4	6
Valve Series	Design Series	Nominal Rating (in tons)	F=ODF Connections (omit for ODM)	Discharge Connection (in 1/8")	Suction Connection (in 1/8")

ORDERING INFORMATION FOR RV SERIES VALVES

PCN*	DESCRIPTION
065503	RVS 1 - F 34 VLC
065504	RVS 2 - F 34 VLC
065505	RVS 2 - F 35 VLC
065506	RVS 2 - F 45 VLC
064598	RVS 3 - F 35 VLC
065507	RVS 3 - F 45 VLC
065165	RVA 4 - F 46 VLC
065495	RVA 4 - F 47 VLC
065683	RVA 4 - F 56 VLC
065496	RVA 4 - F 57 VLC
065497	RVA 6 - F 46 VLC
065498	RVA 6 - F 47 VLC
065499	RVA 6 - F 57 VLC
065519	RVS 10 - F 47 VLC
065518	RVS 10 - F 69 VLC
065515	RVS 10 - F 79 VLC
065516	RVS 10 - F 711 VLC

All RVs require RM-Type style coils. See page 87 for coil ordering information.



SPECIFICATIONS

- Nominal 2, 3, 4 & 6 ton sizes
- Maximum working pressure:
 - For RV sizes 1-6: 680 psig
 - For RV size 10: 500 psig
- MOPD: 400 psig
- Minimum operating pressure differential: 10 psi
- Maximum operating temperature: 250°F
- External leakage: 0.1 oz/yr
- UL file number: MP604
- CSA file number: LR44912

RV SUCTION GAS EXTENDED CAPACITY TABLE IN TONS FOR R22 AND R410A

Evaporator Temperature • F	Nominal Rating (in tons)	PRESSURE DROP ACROSS THE VALVE - PSI									
		R22/R407C					R410A				
		1	2	3	4	5	1	2	3	4	5
+45°F	1	0.99	1.4	1.71	1.97	2.21	1.28	1.8	2.21	2.55	2.77
	2	1.66	2.35	2.87	3.32	3.71	2.14	3.03	3.71	4.29	4.56
	3	2.23	3.15	3.86	4.46	4.99	2.88	4.07	4.99	5.76	6.16
	4	3.24	4.58	5.61	6.48	7.25	4.19	5.92	7.25	8.37	8.69
	6	4.51	6.38	7.81	9.02	10.08	5.83	8.24	10.09	11.65	12.31
	10	7.56	10.69	13.09	15.12	16.9	9.77	13.81	16.92	19.54	20.75
+25°F	1	0.81	1.14	1.4	1.61	1.81	1.04	1.47	1.81	2.08	2.33
	2	1.36	1.92	2.35	2.71	3.03	1.75	2.48	3.03	3.50	3.92
	3	2.57	3.63	4.45	5.13	5.74	3.42	4.84	5.93	6.84	7.65
	4	2.65	3.75	4.59	5.30	5.92	2.35	3.33	4.08	4.71	5.26
	6	3.69	5.21	6.39	7.37	8.25	4.76	6.73	8.25	9.52	10.65
	10	6.18	8.74	10.71	12.36	13.82	7.98	11.29	13.83	15.96	17.85
+5°F	1	0.65	0.91	1.12	1.25	1.38	0.84	1.18	1.45	1.61	1.76
	2	1.09	1.54	1.88	2.06	2.27	1.41	1.99	2.44	2.64	2.90
	3	1.46	2.07	2.53	2.78	3.02	1.89	2.67	3.27	3.54	3.83
	4	2.12	3.00	3.68	3.93	4.27	2.75	3.88	4.76	5.01	5.42
	6	2.95	4.18	5.12	5.57	6.08	3.82	5.41	6.62	7.11	7.75
	10	4.95	7	8.58	9.38	10.25	6.41	9.06	11.1	11.99	13.04
-15°F	1	0.51	0.72	0.85	0.95	1.04	0.66	0.93	1.08	1.21	1.32
	2	0.86	1.21	1.39	1.56	1.70	1.11	1.57	1.77	1.98	2.14
	3	1.15	1.63	1.87	2.06	2.19	1.49	2.10	2.35	2.57	2.71
	4	1.67	2.37	2.64	2.91	3.11	2.16	3.06	3.33	3.65	3.86
	6	2.33	3.29	3.75	4.17	4.49	3.01	4.26	4.75	5.26	5.62
	10	3.91	5.52	6.31	7.03	7.56	5.04	7.13	8	8.84	9.44

Valve capacities are based on 120°F liquid, saturated evaporator, and 10°F superheat at the valve inlet.

Standard Product Offering
* Product Code Number

703RC UNLOADER VALVE

APPLICATION

- ✍ 3-Way Unloader Valves
- ✍ Electrically operated valve for compressor unloading

FEATURES

- ✍ Stainless steel and brass construction
- ✍ OEM drop-in replacement

NOMENCLATURE

Example: 703RBVLC

703RC	VLC
Valve Series	Coil*

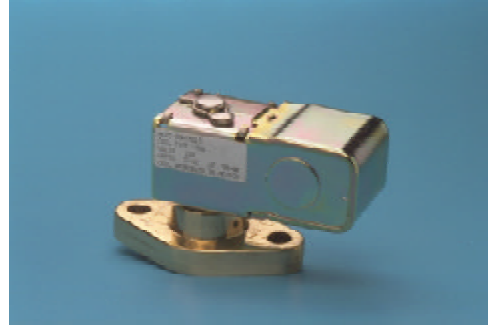
*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). See page 85 for available coils.

ORDERING INFORMATION

PCN*	Description
065131	703RC-001 AMC 120/50-60
065132	703RC-001 AMC 208-240/50-60
065126	703RC-001 VLC

■ Standard Product Offering
* Product Code Number

NOTE: Body gasket not included. Consult compressor manufacturer for body gasket information.

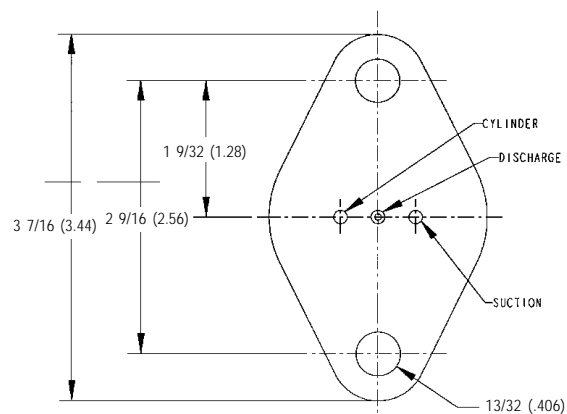
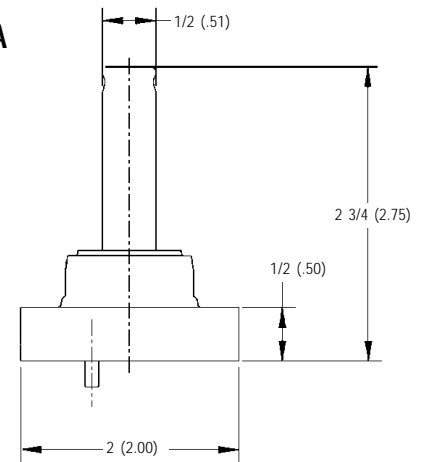


Coil sold separately - see page 87.

SPECIFICATIONS

- ✍ Maximum working pressure: 500 psig
- ✍ MOPD: 300 psig
- ✍ Drop-in replacement for Copeland part number 510-0212-00

DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

SOLENOID SUCTION GAS CAPACITIES

TONS					
SUCTION GAS CAPACITIES @ 2 PSI PRESSURE DROP					
VALVE SERIES	Evaporator Temperature - F				
	40	20	0	-20	-40
R-12					
240/540RA8	1.0	0.8	0.6	0.5	0.4
240/540RA9T5	1.3	1.1	0.9	0.7	0.5
240/540RA9	1.6	1.3	1.0	0.8	0.6
240/540RA12	2.0	1.6	1.2	1.0	0.7
240/540RA16	3.9	3.2	2.5	1.9	1.5
240/540RA20	5.5	4.5	3.5	2.7	2.1
R-22/R-407C					
240/540RA8	1.5	1.2	1.0	0.8	0.6
240/540RA9T5	2.0	1.6	1.3	1.0	0.8
240/540RA9	2.4	2.0	1.6	1.2	1.0
240/540RA12	2.9	2.4	1.9	1.5	1.2
240/540RA16	5.8	4.7	3.8	3.0	2.3
240/540RA20	8.2	6.7	5.4	4.2	3.3
R-502					
240/540RA8	1.2	1.0	0.8	0.6	0.4
240/540RA9T5	1.6	1.3	1.0	0.8	0.6
240/540RA9	1.9	1.5	1.2	0.9	.07
240/540RA12	2.3	1.9	1.5	1.1	0.8
240/540RA16	4.6	3.7	2.9	2.3	1.7
240/540RA20	6.5	5.2	4.1	3.2	2.4
R-134a					
240/540RA8	0.8	0.6	0.5	0.4	0.3
240/540RA9T5	1.4	1.1	0.8	0.6	0.4
240/540RA9	1.7	1.4	1.1	0.8	0.5
240/540RA12	1.9	1.5	1.2	0.9	0.6
240/540RA16	3.2	2.5	1.9	1.4	1.0
240/540RA20	4.4	3.5	2.7	2.0	1.6
R-404A/R-507					
240/540RA8	0.9	0.7	0.5	0.4	0.3
240/540RA9T5	1.5	1.2	0.9	0.7	0.5
240/540RA9	1.9	1.5	1.2	0.9	0.6
240/540RA12	2.2	1.8	1.4	1.0	0.8
240/540RA16	3.4	2.7	2.1	1.6	1.2
240/540RA20	4.8	3.8	2.9	2.2	1.6

SOLENOID LIQUID CAPACITIES

TONS				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	2	3	4	5
R-12				
50RB	0.34	0.42	0.48	0.54
100RB	0.8	1	1.16	1.2
102RA	0.8	1	1.16	1.2
200RB2	2.0	2.4	2.8	3.2
200RB3	3.0	3.7	4.2	4.7
200/500RB4	3.6	4.4	5.1	5.7
200/500RB5	5.3	6.5	7.5	8.4
200/500RB6	6.4	7.8	9.1	10.1
200/500RB7	10.0	12.2	14.1	15.8

TONS				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	2	3	4	5
R-12				
200RB9 (5/8)	14.9	18.2	21.1	23.6
200RB9 (7/8, 1 1/2)	19.6	24.0	27.7	31.0
200RB12	22.5	27.6	31.8	35.6
240/540RA8	10.0	12.2	14.1	15.8
240/540RA9T (5/8)	14.9	18.2	21.1	23.6
240/540RA9T (7/8, 1 1/2)	19.6	24.0	27.7	31.0
240/540RA12	22.5	27.6	31.8	35.6
240/540RA16	10.0	12.2	14.1	15.8
240/540RA20	14.9	18.2	21.1	23.6
R-22				
50RB	0.44	0.54	0.62	0.69
100RB	1.04	1.27	1.47	1.64
102RA	1.04	1.27	1.47	1.64
200RB2	2.5	3.1	3.6	4.0
200RB3	3.9	4.8	5.5	6.2
200/500RB4	4.6	5.6	6.5	7.2
200/500RB5	6.7	8.2	9.5	10.6
200/500RB6	8.2	10.0	11.5	12.9
200/500RB7	12.7	15.6	18.0	20.1
200RB9 (5/8)	19.0	23.3	26.9	30.1
200RB9 (7/8, 1 1/8)	24.9	30.5	35.2	39.4
200RB12	28.5	34.9	40.3	45.1
240/540RA8	12.7	15.6	18.0	20.1
240/540RA9T (5/8)	19.0	23.3	26.9	30.1
240/540RA9T (7/8,11/8)	24.9	30.5	35.2	39.4
240/540RA12	28.5	34.9	40.3	45.1
240/540RA16	47.4	58.0	67.0	74.9
240/540RA20	77.9	95.4	110.2	123.2
R-502				
50RB	0.3	0.35	0.4	0.5
100RB	0.7	0.83	1.0	1.1
102RA	0.7	0.83	1.0	1.1
200RB2	1.6	2.0	2.3	2.6
200RB3	2.5	3.1	3.6	4.0
200/500RB4	2.9	3.6	4.2	4.6
200/500RB5	4.3	5.3	6.1	6.8
200/500RB6	5.3	6.5	7.5	8.4
200/500RB7	8.2	10.1	11.7	13.0
200RB9 (5/8)	12.3	15.1	17.4	19.5
200RB9 (7/8, 1 1/8)	16.2	19.8	22.9	25.6
200RB12	18.5	22.7	26.2	29.3
240/540RA8	8.2	10.1	11.7	13.0
240/540RA9T (5/8)	12.3	15.1	17.4	19.5
240/540RA9T (7/8,11/8)	16.2	19.8	22.9	25.6
240/540RA12	18.5	22.7	26.2	29.3
240/540RA16	30.8	37.7	43.5	48.7
240/540RA20	50.6	62.0	71.6	80.0
R-134a				
50RB	0.41	0.5	0.6	0.6
100RB	0.96	1.2	1.4	1.5
102RA	0.96	1.2	1.4	1.5
200RB2	2.4	2.9	3.4	3.8
200RB3	3.6	4.4	5.1	5.7
200/500RB4	4.3	5.3	6.1	6.8
200/500RB5	6.4	7.8	9.1	10.1
200/500RB6	7.7	9.4	10.9	12.2
200/500RB7	12.1	14.8	17.1	19.1
200RB9 (5/8)	18.0	22.0	25.5	28.5
200RB9 (7/8, 1 1/8)	23.6	28.9	33.4	37.3
200RB12	27.1	33.2	38.3	42.8
240/540RA8	12.1	14.8	17.1	19.1
240/540RA9T (5/8)	18.0	22.0	25.5	28.5
240/540RA9T (7/8,11/8)	23.6	28.9	33.4	37.3
240/540RA12	27.1	33.2	38.3	42.8
240/540RA16	45.0	55.1	63.6	71.2
240/540RA20	70.9	86.8	100.3	112.1

SOLENOID LIQUID CAPACITIES

TONS				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	2	3	4	5
R-404A/R-507				
50RB	0.3	0.34	0.4	0.4
100RB	0.7	0.85	1.0	1.1
102RA	0.7	0.85	1.0	1.1
200RB2	1.7	2.1	2.4	2.7
200RB3	2.6	3.2	3.7	4.1
200/500RB4	3.0	3.7	4.3	4.8
200/500RB5	4.4	5.4	6.2	7.0
200/500RB6	5.3	6.5	7.5	8.4
200/500RB7	8.4	10.3	11.9	13.3
200RB9 (5/8)	12.5	15.3	17.7	19.8
200RB9 (7/8, 1 1/2)	16.4	20.1	23.2	25.9
200RB12	18.8	23.0	26.6	29.7
240/540RA8	8.4	10.3	11.9	13.3
240/540RA9T (5/8)	12.5	15.3	17.7	19.8
240/540RA9T (7/8, 1 1/2)	16.4	20.1	23.2	25.9
240/540RA12	18.8	23.0	26.6	29.7
240/540RA16	31.3	38.3	44.2	49.4
240/540RA20	53.6	65.7	75.9	84.8
R-407C				
50RB	0.4	0.51	0.6	0.7
100RB	1.0	1.21	1.4	1.6
102RA	1.0	1.21	1.4	1.6
200RB2	2.4	2.9	3.3	3.7
200RB3	3.7	4.5	5.2	5.8
200/500RB4	4.3	5.3	6.1	6.8
200/500RB5	6.4	7.8	9.0	10.1
200/500RB6	7.8	9.5	11.0	12.3
200/500RB7	12.1	14.8	17.1	19.1
200RB9 (5/8)	18.1	22.2	25.6	28.7
200RB9 (7/8, 1 1/2)	23.7	29.0	33.5	37.4
200RB12	27.1	33.2	38.3	42.9
240/540RA8	12.1	14.8	17.1	19.1
240/540RA9T (5/8)	18.0	22.1	25.5	28.5
240/540RA9T (7/8, 1 1/2)	23.7	29.0	33.5	37.4
240/540RA12	27.1	33.2	38.3	42.9
240/540RA16	45.1	55.2	63.7	71.3
240/540RA20	74.1	90.8	104.8	117.2

TONS				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	1	2	3	4
R-12				
710RA/713RA12	13.1	19.7	25.3	33.2
710RA/713RA16	19.9	24.9	34.9	44.8
710RA/713RA20	27.7	43.2	53.1	68.9
710RA24	44.0	62.3	76.4	99.6
R-22				
710RA/713RA12	17.2	25.8	32.9	43.6
710RA/713RA16	25.7	36.8	45.4	58.3
710RA/713RA20	36.3	56.7	69.6	89.8
710RA24	56.7	80.8	100.0	133.3
R-502				
710RA/713RA12	11.8	16.8	21.4	28.3
710RA/713RA16	16.7	23.9	29.5	37.9
710RA/713RA20	23.8	36.8	45.2	58.4
710RA24	36.8	52.5	65.0	86.6
R-134a				
710RA/713RA12	15.8	23.8	3.4	40.0
710RA/713RA16	24.0	30.0	42.0	54.0
710RA/713RA20	33.4	52.0	64.0	83.0
710RA24	53.0	75.0	92.0	120.0
R-404A/R-507				
710RA/713RA12	11.5	17.2	21.9	29.1
710RA/713RA16	17.2	24.6	30.3	38.9
710RA/713RA20	24.3	37.9	46.5	60.0
710RA24	38.3	54.2	66.7	87.5
R-407C				
710RA/713RA12	16.4	24.5	31.3	41.5
710RA/713RA16	24.4	35.0	43.2	55.5
710RA/713RA20	34.5	54.0	66.3	84.4
710RA24	54.0	76.9	95.2	126.9

All liquid capacities are based on a 40°F Evaporator Temperature and 100°F Liquid Temperature.

Ammonia capacities are based on 5°F Evaporator and 86°F Liquid Temperature.

SOLENOID DISCHARGE GAS CAPACITIES

TONS

DISCHARGE GAS CAPACITIES Pressure Drop Across Valve - psi

VALVE SERIES	2	5	10	25	50	100
R-12						
100RB/102RA	0.1	0.2	0.3	0.5	0.5	0.5
200/500RB2	0.4	0.6	0.8	1.3	1.5	1.3
200/500RB3	0.5	0.8	1.2	1.7	2.0	1.6
200/500RB4	0.7	1.1	1.5	2.2	2.9	3.3
200/500RB5	1.0	1.6	2.2	3.2	4.1	4.3
200/500RB6	1.1	1.7	2.4	3.5	4.6	5.4
200/500RB7	1.5	2.4	3.3	5.2	6.6	7.2
200RB9 (5/8)	2.5	4.0	5.6	8.3	10.4	11.2
200RB9 (7/8, 1 1/2)	3.2	5.0	7.1	10.1	12.1	11.1
200RB12	3.5	5.5	7.8	11.7	14.0	12.4
240/540RA8	1.5	2.4	3.3	5.2	6.6	7.2
240/540RA9T5	2.5	4.0	5.6	8.3	10.4	11.2
240/540RA9	3.2	5.0	7.1	10.1	12.1	11.1
240/540RA12	3.5	5.5	7.8	11.7	14.0	12.4
240/540RA16	5.8	9.1	12.9	18.9	23.6	24.3
240/540RA20	8.1	12.8	18.1	28.2	34.4	33.1
R-22						
100RB/102RA	0.2	0.3	0.4	0.6	0.8	1.0
200/500RB2	0.5	0.9	1.2	1.9	2.5	2.8
200/500RB3	0.8	1.2	1.7	2.6	3.4	3.4
200/500RB4	1.0	1.6	2.2	3.4	4.5	5.7
200/500RB5	1.4	2.3	3.2	4.9	6.5	7.9
200/500RB6	1.6	2.5	3.5	5.3	7.1	9.1
200/500RB7	2.1	3.4	4.8	7.8	10.4	12.8
200RB9 (5/8)	3.6	5.7	8.1	12.5	16.6	20.4
200RB9 (7/8, 1 1/2)	4.6	7.2	10.2	15.4	20.0	23.1
200RB12	5.1	8.0	11.3	18.1	23.4	26.6
240/540RA8	2.1	3.4	4.8	7.8	10.4	12.8
240/540RA9T5	3.6	5.7	8.1	12.5	16.6	20.4
240/540RA9	4.6	7.2	10.2	15.4	20.0	23.1
240/540RA12	5.1	8.0	11.3	18.1	23.4	26.6
240/540RA16	8.3	13.2	18.7	28.6	37.8	45.6
240/540RA20	11.7	18.4	26.1	43.0	56.1	66.0
R-502						
100RB/102RA	0.2	0.2	0.3	0.5	0.7	0.8
200/500RB2	0.4	0.7	1.0	1.5	2.0	2.3
200/500RB3	0.6	1.0	1.4	2.1	2.7	3.0
200/500RB4	0.8	1.3	1.8	2.7	3.6	4.6
200/500RB5	1.1	1.8	2.6	3.9	5.2	6.4
200/500RB6	1.2	2.0	2.8	4.2	5.7	7.3
200/500RB7	1.7	2.7	3.8	6.2	8.3	10.4
200RB9 (5/8)	2.9	4.5	6.4	10.0	13.3	16.5
200RB9 (7/8, 1 1/2)	3.6	5.7	8.1	12.3	16.1	18.8
200RB12	4.0	6.4	9.0	14.4	18.7	21.7
240/540RA8	1.7	2.7	3.8	6.2	8.3	10.4
240/540RA9T5	2.9	4.5	6.4	10.0	13.3	16.5
240/540RA9	3.6	5.7	8.1	12.3	16.1	18.8
240/540RA12	4.0	6.4	9.0	14.4	18.7	21.7
240/540RA16	6.6	10.5	14.8	22.8	30.2	37.0
240/540RA20	9.3	14.6	20.7	34.3	45.0	53.7

TONS

DISCHARGE GAS CAPACITIES Pressure Drop Across Valve - psi

VALVE SERIES	2	5	10	25	50	100
R-134a						
100RB/102RA	0.2	0.2	0.3	0.5	0.6	0.6
200/500RB2	0.5	0.7	1.0	1.5	1.8	1.7
200/500RB3	0.6	1.0	1.4	2.1	2.4	2.1
200/500RB4	0.8	1.3	1.8	2.7	3.5	4.1
200/500RB5	1.2	1.9	2.6	3.9	4.9	5.3
200/500RB6	1.3	2.1	2.9	4.3	5.6	6.6
200/500RB7	1.8	2.8	4.0	6.2	8.0	8.9
200RB9 (5/8)	3.0	4.7	6.7	10.0	12.7	13.9
200RB9 (7/8, 1 1/2)	3.8	6.0	8.5	12.2	14.8	14.2
200RB12	4.2	6.6	9.4	14.2	17.1	15.9
240/540RA8	1.8	2.8	4.0	6.2	8.0	8.9
240/540RA9T5	3.0	4.7	6.7	10.0	12.7	13.9
240/540RA9	3.8	6.0	8.5	12.2	14.8	14.2
240/540RA12	4.2	6.6	9.4	14.2	17.1	15.9
240/540RA16	6.9	10.9	15.4	22.8	28.6	30.4
240/540RA20	9.7	15.3	21.6	34.0	41.9	41.9
R-404A/R-507						
100RB/102RA	0.2	0.3	0.4	0.6	0.7	0.9
200/500RB2	0.5	0.7	1.0	1.7	2.2	2.5
200/500RB3	0.7	1.0	1.5	2.3	2.9	3.4
200/500RB4	0.9	1.3	1.9	2.9	3.9	5.0
200/500RB5	1.2	1.9	2.7	4.2	5.6	7.0
200/500RB6	1.3	2.1	3.0	4.5	6.1	7.9
200/500RB7	1.8	2.9	4.1	5.7	8.9	11.3
200RB9 (5/8)	3.1	4.9	6.9	10.7	14.3	17.9
200RB9 (7/8, 1 1/2)	3.9	6.2	8.7	13.3	17.4	20.2
200RB12	4.3	6.8	9.6	15.5	20.3	23.9
240/540RA8	1.8	2.9	4.1	6.7	8.9	11.3
240/540RA9T5	3.1	4.9	6.9	10.7	14.3	17.9
240/540RA9	3.9	6.2	8.7	13.3	17.4	20.2
240/540RA12	4.3	6.8	9.6	15.5	20.3	23.9
240/540RA16	4.3	6.8	9.6	14.8	19.3	22.7
240/540RA20	9.9	15.7	22.2	36.9	48.7	58.9
R-407C						
100RB/102RA	0.2	0.3	0.4	0.6	0.8	1.0
200/500RB2	0.5	0.9	1.2	1.9	2.5	2.9
200/500RB3	0.8	1.2	1.7	2.6	3.4	3.8
200/500RB4	1.0	1.6	2.2	3.3	4.5	5.7
200/500RB5	1.4	2.2	3.2	4.9	6.5	8.0
200/500RB6	1.5	2.4	3.5	5.2	7.1	9.1
200/500RB7	2.1	3.3	4.7	7.7	10.3	13.0
200RB9 (5/8)	3.6	5.6	8.0	12.4	16.5	20.6
200RB9 (7/8, 1 1/2)	4.5	7.1	10.1	15.3	20.0	22.5
200RB12	6.0	9.5	13.4	21.2	29.6	37.1
240/540RA8	2.1	3.3	4.7	7.7	10.3	13.0
240/540RA9T5	3.6	5.6	8.0	12.4	16.5	20.6
240/540RA9	4.5	7.1	10.1	15.3	20.0	22.5
240/540RA12	6.0	9.5	13.4	21.2	29.6	37.1
240/540RA16	8.2	13.0	18.4	28.4	37.7	46.2
240/540RA20	11.5	18.2	25.7	42.7	56.1	67.2

50RB DISCHARGE GAS CAPACITIES

	PRESSURE DROP ACROSS VALVE (PSI)									
	1	2	3	4	5	6	7	8	9	10
R134a	0.05	0.07	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16
R22	0.06	0.09	0.10	0.12	0.14	0.15	0.16	0.17	0.18	0.19
R404A/R507	0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.15	0.15	0.16

All capacities and factors shown are based on normal condensing temperatures (100°F), isentropic compression plus 50°, 40°F evaporator, 65°F suction gas and saturated liquid entering an expansion device per ARI Standard 760-80.
For capacities at other operating conditions, use the appropriate correction factor given in above table.

CORRECTION FACTORS FOR SOLENOIDS

EVAPORATOR TEMPERATURE CORRECTION FACTORS FOR LIQUID, DISCHARGE AND SUCTION SERVICE REFRIGERATION ONLY

LIQUID SERVICE									
EVAPORATOR TEMPERATURE °F	40	30	20	10	0	-10	-20	-30	-40
MULTIPLIER	1.00	.96	.92	.88	.84	.80	.77	.74	.71

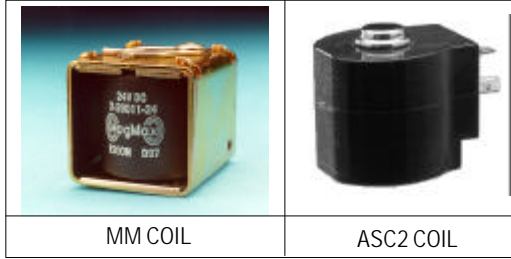
DISCHARGE GAS SERVICE									
REFRIGERANT	EVAPORATOR TEMPERATURE °F								
	40	30	20	10	0	-10	-20	-30	-40
	MULTIPLIER								
R-12	1.00	0.98	0.96	0.93	0.91	0.88	0.86	0.83	0.81
R-22	1.00	0.98	0.96	0.94	0.92	0.9	0.88	0.87	0.83
R-134a	1.00	0.98	0.95	0.93	0.90	0.88	0.85	0.82	0.80
R-404A	1.00	0.97	0.94	0.91	0.88	0.85	0.81	0.78	0.75
R-502	1.00	0.98	0.95	0.92	0.90	0.87	0.84	0.81	0.78
R-407C	1.00	0.98	0.95	0.93	0.90	0.88	0.85	0.82	0.80
R-410A	1.00	0.98	0.97	0.95	0.93	0.91	0.89	0.85	0.84

All capacities and factors shown are based on normal condensing temperatures (100°F), isentropic compression plus 50°, 40°F evaporator, 65°F suction gas and saturated liquid entering an expansion device per ARI Standard 760-80.
For capacities at other operating conditions, use the appropriate correction factor given in above table.

COILS FOR SOLENOID VALVES

FEATURES

- ☞ Space-saving designs
- ☞ Coil windings are insulated to provide water, shock and vibration protection



VOLTAGE OPTIONS

- ☞ 24V 50/60 Hz
- ☞ 120V 50/60 Hz (standard)
- ☞ 208-220/208-240V 50/60 Hz
- ☞ 480V 50/60 Hz
- ☞ 120-240V 50/60 Hz
- ☞ 12V D.C. (MM Series recommended)
- ☞ 24V D.C. (MM Series recommended)

Junction Box		1/2" Conduit		Open Frame		
6" Lead			18" Lead			
Standard		Hi-Temp	Standard	Hi-Temp	18" Lead	3/4" Spades
AMG/MMG/DMG		AHG	AMC	AHC	AMF/MMF/RMF	AMS/DMS/RMS

AM COIL FOR: 702RA						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.70	1.00	24	17/12	Class F Molded
24-50/60	24/60	1.41	.64	15		
120-50/60	120/50	.38	.24	29		
120-50/60	120/60	.32	.16	19		
208-220/50 208-240/60	208/50	.17	.10	21		
208-220/50 208-240/60	208/60	.15	.06	13		
208-220/50 208-240/60	220/50	.20	.14	33		
208-220/50 208-240/60	240/60	.217	.09	22		
480-50/60	480/50	.10	.07	33		
480-50/60	480/60	.09	.04	22		

See the MM (MAGMAX) Series Coil for DC Applications.

AM/EM COIL FOR: 204C, 214C, 211C, 222C, 210C											
Nominal Voltage and Frequency	Applied Voltage and Frequency	121		201		211		231		241	
		Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding
24/60	24/60	1.23	.61	1.17	.61	.92	.61	1.00	.74	.92	.61
120/60	120/60	.23	.14	.22	.14	.17	.14	.19	.16	.17	.14
240/60	240/60	.13	.08	.12	.08	.10	.08	.11	.08	.10	.08
480/60	480/60	.06	.04	.05	.04	.05	.04	.05	.04	.05	.04




See the MM (MAGMAX) Series Coil for DC Applications.

MAGMAX COIL (TYPE MM): FOR USE ON DC APPLICATIONS ONLY

Voltage	Amperes		Holding Watts
	Inrush	Holding	
12vDC	4.0	.4	4
24vDC	2.5	.4	4

AM COIL FOR: 100RB, 215RA, 240RA, 710/713RA, 3031RB/RC, EPRBS						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.20	.96	23	17/12	Class F Molded
24-50/60	24/60	1.0	.74	18		
120-50/60	120/50	.25	.21	25		
120-50/60	120/60	.19	.16	19		
208-220/50 208-240/60	208/50	.14	.08	17		
208-220/50 208-240/60	208/60	.12	.06	12		
208-220/50 208-240/60	220/50	.16	.10	24		
208-220/50 208-240/60	240/60	.13	.08	19		
480-50/60	480/50	.06	.05	24		
480-50/60	480/60	.05	.04	19		
See the MM (MAGMAX) Series Coil for DC Applications.						
AM COIL FOR: 200RB, 540RA						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.00	.96	23	17/12	Class F Molded
24-50/60	24/60	1.6	.74	18		
120-50/60	120/50	.45	.21	25		
120-50/60	120/60	.36	.16	19		
208-220/50 208-240/60	208/50	.19	.08	17		
208-220/50 208-240/60	208/60	.15	.06	12		
208-220/50 208-240/60	220/50	.24	.10	24		
208-220/50 208-240/60	240/60	.19	.08	19		
480-50/60	480/50	.11	.05	24		
480-50/60	480/60	.09	.04	19		
See the MM (MAGMAX) Series Coil for DC Applications.						
ASC2 COIL FOR: 200RB, 540RA						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.18	1.07	26	12	Class F Molded
24-50/60	24/60	1.90	.81	19		
120-50/60	120/50	.43	.21	25		
120-50/60	120/60	.38	.16	19		
240-50/60	240/50	.24	.12	30		
240-50/60	240/60	.21	.09	22		
DM COIL FOR: 200RB, 540RA						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.80	.71	17	10	Class F Molded
24-50/60	24/60	1.56	.52	12		
120-50/60	120/50	.36	.14	17		
120-50/60	120/60	.31	.10	12		
240-50/60	240/50	.19	.08	19		
240-50/60	240/60	.17	.06	14		
ASC2 COIL FOR: 100RB, 215RA, 240RA, 710/713RA, 3031RB/RC, EPRBS						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.67	1.10	26	12	Class F Molded
24-50/60	24/60	1.41	.83	20		
120-50/60	120/50	.31	.22	26		
120-50/60	120/60	.26	.16	20		
240-50/60	240/50	.17	.13	31		
240-50/60	240/60	.15	.10	23		
DM COIL FOR: 100RB, 215RA, 240RA, 710/713RA, 3031RB/RC, EPRBS						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.21	.72	17	10	Class F Molded
24-50/60	24/60	1.02	.52	13		
120-50/60	120/50	.24	.14	17		
120-50/60	120/60	.20	.10	12		
240-50/60	240/50	.13	.08	20		
240-50/60	240/60	.11	.06	14		
RMS/RMF COILS FOR: RV						
Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		V A Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	.87	.50	12	7	Class F Molded
24-50/60	24/60	.90	.40	10		
120-50/60	120/50	.19	.19	22		
120-50/60	120/60	.17	.09	10		
208-50/60	208/60	.08	.03	7		
220-50/60	220/50	.10	.05	11		
240-50/60	240/50	.11	.06	14		
240-50/60	240/60	.10	.04	11		

ORDERING INFORMATION FOR COILS

ELECTRICAL CONNECTION APPLICATION	Junction Box 		Conduit 		Open Frame 	
	6" Leads		18" Leads		18" Leads or 1/4" Spades	
VOLTAGE/FREQUENCY	DESCRIPTION	PCN	DESCRIPTION	PCN	DESCRIPTION	PCN
24V 50-60 HZ	AHG 24V 50-60 HZ	057669	AMC 24V 50-60 HZ	057631	AMF 24V 50-60 HZ	057539
	AMG 24V 50-60 HZ	057341	--	--	AMF 24V 50-60 HZ	057538
	DMG 24V 50-60 HZ	055129	--	--	RMF 24V 50-60 HZ	065677
	--	--	--	--	AMS 24V 50-60 HZ	057603
	--	--	--	--	RMS 24V 50-60 HZ	065680
120V 50/60 HZ	AHG 120V 50/60 HZ	057673	AMC 120V 50/60 HZ	057598	RMF 120V 50/60 HZ	065678
	AMG 120V 50/60 HZ	057331	--	--	AMS 120V 50/60 HZ	057349
	DMG 120V 50/60 HZ	054762	--	--	RMS 120V 50/60 HZ	065204
208-220/208-240 50-60 HZ	AHG 208-220/208-240 50-60 HZ	057671	AHC 208-220/208-240 50-60 HZ	057741	AMF 208-220/208-240 50-60 HZ	057540
	AMG 208-220/208-240 50-60 HZ	057342	AMC 208-220/208-240 50-60 HZ	057594	RMF 208-220/208-240 50-60 HZ	065679
	DMG 208-220/208-240 50-60 HZ	054764	--	--	AMS 208-220/208-240 50-60 HZ	057531
	--	--	--	--	RMS 208-220/208-240 50-60 HZ	065681
	--	--	--	--	DMS 208-220/208-240 50-60 HZ	062013
480V 50-60 HZ	AMG 480V 50-60 HZ	057527	--	--	AMF 480V 50-60 HZ	057534
120-240V 50-60 HZ	AMG 120-240V 50-60 HZ	057343	AMC 120-240V 50-60 HZ	057730	AMF 120-240V 50-60 HZ	062410
277V 60 HZ	AMG 277V 60 HZ	057528	--	--	AMF 277V 60 HZ	057533
	--	--	--	--	AMS 277V 60 HZ	057714
12V DC	AMG 12V DC	057521	AMC 12V DC	057596	--	--
24V DC	AMG 24V DC	057523	AMC 24V DC	057633	--	--

ELECTRICAL CONNECTION APPLICATION

Molded



Open Frame/Low Watt DC



VOLTAGE/FREQUENCY	DESCRIPTION	PCN	DESCRIPTION	PCN
24V 50/60 HZ	ASC2 24V 50/60 HZ	062792	--	--
120V 50/60 HZ	ASC2 120V 50/60 HZ	062462	--	--
	ASC2 GS-2562-1	015384	--	--
208-220/208-240 50-60 HZ	ASC2 208-220/208-240 50-60 HZ	062463	--	--
	ASC2 GS-2562-2	015383	--	--
12V DC	--	--	MMG 12V DC	063524
	--	--	MMF 12V DC	062972
24V DC	ASC2 24V DC	064375	MMG 24V DC	063526

AM style DC coils should not be used for direct replacements on OEM equipment. The use of this coil on new applications may result in the valve not opening. New applications should use the MM coil because of the significant increase in opening power of the MM coil over the standard AM style DC coil.

ASC2 female connector X-28616 - 18" in length (PCN 059261).

COIL ENCLOSURE OPTIONS

OPTIONS	CODE
Junction Box	G
Conduit - 18" leads	C
Open Frame - 18" leads	F
Open Frame - Spades	S

REPLACEMENT COILS FOR OBSOLETE VALVES

PCN*	DESCRIPTION	VALVE
041579	X - 8321-87 18 208-240/60 COIL KIT	4W
039166	X - 8321-72 18 120/50-60 COIL KIT	
039244	X - 8321-71 18 24/50-60 COIL KIT	
032096	X - 22164-71 18 24/50-60	S Series/ DS2184
031340	X - 22164-72 18 120/50-60	
032095	X - 22164-82 18 208/50-60	
032027	X - 22164-69 18 240/50-60	
033675	X - 22164-88 18 480/50-60	
038947	X - 22164-17 18 230/DC	R Series
032139	X - 22200-72 18 120/50-60	
032242	X - 22200-82 18 208/50-60	
032813	X - 22200-69 18 240/50-60	
035036	X - 22606-72 18 120/50-60	
034944	X - 22606-72 24 120/50-60	M Series
036069	X - 22606-82 18 208/50-60	
035348	X - 22606-82 24 208/50-60	
035020	X - 22606-69 18 240/50-60	

■ Standard Product Offering
* Product Code Number

PRODUCT SECONDARY LOOP FLUIDS

Our Industrial Solenoid Valves are approved for use with the fluids utilized in secondary loops such as Propylene Glycol and Tyfoxit. The recommended seat material is Buna-N.

In addition to air, water and steam, the following is a listing of secondary loop fluids that are compatible with our valves:

These valves referenced above are as follows:

202CB	211CA
203CA	214CA
204CD	222CB
210CA	314CB, OB, UB

FLUID NAME	MANUFACTURER
Ethylene & Propylene Glycol	Various
Tyfoxit	Spauschus Associates (Distributor)
Siltherm XLT	Dow
HFE	3M
Dowfrost	Dow
Pekasol	Unknown
Dynalene	Dynalene

When ordering valves for the above stated application, be sure to mention the Elastomer Code "B" which designates Buna-N.

NOMENCLATURE

<u>SERIES</u>			<u>B</u>	<u>1/2</u>	<u>B</u>	<u>1/2</u>	<u>B</u>
<u>2</u>	<u>2 2</u>	<u>C</u>	<u>B</u>	<u>1/2</u>	<u>B</u>	<u>1/2</u>	<u>B</u>
Valve Type	Product Group	Form of Flow	Design Series	Pipe N.P.T.	Body Material	Body Orifice	Elastomer Code
2 = 2 Way	Two digits to C = Normally Closed	O = Normally Open	Letter will be advanced to identify product changes	1/8" thru 2"	B = Brass	3/65" thru 2"	B = Buna-N
3 = 3 Way	Define Group U = Universal			GS indicates non-standard	S = Stainless Steel		
					T = Stainless Steel with Silver Shading Band		
Above example: 222CB 1/2 B 1/2 B							

202C INDUSTRIAL SOLENOIDS

APPLICATION

- ✍ Air, Water & Steam
- ✍ 2-Way Normally Closed
- ✍ Direct Acting

FEATURES

- ✍ Stainless Steel Coil Retainer
- ✍ Superior Life with Stainless Steel enclosing tube
- ✍ Class F Molded Coil Standard at No Extra Cost
- ✍ Junction Box supplied Standard
- ✍ Completely Serviceable Without Disturbing System Piping

OPTIONS

- ✍ Brass or Stainless Steel Bodies
- ✍ Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz



Coil sold separately - see page 87.

SPECIFICATIONS

- ✍ 1/8" NPT Solenoid Valve
- ✍ Watts: 12 A.C., 15 D.C.
- ✍ VA Inrush: 28
- ✍ VA Holding: 19
- ✍ M.W.P. 500 psi (1000 psi — 3/64" Orifice Only)
- ✍ Shipping Weight: 1 lb
- ✍ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✍ Vacuum to 950 P.S.I.
- ✍ CSA file number: LR3204
- ✍ UL file number: MP604

202C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D. [Ⓔ]		Cv	MAX. AC FLUID TEMP. [Ⓔ]	COIL CODE [Ⓔ]			CATALOG NUMBER [Ⓔ]	PCN*	ELASTOMER
		AC	DC			SIZE	INSULATION	ENCLOSURE			
BRASS GENERAL PURPOSE											
1/8	3/64	950	500	.05	180°F	A	M	G	202CB1/8B3/64B		BUNA-N
	1/16	500	500	.12		12 Watts AC	Class F Molded	Junction Box	202CB1/8B1/16B		
	3/32	300	125	.22		15 Watts DC			202CB1/8B3/32B		
	1/8	150	75	.34					202CB1/8B1/8B	030113	
	5/32	100	40	.48					202CB1/8B5/32B	030114	
STAINLESS STEEL GENERAL PURPOSE											
1/8	3/64	950	500	.05	180°F	A	M	G	202CB1/8S3/64B		BUNA-N
	1/16	500	500	.12		12 Watts AC	Class F Molded	Junction Box	202CB1/8S1/16B	064756	
	3/32	300	125	.22		15 Watts DC			202CB1/8S3/32B		
	1/8	150	75	.34					202CB1/8S1/8B		
	5/32	100	40	.48					202CB1/8S5/32B		
BRASS STEAM											
1/8	1/16	150	—	.12	400°F	A	H	G	202CB1/8B1/16T		PTFE w/Ethylene Propylene Gaskets
	3/32	150	—	.22		12 Watts	Class H Molded	Junction Box	202CB1/8B3/32T	030122	
	1/8	150	—	.34					202CB1/8B1/8T	030123	
	5/32	100	—	.48					202CB1/8B5/32T		
1/8	1/8	150	-	.34	400°F	A	H	G	202CB1/8B1/8P	030118	Ethylene Prop.
1/8	5/32	100	-	.48	400°F	A	H	G	202CB1/8B5/32V	056954	Viton

[Ⓔ]Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

[Ⓔ]Refer to tables below for options.

[Ⓔ]With an ambient temperature of 77°F.

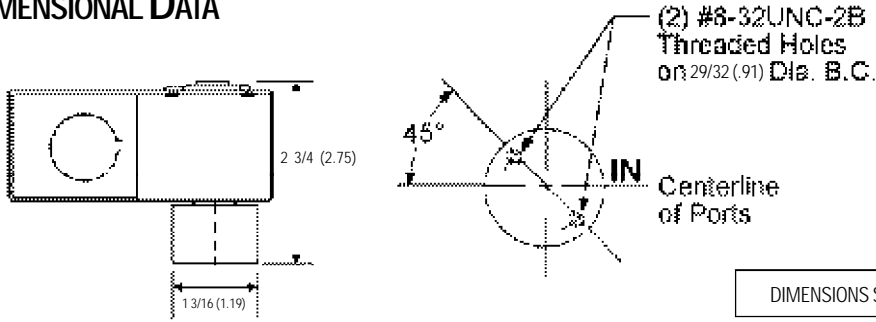
[Ⓔ]Maximum Operating Pressure Differential.

Standard Product Offering

* Product Code Number

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

202C DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

202C VALVE OPTIONS		
OPTIONS	LIST COST	TO ORDER
Manual Override (not for steam) Minimum order qty. 100	Adder	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes	Adder	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Adder	Change body material code. Example: Change standard 202CB1/8S to non-standard 202CB1/8T (silver shading band)

EXPLODED VIEW 202C

"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY
For voltages and frequencies available see the tables on page 85.

202C VALVE REPAIR KITS

SEAT MATERIAL	KIT #	PCN*
Buna-N	K-1063	021103
Viton	K-1065	
Rulon	K-1068	
Ethylene Propylene	K-1064	021104

■ Standard Product Offering * Product Code Number

CUTAWAY VIEW

Direct Acting Solenoids
Shown De-energized and Energized

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP.	CODE	TO ORDER
Junction Box	G	Change coil code.	Buna-N	180°F	B	Change Elastomer Code Example: Change 202CB1/8B1/8B (std. Buna N) to non-standard 202CB1/8B1/8V (Viton)
Conduit – 18" leads	C	Example: Change	Ethylene Propylene	250°F	P	
Open Frame – 18" leads	F	AMG (standard Junction Box)	Viton	250°F	V	
Open Frame – Spades	S	to non-standard AMC (Conduit Connection)	Rulon (Reinforced) Gasket is Ethyl. Prop.	400°F	T	

203C INDUSTRIAL SOLENOIDS

APPLICATION

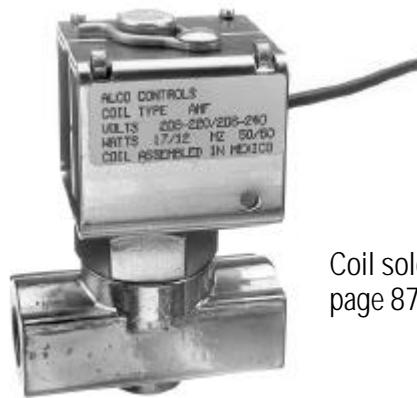
- ✍ Air, Water & Steam
- ✍ 2-Way Normally Closed
- ✍ Direct Acting

FEATURES

- ✍ Stainless Steel Coil Retainer
- ✍ Superior Life with Stainless Steel enclosing tubes
- ✍ Forged Brass Body with large wrench flats
- ✍ One moving part and is of packless construction
- ✍ Class F Molded Coil Standard
- ✍ Junction Box supplied Standard
- ✍ Completely Serviceable Without Disturbing System Piping

OPTIONS

- ✍ Optional Voltages: 120-240, 480 & 240-480/50-60 Hz



Coil sold separately - see page 87.

SPECIFICATIONS

- ✍ 3/8" NPT Solenoid Valve
- ✍ Watts: 12 A.C.
- ✍ VA Inrush: 37 for 5/32 & 1/8 orifices
47 for 1/4 + orifices
- ✍ VA Holding: 19
- ✍ M.W.P. 500 psi
- ✍ Shipping Weight: 1 lb. 4 oz.
- ✍ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✍ Vacuum to 125 P.S.I.
- ✍ CSA file number: LR3204
- ✍ UL file number: MP604

203C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D. [✍]	Cv	MAX. AC FLUID TEMP. [✍]	COIL CODE [✍]			CATALOG NUMBER [✍]	PCN*	ELASTOMER
		AC			SIZE	INSULATION	ENCLOSURE			
BRASS GENERAL PURPOSE										
3/8	1/8	125	0.3	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	203CA3/8B1/8B		BUNA-N
	5/32	75	0.5					203CA3/8B5/32B		
	1/4	25	1.0					203CA3/8B1/4B	030603	
	5/16	15	1.5					203CA3/8B5/16B		
	3/8	10	1.7					203CA3/8B3/8B	030605	
BRASS STEAM										
3/8	1/4	15	1.0	250°F	A 12 Watts	M Class F Molded	G Junction Box	203CA3/8B1/4P		Ethylene Propylene Gaskets
	5/16	15	1.5					203CA3/8B5/16P		
	3/8	10	1.7					203CA3/8B3/8P	030614	

[✍] Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

■ Standard Product Offering

* Product Code Number

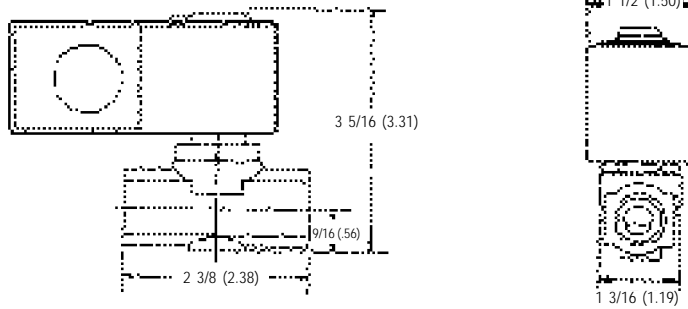
[✍] Refer to tables below for options.

[✍] With an ambient temperature of 77°F.

[✍] Maximum Operating Pressure Differential.

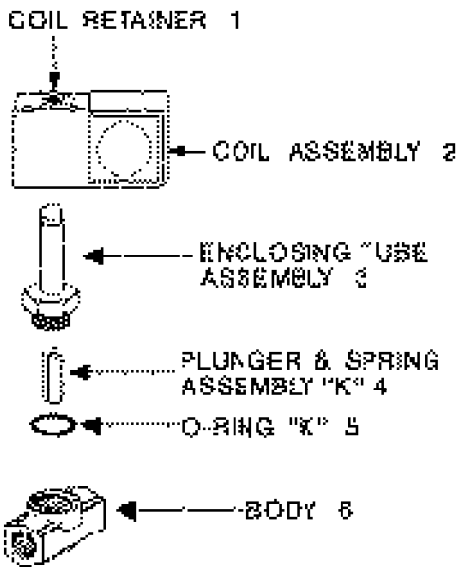
To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

203C DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

EXPLODED VIEW 203C



203C VALVE REPAIR KITS

ORIFICE SIZE	SEAT MATERIAL	KIT #	PCN*
1/8, 3/32	Buna-N	K-1108	
1/4, 5/16, 3/8	Buna-N	K-1104	021108
	Ethylene Propylene	K-1106	040598

Standard Product Offering * Product Code Number

"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables on page 85.

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP	CODE	TO ORDER
Junction Box	G	Change coil code. Example: Change AMG (standard Junction Box) to non-standard AMC (Conduit Connection)	Buna-N	180°F	B	Change Elastomer Code Example: Change 203CA3/8B3/8B (std. Buna N) to non-standard 203CA3/8B3/8V (Viton)
Conduit – 18" leads	C		Ethylene Propylene	250°F	P	
Open Frame – 18" leads	F		Viton	250°F	V	
Open Frame – Spades	S					

204C INDUSTRIAL SOLENOIDS

APPLICATION

- ✘ Air, Water & Steam
- ✘ 2-Way Normally Closed
- ✘ Direct Acting

FEATURES

- ✘ Stainless Steel Coil Retainer
- ✘ Superior Life with Stainless Steel enclosing tube
- ✘ Only one moving part and is of packless construction
- ✘ Class F Molded Coil Standard
- ✘ Completely Serviceable Without Disturbing System Piping

OPTIONS

- ✘ Brass or Stainless Steel Bodies
- ✘ Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz



Coil sold separately - see page 87.

SPECIFICATIONS

- ✘ 1/4" NPT Solenoid Valve
- ✘ Watts: 12 A.C., 15 D.C.
- ✘ VA Inrush: 31
- ✘ VA Holding: 19
- ✘ MWP: 500 psi (1000 psi — 3/64" Orifice Only)
- ✘ Shipping Weight: 1 lb. 3 oz.
- ✘ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✘ Vacuum to 950 PS.I.
- ✘ CSA file number: LR3204
- ✘ UL file number: MP604

204C SELECTION & ORDERING INFORMATION

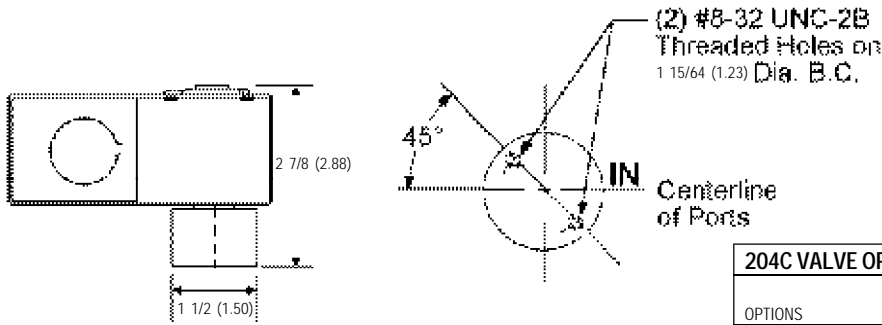
PIPE SIZE	ORIFICE SIZE	M.O.P.D. [✘]		Cv	MAX. AC FLUID TEMP. [✘]	COIL CODE [✘]			CATALOG NUMBER	PCN*	ELASTOMER
		AC	DC			SIZE	INSULATION	ENCLOSURE			
BRASS GENERAL PURPOSE											
1/4	3/64	950	500	.05	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	204CD1/4B3/64B	030731	BUNA-N
	1/16	500	500	.12					204CD1/4B1/16B		
	3/32	300	125	.22					204CD1/4B3/32B	030733	
	1/8	150	75	.34					204CD1/4B1/8B	056110	
	5/32	100	40	.48					204CD1/4B5/32B	030735	
	3/16	60	30	.56					204CD1/4B3/16B	030736	
	1/4	20	10	.70					204CD1/4B1/4B	030737	
STAINLESS STEEL GENERAL PURPOSE											
1/4	3/64	950	500	.05	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	204CD1/4S3/64B		BUNA-N
	1/16	500	500	.12					204CD1/4S1/16B		
	3/32	300	125	.22					204CD1/4S3/32B	030870	
	1/8	150	75	.34					204CD1/4S1/8B	030871	
	5/32	100	40	.48					204CD1/4S5/32B		
	3/16	60	30	.56					204CD1/4S3/16B		
	1/4	20	10	.70					204CD1/4S1/4B	030874	
BRASS STEAM											
1/4	3/64	150	—	.05	400°F	A 12 Watts AC	H Class H Molded	G Junction Box	204CD1/4B3/64T		Teflon [®] w/Ethylene Propylene Gaskets
	1/16	150	—	.12					204CD1/4B1/16T		
	3/32	150	—	.22					204CD1/4B3/32T	030748	
	1/8	150	—	.34					204CD1/4B1/8T	030749	
	5/32	100	—	.48					204CD1/4B5/32T	030750	
	3/16	60	—	.56					204CD1/4B3/16T		
	1/4	20	—	.70					204CD1/4B1/4P		
STAINLESS STEEL STEAM											
1/4	3/64	150	—	.05	400°F	A 12 Watts AC	H Class H Molded	G Junction Box	204CD1/4S3/64T	030883	Teflon [®] w/Ethylene Propylene Gaskets
	1/16	150	—	.12					204CD1/4S1/16T		
	3/32	150	—	.22					204CD1/4S3/32T		
	1/8	150	—	.34					204CD1/4S1/8T	030886	
	5/32	100	—	.48					204CD1/4S5/32T		
	3/16	60	—	.56					204CD1/4S3/16T	030888	
	1/4	20	—	.70					204CD1/4S1/4P		
STAINLESS STEEL STEAM											
1/4	5/32	100	-	.48	400°F	A 12 Watts	M Class H Molded	G Junction Box	204CD1/4S5/32 P	053492	E.P. Seat
BRASS STEAM											
1/4	5/32	100	-	.48	400°F	A 12 Watts	M Class H Molded	G Junction Box	204CD 1/4 B 5/32 P	064682	E.P. Seat

✘ Unless otherwise specified, Junction Box will be supplied as standard.
 ✘ Refer to tables below for options.
 ✘ With an ambient temperature of 77°F.
 ✘ Maximum Operating Pressure Differential.

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

■ Standard Product Offering * Product Code Number

204C DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

204C VALVE OPTIONS		
OPTIONS	LIST COST	TO ORDER
Manual Override (not for steam) Minimum order qty. 100	Adder	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes	Adder	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Adder	Change body material code. Example: Change standard 204CD1/4S to non-standard 204CD1/4T (silver shading band)

EXPLODED VIEW 204C

COIL RETAINER
 COIL ASSEMBLY
 SERVICE TOOL "K"
 COLLAR
 ENCLOSING TUBE ASSEMBLY
 PLUNGER AND SPRING ASSEMBLY "K"
 GASKET "K"
 BODY

"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY
 For voltages and frequencies available see the tables on page 85.

204C VALVE REPAIR KITS

SEAT MATERIAL	KIT #	PCN*
Buna-N	K-1072	021105
Viton	K-1074	021106
Rulon	K-1077	021107
Ethylene Propylene	K-1076	032154
Buna-N (1/4 orifice only)	K-1162	039145

■ Standard Product Offering * Product Code Number

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP.	CODE	TO ORDER
Junction Box	G	Change coil code. Example: Change AMG (standard Junction Box) to non-standard AMC (Conduit Connection)	Buna-N	180°F	B	Change Elastomer Code Example: Change 204CD1/4B1/8B (std. Buna N) to non-standard 204CD1/4B1/8V (Viton)
Conduit – 18" leads	C		Ethylene Propylene	250°F	P	
Open Frame – 18" leads	F		Viton	250°F	V	
Open Frame – Spades	S		Rulon (Reinforced) Gasket is Ethyl. Prop.	400°F	T	

210C/211C INDUSTRIAL SOLENOIDS

APPLICATION

- ✍ Air, Water & Steam
- ✍ 2-Way Normally Closed
- ✍ 210 - Pilot Operated
- ✍ 211 - Direct Acting

FEATURES

- ✍ Stainless Steel Coil Retainer
- ✍ Unique Captive Diaphragm and Seal
- ✍ Superior Life with Stainless Steel Enclosing Tube
- ✍ Only two moving parts (plunger and diaphragm) and are of packless construction
- ✍ Class F Molded Coil Standard
- ✍ Junction Box supplied Standard
- ✍ Completely Serviceable Without Disturbing System Piping

OPTIONS

- ✍ Optional Voltages: 480, 120-240 & 240-480/50-60 Hz



Coil sold separately - see page 87.

SPECIFICATIONS

- ✍ Watts: 12 A.C.
- ✍ VA Inrush: 31
- ✍ VA Holding: 19
- ✍ M.W.P. 300 psi (250 psi on 1" 210C only)
- ✍ Shipping Weight: 1 lb.
- ✍ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✍ Diaphragm Operated Solenoid Valve:
 - 210C - from 5 to 150 psi. 3/8" to 1" NPT
 - 211C - from 0 to 100 psi. 3/8" to 3/4" NPT
- ✍ CSA file number: LR3204
- ✍ UL file number: MP604

210C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D.		Cv	MAX. AC FLUID TEMP [✍]	COIL CODE [✍]			CATALOG NUMBER [✍]	PCN*	ELASTOMER
		AC				SIZE	INSULATION	ENCLOSURE			
BRASS-GENERAL PURPOSE											
3/8	5/8	150		2.8	180°F	A	M	G	210CA3/8B5/8B	030619	BUNA-N
1/2	5/8	150		3.6		12 Watts	Class F	Junction	210CA1/2B5/8B	030620	
3/4	3/4	125		5.5		AC	Molded	Box	210CA3/4B3/4B	030621	
1	1	125		13					210CA1B1B	038629	
BRASS-HOT WATER (210°F) OR STEAM (TO 250°F)											
3/8	5/8	100 [✍]	15 [✍]	2.8	250°F	A	M	G	210CA3/8B5/8P		Ethylene Propylene
1/2	5/8	100 [✍]	15 [✍]	3.6		12 Watts AC	Class F	Junction	210CA1/2B5/8P	030623	
3/4	3/4	100 [✍]	15 [✍]	5.5			Molded	Box	210CA3/4B3/4P	030624	

211C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D.		Cv	MAX. AC FLUID TEMP [✍]	COIL CODE [✍]			CATALOG NUMBER [✍]	PCN*	ELASTOMER
		AC				SIZE	INSULATION	ENCLOSURE			
BRASS-GENERAL PURPOSE											
3/8	5/8	100		2.8	180°F	A	M	G	211CA3/8B5/8B	030625	BUNA-N
1/2	5/8	100		3.6		12 Watts AC	Class F	Junction	211CA1/2B5/8B	030626	
3/4	3/4	100		5.5			Molded	Box	211CA3/4B3/4B	030627	
BRASS-HOT WATER (210°F) OR STEAM (TO 250°F)											
3/8	5/8	100 [✍]	15 [✍]	2.8	250°F	A	M	G	211CA3/8B5/8P	032303	Ethylene Propylene
1/2	5/8	100 [✍]	15 [✍]	3.6		12 Watts AC	Class F	Junction	211CA1/2B5/8P	032304	
3/4	3/4	100 [✍]	15 [✍]	5.5			Molded	Box	211CA3/4B3/4P	032305	

[✍] Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

[✍] Refer to tables below for options.

[✍] With an ambient temperature of 77°F.

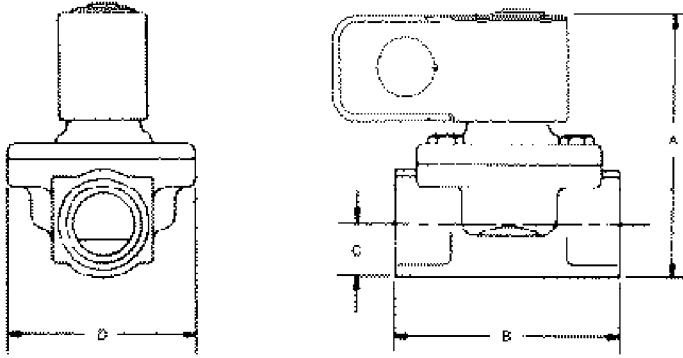
[✍] MOPD-Hot Water.

[✍] MOPD-Steam.

■ Standard Product Offering * Product Code Number

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

210C/211C DIMENSIONAL DATA

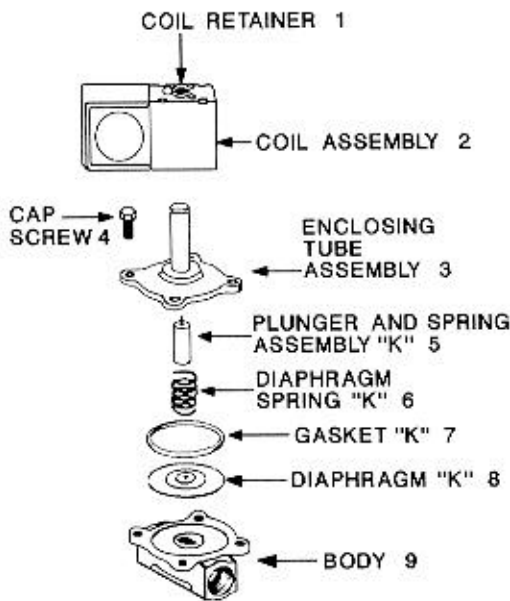


PIPE SIZE	A	B	C	D
3/8 (.38)	3-1/2 (3.50)	2-3/4 (2.75)	9/16 (.56)	2-5/16 (2.31)
1/2 (.50)	3-1/2 (3.50)	2-3/4 (2.75)	9/16 (.56)	2-5/16 (2.31)
3/4 (.75)	3-3/4 (3.75)	2-13/16 (2.81)	11/16 (.69)	2-5/16 (2.31)
1* (1.00)	4-21/32 (4.66)	4-5/32 (4.16)	27/32 (.84)	4-5/16 (4.31)

* 1" Pipe available on 210C valve only.

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

EXPLODED VIEW 210C/211C



"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY
For voltages and frequencies available see the tables on page 85.

210C VALVE REPAIR KITS

SEAT MATERIAL	CONNECTION SIZE					
	3/8 & 1/2	PCN*	3/4	PCN	1	PCN*
Buna-N	K-1155	028964	K-1231	045072	K-1177	038934
Ethylene Propylene	K-1156	029856	K-1232	045083		

211C VALVE REPAIR KITS

SEAT MATERIAL	KIT #	PCN*
Buna-N	K-1157	034357
Ethylene Propylene	K-1158	039879

Standard Product Offering * Product Code Number

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP.	CODE	TO ORDER
Junction Box	G	Change coil code.	Buna-N	180°F	B	Change Elastomer Code
Conduit – 18" leads	C	Example: Change	Ethylene Propylene	250°F	P	Example: Change
Open Frame – 18" leads	F	AMG (standard Junction Box)				210CA1/2B1/2B (std. Buna N)
Open Frame – Spades	S	to non-standard AMC (Conduit Connection)				to non-standard 210CA1/2B1/2P (Ethyl. Prop.)

214C INDUSTRIAL SOLENOIDS

APPLICATION

- ✘ Air and Water
- ✘ 2-Way Normally Closed



Coil sold separately - see page 87.

FEATURES

- ✘ Stainless Steel Coil Retainer
- ✘ Superior Life with Stainless Steel Enclosing Tube
- ✘ Forged Brass Body with large wrench flats
- ✘ Only two moving parts (plunger and diaphragm) and are of packless construction
- ✘ Class F Molded Coil Standard
- ✘ Junction Box supplied Standard
- ✘ Completely Serviceable Without Disturbing System Piping

SPECIFICATIONS

- ✘ 1/4" & 3/8" NPT Solenoids
- ✘ Watts: 12 Watts @ 60Hz
- ✘ VA Inrush: 44
- ✘ VA Holding: 22
- ✘ M.W.P. 350 psi
- ✘ Minimum Operating Pressure Differential: 2 psi
- ✘ Shipping Weight: 1 lb. 4 oz.
- ✘ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✘ Pilot Operated: 2 to 200 P.S.I.
- ✘ CSA file number: LR3204
- ✘ UL file number: MP604

OPTIONS

- ✘ Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

214C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D. [✘]		MAX. AC FLUID TEMP. [✘]	COIL CODE [✘]			CATALOG NUMBER [✘]	PCN*	ELASTOMER
		AC	Cv		SIZE	INSULATION	ENCLOSURE			
BRASS GENERAL PURPOSE										
1/4	1/4	200	1.2	180°F	A	M	G	214CB1/4B1/4B	030540	BUNA-N
	5/16	200	1.6		12 Watts @ 60 Hz	Class F Molded	Junction Box	214CB1/4B5/16B	030541	
	3/8	200	2.2					214CB1/4B3/8B		
3/8	1/4	200	1.2					214CB3/8B1/4B		
	5/16	200	1.6					214CB3/8B5/16B		
	3/8	200	2.2					214CB3/8B3/8B	030545	
✘ 3/8	3/8	200	2.2	400°F	Same As Above			✘ 214CB 3/8B3/8P	030557	EP Seat

[✘] Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

Standard Product Offering

* Product Code Number

[✘] Refer to tables below for options.

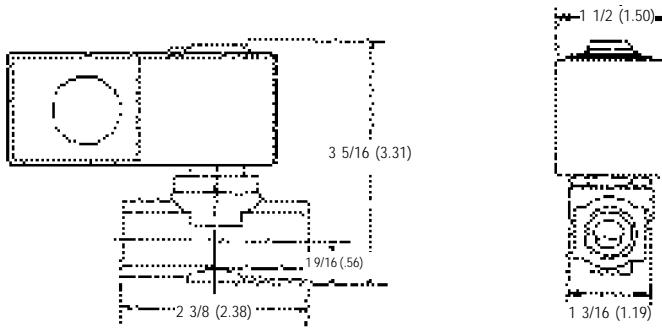
[✘] With an ambient temperature of 77°F.

[✘] Maximum Operating Pressure Differential.

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

NOTE: Minimum Operating Pressure Differential is 2 psi.
For all steam applications, use 200RB.

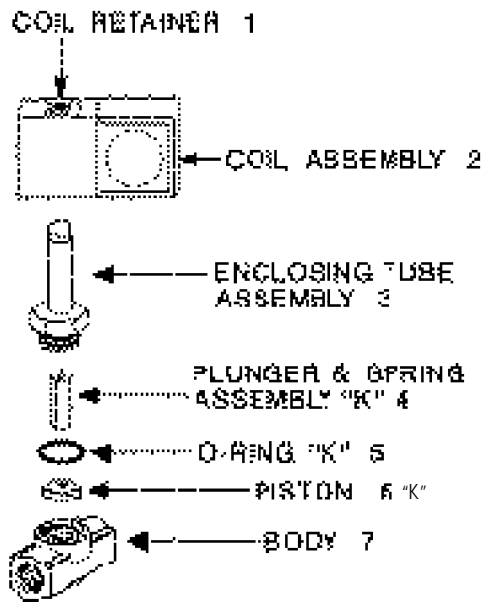
214C DIMENSIONAL DATA



214C VALVE OPTIONS	
OPTIONS	TO ORDER
Manual Override	Add suffix "M" to catalog number.

DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

EXPLODED VIEW 214C



"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables on page 85.

214C VALVE REPAIR KITS

SEAT MATERIAL	KIT #	PCN*
Buna-N	K-1112	035074
Ethylene Propylene	K-1113	041334

Standard Product Offering * Product Code Number

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP.	CODE	TO ORDER
Junction Box	G	Change coil code.	Buna-N	180°F	B	Change Elastomer Code
Conduit – 18" leads	C	Example: Change	Ethylene Propylene	250°F	P	Example: Change
Open Frame – 18" leads	F	AMG (standard Junction Box)	Viton	250°F	V	214CB3/8B3/8B (std. Buna N)
Open Frame – Spades	S	to non-standard AMC (Conduit Connection)				to non-standard 214CB3/8B3/8V (Viton)

222C INDUSTRIAL SOLENOIDS

APPLICATION

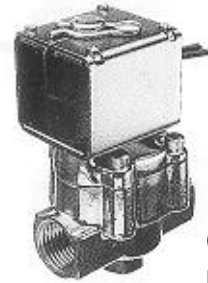
- ✍ Air, Water & Steam
- ✍ 2-Way Normally Closed

FEATURES

- ✍ Stainless Steel Coil Retainer
- ✍ Forged Brass Body with large wrench flats
- ✍ Piston valve performance for long life—only two moving parts
- ✍ Class F Molded Coil Standard
- ✍ Junction Box supplied Standard
- ✍ Completely Serviceable Without Disturbing System Piping

OPTIONS

- ✍ Optional Voltages: 480, 120-240 & 240-480/50-60 Hz



Coil sold separately - see page 87.

SPECIFICATIONS

- ✍ 3/8" to 1 1/2" NPT Solenoids
- ✍ Rulon Seat Material
- ✍ Watts: 12 @ 60 Hz
- ✍ VA Inrush: 38
- ✍ VA Holding: 19
- ✍ M.W.P. 300 psi
- ✍ Minimum Operating Pressure Differential: 5 psi
- ✍ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✍ Pilot Operated: 5 to 250 P.S.I.
- ✍ CSA file number: LR3204
- ✍ UL file number: MP604

Shipping Weights:	Pipe Size	Weight
	3/8, 1/2	1 lb. 8 oz.
	3/4	3 lbs.
	1	4 lbs. 4 oz.
	1-1/4	6 lbs. 2 oz.
	1-1/2	8 lbs. 6 oz.

222C SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.P.D. ✍	Cv	MAX. AC FLUID TEMP. ✍	COIL CODE ✍			CATALOG NUMBER ✍	PCN*	ELASTOMER
		AC			SIZE	INSULATION	ENCLOSURE			
BRASS GENERAL PURPOSE										
3/8	1/2	250	3.5	180°F	12 Watts @ 60 Hz	Class F Molded	Junction Box	222CB3/8B1/2B		BUNA-N
1/2	1/2		3.5					222CB1/2B1/2B	039917	
3/4	3/4		7.0					222CB3/4B3/4B	028192	
1	1		13.0					222CB1B1B	039931	
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4B	039918	
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2B	038879	
BRASS STEAM										
3/8	1/2	150	3.5	400°F	12 Watts @ 60 Hz	Class H Molded	Junction Box	222CB3/8B1/2T	041518	Rulon with Ethylene Propylene Gaskets
1/2	1/2		3.5					222CB1/2B1/2T	037958	
3/4	3/4		7.0					222CB3/4B3/4T	039930	
1	1		13.0					222CB1B1T	039834	
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4T	040532	
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2T	040582	
BRASS STEAM										
3/4	3/4	150	7.0	400°F	Same as Above			222CB 3/4 B 3/4 P	041314	Ethylene Prop.

Standard Product Offering * Product Code Number

✍ Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

✍ Refer to tables below for options.

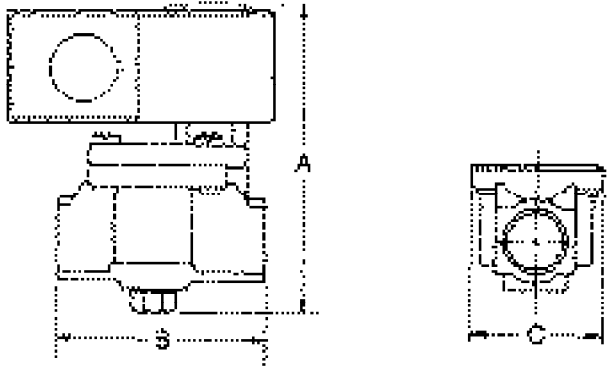
✍ With an ambient temperature of 77°F.

✍ Maximum Operating Pressure Differential.

NOTE: Minimum Operating Pressure Differential is 5 psi.

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

222C DIMENSIONAL DATA



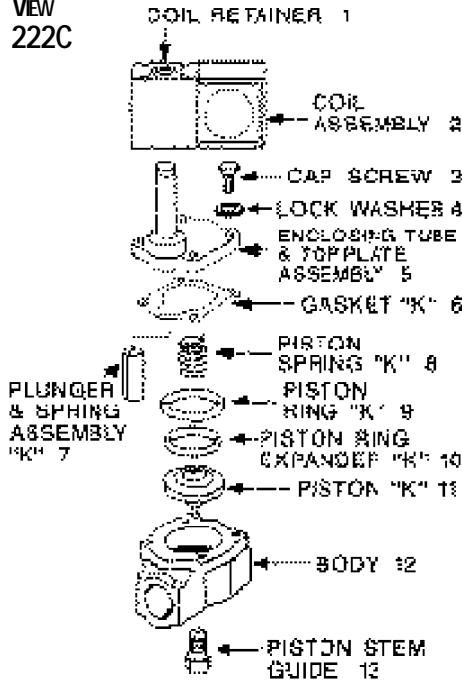
DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

ORIFICE SIZE	A *	B	C
1/2 (.50)	4-6/32 (4.19)	2-1/2 (2.50)	1-5/8 (1.63)
3/4 (.75)	4-3/4 (4.75)	3-1/4 (3.25)	2-1/16 (2.06)
1 (1.00)	5-5/16 (5.31)	4-1/16 (4.06)	2-5/8 (2.63)
1-1/4 (1.25)	5-25/32 (5.78)	4-9/16 (4.56)	3 (3.00)
1-1/2 (1.50)	6-9/32 (6.28)	5-1/4 (5.25)	3-7/16 (3.44)

* Add 1" for Manual Override

222C VALVE OPTIONS	
OPTIONS	TO ORDER
Manual Override (not for steam) Field Installed	Add suffix "M" to catalog number.

EXPLODED VIEW 222C



"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables on page 85.

222C VALVE REPAIR KITS

SEAT MATERIAL	ORIFICE SIZE — NPT									
	3/8 & 1/2	PCN*	3/4	PCN*	1	PCN*	1-1/4	PCN*	1-1/2	PCN*
Buna-N	K-1116	030765	K-1120	037558	K-1124	028955	K-1128	031349	K-1132	028956
Rulon	K-1118	029235	K-1122	021109	K-1126	034178	K-1130	034047	K-1134	
Ethylene Propylene			K-1121	040680						

222C MANUAL OVERRIDE KITS

For field installation only.

SEAT MATERIAL	ORIFICE SIZE — NPT					
	1/2 & 3/4	PCN*	1 & 1-1/4	PCN*	1-1/2	PCN*
Buna-N	K-1057	021099				
Rulon or Ethylene Propylene	K-1058	021100	K-1060	034330	K-1062	

Standard Product Offering

* Product Code Number

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP.	CODE	TO ORDER
Junction Box	G	Change coil code.	Buna-N	180°F	B	Change Elastomer Code
Conduit — 18" leads	C	Example: Change	Ethylene Propylene	250°F	P	Example: Change
Open Frame — 18" leads	F	AMG (standard Junction Box)	Rulon (Reinforced)	400°F	T	222CB1/2B1/2B (std. Buna N)
Open Frame — Spades	S	to non-standard AMC (Conduit Connection)	Gasket is Ethyl. Prop.			to non-standard 222CB1/2B1/2P (Ethyl. Prop.)

314U INDUSTRIAL SOLENOIDS

APPLICATION

- ✘ Air & Water
- ✘ 3-Way Universal
- ✘ Direct Acting

FEATURES

- ✘ Rugged Industrial Construction
- ✘ Both seat discs are spring loaded
- ✘ Superior Life with Stainless Steel Enclosing Tube
- ✘ Only one moving part and is of packless construction
- ✘ Class F Molded Coil standard
- ✘ Junction Box supplied standard

OPTIONS

- ✘ Brass or Stainless Steel Bodies
- ✘ Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

NOTE: 314U valves require an AMGN, EM or ASC-Type coil.



Coil sold separately - see page 87.

SPECIFICATIONS

- ✘ 1/4" NPT Solenoids
- ✘ Watts: 12 @ 60 Hz
- ✘ VA Inrush: 36
- ✘ VA Holding: 24
- ✘ M.W.P: 500 psi
- ✘ Shipping Weight: 1 lb.
- ✘ Standard Voltages: 24, 120, 208-240/50-60 Hz
- ✘ Vacuum to 125 PS.I.
- ✘ CSA file number: LR3204
- ✘ UL file number: MP604

314U SELECTION & ORDERING INFORMATION

PIPE SIZE	ORIFICE SIZE	M.O.R.D.✘		Cv	MAX. AC FLUID TEMP.✘	COIL CODE✘			CATALOG NUMBER✘	PCN*	ELASTOMER
		A C	Port 2			Port 3	SIZE	INSULATION			
BRASS GENERAL PURPOSE											
1/4	3/64	125	.05	.06	180°F	<u>A</u>	<u>M</u>	<u>GN</u>	314UB1/4B3/64B3/64B	030722	BUNA-N
	1/16	100	.12	.09		12 Watts @ 60 Hz	Class F Molded	Junction Box	314UB1/4B1/16B1/16B		
	3/32	40	.22	.17					314UB1/4B3/32B3/32B		
STAINLESS STEEL GENERAL PURPOSE											
1/4	3/64	125	.05	.06	180°F	<u>A</u>	<u>M</u>	<u>GN</u>	314UB1/4S3/64B3/64B	030725	BUNA-N
	1/16	100	.12	.09		12 Watts @ 60 Hz	Class F Molded	Junction Box	314UB1/4S1/16B1/16B		
	3/32	40	.22	.17					314UB1/4S3/32B3/32B		

✘ Maximum Operating Pressure Differential.

✘ With an ambient temperature of 77°F.

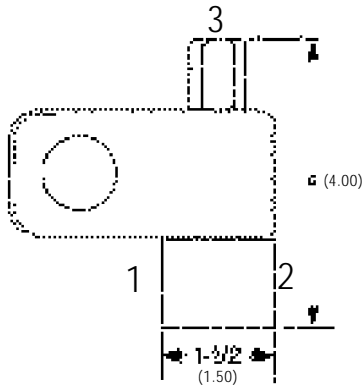
✘ Unless otherwise specified, Junction Box will be supplied as standard. Refer to table below for available coil options.

✘ Refer to tables below for options.

■ Standard Product Offering * Product Code Number

To order, specify: Quantity, Catalog Number, Coil Code, Voltage & Frequency.

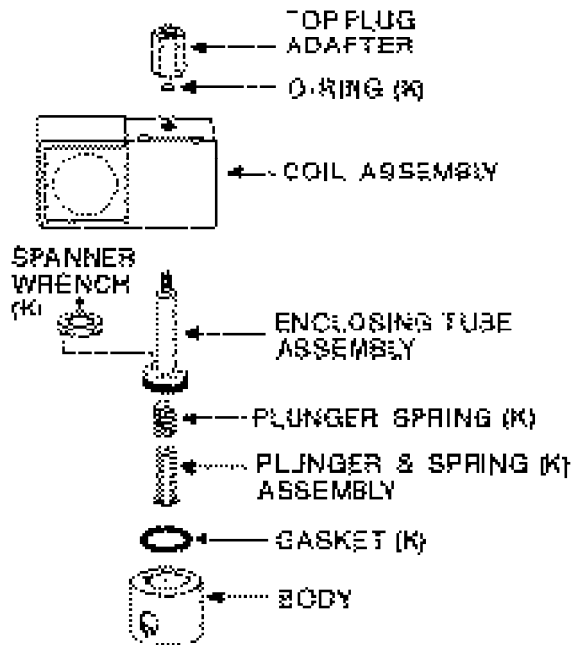
314U DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES: FRACTIONS (DECIMAL)

314U VALVE OPTIONS	
OPTIONS	TO ORDER
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 314UB1/8S to non-standard 314UB1/8I (silver shading band)

EXPLODED VIEW 314U



"K" indicates part is supplied in valve repair kit.

COIL ASSEMBLY

For voltages and frequencies available see the tables on page 85.

314U VALVE REPAIR KITS

SEAT MATERIAL	KIT #	PCN*
Buna-N	K-1093	037054

Standard Product Offering * Product Code Number

314CB VALVE REPAIR KITS

KIT #	PCN*
K-1083	028957

COIL ENCLOSURE OPTIONS			ELASTOMER OPTIONS			
OPTIONS	CODE	TO ORDER	SEAT DISC & GASKET	MAX. FLUID TEMP	CODE	TO ORDER
Junction Box	G	Change coil code.	Buna-N	180°F	B	Change Elastomer Code Example: Change 314UB1/8B1/8P1/8B (std. Buna N) to non-standard 314UB1/8B1/8P1/8 (Ethyl. Prop.)
Conduit – 18" leads	C	Example: Change	Ethylene Propylene	250°F	P	
Open Frame – 18" leads	F	AMG (standard Junction Box)	Viton	250°F	V	
Open Frame – Spades	S	to non-standard AMC (Conduit Connection)				

INDUSTRIAL SOLENOID OLD TO NEW CROSS REFERENCE

Old Model	Old PCN	New Model	New PCN
121WB5CP02	030038	204CD 1/4B 5/32 B VLC	030735
121WB03P02	040412	204CD 1/4B 3/16 B VLC	030736
121WB04P02	040337	204CD 1/4B 1/4 B VLC	030737
121SB5CP02	040300	204CD 1/4B 5/32 T VLC	030750
201WB04P02	091876	214CB 1/4B 1/4 B VLC	030540
201WB05P02	040758	214CB 3/8B 5/16 B VLC	064854
201WB06P02	065610	214CB 3/8B 3/8 B VLC	030545
231WB08P04	030051	222CB 1/2 B 1/2 B VLC	039917
231WB12P06	039987	222CB 3/4 B 3/4 B VLC	028192
231WB16P08	034211	222CB 1 B 1 B VLC	039931
231WB20P10	040283	222CB 1-1/4 B 1-1/4 B VLC	039918
231WB24P12	040021	222CB 1-1/2 B 1-1/2 B VLC	038879
231SB08P04	034171	222CB 1/2 B 1/2 T VLC	037958
231SB12P06	040069	222CB 3/4 B 3/4 T VLC	039930
231SB16P08	030048	222CB 1 B 1 T VLC	039834
231SB20P10	040365	222CB 1-1/4 B 1-1/4 T VLC	040532
231SB24P12	040366	222CB 1-1/2 B 1-1/2 T VLC	040582
241WA10P03	035073	210CA 3/8 B 5/8 B VLC	030619
241WA10P04	035023	210CA 1/2 B 5/8 B VLC	030620
241WA12P06	035022	210CA 3/4 B 3/4 B VLC	030621
241WA16P08	038857	210CA 1 B 1 B VLC	038629

ABV REFRIGERATION BALL VALVE

APPLICATIONS

- ☆ Isolate suction, discharge, and liquid line pipework during maintenance shutdown periods

FEATURES

- ☆ Forged brass body
- ☆ Hermetic design
- ☆ Compatible with new refrigerants/lubricants
- ☆ Full internal ports through 2-1/8"
- ☆ Bi-directional flow characteristics
- ☆ Valve stem cap retained by strap attached to main body
- ☆ Integrated access port available on all sizes



NOMENCLATURE

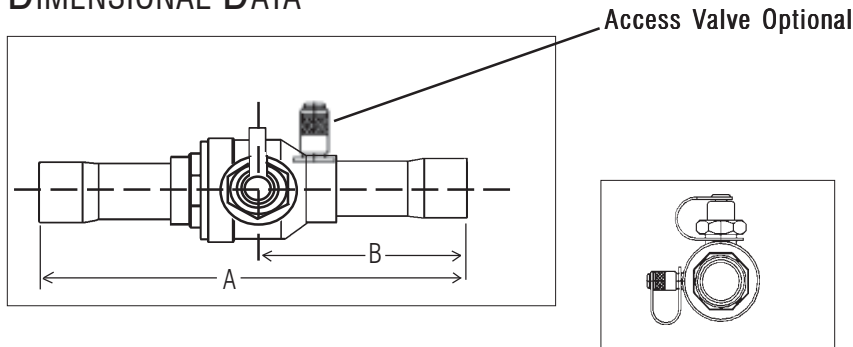
Example: ABV5A

A	BV	5	A
Series	Ball Valve	Connection Size (in 1/8")	Access Valve (optional)

SPECIFICATIONS

- ☆ Body: Forged Brass
- ☆ Extension Stubs: 100% Copper Connections
- ☆ Maximum working pressure: 500 psig
- ☆ Not for use with R-123
- ☆ Fluid temperature range: +300°F to -40°F
- ☆ UL File Number: SA 5312
- ☆ CSA File Number: LR 32462

DIMENSIONAL DATA



SELECTION AND ORDERING INFORMATION FOR ABV

PCN* without Access Valve	PCN* with Access Valve	Valve	Port Size	Connection Size	Dimensions (Inches)	
					A	B
064383	064384	ABV2	1/2	1/4 ODF	5.47	2.55
062104	062114	ABV3	1/2	3/8 ODF	5.47	2.55
062105	062115	ABV4	1/2	1/2 ODF	6.35	2.97
062106	062116	ABV5	1/2	5/8 ODF	6.35	2.97
064385	064386	ABV6	3/4	3/4 ODF	7.42	3.49
062107	062117	ABV7	3/4	7/8 ODF	7.42	3.49
062108	062118	ABV9	1	1 1/8 ODF	9.11	4.47
062109	062119	ABV11	1 1/4	1 3/8 ODF	9.97	4.84
062110	062120	ABV13	1 1/2	1 5/8 ODF	10.98	5.38
062111	062121	ABV17	2	2 1/8 ODF	11.72	5.77
062112	062122	ABV21 [Ⓞ]	2	2 5/8 ODF	11.72	5.77
062113	062123	ABV25 [Ⓞ]	2	3 1/8 ODF	11.81	5.82

Standard Product Offering

*Product Code Number

[Ⓞ]Reduced port

Hand (Shut Off) Valves

APPLICATIONS

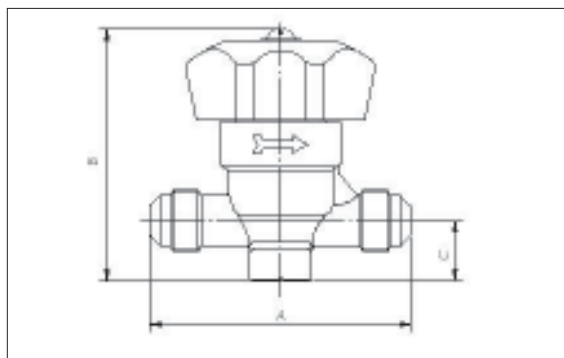
- ☆ Shut off valves are used in refrigeration and pneumatic circuits

FEATURES

- ☆ Brass valve body
- ☆ Easy, one-handed sealing
- ☆ Stainless steel diaphragms ensure seal between shaft and inner valve walls



DIMENSIONAL DATA



SPECIFICATIONS

- ☆ Maximum working pressure: 425 psig
- ☆ For use with: R-22, R-134a, R-404A, R-12 & R-502
- ☆ Maximum Fluid Temperature: 212°F
- ☆ UL File Number: SA 12786

SELECTION AND ORDERING INFORMATION

PCN	Valve Model	Connection Type	Connection Size (in inches)	Dimensions			Kv	Cv
				A	B	C		
065699	RD 6 1/4 R	SAE	1/4	2.283	2.48	0.472	0.5	0.03
065700	RD 6 1/4 S	ODF						
065701	RD 10 3/8 R	SAE	3/8	2.795	2.677	0.629	0.8	0.05
065702	RD 10 3/8 S	ODF						
065703	RD 12 1/2 R	SAE	1/2	3.661	3.031	0.629	1.6	0.11
065704	RD 12 1/2 S	ODF						
065705	RD 15 5/8 R	SAE	5/8	3.661	3.031	0.629	1.9	0.13
065706	RD 15 5/8 S	ODF						
065707	RD 19 5/8 R	SAE	3/4	5.236	4.921	0.984	4.5	0.31
065708	RD 19 5/8 S	ODF						
065709	RD 22 7/8 S	ODF	7/8	5.236	4.921	0.984	5.0	0.35

Standard Product Offering
*Product Code Number

QUICK SELECTION GUIDE

HERMETIC FILTER DRIERS

TYPE	FILTER DRIER	PAGE	RECOMMENDED USE	FUNCTION
Liquid	EK/EKP	109-110	CFC, HCFC, HFC	Premium Universal Replacement
Liquid	ADK	112	CFC, HCFC	High Acid and Water Removal
Liquid	BOK-HH	116	CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Liquid	BFK	114	CFC, HCFC, HFC	Bi-Flow Heat Pump
Suction	SFD	129	CFC, HCFC, HFC	Burnout Cleanup
Suction	CSFD	130	CFC, HCFC, HFC	Compact Burnout Cleanup
Suction	ASD	128	CFC, HCFC, HFC	Premium Burnout Cleanup
Suction	ASK-HH	131	CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Filter	ASF	132	CFC, HCFC, HFC	Filter Only

TAKE-A-PART FILTER-DRIER

TYPE	FILTER DRIER	PAGE	LIQUID	SUCTION
Take-Apart	STAS	121	X	X
Take-Apart	ADKS	123	X	X
Take-Apart	BTAS	126		X

REPLACEABLE CORES/FILTERS FOR TAKE-A-PART SHELLS

TYPE	CORE/FILTER	PAGE	RECOMMENDED USE	FUNCTION
Core	D-42/48	125	CFC, HCFC	High Acid Removal
Core	H-42/48/100		CFC, HCFC	High Acid and Water Removal
Core	W-42/48/100HH		CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Core	UK-48/100		CFC, HCFC, HFC	Premium Universal Replacement
Core	HX-48		HFC	High Water Removal
Filter	F-48/100		CFC, HCFC, HFC	Filter Only
Core	RH-48		Reclaim Use Only	High Acid and Water Removal
Core	RW-48		Reclaim Use Only	Burnout Cleanup

RECOMMENDED SYSTEM TONNAGE

For kW, Multiply tons by 3.5^①

TAKE APART LIQUID LINE FILTER DRIERS

Description	Refrigeration, Low Temp. & Commercial Installations			Air Conditioning			
				Field Replacement & Field Installations		OEM Self Contained Equipment	
	R-12/134a	R-22/407C	R-404A/507A	R-12/134a	R-22/407C	R-12/134a	R-22/407C
STAS 485T	8	10	8	8	10	13	15
STAS 487T	10	13	10	10	12 1/2	15	20
STAS 489T	10	15	10	10	15	15	20
STAS 4811T	13	20	13	13	20	20	25
STAS 967T	20	25	15	20	25	25	35
STAS 969T	25	30	20	25	30	35	45
STAS 9611T	30	35	25	30	35	35	45
STAS 9613T	35	40	30	35	40	40	50
A-TD-9625S-V	40	45	35	40	45	50	60
STAS 1449T	30	40	30	30	40	40	55
STAS 14411T	40	50	35	40	50	50	65
STAS 14413T	45	55	40	45	55	55	75
STAS 14417T	60	50	45	50	60	60	80
STAS 19211T	50	70	45	50	70	60	80
STAS 19213T	60	80	55	60	80	75	100
STAS 19217T	65	85	60	65	85	80	110
ADKS 30013T	50	65	45	50	65	55	70
ADKS 30017T	60	80	50	60	80	65	90
ADKS 40017T	65	85	55	65	85	70	95
ADKS 40021T	75	100	65	75	100	80	105

SPUN COPPER LIQUID LINE SERVICE DRIERS

Description	Refrigeration, Low Temp. & Commercial Installations			Air Conditioning			
				Field Replacement & Field Installations		OEM Self Contained Equipment	
	R-12/134a	R-22/407C	R-404A/507A	R-12/134a	R-22/407C	R-12/134a	R-22/407C/R-410A
CU-80, 619	1/3	1/2	1/3	1/3	1/2	1/2	1/2
CU-620, 621	1/2	3/4	1/2	1	2	1 1/5	2
CU-200				3/4	1	1	1 1/2
CU-319				1	2	1 1/2	2

^① Example: 1.0 tons x 3.5 = 3.5 kW

Recommended System Tonnage

Hermetic Liquid Line Filter Driers (EK, ADK, BFK, BOK)

Recommended Capacities at 2 psi Drop (See catalog page showing ARI data for capacity at 1 psi drop.)

Description	Refrigeration, Low Temp and Commercial Installations			Air Conditioning	
				Field Replacements and Installations	
	R-12/R-134a	R-22/R-407C/R-410A	R-404A/R-507A	R-12/R-134a	R-22/R-407C/R-410A
032	1/2	1/2	1/2	1	1-1/2
032S					
033					
033S					
052	3/4	3/4			
052S					
053	1-1/2	2	1-1/2	3	4
053S					
082	1	1	3/4	1-1/2	2
082S		2	1	3	4
0825S		3	2	4	5
083	2	3	2	4	5
083S		4		5	7-1/2
084		7-1/2		10	12
084S					
162	1-1/2	2	1	1-1/2	2
162S					
1625S	2	3	2	3	4
163	3	5	3	4	5
163S				5	10
164				7-1/2	12
164S				4	6
165				7-1/2	10
165S					
303	4	5	4	4	6
303S		7-1/2	7-1/2	10	
304		10	15		
304S		18	24		
305	7-1/2	10	5	10	15
305S		15	20	26	
307S		18	24		
309S					
413	4	5	4	5	5
414			5	7-1/2	12
414S					
415	7-1/2	7-1/2	7-1/2	12	18
415S				18	25
417S	10	10	10	20	27
419S		12	15	22	30
757S	20	25	15	22	30
759S	22	30	20	25	34

EK EXTRA-KLEAN LIQUID LINE FILTER-DRIER

APPLICATION

- ☆ Premium compacted bead filter-drier with a finer 20 micron final outlet pad for maximum filtration
- ☆ Premium Universal replacement liquid line filter-drier for CFC, HCFC and HFC refrigerants including R-12, R-134a, R-22, R-404A, R-407C, R-410A, R-500, R-502, R-507

FEATURES

- ☆ Filtration first for more effective use of surface area of desiccant
- ☆ High moisture and acid removal
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Copeland approved for POE Oils

NOMENCLATURE

Example: EK-083S

EK	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



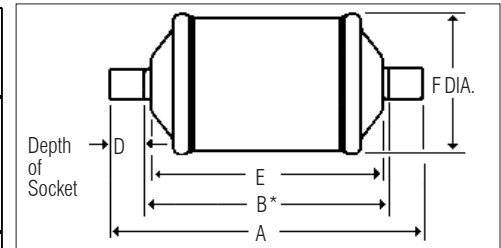
SPECIFICATIONS

- ☆ Desiccant blend - 75% molecular sieve and 25% activated alumina
- ☆ Filtration: 20 microns
- ☆ Maximum working pressure: 680 psig
- ☆ UL/CUL file number: SA 3124

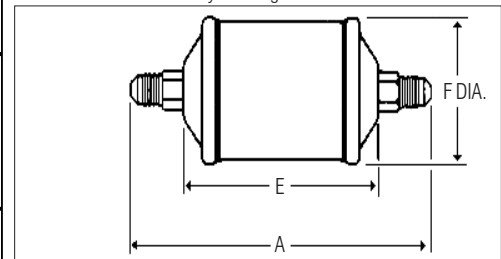
ORDERING INFORMATION FOR EK

PCN	Model Number	Dimensions					Shipping Weight (in pounds)
		A	B	D	E	F	
060009	EK 032	4-3/8	-	-	-	-	-
060012	EK 032S	3-7/8	3-1/8	3/8	-	-	-
063208	EK 032SV CAP	-	-	-	-	-	-
060011	EK 032FM	3-1/2	-	-	2-9/16	1-5/8	1/2
060010	EK 032MF	3-1/2	-	-	-	-	-
060013	EK 033	4-11/16	-	-	-	-	-
060014	EK 033S	4-1/16	3-3/16	7/16	-	-	-
047601	EK 052	4-13/16	-	-	-	-	-
057013	EK 052MF	4-1/2	-	-	-	-	-
047602	EK 052S	4-7/16	3-11/16	3/8	3	-	7/8
047603	EK 053	5-1/8	-	-	-	-	-
057604	EK 053S	4-1/2	3-5/8	7/16	-	-	-
047605	EK 082	5-5/8	-	-	-	-	-
047606	EK 082S	5-1/4	4-1/2	3/8	-	-	-
049551	EK 0825S	5-3/8	4-3/8	1/2	-	-	-
056906	EK 083MF	5-15/16	-	-	3-13/16	-	1-1/4
047607	EK 083	5-15/16	-	-	-	-	-
047608	EK 083S	5-5/16	4-7/16	7/16	-	-	-
047609	EK 084	6-3/16	-	-	-	2-5/8	-
047610	EK 084S	5-3/8	4-3/8	1/2	-	-	-
047611	EK 162	6-9/16	-	-	-	-	-
047612	EK 162S	6-3/16	5-7/16	3/8	-	-	-
056045	EK 1625S	5-15/16	5-5/16	5/16	-	-	-
047613	EK 163	6-7/8	-	-	-	-	-
047614	EK 163S	6-1/4	5-7/16	7/16	4-3/4	-	1-1/2
047615	EK 164	7-1/16	-	-	-	-	-
047616	EK 164S	6-5/16	5-5/16	1/2	-	-	-
047617	EK 165	7-1/2	-	-	-	-	-
047618	EK 165S	6-9/16	5-5/16	5/8	-	-	-
047619	EK 167S	7-1/2	5-5/8	3/4	-	-	-
048210	EK 303	9-5/8	-	-	-	-	-
048211	EK 303S	9	8-1/8	7/16	-	-	-
048212	EK 304	9-7/8	-	-	-	-	-
048213	EK 304S	9-1/8	8-1/8	1/2	-	-	-
048214	EK 305	10-5/16	-	-	7-1/2	3-1/16	3-3/4
048215	EK 305S	9-5/16	8-1/16	5/8	-	-	-
048216	EK 306S	9-11/16	8-7/16	5/8	-	-	-
048217	EK 307S	9-7/8	8-3/8	3/4	-	-	-
048218	EK 309S	10-1/4	8-7/16	15/16	-	-	-
048219	EK 413	9-3/4	-	-	-	-	-
048220	EK 414	10	-	-	-	-	-
048221	EK 414S	9-1/4	8-1/4	1/2	-	-	-
048222	EK 415	10-7/16	-	-	7-5/8	-	-
048223	EK 415S	9-7/16	8-3/16	5/8	-	3-11/16	4-3/4
048224	EK 417S	10	8-1/2	3/4	-	-	-
048225	EK 419S	10-5/16	8-1/2	3/4	-	-	-
048228	EK 757S	15-7/16	13-15/16	3/4	13-1/16	-	7-1/2
048229	EK 759S	15-3/4	13-7/8	15/16	-	-	-

DIMENSIONAL DATA



* Indicates Lay-in Length



⊙ Does not include weld bead

* Product Code Number

■ Standard Product Offering

EKP EXTRA-KLEAN LIQUID LINE FILTER-DRIER

NOTE: THE EKP IS MARKETED IN CANADA AND AUSTRALIA.

APPLICATION

- ☆ Premium compacted bead filter-drier with a finer 20 micron final outlet pad for maximum filtration
- ☆ Premium Universal replacement liquid line filter-drier for CFC, HCFC and HFC refrigerants including R-12, R-134a, R-22, R-404A, R-407C, R-410A, R-500, R-502, R-507

FEATURES

- ☆ Filtration first for more effective use of surface area of desiccant
- ☆ High moisture and acid removal
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Copeland approved for POE Oils

NOMENCLATURE

Example: EK-083S

EKP	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)



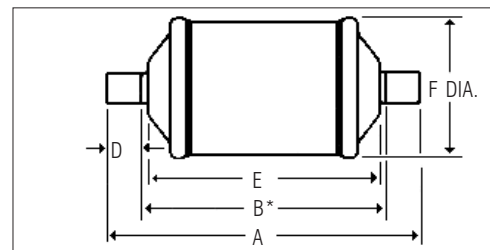
SPECIFICATIONS

- ☆ Desiccant blend - 75% molecular sieve and 25% activated alumina
- ☆ Filtration: 20 microns
- ☆ Maximum working pressure: 680 psig
- ☆ UL file number: SA 3124

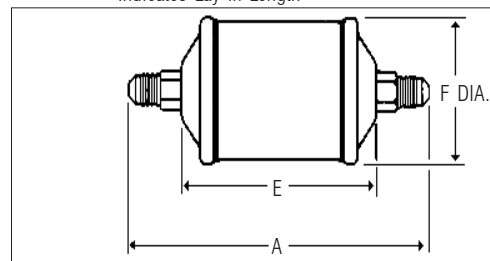
ORDERING INFORMATION FOR EKP

PCN	Model Number	Dimensions					Shipping Weight (in pounds)
		A	B	D	E	F	
062427	EKP-032	4-3/8	--	--	2-9/16	1-5/8	1/2
062429	EKP-032S	3-7/8	3-1/8	3/8			
062431	EKP-033	3-1/2	--	--			
062433	EKP-033S	4-11/16	3-3/16	7/16	3	7/8	
062435	EKP-052	4-1/16	--	--			
062438	EKP-052S	4-13/16	3-11/16	3/8			
062440	EKP-053	4-7/16	--	--	3-13/16	1-1/4	
062442	EKP-053S	5-1/8	3-5/8	7/16			
062444	EKP-082	4-1/2	--	--			
062446	EKP-082S	5-5/8	4-1/2	3/8	2-5/8	1-1/4	
062448	EKP-083	5-1/4	--	--			
062450	EKP-083S	5-15/16	4-7/16	7/16			
062452	EKP-084	5-5/16	--	--	4-3/4	1-1/2	
062454	EKP-084S	6-3/16	4-3/8	1/2			
062493	EKP-162	5-3/8	--	--			
062495	EKP-162S	6-9/16	5-7/16	3/8	7-1/2	3-3/4	
062497	EKP-163	6-3/16	--	--			
062499	EKP-163S	6-7/8	--	--			
062501	EKP-164	7-1/16	--	--	7-5/8	4-3/4	
062503	EKP-164S	6-5/16	5-5/16	1/2			
062505	EKP-165	7-1/2	--	--			
062507	EKP-165S	6-9/16	5-5/16	5/8	13-1/16	7-1/2	
062509	EKP-303	9-5/8	--	--			
062511	EKP-303S	9	8-1/8	7/16			
062513	EKP-304	9-7/8	--	--	3-11/16	4-3/4	
062515	EKP-304S	9-1/8	8-1/8	1/2			
062517	EKP-305	10-5/16	--	--			
062519	EKP-305S	9-5/16	8-1/16	5/8	7-5/8	4-3/4	
063449	EKP-306S	9-11/16	8-7/16	3/4			
062523	EKP-307S	9-7/8	8-3/8	3/4			
062525	EKP-309S	10-1/4	8-7/16	15/16	13-1/16	7-1/2	
062527	EKP-413	9-3/4	--	--			
062531	EKP-414	10	--	--			
062533	EKP-414S	9-1/4	8-1/4	1/2	13-1/16	7-1/2	
062535	EKP-415	10-7/16	--	--			
062537	EKP-415S	9-7/16	8-3/16	5/8			
062539	EKP-417S	10	8-1/2	3/4	13-1/16	7-1/2	
062541	EKP-419S	10-5/16	8-1/2	3/4			
062543	EKP-757S	15-7/16	13-15/16	15/16			
062545	EKP-759S	15-3/4	13-7/8	15/16			

DIMENSIONAL DATA



* Indicates Lay-in Length



*Product Code Number
 Standard Product Offering

EK/EKP CAPACITY TABLES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY TONS @ 1 psi ΔP [Ⓞ] (For kW, multiply tons by 3.5 [Ⓟ])						WATER CAPACITY [Ⓢ] DROPS OF WATER [Ⓢ]																			
		R-12		R-134a		R-22/R-410A		R-407C		R-404A/507		R-502		R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
EK032FM	1/4 Fem/In SAE	1.6	2.0	2.2	2.1	1.4	1.4																				
EK032MF	1/4 Male/In SAE	1.6	2.0	2.2	2.1	1.4	1.4																				
EK032	1/4 SAE	1.6	2.0	2.2	2.1	1.4	1.4																				
EK032S	1/4 ODF	2.2	2.7	2.9	2.9	2.0	1.9	47	41	40	37	40	33	33	25	21	19	38	37	42	37						
EK032SV	1/4 ODF	2.2	2.7	2.9	2.9	2.0	1.9																				
EK033	3/8 SAE	2.5	3.0	3.3	3.2	2.2	2.1																				
EK033S	3/8 ODF	2.5	3.0	3.3	3.2	2.2	2.1																				
EK052FM	1/4 Fem/In SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK052MF	1/4 Male/In SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK052	1/4 SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK052S	1/4 ODF	2.7	3.3	3.6	3.5	2.4	2.3	133	119	116	106	114	97	95	75	64	58	109	106	120	107						
EK053MF	3/8 Male/In SAE	2.9	3.5	3.8	3.7	2.5	2.5																				
EK053	3/8 SAE	2.9	3.5	3.8	3.7	2.5	2.5																				
EK053S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	3.1																				
EK082FM	1/4 Fem/In SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK082MF	1/4 Male/In SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK082	1/4 SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK082S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK0825S	5/16 ODF	2.9	3.5	3.8	3.7	2.5	2.5																				
EK083MF	3/8 Male/In SAE	3.3	4.0	4.3	4.3	2.9	2.8	274	240	237	218	235	200	195	155	159	118	224	217	245	217						
EK083	3/8 SAE	3.3	4.0	4.3	4.3	2.9	2.8																				
EK083S	3/8 ODF	3.7	4.5	4.9	4.8	3.3	3.2																				
EK084	1/2 SAE	5.5	6.7	7.3	7.1	4.9	4.7																				
EK084S	1/2 ODF	5.8	7.1	7.7	7.5	5.1	5.0																				
EK162MF	1/4 Male/In SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK162	1/4 SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK162S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK1625S	5/16 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK163	3/8 SAE	3.2	3.9	4.2	4.1	2.8	2.7																				
EK163S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	3.1	347	301	371	341	368	313	305	240	206	186	350	340	306	272						
EK164	1/2 SAE	5.9	7.2	7.8	7.7	5.2	5.1																				
EK164S	1/2 ODF	7.0	8.5	9.2	9.0	6.2	6.0																				
EK165	5/8 SAE	8.0	9.7	10.5	10.3	7.0	6.8																				
EK165S	5/8 ODF	8.3	10.1	10.9	10.7	7.3	7.1																				
EK167S	7/8 ODF	12.7	15.5	16.8	16.5	11.2	10.9																				
EK303	3/8 SAE	3.5	4.3	4.7	4.6	3.1	3.0																				
EK303S	3/8 ODF	5.2	6.3	6.8	6.7	4.6	4.4																				
EK304	1/2 SAE	6.6	8.1	8.8	8.6	5.9	5.7																				
EK304S	1/2 ODF	8.2	10.0	10.8	10.6	7.2	7.0																				
EK305	5/8 SAE	8.7	10.6	11.5	11.3	7.7	7.5	601	526	664	611	657	561	548	434	515	355	627	608	536	477						
EK305S	5/8 ODF	10.3	12.5	13.5	13.3	9.1	8.8																				
EK306S	3/4 ODF	12.1	14.8	16.0	15.7	10.7	10.4																				
EK307S	7/8 ODF	13.8	16.8	18.2	17.9	12.2	11.8																				
EK309S	1 1/8 ODF	16.1	19.6	21.2	20.8	14.2	13.8																				
EK413	3/8 SAE	3.5	4.3	4.7	4.6	3.1	3.0																				
EK414	1/2 SAE	8.5	10.4	11.3	11.1	7.5	7.3																				
EK414S	1/2 ODF	8.9	10.8	11.7	11.5	7.8	7.6																				
EK415	5/8 SAE	9.8	12.0	13.0	12.8	8.7	8.5	1104	971	938	854	919	785	765	607	715	465	876	850	991	884						
EK415S	5/8 ODF	13.9	17.0	18.4	18.1	12.3	12.0																				
EK417S	7/8 ODF	16.6	20.3	22.0	21.6	14.7	14.3																				
EK419S	1 1/8 ODF	22.7	27.7	30.0	29.4	20.1	19.5																				
EK757S	7/8 ODF	18.2	22.2	24.1	23.6	16.1	15.6	2368	2159	2159	2019	2159	1880	1810	1460	1460	1111	2019	2019	2229	2019						
EK759S	1 1/8 ODF	26.8	32.7	35.4	34.8	23.7	23.0																				

[Ⓞ] All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

[Ⓢ] Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

[Ⓢ] 20 drops of water = 1 gram = 1 cc
[Ⓢ] For 2 PSI ΔP , Multiply values by 1.4
[Ⓢ] Example: 1 Ton x 3.5 = 3.5 kW

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.9	2.6	2.6	2.3	2.6	2.3	2.5	2.1	2.3	1.9	2.3	1.9	2.7	2.3
05	6.5	5.9	6.0	5.4	5.9	5.3	5.6	4.9	5.3	4.4	5.2	4.4	6.0	5.3
08	8.3	7.6	7.6	6.9	7.5	6.8	7.2	6.3	6.7	5.7	6.6	5.6	7.7	6.8
16	10.2	9.4	9.4	8.6	9.3	8.4	8.9	7.8	8.3	7.0	8.2	6.9	9.5	8.4
30	28.7	26.3	26.4	23.9	26.1	23.5	24.9	21.9	23.3	19.6	22.9	19.4	26.7	23.4
41	40.0	36.4	36.9	33.1	36.4	32.5	34.7	30.3	32.5	27.2	31.9	26.8	37.2	32.4
75	72.4	66.3	66.7	60.3	65.8	59.2	62.8	55.2	58.7	49.5	57.7	48.9	67.2	59.0

R-410A - The EK/EKP filter-drier is UL listed for 680 PSIG maximum working pressure for all sizes.

ADK BLOCK STYLE LIQUID LINE FILTER-DRIER

APPLICATION

- ☆ Economy solid core liquid line filter-drier ideal for use with CFC and HCFC refrigerants

FEATURES

- ☆ Solid copper fittings
- ☆ Shock resistant steel shell construction
- ☆ High moisture and acid removal capacity
- ☆ Corrosion resistant epoxy powder paint finish

NOMENCLATURE

Example: ADK 083S

ADK	08	3	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connection (Omit for SAE)



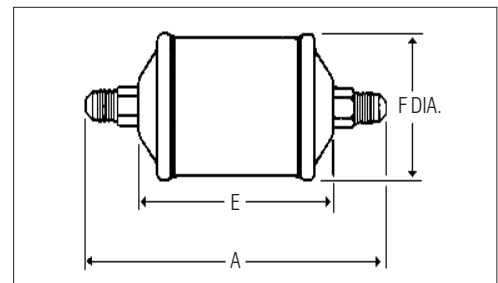
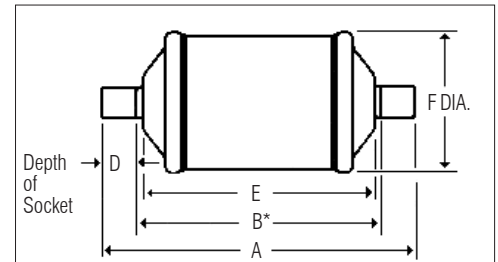
SPECIFICATIONS

- ☆ Desiccant Blend: Activated Alumina with Molecular Sieve
- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 680 psig
- ☆ UL/CUL file number: SA 3124

ORDERING INFORMATION FOR ADK

PCN*	PART NUMBER	DIMENSIONS						SHIP WT. LBS
		CONNECTION SIZE	A	B	D	E	F \varnothing	
059874	ADK-032	1/4 SAE	4 3/8	--	--	2 9/16	1 5/8	1/2
052451	ADK-032S	1/4 ODF	3 7/8	3 1/8	3/8			
063909	ADK-032SVCAP	1/4 ODF - CAP OUT	--	--	--			
023157	ADK-033	3/8 SAE	4 11/16	--	--	3	2 5/8	3/4
053172	ADK-033S	3/8 ODF	4 1/16	3 3/16	7/16			
060125	ADK-052	1/4 SAE	4 13/16	--	--			
060126	ADK-052S	1/4 ODF	4 7/16	3 11/16	3/8	3 13/16	2 5/8	1 1/4
060127	ADK-053	3/8 SAE	5 1/8	--	--			
060128	ADK-053S	3/8 ODF	4 1/2	3 5/8	7/16			
060129	ADK-082	1/4 SAE	5 5/8	--	--	4 5/8	2 5/8	2
060130	ADK-082S	1/4 ODF	5 1/4	4 1/2	3/8			
060131	ADK-083	3/8 SAE	5 15/16	--	--			
060132	ADK-083S	3/8 ODF	5 5/16	4 7/16	7/16	7 1/2	3 1/16	3 3/4
060133	ADK-084	1/2 SAE	6 3/16	--	--			
060134	ADK-084S	1/2 ODF	5 3/8	4 3/8	1/2			
059838	ADK-16 2 S	1/4 ODF	6-7/16	5-1/4	7/16	13 1/16	3 11/16	7 1/2
059820	ADK-162	1/4 SAE	6 7/16	--	--			
059839	ADK-163	3/8 SAE	6 3/4	--	--			
060795	ADK-163S	3/8 ODF	6 1/8	5 1/4	7/16	7 5/8	3 11/16	4 3/4
059840	ADK-164	1/2 SAE	6 15/16	--	--			
059841	ADK-164S	1/2 ODF	6 3/16	5 3/16	1/2			
059842	ADK-165	5/8 SAE	7 7/16	--	--	10	8 1/2	3/4
059843	ADK-165S	5/8 ODF	6 3/8	5 1/8	5/8			
062855	ADK-16 4 FD	1/2	6-3/16	5-3/16	1/2			
060172	ADK-303	3/8 SAE	9 5/8	--	--	10 5/16	8 3/8	15/16
058507	ADK-303S	5/8 ODF	9	8 1/8	7/16			
060173	ADK-304	1/2 SAE	9 7/8	--	--			
060176	ADK-304S	1/2 ODF	9 1/8	8 1/8	1/2	13 1/16	3 11/16	7 1/2
060174	ADK-305	5/8 SAE	10 5/16	--	--			
060177	ADK-305S	5/8 ODF	9 5/16	8 1/16	5/8			
060178	ADK-307S	7/8 ODF	9 7/8	8 3/8	3/4	15 1/16	3 11/16	7 1/2
060179	ADK-309S	1 1/8 ODF	10 3/16	8 3/8	15/16			
060182	ADK-413	3/8 SAE	9 3/4	--	--			
060183	ADK-414	1/2 SAE	10	--	--	15 1/16	3 11/16	7 1/2
060185	ADK-414S	1/2 ODF	9 1/4	8 1/4	1/2			
060184	ADK-415	5/8 SAE	10 7/16	--	--			
060186	ADK-415S	5/8 ODF	9 7/16	8 3/16	5/8	15 1/16	3 11/16	7 1/2
060187	ADK-417S	7/8 ODF	10	8 1/2	3/4			
060188	ADK-419S	1 1/8 ODF	10 5/16	8 1/2	15/16			
060190	ADK-757S	7/8 ODF	15 7/16	13 15/16	3/4	13 1/16	3 11/16	7 1/2
060191	ADK-759S	1 1/8 ODF	15 3/4	13 7/8	15/16			

DIMENSIONAL DATA



■ Standard Product Offering

⊙ Does not include weld bead

*Product Code Number

ADK CAPACITY TABLES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY TONS @ 1 psi ΔP ^①							WATER CAPACITY ^② DROPS OF WATER ^③														
		(For kW, multiply tons by 3.5)							R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502		
		R-12	R-134a	R-22	R-410A	R-407C	R-404A/507	R-502	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	
ADK 03 2	1/4 SAE	1.6	1.9	2.1	2.1	2.0	1.4	1.3															
ADK 03 2 S	1/4 ODF	1.9	2.3	2.5	2.5	2.4	1.7	1.6	64	46	44	37	34	31	31	21	27	17	47	37	43	34	
ADK 03 3	3/8 SAE	2.2	2.7	2.9	2.9	2.9	2.0	1.9															
ADK 03 3 S	3/8 ODF	2.5	3.0	3.3	3.3	3.2	2.2	2.1															
ADK 05 2	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4															
ADK 05 2 S	1/4 ODF	2.4	2.9	3.1	3.1	3.1	2.1	2.0	130	81	68	50	58	38	47	26	44	23	73	48	73	49	
ADK 05 3	3/8 SAE	3.0	3.7	4.0	4.0	3.9	2.7	2.6															
ADK 05 3 S	3/8 ODF	3.7	4.5	4.9	4.9	4.8	3.3	3.2															
ADK 08 2	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4															
ADK 08 2 S	1/4 ODF	2.5	3.1	3.4	3.4	3.3	2.2	2.2															
ADK 08 3	3/8 SAE	3.5	4.3	4.7	4.7	4.6	3.1	3.0	188	117	101	76	87	57	68	39	63	34	109	73	105	71	
ADK 08 3 S	3/8 ODF	3.4	4.2	4.6	4.6	4.5	3.0	3.0															
ADK 08 4	1/2 SAE	5.5	6.7	7.3	7.3	7.1	4.9	4.7															
ADK 08 4 S	1/2 ODF	5.7	7.0	7.6	7.6	7.4	5.1	4.9															
ADK 16 2	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4															
ADK 16 3	1/4 SAE	3.6	4.4	4.8	4.8	4.7	3.2	3.1															
ADK 16 3 S	1/4 ODF	4.0	4.9	5.3	5.3	5.2	3.6	3.5															
ADK 16 4	1/2 SAE	6.8	8.3	9.0	9.0	8.8	6.0	5.8	295	204	169	140	151	117	134	86	115	67	180	143	193	145	
ADK 16 4 S	1/2 ODF	7.1	8.6	9.3	9.3	9.1	6.2	6.1															
ADK 16 5	5/8 SAE	9.7	11.8	12.8	12.8	12.5	8.6	8.3															
ADK 16 5 S	5/8 ODF	10.7	13.1	14.2	14.2	13.9	9.5	9.2															
ADK 16 7 S	7/8 ODF	13.1	16.0	17.3	17.3	17.0	11.6	11.3															
ADK 30 3	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3															
ADK 30 4	1/2 SAE	7.1	8.6	9.3	9.3	9.1	6.2	6.1															
ADK 30 4 S	1/2 ODF	7.2	8.8	9.5	9.5	9.4	6.4	6.2															
ADK 30 5	5/8 SAE	11.3	13.8	15.0	15.0	14.7	10.0	9.7	615	444	359	278	314	218	309	212	265	168	385	272	427	335	
ADK 30 5 S	5/8 ODF	11.9	14.5	15.7	15.7	15.4	10.5	10.2															
ADK 30 6 S	3/4 ODF	13.0	15.8	17.1	17.1	16.8	11.5	11.1															
ADK 30 7 S	7/8 ODF	14.3	17.4	18.9	18.9	18.5	12.6	12.3															
ADK 30 9 S	1 1/8 ODF	20.4	24.9	27.0	27.0	26.5	18.0	17.5															
ADK 41 3	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3															
ADK 41 4	1/2 SAE	8.0	9.8	10.6	10.6	10.4	7.1	6.9															
ADK 41 4 S	1/2 ODF	8.8	10.7	11.6	11.6	11.4	7.8	7.5															
ADK 41 5	5/8 SAE	12.8	15.6	16.9	16.9	16.6	11.3	11.0	728	480	502	391	440	309	302	186	305	175	537	387	445	322	
ADK 41 5 S	5/8 ODF	13.5	16.5	17.9	17.9	17.5	12.0	11.6															
ADK 41 7 S	7/8 ODF	16.6	20.3	22.0	22.0	21.6	14.7	14.3															
ADK 41 9 S	1 1/8 ODF	20.7	25.2	27.3	27.3	26.8	18.3	17.7															
ADK 75 7 S	7/8 ODF	28.0	34.2	37.1	37.1	36.3	24.8	24.1	1369	899	940	730	823	576	562	343	536	302	1008	719	833	600	
ADK 75 9 S	1 1/8 ODF	30.6	37.3	40.4	40.4	39.6	27.0	26.3															

^①All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

^②Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

^③20 drops of water = 1 gram = 1 cc
^④For 2 PSI ΔP. Multiply values by 1.4

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.4	2.2	2.2	2.0	2.2	2.0	2.1	1.9	2.0	1.7	1.9	1.7	2.2	2.0
05	5.9	6.0	5.5	5.5	5.4	5.4	5.2	5.0	4.8	4.5	4.7	4.5	5.5	5.4
08	8.0	7.4	7.4	6.7	7.3	6.6	7.0	6.2	6.5	5.5	6.4	5.5	7.5	6.6
16	14.5	12.5	13.4	11.4	13.2	11.2	12.6	10.4	11.7	9.4	11.6	9.3	13.5	11.2
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.4	14.9	17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8
75	52.8	48.3	48.6	43.9	48.0	43.1	45.8	40.2	42.8	36.0	42.1	35.6	49.1	43.0

R-410A

Although Emerson recommends the EK drier for R-410A applications, the ADK filter-drier is UL listed for 680 PSIG maximum working pressure for all sizes.

BFK LIQUID LINE BI-DIRECTIONAL HEAT PUMP

APPLICATION

- ☆ Bi-directional, solid core liquid line filter-drier for heat pump applications
- ☆ For use with CFC and HCFC refrigerants



FEATURES

- ☆ Available up to 30 cu. in. size
- ☆ Internal check valves allow flow and filtration in either direction. External check valves eliminated
- ☆ High moisture and acid removal
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Copeland approved for POE oils

SPECIFICATIONS

- ☆ Desiccant blend - 75% molecular sieve and 25% activated alumina
- ☆ Filtration 40 microns
- ☆ Maximum working pressure: 680 psig
- ☆ UL/CUL file number: SA 3124

NOMENCLATURE

Example: BFK 165S

BFK	16	5	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

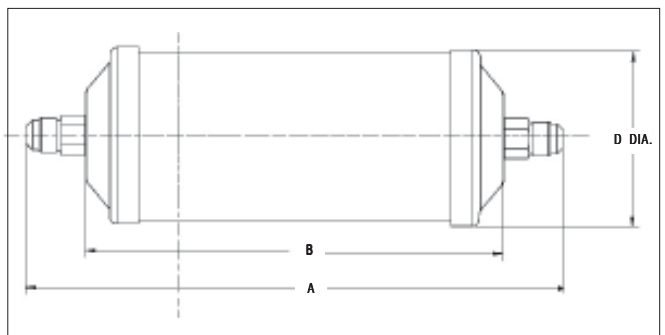
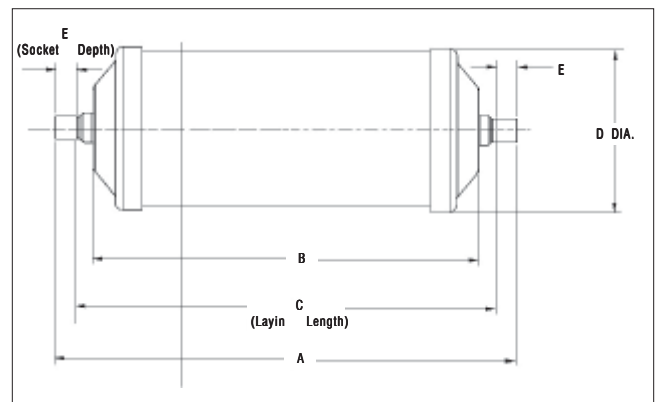
Ordering Information

PCN	Catalog Number	Connection Size	Dimensions					Shipping Weight (lbs.)		
			A	B	C	D	E			
062300	BFK 052	1/4 SAE	4.82	2.83	3.69	2.31	.38	1		
062425	BFK 052S	1/4 ODF	4.44						3.67	.40
062255	BFK 053S	3/8 ODF	4.48							
043321	BFK 083	3/8 SAE	5.94	3.94	4.48	.40				
043323	BFK 083S	3/8 ODF	5.29							
043325	BFK 084	1/2 SAE	6.16				4.38		.50	
043327	BFK 084S	1/2 ODF	5.38							
043730	BFK 085S	5/8 ODF	5.60				4.35		.63	
043330	BFK 163	3/8 SAE	6.74							
043333	BFK 163S	3/8 ODF	6.08	4.61	5.28	3.06	.40		2	
043335	BFK 164	1/2 SAE	6.96							
043337	BFK 164S	1/2 ODF	6.17							5.17
043732	BFK 165	5/8 SAE	7.41							
043734	BFK 165S	5/8 ODF	6.39					5.14		.63
063077	BFK 303S	3/8 ODF	8.97							
063078	BFK 304	1/2 SAE	9.84					7.50		8.17
063079	BFK 304S	1/2 ODF	9.02	8.02	.50					
063080	BFK 305	5/8 SAE	10.31							
063081	BFK 305S	5/8 ODF	9.31	8.18	.63					
063083	BFK 306S	3/4 ODF	9.72							
063084	BFK 307S	7/8 ODF	9.91	8.41	.75					

Standard Product Offering

*Product Code Number

DIMENSIONAL DATA



BFK CAPACITY TABLES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY TONS @ 1 psi ΔP ^{①④} (For kW, multiply tons by 3.5)			WATER CAPACITY ^② DROPS OF WATER ^③					
		R-22	R-410A	R-407C	R-22		R-407C		R-410A	
					75 F	125 F	75 F	125 F	75 F	125 F
BFK 05 2	1/4 SAE	1.6	1.6	1.6	73	66	58	42	39	35
BFK 05 2 S	1/4 ODF	2.2	2.2	2.2						
BFK 05 3 S	3/8 ODF	4.0	4.0	3.9						
BFK 08 3	3/8 SAE	4.5	4.5	4.4	159	144	106	79	85	75
BFK 08 3 S	3/8 ODF	5.1	5.1	5.0						
BFK 08 4	1/2 SAE	6.4	6.4	6.3						
BFK 08 4 S	1/2 ODF	6.7	6.7	6.6						
BFK 08 5 S	5/8 ODF	8.1	8.1	7.9						
BFK 16 3	3/8 SAE	4.6	4.6	4.5						
BFK 16 3 S	3/8 ODF	5.2	5.2	5.1						
BFK 16 4	1/2 SAE	7.7	7.7	7.6						
BFK 16 4 S	1/2 ODF	8.1	8.1	7.9						
BFK 16 5	5/8 SAE	8.3	8.3	8.1						
BFK 16 5 S	5/8 ODF	8.7	8.7	8.5						
BFK 30 3S	3/8 ODF	5.8	5.8	5.7	585	532	452	345	415	293
BFK 30 4	1/2 SAE	7.6	7.6	7.5						
BFK 30 4 S	1/2 ODF	9.7	9.7	9.5						
BFK 30 5	5/8 SAE	10.3	10.3	10.1						
BFK 30 5 S	5/8 ODF	14.2	14.2	13.9						
BFK 30 6 S	3/4 ODF	16.0	16.0	15.7						
BFK 30 7 S	7/8 ODF	16.7	16.7	16.4						

① All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

② Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

③ 20 drops of water = 1 gram = 1 cc
 ④ For 2 PSI ΔP, Multiply values by 1.4

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

Unit Size	R-22		R-407C		R-410A	
	75°F	125°F	75°F	125°F	75°F	125°F
05	4.6	4.2	4.4	3.9	4.1	3.5
08	7.7	6.9	7.3	6.4	6.9	5.8
16	14.2	12.7	13.5	11.8	12.6	10.6
30	21.0	18.7	20.0	17.4	–	–

R-410A - The BFK filter-drier is UL listed for 680 PSIG maximum working pressure for all sizes.

BOK-HH LIQUID LINE BURNOUT FILTER-DRIER

APPLICATION

- ☆ The BOK-HH incorporates an HH blended solid core for the effective clean-up of systems following a severe burnout
- ☆ Liquid line filter drier for burnout clean-up and wax removal



FEATURES

- ☆ Designed for maximum effectiveness in the clean-up of systems following a severe burnout
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Charcoal blend for soluble contaminant and wax removal
- ☆ Solid copper fittings

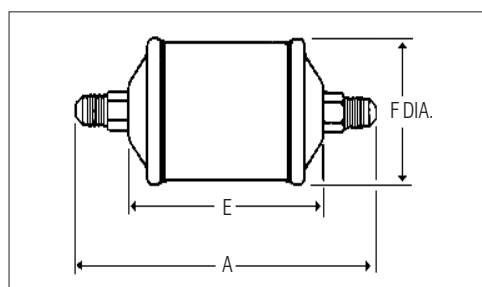
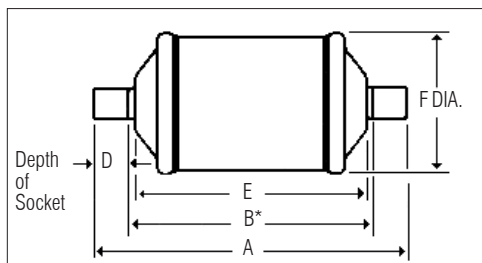
SPECIFICATIONS

- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 680 psig
- ☆ UL/CUL file number: SA 3124

NOMENCLATURE

BOK	30	5	S	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)	Charcoal Blend
Above example: BOK 305S-HH				

DIMENSIONAL DATA



SELECTION AND ORDERING INFORMATION FOR BOK

PCN*	PART NUMBER	CONNECTION SIZE	DIMENSIONS					SHIP WT. LBS
			A	B	D	E	F [Ⓞ]	
060223	BOK-082-HH	1/4 SAE	5/8	--	--	315/16	215/16	1
060224	BOK-083-HH	3/8 SAE	5 15/16	--	--			
060240	BOK-162-HH	1/4 SAE	6 7/16	--	--			
060241	BOK-163-HH	3/8 SAE	6 3/4	--	--	45/8	27/8	2
060242	BOK-163S-HH	3/8 ODF	6 1/8	5 1/4	7/16			
060228	BOK-164-HH	1/2 SAE	6 15/16	--	--			
060229	BOK-164S-HH	1/2 ODF	6 3/16	5 3/16	1/2	7 1/2	31/16	33/4
060230	BOK-165-HH	5/8 SAE	7 7/16	--	--			
060231	BOK-165S-HH	5/8 ODF	6 3/8	5 1/8	5/8			
060232	BOK-303-HH	3/8 SAE	9 5/8	--	--	7 1/2	31/16	33/4
060233	BOK-304-HH	1/2 SAE	9 7/8	--	--			
060234	BOK-304S-HH	1/2 ODF	9 1/8	8 1/8	1/2			
060235	BOK-305-HH	5/8 SAE	10 5/16	--	--	7 5/8	311/16	4 3/4
060236	BOK-305S-HH	5/8 ODF	9 5/16	8 1/16	5/8			
060237	BOK-414-HH	1/2 SAE	10	--	--			
060238	BOK-415-HH	5/8 SAE	9 1/4	8 1/4	1/2	7 5/8	311/16	4 3/4
064593	BOK-415S-HH	5/8 ODF	9-1/4	8-1/4	1/2			
064239	BOK-417S-HH	7/8 ODF	10-7/16	-	-			

■ Standard Product Offering
 *Product Code Number
 Ⓞ Does not include weld bead

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

Unit Size	R-12		R-134A		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
08	7.3	6.6	6.7	6.0	6.6	5.9	6.3	5.5	5.9	4.9	5.8	4.9	6.7	5.9
16	13.9	12.7	12.8	11.5	12.6	11.3	12.0	10.5	11.2	9.4	11.1	9.3	12.9	11.3
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.7	14.9	17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8

BOK-HH CAPACITY TABLES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY TONS @ 1 psi ΔP ^①							WATER CAPACITY ^② DROPS OF WATER ^③													
		(For kW, multiply tons by 3.5)							R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
		R-12	R-134a	R-22	R-410A	R-407C	R-404A/507	R-502	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
BOK082-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	1.0	180	118	88	71	78	59	74	45	66	38	93	71	109	79
BOK083-HH	3/8 SAE	3.2	3.9	4.2	4.2	4.1	2.8	2.7														
BOK162-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	1.0	209	143	171	141	153	117	91	56	77	41	182	141	135	100
BOK163-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	3.1														
BOK163S-HH	3/8 ODF	4.8	5.8	6.3	6.3	6.2	4.2	4.1														
BOK164-HH	1/4 SAE	7.0	8.6	9.3	9.3	9.1	6.2	6.0														
BOK164S-HH	1/4 ODF	8.4	10.2	11.1	11.1	10.9	7.4	7.2														
BOK165-HH	5/8 SAE	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
BOK165S-HH	5/8 ODF	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
BOK303-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	3.1														
BOK304-HH	1/2 SAE	8.1	9.9	10.7	10.7	10.5	7.2	7.0														
BOK304S-HH	1/2 ODF	8.9	10.8	11.7	11.7	11.5	7.8	7.6														
BOK305-HH	5/8 SAE	11.1	13.5	14.6	14.6	14.3	9.8	9.5	552	367	300	245	267	204	234	146	160	94	318	247	342	249
BOK305S-HH	5/8 ODF	12.0	14.6	15.8	15.8	15.5	10.6	10.3														
BOK414-HH	1/4 SAE	8.4	10.2	11.1	11.1	10.9	7.4	7.2														
BOK415-HH	5/8 SAE	13.4	16.3	17.7	17.7	17.4	11.8	11.5	623	410	427	344	379	282	256	155	220	125	454	342	380	274
BOK417S-HH	7/8 ODF	16.3	19.8	21.5	21.5	21.1	14.4	14.0														
BOK415S-HH	5/8 ODF	13.4	16.3	17.7	17.7	21.1	14.4	14.0														

①All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

②Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

③20 drops of water = 1 gram = 1 cc

④For 2 PSI ΔP. Multiply values by 1.4

ALF LIQUID FILTER

The ALF liquid line refrigerant filter is ideal for protecting solenoid and expansion valve parts from debris.

APPLICATION

- ☆ Liquid Line Filter
- ☆ Recovery, recycle and reclaim filter

FEATURES

- ☆ Filtering media that maximizes removal of finer particles
- ☆ Corrosion resistant epoxy powder paint finish

NOMENCLATURE

Example: ALF 033S

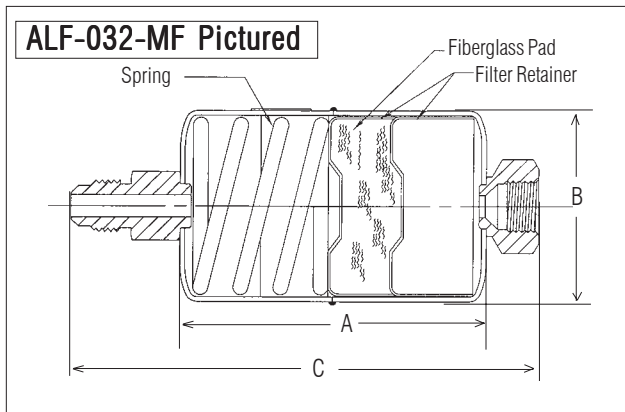
ALF	03	3	S
Series	Unit Size	Connection Size Inlet (in 1/8")	S = ODF Connection Style Omit for SAE (Male in-Male Out) MF = Male SAE in female SAE Out FM = Female SAE in - Male SAE Out



SPECIFICATIONS

- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 600 psig
- ☆ UL file number: SA 3124
- ☆ CSA file number: LR 100624 LR 32462

DIMENSIONAL DATA



SELECTION AND ORDERING INFORMATION FOR ALF

PCN*	PART NUMBER	DIMENSIONS			
		CONNECTION SIZE	A	B [Ⓞ]	C
057873	ALF-032FM	1/40DF x 1/40DM	2-9/16	1-5/8	3-7/8
056618	ALF-032S	1/4 ODF	29/16	1 5/8	3 7/8
057193	ALF-032MF	1/4 SAE Male in 1/4 SAE Female out	29/16	1 5/8	4
057873	ALF-0323FM	1/4 SAE Female in 1/4 SAE Male out	29/16	1 5/8	4
057140	ALF-033S	3/8 ODF	29/16	1 5/8	4
056645	ALF-034S	1/2 ODF	29/16	1 5/8	4 1/8
064778	ALF-052MF	1/4 SAE Male in 1/4 SAE Female out	3	2 5/8	4 3/8

■ Standard Product Offering *Product Code Number [Ⓞ] Does not include weld bead

RECOVERY, RECYCLE AND RECLAIM REFRIGERANT FLOW CAPACITY (lbs./min. liquid)		
R-134a	R-22	R-404A/R-507
7.6	8.0	8.0

SPUN COPPER LIQUID LINE SERVICE DRIER

APPLICATION

☆ Spun copper service drier for all refrigerants

FEATURES

- ☆ 100% XH-9 beaded molecular sieve for maximum water capacity in HFC refrigerants
- ☆ Recommended for use in original equipment or replacement residential, air-conditioning or refrigeration equipment
- ☆ 100 micron filtration
- ☆ Extended ends
- ☆ Available in individual and three packs



SPECIFICATIONS

- ☆ Maximum Working Pressure: 500 psig
- ☆ UL/CUL file number: SA 7175

DESCRIPTION	PRODUCT DESCRIPTION	PARKER EQUIVALENT	CONNECTIONS		LENGTH IN INCHES	OUTER DIAMETER
			INLET	OUTLET		
CU-80	Standard Drier	MMS-80/100	1/4"	1/4"	7 3/8"	3/4"
CU-619	Access Valve	619	1/4"	Cap	8 7/8"	3/4"
CU-620	Access Valve	620	5/16"	Cap	9 1/2"	1"
CU-621	Double Inlet	621	5/16"	Cap	9"	1"
CU-200	Stepped Fittings	MMS-200	5/16", 3/8"	5/16", 3/8"	10 1/2"	1"
CU-319	Capillary Outlet	319	5/16"	Cap	9 3/4"	1 3/16"

SPUN COPPER FILTER-DRIER CAPACITY TABLES IN TONS AND ORDERING INFORMATION

DESCRIPTION	PCN*	DESCRIPTION	3-Pack PCN*	PRODUCT DESCRIPTION	WATER CAPACITY ^②											
					DROPS OF WATER ^{①③}											
					R-12		R-134a		R-22		R-407C		R-404A/507		R-502	
					75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
CU-80	064023	CU-80-3	064028	Standard Drier	25	23	23	21	23	20	19	14	23	21	24	21
CU-619	064026	CU-619-3	064031	Access Valve	25	3	23	21	23	20	19	14	23	21	24	21
CU-620	064027	CU-620-3	064032	Access Valve	51	46	46	42	46	40	37	29	46	42	47	42
CU-621	064119	CU-621-3	064120	Double Inlet	51	46	46	42	46	40	37	29	46	42	47	42
CU-200	064024	CU-200-3	064029	Stepped Fittings	51	46	46	42	46	40	37	29	46	42	47	42
CU-319	064025			Capillary Outlet	64	57	58	53	58	50	47	36	69	63	59	53

① All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

② For 2 PSI ΔP, Multiply values by 1.4

③ 20 drops of water = 1 gram = 1 cc

■ Standard Product Offering

*Product Code Number

SPUN COPPER CAPACITIES @ 1 PSIG ΔP

DRIER DESCRIPTION	TONNAGE R-12/R-134a	TONNAGE R-22
CU-80	1/3	1/2
CU-619	1/3	1/2
CU-620	1	2
CU-621	1	2
CU-200	3/4	1
CU-319	1	2

SPUN COPPER LIQUID LINE FILTER-DRIER

APPLICATION

- ☆ Large capacity spun copper solid core driers for superior corrosion resistance in ocean going vessels and coastal applications

FEATURES

- ☆ All copper construction
- ☆ 100% molecular sieve solid core drier
- ☆ Corrosion resistant
- ☆ For use with CFC, HCFC and HFC refrigerants



NOMENCLATURE

CU	16	3	S
Series	Unit Size	Connection Size in 1/8"	ODF

SPECIFICATIONS

- ☆ Maximum Working Pressure: 500 psig
- ☆ Filtration: 40 microns
- ☆ UL/CUL file number: SA7175

CU CAPACITY TABLES AND ORDERING INFORMATION

PCN*	DESCRIPTION	CONNECTIONS	FLOW CAPACITY TONS @ 1 psi ΔP ^{③④} (For kW, multiply tons by 3.5)						WATER CAPACITY ^② DROPS OF WATER ^②																	
			R-12		R-134a		R-22		R-407C		R-404A/507		R-502		R-12		R-134a		R-22		R-407C		R-404A/507		R-502	
			7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F	7.5°F	12.5°F
064389	CU 03 3 S	3/8 ODF	2.1	2.6	2.8	2.7	1.9	1.8	96	87	93	87	87	81	72	57	96	93	90	81						
064391	CU 05 3 S	3/8 ODF	2.1	2.6	2.8	2.7	1.9	1.8	112	101	108	101	101	93	82	63	112	108	104	93						
064393	CU 08 3 S	3/8 ODF	2.9	3.5	3.8	3.7	2.5	2.5	212	191	205	191	191	177	156	122	212	205	198	177						
064394	CU 08 4 S	1/2 ODF	3.5	4.2	4.6	4.5	3.1	3.0																		
064395	CU 16 3 S	3/8 ODF	3.3	4.0	4.3	4.2	2.9	2.8																		
064396	CU 16 4 S	1/2 ODF	3.9	4.7	5.1	5.0	3.4	3.3	287	257	277	257	257	237	207	158	287	277	267	237						
064397	CU 16 5 S	5/8 ODF	4.4	5.4	5.8	5.7	3.9	3.8																		

① All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502

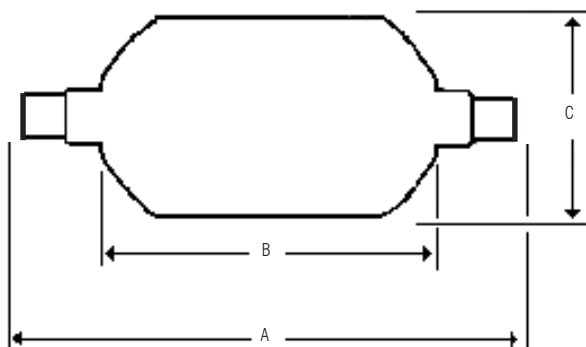
② Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507,
R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12
30 parts per million for R-502

③ 20 drops of water = 1 gram = 1 cc

④ For 2 PSI ΔP, Multiply values by 1.4

Standard Product Offering
*Product Code Number

DIMENSIONAL DATA



MODEL	OVERALL LENGTH A	LAY-IN DIMENSION B	DIAMETER C
CU 03	3 15/16"	3 1/4"	1 5/8"
CU 05	5 3/16"	4 1/2"	1 5/8"
CU 08	6 1/16"	5 3/8"	2 1/8"
CU 16	6 5/8"	6"	2 1/8"

STAS STEEL LIQUID AND SUCTION FILTER-DRIER

APPLICATION

- ☆ Replaceable core filter-drier for CFC, HCFC and HFC refrigerants for use in large commercial air conditioning and refrigeration systems

FEATURES

- ☆ Unique internal hardware for hassle-free installation
- ☆ Full flow fittings for low pressure drop
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Sturdy steel shells for long life durability
- ☆ Solid copper fittings
- ☆ 100 mesh outlet screen



NOMENCLATURE

Example: STAS 489T

STAS	48	9	T
System Protector Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	System Service T = Liquid Line Service SV = Suction Line Service

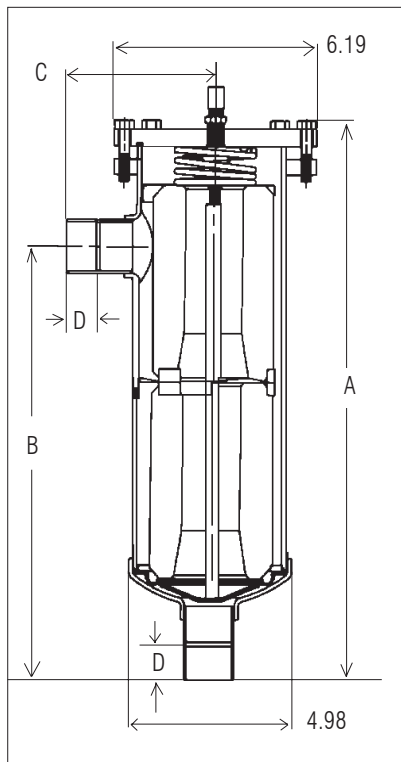
SPECIFICATIONS

- ☆ Filtration (with block): 40 microns
- ☆ Maximum working pressure: 500 psig T (Liquid Line)
400 psig SV (Suction Line)
- ☆ UL file number: SA3124
- ☆ CSA file number: LR 100624
LR 32462
- ☆ Bolt torque: 25 ft-lbs

OPTIONS

- ☆ Blocks: Order separately on page 125
- ☆ Filters: Order separately on page 125

DIMENSIONAL DATA



ORDERING INFORMATION FOR STAS

PCN*	CATALOG NUMBER	CONNECTION SIZE & TYPE	NUMBER OF BLOCKS	DESICCANT VOLUME CU. IN.	DIMENSIONS					
					A	B	C	D		
053001	STAS-485T	5/8 ODF	1	48	9 15/32	6	3 25/32	5/8		
053003	STAS-487T	7/8 ODF			9 11/16	6 1/4	3 3/4	25/32		
053005	STAS-489T	1 1/8 ODF			9 3/4	6 5/16	3 27/32	15/16		
053007	STAS-4811T	1 3/8 ODF			9 27/32	6 7/16	3 31/32	15/16		
053043	STAS-4813S-V*	1 5/8 ODF			9 7/8	6 1/2	4 1/32	1 1/8		
053044	STAS-4817S-V*	2 1/8 ODF			10 1/16	6 9/16	4 9/16	1 11/32		
053045	STAS-4821S-V*	2 5/8 ODF			10 7/16	7 1/32	4 3/4	1 1/2		
053010	STAS-967T	7/8 ODF			2	96	15 3/16	11 23/32	3 3/4	25/32
053012	STAS-969T	1 1/8 ODF					15 7/32	11 25/32	3 27/32	15/16
053014	STAS-9611T	1 3/8 ODF					15 5/16	11 29/32	3 31/32	1 1/32
053017	STAS-9613T	1 5/8 ODF	15 3/8	11 31/32			4 1/32	1 1/8		
053047	STAS-9617S-V*	2 1/8 ODF	15 9/16	12 1/32			4 9/16	1 11/32		
053048	STAS-9621S-V*	2 5/8 ODF	15 15/16	12 1/2			4 3/4	1 1/2		
059739	A-TD-9625S-V*	3 1/8 ODF	15 11/16	10 5/16			4 5/8	1 3/4		
053020	STAS-1449T	1 1/8 ODF	3	144			21 1/4	17 3/8	3 27/32	15/16
053022	STAS-14411T	1 3/8 ODF					21 11/32	17 17/32	3 31/32	1 1/32
053024	STAS-14413T	1 5/8 ODF					21 3/8	17 19/32	4 1/32	1 1/8
053025	STAS-14417T	2 1/8 ODF			21 9/16	17 5/8	4 9/16	1 11/32		
053028	STAS-19211T	1 3/8 ODF			26 29/32	23	3 31/32	1 1/32		
053030	STAS-19213T	1 5/8 ODF			26 15/16	23 1/6	4 1/32	1 1/8		
053031	STAS-19217T	2 1/8 ODF			27 1/8	23 1/8	4 9/16	1 11/32		
056213	STAS-1927/5T	7/8 x 5/8			4	192	26-1/2	6	3-11/16	7/8x5/8
053938	STAS-4811SV	1-3/8ODF			1	48	9-27/32	6-7/16	3-31/32	15/16
053375	STAS-4813T	1-5/8ODF			1	48	9-7/8	6-1/2	4-1/32	1-1/8
053018	STAS-9617T	2-1/8ODF	2	96	15-9/16	12-1/32	4-9/16	1-11/32		
060159	STAS-9617S-V*	2-1/8ODF	2	96	15-9/16	12-1/32	4-9/16	1-11/32		

STAS MODELS ARE SHIPPED WITHOUT FILTER CORES OR FILTER-DRIER BLOCKS - SEE PAGE 125 FOR BLOCK INFORMATION.

Standard Product Offering

*Product Code Number

**NOTE: "T" style can be used for suction by removing pipe plug and installing X-11562-2.
* "SV" style include stainless steel bolts and access valve.**

DESCRIPTION	CONNECTIONS	LIQUID FLOW CAPACITY TONS @ 1 psi ΔP ^{①②③}					
		R-12	R-134a	R-22	R-407C	R-404A/507	R-502
STAS 485T	5/8 ODF	15	19	21	20	14	13
STAS 487T	7/8 ODF	28	35	38	37	25	24
STAS 489T	1 1/8 ODF	40	48	53	51	35	34
STAS 4811T	1 3/8 ODF	46	56	61	59	40	39
STAS 967T	7/8 ODF	31	37	41	40	27	26
STAS 969T	1 1/8 ODF	47	58	63	61	42	40
STAS 9611T	1 3/8 ODF	59	72	79	77	52	51
STAS 9613T	1 5/8 ODF	64	78	85	83	56	55
STAS 1449T	1 1/8 ODF	46	56	61	59	40	39
STAS 14411T	1 3/8 ODF	66	81	88	86	58	57
STAS 14413T	1 5/8 ODF	73	89	97	95	64	63
STAS 14417T	2 1/8 ODF	84	103	112	109	74	72
STAS 19211T	1 3/8 ODF	71	86	94	92	62	61
STAS 19213T	1 5/8 ODF	77	95	103	101	68	66
STAS 19217T	2 1/8 ODF	87	106	115	112	76	74
STAS4813T	1-5/8ODF	64	78	85	83	56	55

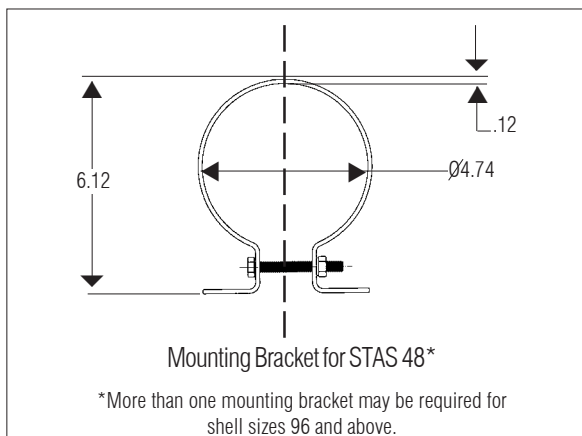
**SEE PAGES 142-144
FOR FLOW CAPACITIES.**

- ① All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502
② For 2 PSI ΔP Multiply values by 1.4
③ For kW, multiply by 3.5

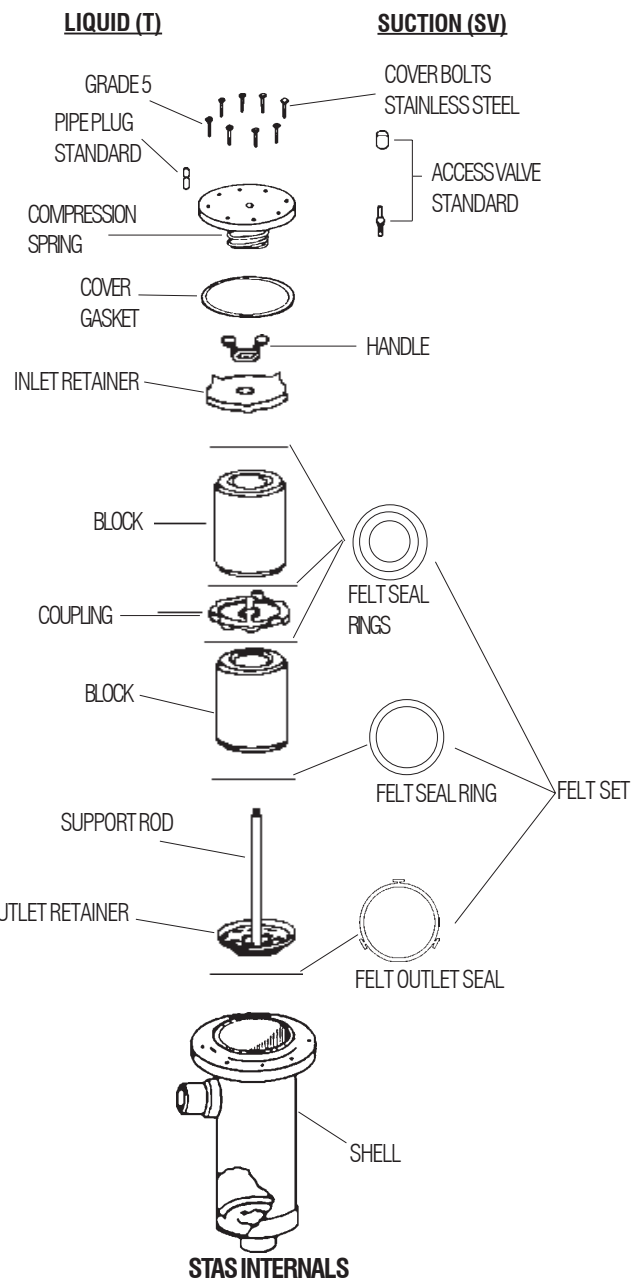
REPLACEMENT PARTS FOR STAS

FLANGE COVER ASSEMBLY	PART NUMBER	PCN*
ALL STAS DRIERS - INCLUDE FLANGE COVER, COMPRESSION SPRING AND PIPE PLUG	X12176-3	054046
SHELL STRAINER ASSEMBLY		
STAS-48	X27458-1	060274
STAS-96	X27458-2	060275
STAS-144	X27458-3	060276
STAS-192	X 27458-4	060277
MISCELLANEOUS PARTS		
COVER BOLTS (Stainless Steel-suction Line Service)	X25787-7	053121
ACCESS VALVE (V Option)	X11562-2	037409
COVER GASKET (INCLUDES FELT SET)	X11983-1	027453
HANDLE	26446-1	053812
INLET RETAINER	26447-1	053813
SPRING	26439-1	060258
FELT SET (3 block set)	27394-1	060278
GASKET SET	X11983-2	027454

* Product Code Number Standard Product Offering



SEE PAGE 125 FOR BLOCK INFORMATION.



ADKS LIQUID AND SUCTION LINE FILTER-DRIER

APPLICATION

- ☆ Replaceable core filter-drier for CFC, HCFC and HFC refrigerants for very large commercial air conditioning and refrigeration systems

FEATURES

- ☆ Full flow fittings for low pressure drop
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Sturdy steel shells for long life durability

NOMENCLATURE

Example: ADKS 30013T

ADKS	300	13	T
System Protector Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	T = Tap Access Connection



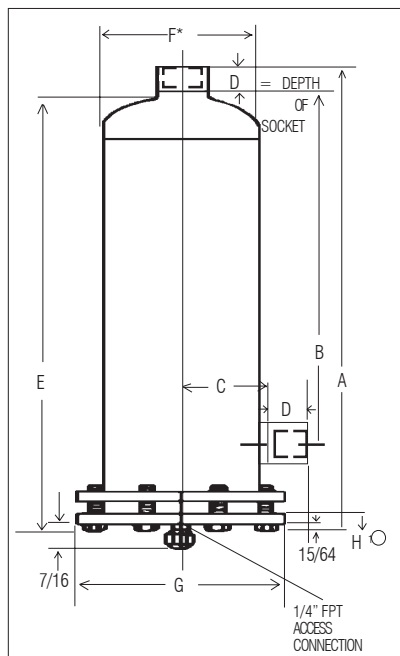
SPECIFICATIONS

- ☆ Maximum working pressure: 500 psig
- ☆ UL file number: SA 3124
- ☆ CSA file number: LR 100624
- ☆ Filtration (with block) 40 micron
- ☆ Bolt torque: 25 ft-lbs

OPTIONS

- ☆ Blocks: Order separately on page 125
- ☆ Filters: Order separately on page 125

DIMENSIONAL DATA



ORDERING INFORMATION FOR ADKS

PCN*	CATALOG NUMBER	CONNECTIONS SIZE & TYPE	DIMENSIONS							SHIP WT. LBS.	
			A	B	C	D	E	F*	G		
026570	ADKS-30013T	1 5/8 ODF	25 1/2	19 15/32	4 3/16	1 1/8	23 3/16	6	7 9/16	22 1/4	39
037978	ADKS-30017T	2 1/8 ODF	25 19/32	19	3 25/32	1 22/32					
032105	ADKS-40017T	2 1/8 ODF	32 3/32	25 1/2	3 25/32	1 21/32	29 31/32			28 7/8	46
037570	ADKS-40021T	2 5/8 ODF	33 1/8	26 23/32	4 13/16	1 15/32					

* Does not include weld bead

⊙ "H" Dimension is the clearance required to change the internal hardware assembly

T = 1/4" FPT access connection

■ Standard Product Offering

* Product Code Number

SEE PAGE 125 FOR BLOCK INFORMATION.

ADKS CAPACITY TABLES (IN TONS)

LIQUID LINE FOR REPLACEABLE BLOCK TYPE ADKS FILTER-DRIERS

DESCRIPTION	CONNECTIONS	FLOW CAPACITY IN TONS @ 1 psi ΔP ^{①②}					
		R-12	R-134a	R-22	R-407C	R-404A/507	R-502
ADKS 30013T	1 5/8 ODF	57	70	76	74	50	49
ADKS 30017T	2 1/8 ODF	69	84	92	90	61	59
ADKS 40017T	2 1/8 ODF	73	89	97	95	64	63
ADKS 40021T	2 5/8 ODF	83	101	110	107	73	71

① All ratings in accordance with ARI Standard 710-86. 86°F liquid refrigerant temperature 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502

② For 2 PSI ΔP , Multiply values by 1.4

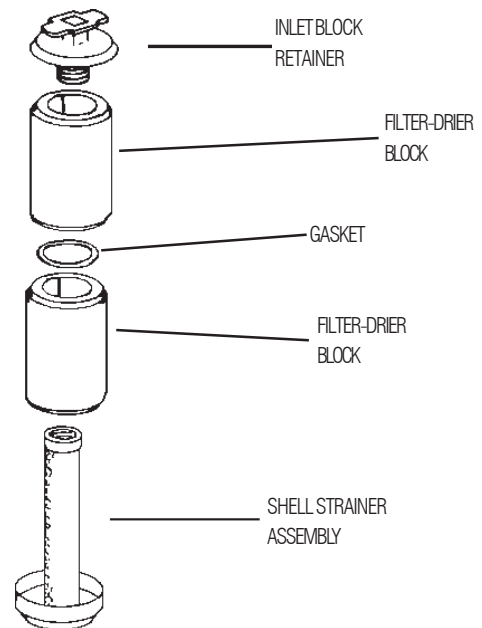
SEE PAGES 142-144 FOR FLOW CAPACITIES.

REPLACEMENT PARTS FOR ADKS

FLANGE COVER	PARTNUMBER	PCN*
ADKS-300,ADKS-400	X12176-2	027467
SHELL STRAINER ASSEMBLY	PARTNUMBER	PCN*
ADKS-300	X10574-5	039967
ADKS-400	X10574-6	038315

*Product Code Number

■ Standard Product Offering



ADKS INTERNALS

ADKS MODELS ARE SHIPPED WITHOUT FILTER CORES OR FILTER-DRIER BLOCKS.

SEE PAGE 125 FOR BLOCK INFORMATION.

BLOCKS AND FILTER CORES

APPLICATION

- ☆ Universal replacement cores for use in our shells and all other take-apart type filter-drier shells

FEATURES

- ☆ Water capacities to suit specific system conditions
- ☆ Exceptional acid capacities for normal system protection, or to effectively clean-up following a compressor burnout
- ☆ Wax removal capabilities for complete clean-up following a compressor burnout (W Series)



SPECIFICATIONS

- ☆ Interchangeable with competitive products

NOTE: BLOCKS ARE SUITABLE FOR USE WITH R-11 BUT FILTERS ARE NOT SUITABLE.

NOMENCLATURE

H	48
Series	Cubic Inch

ORDERING INFORMATION AND CAPACITY TABLES

PCN*	Description [ⓔ]	Recommended Refrigerant Type	Function	WATER CAPACITY [Ⓛ] DROPS OF WATER [Ⓜ]											
				R-12		R-134a		R-22		R-407C		R-404A/507		R-502	
				75 F	125 F	75 F	125 F	75 F	125 F	75 F	125 F	75 F	125 F	75 F	125 F
056662	D-42	CFC, HCFC	HIGH ACID REMOVAL	782	515	493	384	432	303	320	196	528	378	473	339
056661	H-42	CFC, HCFC	HIGH ACID AND WATER REMOVAL	933	681	686	576	617	491	478	333	724	587	656	519
056835	W-42-HH	ALL	BURNOUT CLEANUP	612	388	333	253	288	195	231	132	359	248	354	245
059541	D-48	CFC, HCFC	HIGH ACID REMOVAL	810	453	415	340	363	254	225	95	457	343	388	225
059542	H-48	CFC, HCFC	HIGH ACID AND WATER REMOVAL	1020	688	676	538	597	436	445	285	721	535	643	475
061235	W-48-HH	CFC, HCFC, HFC	BURNOUT CLEANUP	772	488	387	294	335	226	290	165	417	289	444	306
061617	UK-48	CFC, HCFC, HFC	UNIVERSAL REPLACEMENT	1579	1319	1272	1168	1181	1072	1033	786	1319	1241	1332	1150
089338	H-100	CFC, HCFC	HIGH ACID AND WATER REMOVAL	1958	1225	1112	834	962	673	726	418	1199	839	1109	758
062424	UK-100	CFC, HCFC, HFC	UNIVERSAL REPLACEMENT	3204	2740	2769	2550	2574	2345	2182	1682	2868	2710	2787	2437
043582	W-100-HH	CFC, HCFC, HFC	BURNOUT CLEANUP	1668	1054	1077	812	938	621	629	363	1162	792	960	663
089559	F-48	CFC, HCFC, HFC	FILTER (SUCTION ONLY)	-	-	-	-	-	-	-	-	-	-	-	-
047664	F-48R	CFC, HCFC, HFC	FILTER (SUCTION ONLY) REVERSE FLOW	-	-	-	-	-	-	-	-	-	-	-	-
095762	F-100	CFC, HCFC, HFC	FILTER (SUCTION ONLY)	-	-	-	-	-	-	-	-	-	-	-	-
061237	RH-48	CFC, HCFC	HIGH WATER	1020	688	676	538	597	436	445	285	721	535	643	475
061238	RW-48	CFC, HCFC	BURN OUT	772	488	387	294	335	226	290	165	417	289	444	306

Standard Product Offering

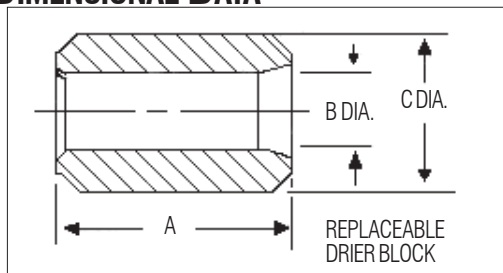
*Product Code Number

- Ⓛ Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507 and R-407C
60 parts per million for R-22
15 parts per million for R-12
30 parts per million for R-502

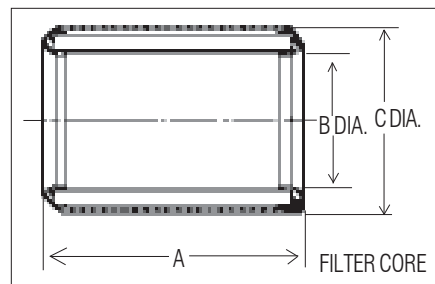
Ⓜ 20 drops of water = 1 gram = 1 cc

- ⓔ D-42, H-42 and W-42 include one neoprene composite lid gasket and one core gasket. All other cores include a universal neoprene composite gasket kit which includes 2 sizes of replacement lid gaskets, and gaskets for the top and bottom of the core or filter.

DIMENSIONAL DATA



FILTER-DRIER BLOCK SIZE	DIMENSIONS			SHIP WT. LBS.
	A	B	C	
42	6	1.58	3.12	1
48	5.5	1.77	3.72	1 1/2
100	6.5	2.06	4.81	4



CATALOG NUMBER	DIMENSIONS			SHIP WT. LBS.
	A	B	C	
F-48/F-48R	5 1/2	2 13/16	3 7/8	3/4
F-100	6 1/2	3 3/4	4 13/16	1 1/2

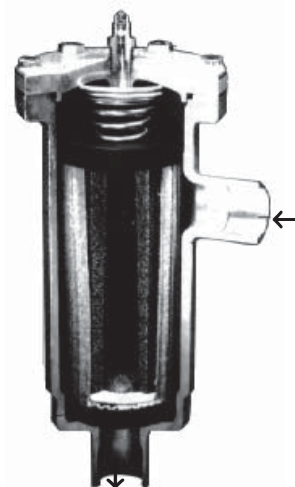
BTAS BRASS TAKE-APART SUCTION LINE FILTER-DRIER

APPLICATION

☆ Replaceable core filter-drier for suction line service is ideal for commercial refrigeration applications

FEATURES

- ☆ Full flow fittings for low pressure drop
- ☆ Corrosion resistant brass body with stainless steel bolts
- ☆ Special cartridge design exclusive to brass shell



NOMENCLATURE

Example: BTAS 311SV

BTAS	3	11	SV
System Protector Series	Unit Size	Connection Size (in 1/8")	Suction Line Service

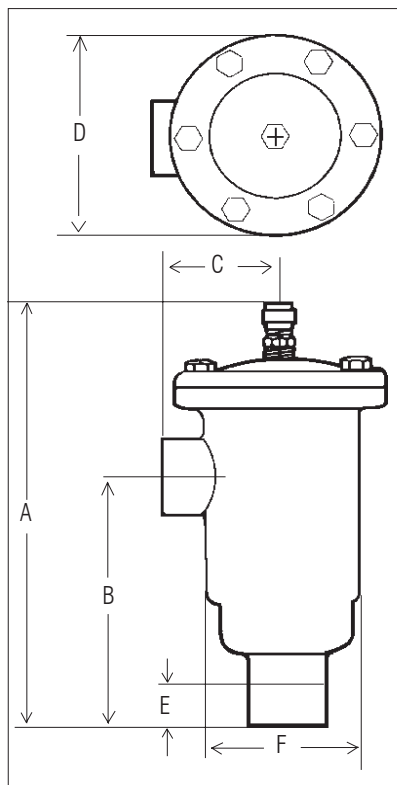
SPECIFICATIONS

- ☆ Filtration (with cartridge) 40 microns
- ☆ Maximum working pressure: 400 psig
- ☆ UL file number: SA 3124

OPTIONS

- ☆ Flexibility of using either filter-driers or filter cartridges

DIMENSIONAL DATA



ORDERING INFORMATION FOR BTAS

PCN*	CATALOG NUMBER	CONNECTION SIZE	NOMINAL SHELL SIZE	DIMENSIONS						SHIP WT. LBS.	
				A	B	C	D	E	F		
049462	BTAS-27 S-V	7/8 ODF	2"	9 3/4	6 21/32	2 3/16	3 3/4	.750	2 23/32	6 3/4	
049465	BTAS-39 S-V	1 1/8 ODF	3"	10 5/16	6 13/16	3 5/16	4 5/8	.910	3 15/32	10 1/4	
049466	BTAS-311 S-V	1 3/8 ODF		11 1/16	6 15/16	3 7/16		.970		10 1/2	
049467	BTAS-313 S-V	1 5/8 ODF		11 1/4	7 1/8	3 5/8		1.090		11	
049468	BTAS-317 S-V	2 1/8 ODF	4"	11 1/2	7 3/8	3 7/8	5 3/4	1.340	4 15/32	11 1/2	
064169	BTAS-411 S-V	1 3/8 ODF		11 13/32	7 13/16	4 1/8		5/34		.780	16 1/2
049470	BTAS-413 S-V	1 5/8 ODF		12 1/32	7 13/16	4 1/8		1.090		16 3/4	
049471	BTAS-417 S-V	2 1/8 ODF	5"	12 9/32	8 1/16	4 3/8	7 3/32	1.340	5 9/16	17 1/2	
049472	BTAS-421 S-V	2 5/8 ODF		12 13/32	8 3/16	4 15/16		1.470		18	
049473	BTAS-517 S-V	2 1/8 ODF		13 7/16	8 13/32	4 3/16		1.340		28 3/4	
049474	BTAS-521 S-V	2 5/8 ODF	5"	13 9/16	8 15/32	4 15/16	7 3/32	1.470	5 9/16	29	
049475	BTAS-525 S-V	3 1/8 ODF		13 1/4	8 5/32	4 5/8		1.660		29 1/4	

Standard Product Offering

*Product Code Number

TYPE A-F REPLACEABLE FILTER CARTRIDGES

PCN	FILTER CORE	FOR SHELL No.	CORE OD.	CORE LENGTH	FILTER AREA SQ. IN.	WEIGHT LB.
049479	A2F	BTAS-2	1 29/32"	6 3/8"	66	1/3
049480	A3F	BTAS-3	2 3/4	6 7/8	115	1/2
049481	A4F	BTAS-4	3 3/4	7 1/2	189	7/8
049482	A5F	BTAS-5	4 5/16	8 1/2	270	1

TYPE A-F-D REPLACEABLE FILTER-DRIER CARTRIDGES

PCN	FILTER-DRIER CARTRIDGE	FOR SHELL No.	CARTRIDGE OD.	CARTRIDGE LENGTH	DESICCANT VOLUME CU. IN.	WEIGHT LB.
049483	A2F-D	BTAS-2	1 29/32"	6 3/8"	4.2	1/2
049484	A3F-D	BTAS-3	2 3/4	6 7/8	13.3	7/8
049485	A4F-D	BTAS-4	3 3/4	7 1/2	26.0	1 1/2
049486	A5F-D	BTAS-5	4 5/16	8 1/2	36.5	2

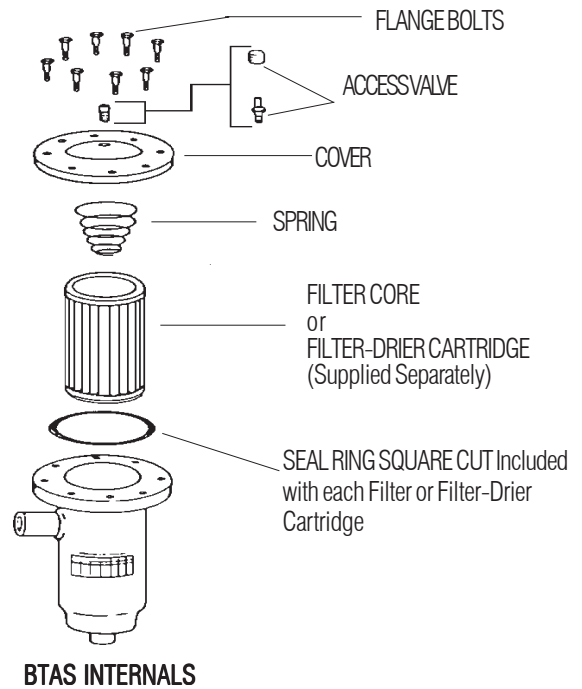
FILTER-DRIER CARTRIDGE FILTER AREA IS THE SAME AS THE CORRESPONDING FILTER CORE MODEL.

ALL FILTER CARTRIDGES AND FILTER-DRIER CORES CONTAIN A GASKET.

REPLACEMENT PARTS FOR BTAS

MISCELLANEOUS PARTS	PART NUMBER	PCN*
Flange Bolts BTAS-5	X25787-5	049744
Access Valve	X11562-2	037409
Seal Ring BTAS-2	PS23380-2	053580
Seal Ring BTAS-3	PS23380-3	053581
Seal Ring BTAS-4	PS23380-4	053582
Seal Ring BTAS-5	PS23380-5	053583

* Product Code Number



SEE PAGES 142-144 FOR FLOW CAPACITIES.

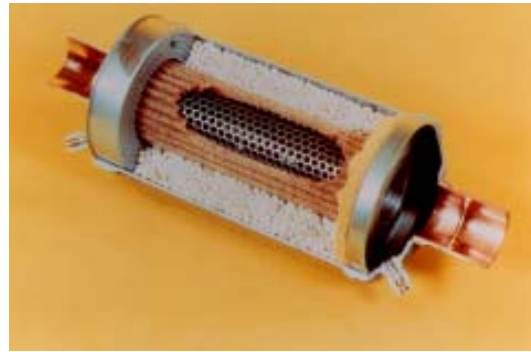
BTAS models are shipped without filter cartridge or filter-drier cartridge.

SEE PAGE 125 FOR CORE INFORMATION.

ASD Premium Suction Line Filter-Drier

APPLICATION

- ☆ ASD is a premium suction line filter-drier that incorporates beaded desiccant plus a filter
- ☆ Premium suction line filter drier for moisture, acid and contaminant removal
- ☆ For use with CFC, HCFC and HFC refrigerants



FEATURES

- ☆ Premium filtration
- ☆ Dual access valves
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish

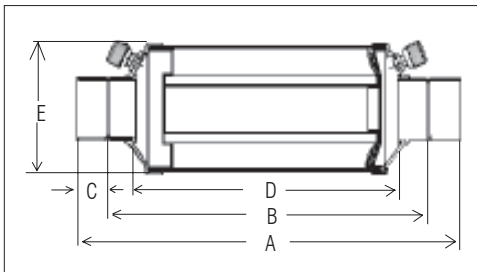
SPECIFICATIONS

- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 500 psig
- ☆ UL file number: SA3124
- ☆ CSA file number: LR 100624
LR 32462

NOMENCLATURE/SELECTION

ASD	35	S	5	VV
Series	Unit Size (in cu. in.)	S = ODF connections F = SAE	Connection Size (in 1/8")	Dual Access Valves
Above example: ASD 35S5VV				

DIMENSIONAL DATA



ORDERING INFORMATION FOR ASD

PCN*	CATALOG NUMBER	CONNECTION SIZE	DIMENSIONS					SHIP WT. LBS
			A	B	C	D	E [Ⓢ]	
056352	ASD 28F3	3/8 SAE	5-19/32	-	7/16	4-1/8	3 11/16	2
049168	ASD 28S3-VV	3/8 ODF	5 19/32	4 23/32	7/16	4 1/8		
049169	ASD 28S4-VV	1/2 ODF	5 11/16	4 11/16	1/2			4 3/4
049170	ASD 35F5-W	5/8 SAE	7 9/16	-	-	5 9/16		
049171	ASD 35S5-W	5/8 ODF	6 17/32	5 9/32	5/8			6 1/8
049172	ASD 45S6-W	3/4 ODF	7 3/4	6 1/2	5/8	8 1/4	5	
049173	ASD 45S7-W	7/8 ODF	7 15/16	6 7/16	3/4			1 1/8
049174	ASD 50S9-W	1 1/8 ODF	8 27/32	7 1/32	29/32			
049175	ASD 75S11-W	1 3/8 ODF	12 1/4	10 5/16	31/32			
049176	ASD 75S13-W	1 5/8 ODF	12 5/32	9 29/32	1 1/8			

Ⓢ Does not include weld bead

■ Standard Product Offering

*Product Code Number

SEE PAGES 139-141 FOR FLOW CAPACITIES.

SFD SUCTION LINE FILTER-DRIER

APPLICATION

- ☆ The standard compacted bead suction filter-drier for use after a burnout or when major work has been performed
- ☆ Suction line filter drier for moisture, acid and contaminant removal
- ☆ For use with CFC, HCFC and HFC refrigerants



FEATURES

- ☆ Solid copper fittings
- ☆ Dual access valves
- ☆ Corrosion resistant epoxy powder paint finish

SPECIFICATIONS

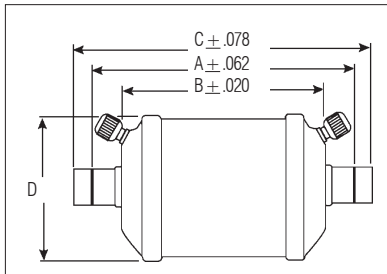
- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 400 psig
- ☆ UL file number: SA3124
- ☆ CSA file number: LR 100624
LR 32462

NOMENCLATURE

Example: SFD 13S5-VV

SFD	13	S	5	VV
Series	Unit Size (in cu. in.)	S= ODF Connections F = SAE	Connection Size (in 1/8")	Dual Access Valves

DIMENSIONAL DATA



ORDERING INFORMATION FOR SFD

PCN	CATALOG NUMBER	CONNECTION SIZE	DIMENSIONS				SHIPPING WEIGHT (LBS.)
			A	B	C	D	
064045	SFD 08S4-VV	1/2 ODF	3-15/16	3-3/8	5	3-1/8	2
064046	SFD 08S5-VV	5/8 ODF	3-29/32		5/32		
060244	SFD 13F3-VV	3/8 SAE	-		5-1/2		
060245	SFD 13S3-VV	3/8 ODF	3-31/32		4-27/32		
060246	SFD 13F4-VV	1/2 SAE	-		5-3/4		
060247	SFD 13S4-VV	1/2 ODF	3-15/16		4-15/16		
060248	SFD 13F5-VV	5/8 SAE	-		6-1/8		
060249	SFD 13S5-VV	5/8 ODF	3-29/32		5-5/32		
060250	SFD 13S6-VV	3/4 ODF	4		5-1/4		
060262	SFD 13S7-VV	7/8 ODF	4-1/4		5-3/4		
066505	SFD 27S6-VV	3/4 ODF	5-3/4	7	3-11/16	3	
060251	SFD 27S7-VV	7/8 ODF	6	7-1/2			
060252	SFD 27S9-VV	1-1/8 ODF	5-13/16	7-5/8			
060253	SFD 54S11-VV	1-3/8 ODF	10-5/16	12-1/4			
060264	SFD 54S13-VV	1-5/8 ODF	9-29/32	8-1/4	12-5/32	4-1/2	

Standard Product Offering

SEE PAGES 139-141 FOR FLOW CAPACITIES.

CSFD COMPACT SUCTION LINE FILTER-DRIER

APPLICATION

- ☆ The CSFD has a compact 14 cubic inch, solid block desiccant core, design that is perfect for short lay-ins
- ☆ Compact suction line filter drier for moisture, acid and contaminant removal
- ☆ For use with CFC, HCFC and HFC refrigerants



FEATURES

- ☆ Dual access valves
- ☆ High acid removal
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish

SPECIFICATIONS

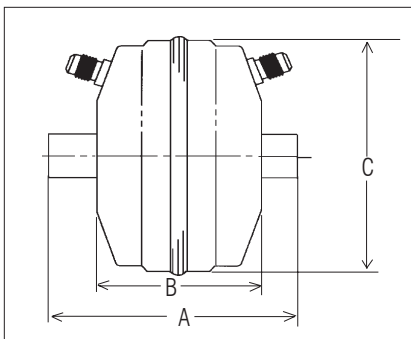
- ☆ Maximum working pressure: 500 psig**
- ☆ UL file number: SA 3124
- ☆ CSA file number: LR 100624
- ☆ Filtration: 40 micron

NOMENCLATURE

Example: CSFD 14S4-VV

CSFD	14	S	4	VV
Series	Unit Size	S = ODF Connection	Connection Size (in 1/8")	Dual Access Valves

DIMENSIONAL DATA



PCN*	MODEL	CONNECTION TYPE (in)	DIMENSIONS (in)		
			A	B	C
062231	CSFD-14S4-W	1/2 ODF	4 1/4	2 3/4	4 5/8
062232	CSFD-14S5-VV	5/8 ODF	4 1/2		
062233	CSFD-14S6-VV	3/4 ODF	4 3/8		
062234	CSFD-14S7-VV	7/8 ODF	4 9/16		
062235	CSFD-14S9-W**	1 1/8 ODF	4 7/8		

- Standard Product Offering
- * Product Code Number
- ** 400 Maximum Working Pressure

SEE PAGES 139-141 FOR FLOW CAPACITIES.

ASK-HH SUCTION LINE FILTER-DRIER

APPLICATION

- ☆ ASK utilizes a solid core with an HH blend to maximize acid, moisture and wax removal
- ☆ Suction line filter drier for moisture, acid and contaminant removal
- ☆ For use with CFC, HCFC and HFC refrigerants



FEATURES

- ☆ Dual access valves
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Charcoal blend for soluble contaminant and wax removal
- ☆ Solid copper fittings

SPECIFICATIONS

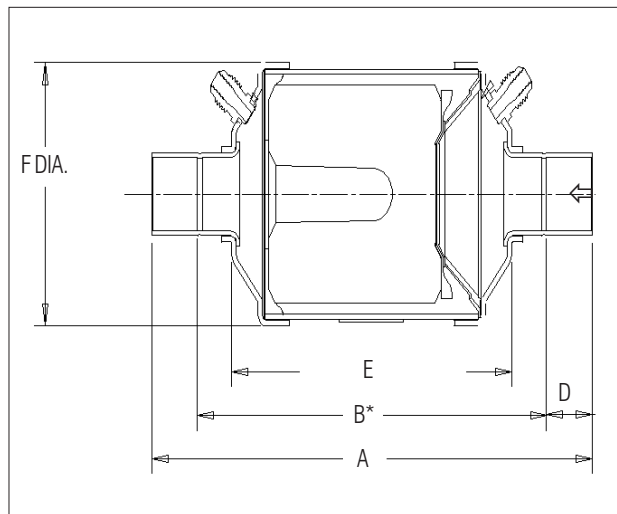
- ☆ Maximum working pressure: 500 psi
- ☆ UL file number: SA 3124
- ☆ CSA file number: LR 100624
LR 32462
- ☆ Filtration: 40 micron

NOMENCLATURE

Example: ASK 165S-V-HH

ASK	16	5	S	VV	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connection	Dual Access Valves	Charcoal Blend

DIMENSIONAL DATA



*B Indicates lay-in length

PCN*	CATALOG NUMBER	CONNECTION SIZE & STYLE	DIMENSIONS					SHIP WT. LBS.
			A	B	D	E	F [⊙]	
056508	ASK165S-W-HH	5/8 ODF	6 3/8	5 1/8	5/8	4 5/8	3 9/64	2
056509	ASK166S-W-HH	3/4 ODF	6 3/4	5 1/2	3/8			
056510	ASK167S-W-HH	7/8 ODF	6 15/16	5 7/16	3/4			
056511	ASK306S-W-HH	3/4 ODF	9 11/16	8 9/16	5/8	7 1/2	3 9/64	3 3/4
056512	ASK-307S-W-HH	7/8 ODF	9 7/8	8 3/8	3/4			
056513	ASK309S-W-HH	1 1/8 ODF	10 3/16	8 3/8	15/16			

⊙Dimension does not include weld bead

■ Standard Product Offering
* Product Code Number

SEE PAGES 139-141 FOR FLOW CAPACITIES.

ASF SUCTION LINE FILTER

APPLICATION

- ☆ ASF suction line filters are specifically designed to protect the compressor from dirt and all solid contaminants
- ☆ Suction line filter for removing solid contaminants



FEATURES

- ☆ Dual access valves
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish

SPECIFICATIONS

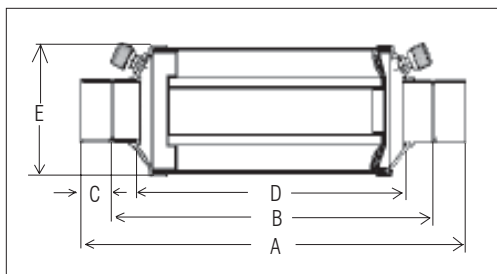
- ☆ Filtration: 40 microns
- ☆ Maximum working pressure: 500 psig
- ☆ UL file number: SA 3124
- ☆ CSA file number: LR 100624
LR 32462

NOMENCLATURE

Example: ASF 35S5-VV

ASF	35	S	5	VV
Series	Unit Size (in cu. in.)	S = ODF connections F = SAE	Connection Size (in 1/8")	Dual Access Valve

DIMENSIONAL DATA



ORDERING INFORMATION FOR ASF

PCN*	CATALOG NUMBER	CONNECTION SIZE	DIMENSIONS					SHIP WT. LBS
			A	B	C	D	ØD	
062963	ASF 28S7	7/8ODF	6-1/2	5	3/4	4-1/8	2-5/8	2
062964	ASF 28S9	1-1/8ODF	7-13/32	5-39/64	29/32			
049177	ASF 28S3-W	3/8 ODF	5 19/32	4 23/32	7/16			
049178	ASF 28S4-W	1/2 ODF	5 11/16	4 11/16	1/2			
049179	ASF 35F5-VV	5/8 SAE	7 9/16	—	—	4-3/4	3-11/16	2 1/2
049180	ASF 35S5-VV	5/8 ODF	6 17/32	5 9/32	5/8			
059999	ASF 45F3-W	3/8 SAE	7.68	—	—	5-9/16	3	
049181	ASF 45S6-VV	3/4 ODF	7 3/4	6 1/2	5/8			
049182	ASF 45S7-VV	7/8 ODF	7 15/16	6 7/16	3/4	6 1/8	3 1/2	
049183	ASF 50S9-W	1 1/8 ODF	8 27/32	7 1/32	29/32			
063113	ASF 64S17-V	2 1/8 ODF	11 3/4	9 1/16	1 5/16	7 5/8	5	3 1/2
--	ASF 64S21-V	2 5/8 ODF	13	10	1 1/2	7 7/8		
049184	ASF 75S11-VV	1 3/8 ODF	12 1/4	10 5/16	31/32	8 1/4	5	
049185	ASF 75S13-W	1 5/8 ODF	12 5/32	9 29/32	1 1/8			

Ⓞ Does not include weld bead

■ Standard Product Offering

* Product Code Number

SEE PAGES 139-141 FOR FLOW CAPACITIES.

APD PULSATION DAMPENER/MUFFLER

APPLICATION

The noise characteristics of some refrigeration and air conditioning systems are unpredictable. Different line sizes, operating pressures, piping configurations and the compressor and unit mounting all contribute to noise generated by the system. Occasionally these conditions will result in undesirable sound and vibration. Gas pulsation and resonant frequencies encountered in a particular system may warrant the use of an APD discharge line muffler which may greatly reduce unwanted noise and vibration.

The purpose of the muffler is to reduce the gas pulsation in the discharge line. APD's are available with or without internal baffles. The APD's internal baffles act as a restrictor to further increase the pressure drop thus creating an even flow of gas and reducing noise.

As a general rule, smaller mufflers with a greater pressure drop are usually more effective at dampening pulsations, while larger mufflers are more effective at lowering the overall level of compressor discharge noise. Many times, with problem applications, trial and error may be the only guide.

The table lists sizes within the recommended capacity range. The size suggested will normally smooth out pulsations and reduce noise. It should be noted that the performance of a given muffler can only be determined by an actual test under normal operating conditions.

The APD should be installed on the discharge line as close to the compressor as possible for maximum benefit.

FEATURES

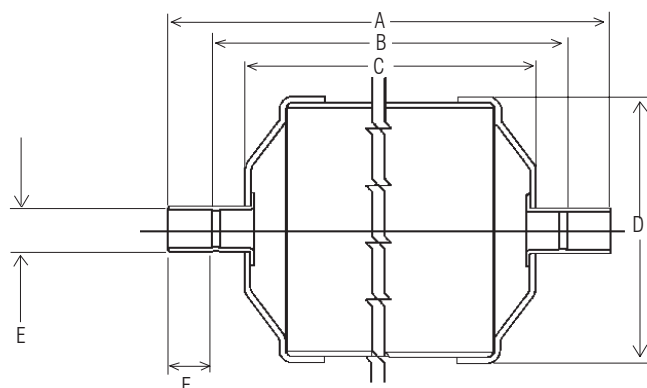
- ☆ Compact size
- ☆ Full flow fittings
- ☆ Solid copper fittings
- ☆ Corrosion-resistant finish
- ☆ Rugged steel shells for shock resistance

NOMENCLATURE

Example: APD 053 SB

APD	05	3	S	B
Pulsation Dampener	Cubic Inches	Fitting Size in 1/8"	ODF Fittings	With Baffles (omit for standard)

DIMENSIONAL DATA



SPECIFICATIONS

- ☆ Maximum working pressure: 05-16 600 psig
30-75 500 psig
- ☆ Operating range: -40°F to +200°F
- ☆ UL listed File No.: SA 5760
- ☆ CSA certified File No.: LR32462

FLOW CAPACITY

FITTING SIZE	TONS
1/4	1 - 5
3/8	5 - 10
1/2	10 - 20
5/8	15 - 25
7/8	25 - 35
1 1/8	35+

ORDERING INFORMATION

PCN*	DESCRIPTION	A	B	C	D	E	F
061862	APD 1R	6	5	4-15/32	3-1/64	1/2	1/2
049651	APD054 S-B	4-9/16	3-9/16	3	2-5/8	1/2	1/2
059144	APD 163 S	6-1/4	5-3/8	4-3/4	2-5/8	3/8	3/8
049623	APD 163 S-B	6-1/4	5-3/8	4-3/4	2-5/8	3/8	3/8
060119	APD 165 S-B	6-9/16	5-5/16	4-3/4	2-5/8	5/8	5/8
056989	APD 309 S	10-1/4	8-7/16	7-1/2	3-1/8	1-1/8	7/8

Standard Product Offering

*Product Code Number

ACK CHECK VALVES

APPLICATION

- ☆ Normally Closed Magnetic Check Valve
- ☆ Prevents Reversed Refrigerant Flow in Liquid Lines and Compressor Discharge Lines

FEATURES

- ☆ Copper Connection Sizes 1/4" through 2-5/8"
- ☆ Hermetic Spun Copper Design
- ☆ Near Zero Internal Leak Rate
- ☆ Magnetic Checking Action
- ☆ Built-In 30 Mesh Stainless Steel Strainer
- ☆ Can Be Installed In Any Position
- ☆ UL/CUL Approved (File # SA 5312)

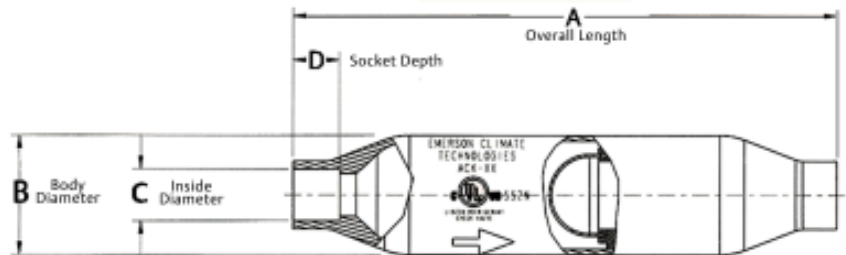
NOMENCLATURE

EXAMPLE: ACK-4

A	CK	4
Series	Check Valve	Copper ODF Connection Size (in 1/16")



DIMENSIONAL DATA



ORDERING INFORMATION

PCN	Description	Connection Size	A (in.)	B (in.)	C (in.)	D (in.)	Opening Pressure oz./sq.in.	MWP (psig)	Burst Pressure (psig)	Leak Rate CIM @ 60 psi	Nominal Tons R-22 Suction 40°F @ 1 psi	Nominal Tons R-22 Liquid 40°F @ 1 psi
064985	ACK-4	1/4 ODF	4	7/8	.254 ± .002	0.19	1.2	800	4000	0.015	0.4	2.6
064986	ACK-6	3/8 ODF			.379 ± .002	0.40	1.3				0.6	3.1
064987	ACK-8	1/2 ODF	5	1-1/8	.504 ± .002	0.31	3.5	640	3400	0.034	1.2	9.4
064988	ACK-10	5/8 ODF			.629 ± .002	0.50					1.4	13
064989	ACK-12	3/4 ODF	7	1-5/8	.754 ± .002	0.63	3.8	560	2800	0.074	3.3	27
064990	ACK-14	7/8 ODF			.879 ± .003	0.42					3.7	29
064991	ACK-18	1 1/8 ODF	8-3/8	2-1/8	1.130 ± .003	0.94	6.8	400	2000	0.122	6.0	51
064992	ACK-22	1 3/8 ODF	9-3/8	2-5/8	1.380 ± .003	1.04	10.2	440	2200	0.172	9.5	79
064993	ACK-26	1 5/8 ODF	10-1/2	3-1/8	1.630 ± .003	1.07	11.4	420	2100	0.272	17.0	102
064994	ACK-34	2 1/8 ODF	12	3-5/8	2.130 ± .003	1.34	18.1	400	2000	0.386	30.0	213
064995	ACK-42	2 5/8 ODF	13	4-1/8	2.630 ± .003	1.50	23.0	380	1900	0.512	50.0	375

CROSS REFERENCE (IDENTICAL LAY-IN)

Emerson	A-1 Components	Superior
ACK-4	MS-4	900M-4S
ACK-6	MS-6	900M-6S
ACK-8	MS-8	900M-8S
ACK-10	MS-10	900M-10S
ACK-12	MS-12	900M-12S
ACK-14	MS-14	900M-14S
ACK-18	MS-18	N/A
ACK-22	MS-22	N/A
ACK-26	MS-26	N/A
ACK-34	MS-34	N/A
ACK-42	MS-42	N/A

HMI - HERMETIC MOISTURE INDICATOR

APPLICATION

- ☆ The HMI was designed to provide an accurate method of determining the moisture content of a system's refrigerant
- ☆ Unique 3% high accuracy moisture indicator for CFC, HCFC and HFC refrigerants, including R410A



FEATURES

- ☆ Fully Hermetic Design
- ☆ 3% relative humidity indication compared to 10% paper indicators
- ☆ Single indicator for all common refrigerants
- ☆ Accurate color calibration at low ppm levels and higher temperatures
- ☆ Wide angle viewing/high visibility window for ease of monitoring
- ☆ All brass corrosion resistant body
- ☆ Solid copper fittings

SPECIFICATIONS

- ☆ 3% relative humidity sensitivity
- ☆ Maximum Working Pressure: 680 psig
- ☆ UL File Number: SA 4876
- ☆ CSA File Number: LR 32462

NOMENCLATURE

Example: HMI 1TT4

HMI	1	TT	4
Hermetic Moisture Indicator	Series	Connection Style TT - Sweat x Sweat	Connection Size (in 1/8")

ORDERING INFORMATION FOR HMI

PCN*	CATALOG NUMBER	SERIES	CONNECTION SIZE
065391	HMI-1MM2	Male Flare x Male Flare	1/4"
065392	HMI-1MM3		3/8"
065393	HMI-1MM4		1/2"
065394	HMI-1MM5		5/8"
065395	HMI-1MM6		3/4"
065405	HM1-1TT2	Sweat x Sweat (ODF)	1/4"
065406	HMI-1TT3		3/8"
065407	HMI-1TT4		1/2"
065408	HMI-1TT5		5/8"
065409	HMI-1TT6		3/4"
065410	HMI-1TT7		7/8"
065411	HMI-1TT9		1 1/8"
065396	HMI-1FM2	Female Flare x Male Flare	1/4"
065397	HMI-1FM3		3/8"
065398	HMI-1FM4		1/2"
065399	HMI-1MU2	Male Flare x Female Flare Swivel Nut	1/4"
065400	HMI-1MU3		3/8"
065401	HMI-1MU4		1/2"
065402	HMI-1MU5		5/8"
065403	HMI-1FU3	Female Flare x Female Flare Swivel Nut	3/8"
065404	HMI-1FU4		1/2"
065412	HMI-1UU3	Swivel Nut x Swivel Nut	3/8"
065413	HMI-1UU4		1/2"
065414	HMI-1UU5		5/8"

MOISTURE CONTENT COLOR CODE (ppm H₂O)

INDICATION	DRY (Dark Blue)			CAUTION (Purple)			WET (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
LIQUID TEMPERATURE									
R-12	1.4	2.5	4	5	9	15	25	43	70
R-134A	20	35	60	35	55	85	130	160	190
R-22	25	35	50	40	65	90	145	205	290
R-407C	26	40	64	42	68	109	150	230	370
R-410A	30	55	75	50	85	120	165	290	420
R-404A/507	15	25	45	33	50	80	120	150	180
R-502	2.6	5	8	10	18	30	50	90	150

AMI MOISTURE-LIQUID INDICATORS

APPLICATION

- ☆ AMI was designed to provide an accurate method of determining the moisture content of a system's refrigerant
- ☆ Premium Patented 3% High Accuracy Moisture Indicator for CFC, HCFC, and HFC refrigerants including R-410A
- ☆ For AMI-2 Series - see the bottom of the following page



FEATURES

- ☆ 3% relative humidity indication compared to 10% paper indicators
- ☆ Single indicator for all common refrigerants
- ☆ Accurate color calibration at low ppm levels and higher temperatures
- ☆ Wide angle viewing/high visibility window for ease of monitoring
- ☆ All brass corrosion resistant body
- ☆ Solid copper fittings

SPECIFICATIONS

- ☆ 3% relative humidity sensitivity
- ☆ Maximum working pressure: 600 psig[Ⓞ]
- ☆ UL file number: SA 4876
- ☆ CSA file number: LR 32462

NOMENCLATURE

Example: AMI 1SS4

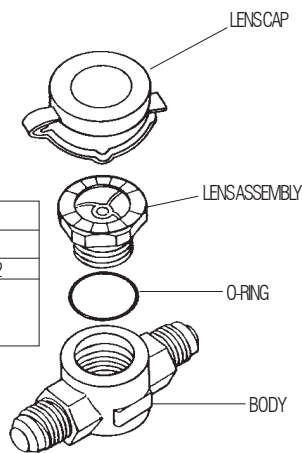
AMI	1	SS	4
Moisture Liquid Indicator Series	Design Series 1 = standard connection 2 = bushing style	Connection Style SS - Sweat x Sweat	Connection Size (in 1/8")

REPLACEMENT PARTS FOR AMI

PCN*	PART	NUMBER
021371	LENSCAP	12740-1
020877	"O" RING	PS1525-2
027511	LENSASSEMBLYKIT (Consists of lens assembly, lens cap and "O" ring)	X12978-1

■ Standard Product Offering

*Product Code Number



AMI INTERNALS

ORDERING INFORMATION FOR AMI

PCN*	CATALOG NUMBER	SERIES	CONNECTION SIZE
048803	AMI-1MM2	Male Flare x Male Flare	1/4"
048804	AMI-1MM3		3/8"
048805	AMI-1MM4		1/2"
048806	AMI-1MM5		5/8"
048811	AMI-1SS2		1/4"
048812	AMI-1SS3	Sweat x Sweat (ODF)	3/8"
048813	AMI-1SS4		1/2"
048814	AMI-1SS5		5/8"
048815	AMI-1SS7		7/8"
048816	AMI-1SS9		1 1/8"
047298	AMI-1TT2 EXTENDED ENDS		1/4"
042771	AMI-1TT3 EXTENDED ENDS		3/8"
022302	AMI-1TT4 EXTENDED ENDS		1/2"
031136	AMI-1TT5 EXTENDED ENDS		5/8"
031357	AMI-1TT7 EXTENDED ENDS [Ⓞ]		7/8"
031578	AMI-1TT9 EXTENDED ENDS [Ⓞ]	1 1/8"	
060255	AMI-1TT11		
048800	AMI-1FM2	Female Flare x Male Flare	1/4"
048801	AMI-FM3		3/8"
048802	AMI-FM4		1/2"
048807	AMI-1MU2	Male Flare x Female Flare Swivel Nut	1/4"
048808	AMI-1MU3		3/8"
048809	AMI-1MU4		1/2"
048810	AMI-1MU5		5/8"
048818	AMI-1FU4	Female Flare x Female Flare Swivel Nut	1/2"
048820	AMI-1SU3	Sweat x Female Flare Swivel Nut	3/8"
048822	AMI-1SU5		5/8"
046647	AMI-1UU3	Swivel Nut x Swivel Nut	3/8"
046648	AMI-1UU4		1/2"
046649	AMI-1UU5		5/8"

[Ⓞ] 500 PSIG MWP

■ Standard Product Offering

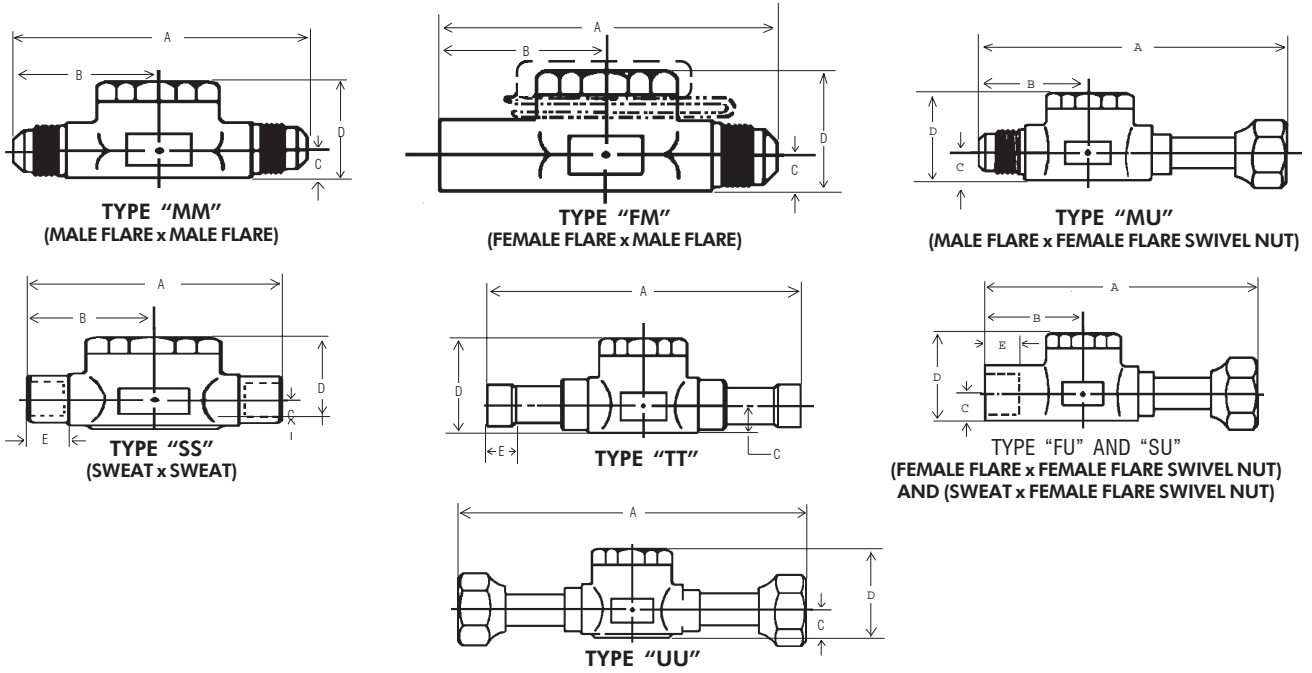
*Product Code Number

MOISTURE CONTENT COLOR CODE (ppm H₂O)

INDICATION	VERY DRY (Dark Blue)			DRY /CAUTION (Purple)			CAUTION/WET (Pink)			WET (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
R-12	1.4	2.5	4	5	9	15	15	27	45	25	43	70
R-134A	20	35	60	35	55	85	90	120	150	130	160	190
R-22	25	35	50	40	65	90	90	130	185	145	205	290
R-407C	26	40	64	42	68	109	94	144	230	150	230	370
R-410A	30	55	75	50	85	120	110	190	270	165	290	420
R-404A/507	15	25	45	33	50	80	80	110	140	120	150	180
R-502	2.6	5	8	10	18	30	30	54	90	50	90	150

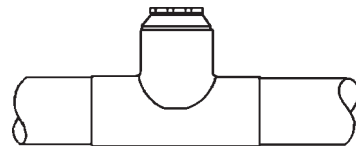
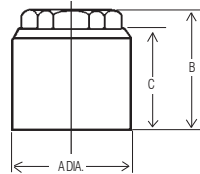
A minimum period of 12 hours is recommended after installation of the Moisture-Liquid Indicator before attempting to accurately determine system moisture content.

DIMENSIONAL DATA



SPECIFICATIONS						
TYPE NUMBER	CONNECTION SIZE	A	B	C	D	E
AMI-1MM2	1/4 SAE	3 1/8	1 9/16	11/32	1 3/16	—
AMI-1MM3	3/8 SAE	3 3/8	1 11/16	15/32	1 7/16	—
AMI-1MM4	1/2 SAE	3 5/8	1 13/16	15/32	1 7/16	—
AMI-1MM5	5/8 SAE	3 7/8	1 15/16	15/32	1 7/16	—
AMI-1FM2	1/4 SAE	2 3/4	1 3/16	11/32	1 3/16	—
AMI-1FM3	3/8 SAE	3	1 5/16	15/32	1 7/16	—
AMI-1FM4	1/2 SAE	3 7/32	1 13/32	15/32	1 7/16	—
AMI-1MU2	1/4 SAE	3 29/32	1 9/16	11/32	1 3/16	—
AMI-1MU3	3/8 SAE	4 3/8	1 11/16	15/32	1 7/16	—
AMI-1MU4	1/2 SAE	4 23/32	1 13/16	15/32	1 7/16	—
AMI-1MU5	5/8 SAE	5 3/32	1 15/16	15/32	1 7/16	—
AMI-1FU4	1/2 SAE	4 5/16	1 13/32	11/32	1 3/16	5/16
AMI-1SS2	1/4 ODF	2 1/4	1 1/8	11/32	1 3/16	5/16
AMI-1SS3	3/8 ODF	2 5/8	1 5/16	15/32	1 7/16	3/8
AMI-1SS4	1/2 ODF	2 5/8	1 5/16	15/32	1 7/16	1/2
AMI-1SS5	5/8 ODF	3 1/8	1 9/16	39/64	1 3/4	3/4
AMI-1SS7	7/8 ODF	3 1/8	1 9/16	39/64	1 3/4	3/4
AMI-1SS9	1 1/8 ODF	3 3/8	1 11/16	43/64	1 59/64	7/8
AMI-1SU3	3/8 ODF x 3/8 SAE	3 9/16	1 1/8	11/32	1 3/16	5/16
AMI-1SU5	5/8 ODF x 5/8 SAE	4 7/32	1 5/16	15/32	1 7/16	1/2
AMI-1TT2	1/4 ODF	4 57/64	—	11/32	1 3/16	5/16
AMI-1TT3	3/8 ODF	4 59/64	—	15/32	1 7/16	3/8
AMI-1TT4	1/2 ODF	4 59/64	—	15/32	1 7/16	1/2
AMI-1TT5	5/8 ODF	4 29/32	—	39/64	1 3/4	3/4
AMI-1TT7	7/8 ODF	6 23/64	—	43/64	1 59/64	7/8
AMI-1TT9	1 1/8 ODF	6 19/64	—	1	2-3/8	21/32
AMI-1TT11	1-3/8 ODF	6-15/16	—	1	2-3/8	21/32
AMI-1UU3	3/8 x 3/8 FLARE SWIVEL	4 7/8	—	11/32	1 3/16	—
AMI-1UU4	1/2 x 1/2 FLARE SWIVEL	5 9/16	—	15/32	1 7/16	—
AMI-1UU5	5/8 x 5/8 FLARE SWIVEL	6 1/64	—	—	—	—

AMI-2 SERIES DIMENSIONS

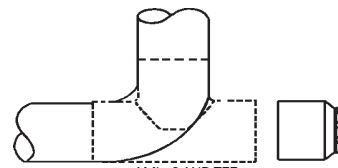


AMI-2 AND TEE
STRAIGHT THRU CONFIGURATION

ROUGHING IN DIMENSIONS

SPECIFICATIONS					
PCN*	TYPE NUMBER	CONNECTION SIZE	A DIA.	B	C
022303	AMI-2S11	1 3/8 ODM	1 3/8	1 9/16	1 5/16
028388	AMI-2S13	1 5/8 ODM	1 5/8	1 11/16	1 7/16
031219	AMI-2S17	2 1/8 ODM	2 1/8	1 15/16	1 11/16

*Product Code Number

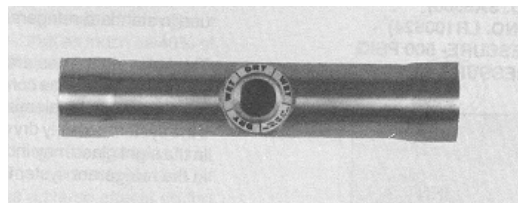


AMI-2 AND TEE
REPLACING AN ELBOW

A-IHL Moisture Indicator

APPLICATION

- ☆ A-IHL saddle design moisture indicators are designed to provide an accurate method of determining when the moisture content is dangerously wet in a refrigerant system and when the liquid line drier is no longer effective
- ☆ Moisture Indicator for large diameter tubing



FEATURES

- ☆ Solid copper connections
- ☆ Replaceable moisture indicator
- ☆ Eliminates the need for bypass installation - positive reaction to system moisture levels

NOMENCLATURE

Example: A-IHL 9S

A-IHL	9	S
Series	Connection Size (in 1/8")	S = ODF

SPECIFICATIONS

- ☆ 10% relative humidity sensitivity
- ☆ Maximum working pressure: 500 psig
- ☆ UL file number: SA 9566
- ☆ CSA file number: LR 100624

DIMENSIONAL DATA AND ORDERING INFORMATION

PCN*	MODEL	CONNECTION TYPE (in)	OVERALL LENGTH
060853	A-IHL-9S	1 1/8 ODF	6 5/16
061030	A-IHL-11S	1 3/8 ODF	7 1/8
061031	A-IHL-13S	1 5/8 ODF	7 7/8
061032	A-IHL-17S	2 1/8 ODF	8 11/16

Standard Product Offering
*Product Code Number

A-IHN Moisture Indicator

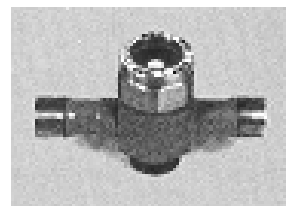
APPLICATION

A-IHN Moisture Indicators are designed with a removable sight glass assembly for cleaning and replacement of the moisture indicator element. This design is for use with our A-TFD or A-TRC cartridge driers in recovery, recycle and reclaim equipment, as well as for use in standard refrigerant systems.

The large sight glass area in the A-IHN moisture indicator shows at a glance the condition of a refrigerant system. The moisture indicator element changes color and will indicate if the system is safely dry or dangerously wet. Bubbles seen in the sight glass may indicate a restriction or a low charge in the refrigerant system.

FEATURES

- ☆ Removable sight glass assembly
- ☆ For use with A-TFD and A-TRC Cartridge Filter-Driers
- ☆ Corrosion resistant paint



SPECIFICATIONS:

- ☆ 10% relative humidity sensitivity
- ☆ Maximum working pressure: 500 psig
- ☆ UL file number: SA9566
- ☆ CSA file number: LR 100624

DIMENSIONAL DATA AND ORDERING INFORMATION

PCN*	MODEL	CONNECTION TYPE (in.)	OVERALL LENGTH	OVERALL HEIGHT
062772	A-IHN2	1/4 Flare	3.07	2.31

*Product Code Number

HERMETIC SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY IN TONS REFRIGERANT ^①							
		R-12				R-134a			
		EVAPORATOR TEMPERATURE (°F)							
		40	20	0	-20	40	20	0	-20
		Pressure Drop (PSI)							
2	1.5	1	0.5	2	1.5	1	0.5		
ASD 28S3-VV	3/8 ODF	1.1	0.6	0.5	0.5	1.1	0.6	0.5	0.4
ASD 28S4-VV	1/2 ODF	1.8	1.2	0.8	0.7	1.9	1.2	0.8	0.6
ASD 35F5-VV	5/8 SAE	2.1	1.4	1.1	0.9	2.2	1.4	1	0.8
ASD 35S5-VV	5/8 ODF	2.8	1.9	1.4	1.1	2.9	1.9	1.3	1
ASD 45S6-VV	3/4 ODF	3.8	2.5	1.8	1.2	3.9	2.5	1.7	1.1
ASD 45S7-VV	7/8 ODF	5.0	3.6	2.3	1.5	5.1	3.5	2.2	1.3
ASD 50S9-VV	1 1/8 ODF	7.1	5.0	3.2	1.8	7.3	4.9	3	1.6
ASD 75S11-VV	1 3/8 ODF	8.6	5.9	3.7	2.0	8.8	5.8	3.5	1.8
ASD 75S13-VV	1 5/8 ODF	9.0	6.2	3.9	2.1	9.3	6.1	3.7	1.9
ASF 28S3-VV	3/8 ODF	1.2	0.8	0.5	0.5	1.2	0.8	0.5	0.4
ASF 28S4-VV	1/2 ODF	1.9	1.3	0.9	0.8	2	1.3	0.9	0.7
ASF 35F5-VV	5/8 SAE	2.2	1.5	1.1	0.9	2.3	1.5	1	0.8
ASF 35S5-VV	5/8 ODF	3.2	2.2	1.6	1.4	3.3	2.2	1.5	1.2
ASF 45S6-VV	3/4 ODF	4.7	3.2	2.3	1.8	4.8	3.1	2.2	1.6
ASF 45S7-VV	7/8 ODF	6.5	4.8	3.3	1.9	6.7	4.7	3.1	1.7
ASF 50S9-VV	1 1/8 ODF	9.2	6.8	4.5	2.6	9.5	6.7	4.3	2.3
ASF 64S17-VV	2 1/8 ODF	25.3	18.3	12.6	7.2	26	18	12	6.4
ASF 75S11-VV	1 3/8 ODF	11.7	8.8	5.9	3.4	12	8.7	5.6	3
ASF 75S13-VV	1 5/8 ODF	13.6	9.7	6.6	3.8	14	9.5	6.3	3.4
ASK 165S-VV-HH	5/8 ODF	1.9	1.4	0.8	0.6	2	1.4	0.8	0.5
ASK 166S-VV-HH	3/4 ODF	2.4	1.7	1.1	0.7	2.5	1.7	1	0.6
ASK 167S-VV-HH	7/8 ODF	2.6	1.8	1.2	0.7	2.7	1.8	1.1	0.6
ASK 306S-VV-HH	3/4 ODF	3.3	2.3	1.5	0.9	3.4	2.3	1.4	0.8
ASK 307S-VV-HH	7/8 ODF	3.5	2.5	1.6	0.9	3.6	2.5	1.5	0.8
ASK 309S-VV-HH	1 1/8 ODF	3.8	2.6	1.7	0.9	3.9	2.6	1.6	0.8
CSFD14S4-VV	1/2 ODF	1.3	0.9	0.5	0.3	1.3	0.9	0.5	0.3
CSFD14S5-VV	5/8 ODF	2.2	1.5	0.9	0.6	2.3	1.5	0.9	0.5
CSFD14S6-VV	3/4 ODF	3.0	2.1	1.3	0.8	3.1	2.1	1.3	0.7
CSFD14S7-VV	7/8 ODF	3.2	2.2	1.5	0.8	3.3	2.2	1.4	0.7
CSFD14S9-VV	1 1/8 ODF	4.4	3.1	1.9	1.1	4.5	3	1.8	1
SFD 13F3-VV	3/8 SAE	0.7	0.4	0.2	0.1	0.7	0.4	0.2	0.1
SFD 13S3-VV	3/8 ODF	1.3	0.8	0.5	0.2	1.3	0.8	0.5	0.2
SFD 13F4-VV	1/2 SAE	1.5	1.0	0.6	0.3	1.5	1	0.6	0.3
SFD 13S4-VV	1/2 ODF	2.2	1.5	1.1	0.6	2.3	1.5	1	0.5
SFD 13F5-VV	5/8 SAE	2.4	1.7	1.2	0.7	2.5	1.7	1.1	0.6
SFD 13S5-VV	5/8 ODF	3.0	2.1	1.4	0.8	3.1	2.1	1.3	0.7
SFD 13S6-VV	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 13S7-VV	7/8 ODF	4.3	3.1	2.0	1.1	4.4	3	1.9	1
SFD 27S6-VV	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 27S7-VV	7/8 ODF	4.6	3.2	2.0	1.1	4.7	3.1	1.9	1
SFD 27S9-VV	1 1/8 ODF	5.1	3.5	2.1	1.1	5.2	3.4	2	1
SFD 54S11-VV	1 3/8 ODF	4.4	2.9	1.8	1.0	4.5	2.9	1.7	0.9
SFD 54S13-VV	1 5/8 ODF	4.5	3.1	1.9	1.0	4.6	3	1.8	0.9

①All ratings in accordance with ARI Standard 730-86.

②Example: 1.0 tons x 3.5 = 3.5 kW

HERMETIC SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY IN TONS REFRIGERANT ^①														
		R-22					R-407C					R-410A				
		EVAPORATOR TEMPERATURE (°F)														
		40	20	0	-20	-40	40	20	0	-20	-40	40	20	0	-20	-40
		Pressure Drop (PSI)														
3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5		
ASD 28S3-VV	3/8 ODF	2.3	1.3	0.9	0.6	0.5	2.6	1.5	1.1	0.7	0.7	1.6	0.9	0.6	0.4	0.3
ASD 28S4-VV	1/2 ODF	3.8	2.1	1.4	1	0.8	4.2	2.4	1.7	1.2	1.1	2.6	1.4	1.0	0.7	0.5
ASD 35F5-VV	5/8 SAE	4.4	2.5	1.7	1.2	0.9	4.9	2.9	2.1	1.5	1.2	3.0	1.7	1.2	0.8	0.6
ASD 35S5-VV	5/8 ODF	5.8	3.2	2.2	1.6	1	6.5	3.7	2.7	2.0	1.3	4.0	2.2	1.5	1.1	0.7
ASD 45S6-VV	3/4 ODF	7	4.6	3.2	2	1.1	7.8	5.3	3.9	2.5	1.5	4.8	3.2	2.2	1.3	0.7
ASD 45S7-VV	7/8 ODF	9.2	6	4.1	2.6	1.4	10	6.9	4.9	3.2	1.9	6.3	4.1	2.8	1.7	0.9
ASD 50S9-VV	1 1/8 ODF	13.2	8.5	5.7	3.5	1.8	15	9.7	6.9	4.3	2.4	9.0	5.8	3.9	2.3	1.2
ASD 75S11-VV	1 3/8 ODF	16.2	10.2	6.7	4	2	18	12	8.1	4.9	2.7	11	7.0	4.6	2.7	1.3
ASD 75S13-VV	1 5/8 ODF	17.3	10.7	7	4.2	2.1	19	12	8.4	5.2	2.8	12	7.3	4.8	2.8	1.4
ASF 28S3-VV	3/8 ODF	2.4	1.3	0.9	0.7	0.5	2.7	1.5	1.1	0.9	0.7	1.6	0.9	0.6	0.5	0.3
ASF 28S4-VV	1/2 ODF	4.1	2.3	1.6	1.2	0.9	4.6	2.6	1.9	1.5	1.2	2.8	1.6	1.1	0.8	0.6
ASF 35F5-VV	5/8 SAE	4.7	2.6	1.8	1.3	1	5.2	3.0	2.2	1.6	1.3	3.2	1.8	1.2	0.9	0.7
ASF 35S5-VV	5/8 ODF	6.6	3.7	2.6	1.9	1.6	7.3	4.2	3.1	2.3	2.1	4.5	2.5	1.8	1.3	1.0
ASF 45S6-VV	3/4 ODF	9.8	5.5	3.7	2.7	2.2	11	6.3	4.5	3.3	3.0	6.7	3.8	2.5	1.8	1.4
ASF 45S7-VV	7/8 ODF	12	8	5.6	3.6	3	13	9.2	6.8	4.4	4.0	8.2	5.5	3.8	2.4	2.0
ASF 50S9-VV	1 1/8 ODF	19	12	8.2	4.9	2.6	21	14	9.9	6.0	3.5	13	8.2	5.6	3.3	1.7
ASF 64S17-VV	2 1/8 ODF	41	27	19	12	6.9	46	31	23	15	9.3	28	19	13	8.0	4.5
ASF 75S11-VV	1 3/8 ODF	24	15	10	6.5	3.2	27	17	12	8.0	4.3	16	10	6.8	4.3	2.1
ASF 75S13-VV	1 5/8 ODF	15	16	11	6.7	3.3	17	18	13	8.3	4.4	10	11	7.5	4.5	2.2
ASK 165S-W-HH	5/8 ODF	3.4	2.1	1.4	0.9	0.4	3.8	2.4	1.7	1.1	0.5	2.3	1.4	1.0	0.6	0.3
ASK 166S-W-HH	3/4 ODF	4.2	2.6	1.7	1	0.5	4.7	3.0	2.1	1.2	0.7	2.9	1.8	1.2	0.7	0.3
ASK 167S-W-HH	7/8 ODF	4.6	2.8	1.9	1.1	0.6	5.1	3.2	2.3	1.4	0.8	3.1	1.9	1.3	0.7	0.4
ASK 306S-W-HH	3/4 ODF	5.5	3.5	2.3	1.4	0.8	6.1	4.0	2.8	1.7	1.1	3.8	2.4	1.6	0.9	0.5
ASK 307S-W-HH	7/8 ODF	6.1	3.8	2.5	1.5	0.8	6.8	4.4	3.0	1.9	1.1	4.2	2.6	1.7	1.0	0.5
ASK 309S-W-HH	1 1/8 ODF	6.5	4	2.6	1.6	0.8	7.2	4.6	3.1	2.0	1.1	4.4	2.7	1.8	1.1	0.5
CSFD14S4-W	1/2 ODF	2	1.3	0.9	0.6	0.3	2.2	1.5	1.1	0.7	0.4	1.4	0.9	0.6	0.4	0.2
CSFD14S5-W	5/8 ODF	3.6	2.4	1.6	1	0.5	4.0	2.8	1.9	1.2	0.7	2.5	1.6	1.1	0.7	0.3
CSFD14S6-W	3/4 ODF	4.9	3.2	2.2	1.4	0.7	5.5	3.7	2.7	1.7	0.9	3.3	2.2	1.5	0.9	0.5
CSFD14S7-W	7/8 ODF	5.2	3.4	2.3	1.5	0.8	5.8	3.9	2.8	1.9	1.1	3.6	2.3	1.6	1.0	0.5
CSFD14S9-W	1 1/8 ODF	7	4.6	3.1	2	1	7.8	5.3	3.7	2.5	1.3	4.8	3.2	2.1	1.3	0.7
SFD 13F3-VV	3/8 SAE	1.4	0.8	0.4	0.2	0.1	1.6	0.9	0.5	0.2	0.1	1.0	0.5	0.3	0.1	0.1
SFD 13S3-VV	3/8 ODF	2.2	1.3	0.8	0.5	0.2	2.4	1.5	1.0	0.6	0.3	1.5	0.9	0.5	0.3	0.1
SFD 13F4-VV	1/2 SAE	2.4	1.6	1.1	0.7	0.4	2.7	1.8	1.3	0.9	0.5	1.6	1.1	0.7	0.5	0.3
SFD 13S4-VV	1/2 ODF	3.5	2.3	1.6	1	0.6	3.9	2.6	1.9	1.2	0.8	2.4	1.6	1.1	0.7	0.4
SFD 13F5-VV	5/8 SAE	3.7	2.4	1.6	1	0.6	4.1	2.8	1.9	1.2	0.8	2.5	1.6	1.1	0.7	0.4
SFD 13S5-VV	5/8 ODF	4.9	3.2	2.2	1.4	0.8	5.5	3.7	2.7	1.7	1.1	3.3	2.2	1.5	0.9	0.5
SFD 13S6-VV	3/4 ODF	6.4	4.2	2.8	1.8	1	7.1	4.8	3.4	2.2	1.3	4.4	2.9	1.9	1.2	0.7
SFD 13S7-VV	7/8 ODF	7.2	4.6	3	1.9	1	8.0	5.3	3.6	2.3	1.3	4.9	3.2	2.0	1.3	0.7
SFD 27S6-VV	3/4 ODF	6.4	4.2	2.8	1.8	1	7.1	4.8	3.4	2.2	1.3	4.4	2.9	1.9	1.2	0.7
SFD 27S7-VV	7/8 ODF	7.5	4.8	3.2	2	1.1	8.3	5.5	3.9	2.5	1.5	5.1	3.3	2.2	1.3	0.7
SFD 27S9-VV	1 1/8 ODF	8.5	5.4	3.5	2.1	1.1	9.5	6.2	4.2	2.6	1.5	5.8	3.7	2.4	1.4	0.7
SFD 54S11-VV	1 3/8 ODF	7.3	4.6	3	1.8	1	8.1	5.3	3.6	2.2	1.3	5.0	3.2	2.0	1.2	0.7
SFD 54S13-VV	1 5/8 ODF	7.4	4.7	3.2	2	1	8.2	5.4	3.9	2.5	1.3	5.1	3.2	2.2	1.3	0.7

①All ratings in accordance with ARI Standard 730-86.

②For 2 PSI ΔP. Multiply values by 1.4
Example: 1.0 tons x 3.5 = 3.5 kW

HERMETIC SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FLOW CAPACITY IN TONS REFRIGERANT ^① For kW, Multiply Tons by 3.5 ^②									
		R-502					R-404A/507				
		EVAPORATOR TEMPERATURE (°F)									
		40	20	0	-20	-40	40	20	0	-20	-40
		Pressure Drop (PSI)									
		3	2	1.5	1	0.5	3	2	1.5	1	0.5
ASD 28S3-VV	3/8 ODF	2.2	1.1	0.7	0.5	0.3	2.1	1.1	0.7	0.5	0.3
ASD 28S4-VV	1/2 ODF	3.7	1.8	1.1	0.7	0.5	3.6	1.8	1.1	0.7	0.5
ASD 35F5-VV	5/8 SAE	4.2	2.1	1.3	0.9	0.6	4.1	2.1	1.3	0.9	0.6
ASD 35S5-VV	5/8 ODF	5.6	2.8	1.7	1.1	0.8	5.4	2.8	1.7	1.1	0.8
ASD 45S6-VV	3/4 ODF	6.6	3.7	2.5	1.5	0.9	6.4	3.7	2.5	1.6	1
ASD 45S7-VV	7/8 ODF	7.7	4.8	3.3	1.9	1.0	7.5	4.8	3.3	2	1.1
ASD 50S9-VV	1 1/8 ODF	11	6.9	4.6	2.7	1.3	11	6.9	4.6	2.8	1.4
ASD 75S11-VV	1 3/8 ODF	14	8.4	5.4	3.1	1.5	14	8.4	5.4	3.2	1.6
ASD 75S13-VV	1 5/8 ODF	15	8.9	5.7	3.3	1.6	15	8.9	5.7	3.4	1.7
ASF 28S3-VV	3/8 ODF	2.3	1.1	0.7	0.5	0.3	2.2	1.1	0.7	0.5	0.3
ASF 28S4-VV	1/2 ODF	3.9	2.0	1.2	0.8	0.6	3.8	2	1.2	0.8	0.6
ASF 35F5-VV	5/8 SAE	4.5	2.3	1.4	0.9	0.7	4.4	2.3	1.4	0.9	0.7
ASF 35S5-VV	5/8 ODF	6.3	3.2	2.0	1.4	0.9	6.1	3.2	2	1.4	1
ASF 45S6-VV	3/4 ODF	9.4	4.7	2.9	1.8	1.3	9.1	4.7	2.9	1.9	1.4
ASF 45S7-VV	7/8 ODF	10	6.3	4.5	2.7	1.4	9.8	6.3	4.5	2.8	1.5
ASF 50S9-VV	1 1/8 ODF	16	10	6.6	3.9	1.9	16	10	6.7	4	2
ASF 64S17-VV	2 1/8 ODF	36	23	15	9.5	4.9	35	23	15	9.8	5.2
ASF 75S11-VV	1 3/8 ODF	21	13	8.2	4.9	2.4	20	13	8.3	5.1	2.6
ASF 75S13-VV	1 5/8 ODF	22	13	8.3	5.0	2.5	21	13	8.4	5.2	2.7
ASK 16S3-VV-HH	5/8 ODF	3.3	1.9	1.2	0.8	0.3	3.2	1.9	1.2	0.8	0.3
ASK 16S4-VV-HH	3/4 ODF	4.0	2.4	1.6	0.9	0.5	3.9	2.4	1.6	0.9	0.5
ASK 16S5-VV-HH	7/8 ODF	4.4	2.6	1.7	1.0	0.6	4.3	2.6	1.7	1	0.6
ASK 30S6-VV-HH	3/4 ODF	5.2	3.2	2.2	1.2	0.7	5	3.2	2.2	1.2	0.7
ASK 30S7-VV-HH	7/8 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
ASK 30S9-VV-HH	1 1/8 ODF	6.2	3.7	2.4	1.4	0.7	6	3.7	2.4	1.5	0.7
CSFD14S4-VV	1/2 ODF	1.3	0.8	0.5	0.3	0.2	1.3	0.8	0.5	0.3	0.2
CSFD14S5-VV	5/8 ODF	2.7	1.7	1.1	0.7	0.3	2.6	1.7	1.1	0.7	0.3
CSFD14S6-VV	3/4 ODF	3.7	2.3	1.5	0.9	0.5	3.6	2.3	1.5	0.9	0.5
CSFD14S7-VV	7/8 ODF	4.0	2.4	1.6	1.0	0.5	3.9	2.4	1.6	1	0.5
CSFD14S9-VV	1 1/8 ODF	5.1	3.1	2.0	1.3	0.7	4.9	3.1	2	1.3	0.7
SFD 13F3-VV	3/8 SAE	1.3	0.7	0.4	0.2	0.1	1.3	0.7	0.4	0.2	0.1
SFD 13S3-VV	3/8 ODF	2.0	1.1	0.7	0.4	0.2	1.9	1.1	0.7	0.4	0.2
SFD 13F4-VV	1/2 SAE	2.2	1.3	0.9	0.5	0.3	2.1	1.3	0.9	0.5	0.3
SFD 13S4-VV	1/2 ODF	3.1	1.9	1.3	0.8	0.4	3	1.9	1.3	0.8	0.4
SFD 13F5-VV	5/8 SAE	3.3	2.0	1.4	0.9	0.5	3.2	2	1.4	0.9	0.5
SFD 13S5-VV	5/8 ODF	4.3	2.7	1.8	1.1	0.6	4.2	2.7	1.8	1.1	0.6
SFD 13S6-VV	3/4 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
SFD 13S7-VV	7/8 ODF	6.5	3.9	2.6	1.4	0.8	6.3	3.9	2.6	1.5	0.8
SFD 27S6-VV	3/4 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
SFD 27S7-VV	7/8 ODF	6.7	4.1	2.7	1.5	0.8	6.5	4.1	2.7	1.6	0.8
SFD 27S9-VV	1 1/8 ODF	7.7	4.6	3.0	1.6	0.8	7.5	4.6	3	1.7	0.9
SFD 54S11-VV	1 3/8 ODF	6.6	3.9	2.5	1.4	0.7	6.4	3.9	2.5	1.5	0.7
SFD 54S13-VV	1 5/8 ODF	6.7	4.0	2.6	1.5	0.8	6.5	4	2.6	1.6	0.8

①All ratings in accordance with ARI Standard 730-86.

②For 2 PSI ΔP . Multiply values by 1.4
Example: 1.0 tons x 3.5 = 3.5 kW

TAKE-APART SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FILTER DRIER CARTRIDGE	FLOW CAPACITY IN TONS REFRIGERANT ^①							
			R-12				R-134a			
			EVAPORATOR TEMPERATURE (°F)							
			40	20	0	-20	40	20	0	-20
			Pressure Drop (PSI)							
2	1.5	1	0.5	2	1.5	1	0.5			
ADKS 30013T	1 5/8 ODF	(3) F-100 Filter	24	17	12	7.0	25	17	11	6.2
ADKS 30017T	2 1/8 ODF	(3) F-100 Filter	42	31	20	12	43	30	19	11
ADKS 40017T	2 1/8 ODF	(4) F-100 Filter	44	32	21	12	45	31	20	11
ADKS 40021T	2 5/8 ODF	(4) F-100 Filter	66	48	32	19	68	47	30	17
ADKS 30013T	1 5/8 ODF	(3) 100 cu. in. Block	19	14	9.1	5.5	20	14	8.7	4.9
ADKS 30017T	2 1/8 ODF	(3) 100 cu. in. Block	30	22	15	8.7	31	22	14	7.7
ADKS 40017T	2 1/8 ODF	(4) 100 cu. in. Block	33	23	16	9.5	34	23	15	8.4
ADKS 40021T	2 5/8 ODF	(4) 100 cu. in. Block	48	35	23	14	49	34	22	12
BTAS-27 S-V	7/8 ODF	A2F Filter	4.7	3.4	2.2	1.2	4.8	3.3	2.1	1.1
BTAS-39 S-V	1 1/8 ODF	A3F Filter	7.1	5.1	3.4	1.9	7.3	5.0	3.2	1.7
BTAS-311 S-V	1 3/8 ODF	A3F Filter	7.9	5.6	3.7	2.1	8.1	5.5	3.5	1.9
BTAS-313 S-V	1 5/8 ODF	A3F Filter	13	8.9	5.9	3.4	13	8.8	5.6	3.0
BTAS-317 S-V	2 1/8 ODF	A3F Filter	15	11	7.2	4.2	16	11	6.9	3.7
BTAS-411 S-V	1 3/8 ODF	A4F Filter	20	15	10	5.5	21	14	9.1	4.9
BTAS-413 S-V	1 5/8 ODF	A4F Filter	17	12	8	4.5	17	12	7.4	4.0
BTAS-417 S-V	2 1/8 ODF	A4F Filter	28	20	13	7.5	29	20	12	6.7
BTAS-421 S-V	2 5/8 ODF	A4F Filter	34	24	16	9.1	35	24	15	8.1
BTAS-517 S-V	2 1/8 ODF	A5F Filter	33	24	16	9.1	34	24	15	8.1
BTAS-521 S-V	2 5/8 ODF	A5F Filter	44	32	21	12	45	31	20	11
BTAS-525 S-V	3 1/8 ODF	A5F Filter	54	39	25	15	56	38	24	13
BTAS-25 S-V	5/8 ODF	A2F-D Filter-drier	2.4	1.7	1.2	0.7	2.5	1.7	1.1	0.6
BTAS-27 S-V	7/8 ODF	A2F-D Filter-drier	4.0	2.8	1.9	1.1	4.1	2.8	1.8	1.0
BTAS-39 S-V	1 1/8 ODF	A3F-D Filter-drier	5.2	3.7	2.4	1.4	5.3	3.6	2.3	1.2
BTAS-311 S-V	1 3/8 ODF	A3F-D Filter-drier	7.2	5.2	3.4	1.9	7.4	5.1	3.2	1.7
BTAS-313 S-V	1 5/8 ODF	A3F-D Filter-drier	10	7.4	4.8	2.8	11	7.3	4.6	2.5
BTAS-317 S-V	2 1/8 ODF	A3F-D Filter-drier	12	8.5	5.7	3.3	12	8.4	5.4	2.9
BTAS-411 S-V	1 3/8 ODF	A4F-D Filter-drier	15	11	7.0	4.1	15	11	6.7	3.6
BTAS-413 S-V	1 5/8 ODF	A4F-D Filter-drier	15	11	7.2	4.2	16	11	6.9	3.7
BTAS-417 S-V	2 1/8 ODF	A4F-D Filter-drier	22	16	11	6.1	23	16	10	5.4
BTAS-421 S-V	2 5/8 ODF	A4F-D Filter-drier	23	17	11	6.3	24	16	10	5.6
BTAS-517 S-V	2 1/8 ODF	A5F-D Filter-drier	27	19	13	7.2	28	19	12	6.4
BTAS-521 S-V	2 5/8 ODF	A5F-D Filter-drier	32	23	15	8.8	33	23	14	7.8
BTAS-525 S-V	3 1/8 ODF	A5F-D Filter-drier	38	27	18	10	39	27	17	9.2
STAS-489 S-V	1 1/8 ODF	(1) F-48 Filter	13	8	5	2	13	8	5	2
STAS-4811 S-V	1 3/8 ODF	(1) F-48 Filter	15	10	6	3	15	10	6	3
STAS-4813 S-V	1 5/8 ODF	(1) F-48 Filter	19	12	7	5	20	12	7	4
STAS-4817 S-V	2 1/8 ODF	(1) F-48 Filter	24	15	11	6	25	15	10	5
STAS-4821 S-V	2 5/8 ODF	(1) F-48 Filter	29	20	14	7	30	20	13	6
STAS-9617 S-V	2 1/8 ODF	(2) F-48 Filter	27	18	11	6	28	18	10	5
STAS-9621 S-V	2 5/8 ODF	(2) F-48 Filter	37	25	16	8	38	25	15	7
A-TD-9625 S-V	3 1/8 ODF	(2) F-48 Filter	49	31	21	11	50	30	20	10
STAS-489 S-V	1 1/8 ODF	(1) 48 cu. in. Block	8	6	4	1	8	6	4	1
STAS-4811 S-V	1 3/8 ODF	(1) 48 cu. in. Block	10	7	4	2	10	7	4	2
STAS-4813 S-V	1 5/8 ODF	(1) 48 cu. in. Block	13	8	5	3	13	8	5	3
STAS-4817 S-V	2 1/8 ODF	(1) 48 cu. in. Block	17	10	7	5	17	10	7	4
STAS-4821 S-V	2 5/8 ODF	(1) 48 cu. in. Block	19	13	8	5	20	13	8	4
STAS-9617 S-V	2 1/8 ODF	(2) 48 cu. in. Block	18	12	6	5	18	12	6	4
STAS-9621 S-V	2 5/8 ODF	(2) 48 cu. in. Block	24	17	11	6	25	17	10	5
A-TD-9625 S-V	3 1/8 ODF	(2) 48 cu. in. Block	32	20	14	7	33	20	13	6
STAS-969	1-1/8 ODF	(2) 48 cu. in. Block	-	-	-	-	-	-	-	-
STAS-1927/5T	7/8x5/8 ODF	(4) 48 cu. in. Block	-	-	-	-	-	-	-	-
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu. in. Block	15	10	6	3	15	10	6	3
STAS-4813 T	1-5/8 ODF	(1) 48 cu. in. Block	19	12	7	5	20	12	7	4
STAS-9617 T	2-1/8 ODF	(2) 48 cu. in. Block	18	12	6	5	18	12	6	4
STAS-9617 V	2-1/8 ODF	(2) 48 cu. in. Block	18	12	6	5	18	12	6	4

① All ratings in accordance with ARI Standard 730-86.

② For 2 PSI ΔP. Multiply values by 1.4

Example: 1.0 tons x 3.5 = 3.5 kW

TAKE-APART SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FILTER DRIER CARTRIDGE	FLOW CAPACITY IN TONS REFRIGERANT ^①									
			R-22					R-407C				
			EVAPORATOR TEMPERATURE (°F)									
			40	20	0	-20	-40	40	20	0	-20	-40
			Pressure Drop (PSI)									
3	2	1.5	1	0.5	3	2	1.5	1	0.5			
ADKS 30013T	1 5/8 ODF	(3) F-100 Filter	45	30	20	13	7.0	50	34	24	16	9.4
ADKS 30017T	2 1/8 ODF	(3) F-100 Filter	77	50	35	22	12	86	57	42	27	16
ADKS 40017T	2 1/8 ODF	(4) F-100 Filter	80	53	37	23	13	89	61	45	28	17
ADKS 40021T	2 5/8 ODF	(4) F-100 Filter	122	80	55	34	19	136	92	66	42	25
ADKS 30013T	1 5/8 ODF	(3) 100 cu. in. Block	35	23	16	10	5.5	39	26	19	12	7.4
ADKS 30017T	2 1/8 ODF	(3) 100 cu. in. Block	56	37	25	16	8.8	62	42	30	20	12
ADKS 40017T	2 1/8 ODF	(4) 100 cu. in. Block	61	40	27	17	9.5	67	46	33	21	13
ADKS 40021T	2 5/8 ODF	(4) 100 cu. in. Block	88	58	40	25	14	98	67	48	31	19
BTAS-27 S-V	7/8 ODF	A2F Filter	8.8	5.7	3.9	2.5	1.3	9.8	6.5	4.7	3.1	1.7
BTAS-39 S-V	1 1/8 ODF	A3F Filter	14	8.8	5.9	3.7	2.0	15	10	7.1	4.6	2.7
BTAS-311 S-V	1 3/8 ODF	A3F Filter	15	10	6.6	4.1	2.2	17	11	8.0	5.1	3.0
BTAS-313 S-V	1 5/8 ODF	A3F Filter	24	16	11	6.6	3.5	27	18	13	8.1	4.7
BTAS-317 S-V	2 1/8 ODF	A3F Filter	29	19	13	8.1	4.3	32	22	15	10	5.8
BTAS-411 S-V	1 3/8 ODF	A4F Filter	38	25	17	11	5.7	42	29	21	13	7.6
BTAS-413 S-V	1 5/8 ODF	A4F Filter	31	20	14	8.7	4.6	35	23	17	11	6.2
BTAS-417 S-V	2 1/8 ODF	A4F Filter	53	34	23	15	7.8	59	39	28	18	10
BTAS-421 S-V	2 5/8 ODF	A4F Filter	64	42	29	18	10	71	48	35	22	13
BTAS-517 S-V	2 1/8 ODF	A5F Filter	63	41	28	18	9.4	70	47	34	22	13
BTAS-521 S-V	2 5/8 ODF	A5F Filter	84	54	37	23	12	93	62	45	28	17
BTAS-525 S-V	3 1/8 ODF	A5F Filter	103	67	46	29	15	115	77	56	36	21
BTAS-25 S-V	5/8 ODF	A2F-D Filter-drier	4.6	3.0	2.0	1.3	0.7	5.1	3.4	2.4	1.6	0.9
BTAS-27 S-V	7/8 ODF	A2F-D Filter-drier	7.5	4.9	3.3	2.1	1.1	8.3	5.6	4.0	2.6	1.5
BTAS-39 S-V	1 1/8 ODF	A3F-D Filter-drier	10	6.3	4.3	2.7	1.4	11	7.2	5.2	3.3	1.9
BTAS-311 S-V	1 3/8 ODF	A3F-D Filter-drier	14	8.9	6.0	3.8	2.0	15	10	7.2	4.7	2.7
BTAS-313 S-V	1 5/8 ODF	A3F-D Filter-drier	20	13	8.6	5.4	2.9	22	15	10	6.7	3.9
BTAS-317 S-V	2 1/8 ODF	A3F-D Filter-drier	23	15	10	6.3	3.4	26	17	12	7.8	4.6
BTAS-411 S-V	1 3/8 ODF	A4F-D Filter-drier	28	18	13	7.8	4.2	31	21	15	10	5.6
BTAS-413 S-V	1 5/8 ODF	A4F-D Filter-drier	29	19	13	8.1	4.3	32	22	15	10	5.8
BTAS-417 S-V	2 1/8 ODF	A4F-D Filter-drier	43	28	19	12	6.3	48	32	23	15	8.5
BTAS-421 S-V	2 5/8 ODF	A4F-D Filter-drier	44	29	19	12	6.5	49	33	23	15	8.7
BTAS-517 S-V	2 1/8 ODF	A5F-D Filter-drier	51	33	22	14	7.5	57	38	27	17	10
BTAS-521 S-V	2 5/8 ODF	A5F-D Filter-drier	61	40	27	17	9.0	68	46	33	21	12
BTAS-525 S-V	3 1/8 ODF	A5F-D Filter-drier	72	47	32	20	11	80	54	39	25	14
STAS-489 S-V	1 1/8 ODF	(1) F-48 Filter	22	14	10	6	2	24	16	12	7	3
STAS-4811 S-V	1 3/8 ODF	(1) F-48 Filter	28	17	12	7	3	31	19	14	9	4
STAS-4813 S-V	1 5/8 ODF	(1) F-48 Filter	35	20	15	8	4	39	23	18	10	5
STAS-4817 S-V	2 1/8 ODF	(1) F-48 Filter	47	30	20	10	5	52	34	24	12	7
STAS-4821 S-V	2 5/8 ODF	(1) F-48 Filter	60	40	25	15	7	67	46	30	19	9
STAS-9617 S-V	2 1/8 ODF	(2) F-48 Filter	50	30	20	12	6	56	34	24	15	8
STAS-9621 S-V	2 5/8 ODF	(2) F-48 Filter	70	43	28	17	8	78	49	34	21	11
A-TD-9625 S-V	3 1/8 ODF	(2) F-48 Filter	95	60	40	22	10	106	69	48	27	13
STAS-489 S-V	1 1/8 ODF	(1) 48 cu. in. Block	15	9	7	4	1	17	10	8	5	1
STAS-4811 S-V	1 3/8 ODF	(1) 48 cu. in. Block	18	11	8	5	2	20	13	10	6	3
STAS-4813 S-V	1 5/8 ODF	(1) 48 cu. in. Block	23	13	10	6	3	26	15	12	7	4
STAS-4817 S-V	2 1/8 ODF	(1) 48 cu. in. Block	31	20	13	7	3	35	23	16	9	4
STAS-4821 S-V	2 5/8 ODF	(1) 48 cu. in. Block	40	27	17	10	5	45	31	21	12	7
STAS-9617 S-V	2 1/8 ODF	(2) 48 cu. in. Block	33	20	13	8	4	37	23	16	10	5
STAS-9621 S-V	2 5/8 ODF	(2) 48 cu. in. Block	47	28	18	11	6	52	32	22	14	8
A-TD-9625 S-V	3 1/8 ODF	(2) 48 cu. in. Block	64	40	27	15	7	71	46	33	19	9
STAS-969	1-1/8 ODF	(2) 48 cu. in. Block	-	-	-	-	-	-	-	-	-	-
STAS-1927/5T	7/8x5/8 ODF	(4) 48 cu. in. Block	-	-	-	-	-	-	-	-	-	-
STAS-4811S-V	1-3/8 ODF	(1) 48 cu. in. Block	18	11	8	5	2	20	13	10	6	3
STAS-4813 T	1-5/8 ODF	(1) 48 cu. in. Block	23	13	10	6	3	26	15	12	7	4
STAS-9617 T	2-1/8 ODF	(2) 48 cu. in. Block	33	20	13	8	4	37	23	16	10	5
STAS-9617 V	2-1/8 ODF	(2) 48 cu. in. Block	33	20	13	8	4	37	23	16	10	5

① All ratings in accordance with ARI Standard 730-86.

② For 2 PSI ΔP. Multiply values by 1.4

Example: 1.0 tons x 3.5 = 3.5 kW

TAKE-APART SUCTION LINE FILTER-DRIER FLOW CAPACITIES

DESCRIPTION	CONNECTIONS	FILTER DRIER CARTRIDGE	FLOW CAPACITY IN TONS REFRIGERANT ^①									
			R-502					R-404A/507				
			EVAPORATOR TEMPERATURE (°F)									
			40	20	0	-20	-40	40	20	0	-20	-40
			Pressure Drop (PSI)									
3	2	1.5	1	0.5	3	2	1.5	1	0.5			
ADKS 30013T	1 5/8 ODF	(3) F-100 Filter	38	24	16	9.9	5.2	37	24	16	10	5.5
ADKS 30017T	2 1/8 ODF	(3) F-100 Filter	64	40	27	17	8.9	62	40	27	18	9.4
ADKS 40017T	2 1/8 ODF	(4) F-100 Filter	68	43	28	17	9.2	66	43	29	18	9.8
ADKS 40021T	2 5/8 ODF	(4) F-100 Filter	102	64	43	27	14	99	64	43	28	15
ADKS 30013T	1 5/8 ODF	(3) 100 cu. in. Block	30	19	12	7.7	4.1	29	19	13	8.0	4.3
ADKS 30017T	2 1/8 ODF	(3) 100 cu. in. Block	47	30	20	12	6.4	46	30	20	13	6.8
ADKS 40017T	2 1/8 ODF	(4) 100 cu. in. Block	51	32	22	13	7.0	49	32	22	14	7.4
ADKS 40021T	2 5/8 ODF	(4) 100 cu. in. Block	74	47	31	19	10	72	47	32	20	11
BTAS-27 S-V	7/8 ODF	A2F Filter	7.4	4.6	3.1	1.8	0.9	7.2	4.6	3.1	1.9	1
BTAS-39 S-V	1 1/8 ODF	A3F Filter	11	7.0	4.7	2.8	1.4	11	7.0	4.7	2.9	1.5
BTAS-311 S-V	1 3/8 ODF	A3F Filter	12	7.8	5.2	3.1	1.6	12	7.8	5.2	3.2	1.7
BTAS-313 S-V	1 5/8 ODF	A3F Filter	20	12	8.2	5.0	2.5	19	12	8.3	5.2	2.7
BTAS-317 S-V	2 1/8 ODF	A3F Filter	25	15	10	6.1	3.1	24	15	10	6.3	3.3
BTAS-411 S-V	1 3/8 ODF	A4F Filter	32	20	13	8.1	4.1	31	20	14	8.4	4.4
BTAS-413 S-V	1 5/8 ODF	A4F Filter	27	16	11	6.6	3.4	26	16	11	6.8	3.6
BTAS-417 S-V	2 1/8 ODF	A4F Filter	44	28	18	11	5.7	43	28	19	12	6
BTAS-421 S-V	2 5/8 ODF	A4F Filter	54	34	23	14	6.9	52	34	23	14	7.3
BTAS-517 S-V	2 1/8 ODF	A5F Filter	54	33	22	13	6.8	52	33	22	14	7.2
BTAS-521 S-V	2 5/8 ODF	A5F Filter	70	44	29	18	9.0	68	44	29	18	9.6
BTAS-525 S-V	3 1/8 ODF	A5F Filter	87	54	36	22	11	84	54	36	23	12
BTAS-25 S-V	5/8 ODF	A2F-D Filter-drier	3.9	2.4	1.6	1.0	0.5	3.8	2.4	1.6	1	0.5
BTAS-27 S-V	7/8 ODF	A2F-D Filter-drier	6.3	3.9	2.6	1.5	0.8	6.1	3.9	2.6	1.6	0.9
BTAS-39 S-V	1 1/8 ODF	A3F-D Filter-drier	8.1	5.1	3.4	2.0	1.0	7.9	5.1	3.4	2.1	1.1
BTAS-311 S-V	1 3/8 ODF	A3F-D Filter-drier	11	7.1	4.8	2.9	1.5	11	7.1	4.8	3	1.6
BTAS-313 S-V	1 5/8 ODF	A3F-D Filter-drier	16	10	6.7	4.1	2.1	16	10	6.8	4.2	2.2
BTAS-317 S-V	2 1/8 ODF	A3F-D Filter-drier	19	12	7.9	4.8	2.4	19	12	8.0	5	2.6
BTAS-411 S-V	1 3/8 ODF	A4F-D Filter-drier	24	15	10	5.9	3.0	23	15	10	6.1	3.2
BTAS-413 S-V	1 5/8 ODF	A4F-D Filter-drier	25	15	10	6.1	3.1	24	15	10	6.3	3.3
BTAS-417 S-V	2 1/8 ODF	A4F-D Filter-drier	36	22	15	9.0	4.6	35	22	15	9.3	4.9
BTAS-421 S-V	2 5/8 ODF	A4F-D Filter-drier	37	23	15	9.2	4.7	36	23	15	10	5.0
BTAS-517 S-V	2 1/8 ODF	A5F-D Filter-drier	42	27	18	11	4.7	41	27	18	11	5.0
BTAS-521 S-V	2 5/8 ODF	A5F-D Filter-drier	52	32	22	13	6.6	50	32	22	13	7.0
BTAS-525 S-V	3 1/8 ODF	A5F-D Filter-drier	61	38	25	15	7.8	59	38	25	16	8.3
STAS-489 S-V	1 1/8 ODF	(1) F-48 Filter	21	12	8	5	3	20	12	8	5	3
STAS-4811 S-V	1 3/8 ODF	(1) F-48 Filter	15	15	10	6	4	15	15	10	6	4
STAS-4813 S-V	1 5/8 ODF	(1) F-48 Filter	31	18	11	7	5	30	18	11	7	5
STAS-4817 S-V	2 1/8 ODF	(1) F-48 Filter	41	25	15	9	7	40	25	15	9	7
STAS-4821 S-V	2 5/8 ODF	(1) F-48 Filter	57	30	20	12	8	55	30	20	12	8
STAS-9617 S-V	2 1/8 ODF	(2) F-48 Filter	41	25	15	10	7	40	25	15	10	7
STAS-9621 S-V	2 5/8 ODF	(2) F-48 Filter	62	35	25	14	9	60	35	25	15	10
A-TD-9625 S-V	3 1/8 ODF	(2) F-48 Filter	82	50	30	19	11	80	50	30	20	12
STAS-489 S-V	1 1/8 ODF	(1) 48 cu. in. Block	13	8	6	4	2	13	8	6	4	2
STAS-4811 S-V	1 3/8 ODF	(1) 48 cu. in. Block	18	10	6	4	3	17	10	6	4	3
STAS-4813 S-V	1 5/8 ODF	(1) 48 cu. in. Block	21	12	7	5	4	20	12	7	5	4
STAS-4817 S-V	2 1/8 ODF	(1) 48 cu. in. Block	28	17	10	6	5	27	17	10	6	5
STAS-4821 S-V	2 5/8 ODF	(1) 48 cu. in. Block	38	20	13	8	6	37	20	13	8	6
STAS-9617 S-V	2 1/8 ODF	(2) 48 cu. in. Block	28	17	11	7	5	27	17	11	7	5
STAS-9621 S-V	2 5/8 ODF	(2) 48 cu. in. Block	41	23	17	10	7	40	23	17	10	7
A-TD-9625 S-V	3 1/8 ODF	(2) 48 cu. in. Block	55	33	20	13	8	53	33	20	13	8
STAS-969	1-1/8 ODF	(2) 48 cu. in. Block	-	-	-	-	-	-	-	-	-	-
STAS-1927/5T	7/8x5/8 ODF	(4) 48 cu. in. Block	-	-	-	-	-	-	-	-	-	-
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu. in. Block	18	10	6	4	3	17	10	6	4	3
STAS-4813 T	1-5/8 ODF	(1) 48 cu. in. Block	21	12	7	5	4	20	12	7	5	4
STAS-9617 T	2-1/8 ODF	(2) 48 cu. in. Block	28	17	11	7	5	27	17	11	7	5
STAS-9617 V	2-1/8 ODF	(2) 48 cu. in. Block	28	17	11	7	5	27	17	11	7	5

A-AS SUCTION ACCUMULATORS

APPLICATION

- ☆ Emerson Climate Technologies' A-AS suction line accumulators are available for systems through 28.5 tons nominal capacity
- ☆ Suction line accumulator for CFC, HCFC, HFC refrigerants

FEATURES

- ☆ Designed to operate in a range of +40°F to -40°F evaporator temperature
- ☆ Fusible plug on larger diameter units
- ☆ Solid copper fittings
- ☆ Corrosion resistant epoxy powder paint finish
- ☆ Inlet deflector that blends refrigerant flow to prevent internal splashing and aid in the collection of refrigerant oil in the bottom connection of the accumulator



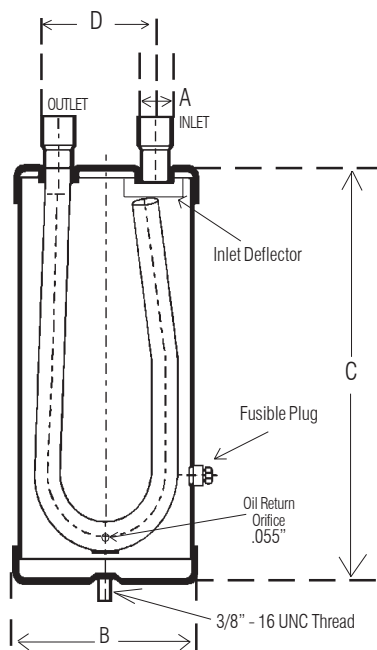
NOMENCLATURE

A	AS	3	12	5
Series	Accumulator Suction	Diameter (in inches)	Height (in inches)	Fitting Size in 1/8"
Above Example: A-AS 3 125				

SPECIFICATIONS

- ☆ Maximum working pressure:
 - 3-4" Diameter: 300 psig
 - 5-6" Diameter: 575 psig
- ☆ UL file number: SA 7973
- ☆ CSA file number: LR 100624
- ☆ Fusible Plug: 430°F

DIMENSIONAL DATA



ORDERING INFORMATION FOR A-AS

PCN*	MODEL NUMBER	A FITTING SIZE NOMINAL	UNIT WEIGHT (LBS.)	B DIAMETER IN INCHES	C HEIGHT IN INCHES	D FITTING SEPARATION (IN.)	TONS R-22 (+40°F)	HOLDING CAPACITY (LBS.) 5 0% FULL	
								40°F LIQUID R22/R134a	40°F LIQUID R404A/R507
060819	A-AS 3 84 [Ⓚ]	1/2	2.0	3	8	1.63	2	1.5	1.5
060963	A-AS 3 105 [Ⓚ]	5/8	2.4	3	10	1.63	3	2	2
060812	A-AS 3 125 [Ⓚ]	5/8	2.9	3	12	1.63	3	3	2.5
060813	A-AS 3 126 [Ⓚ]	3/4	2.9	3	12	1.63	4	3	2.5
060964	A-AS 3 145 [Ⓚ]	5/8	3.3	3	15	1.63	3	3.5	3
060965	A-AS 3 146 [Ⓚ]	3/4	3.3	3	14	1.63	4	3.5	2.75
060967	A-AS 4 64	1/2	2.8	4	6	2.5	2	2.5	2
060821	A-AS 4 65	5/8	2.8	4	6	2.5	3	2.5	2
060966	A-AS 4 105	5/8	4.6	4	10	2.5	3	4	3.5
060820	A-AS 4 106	3/4	4.6	4	10	2.5	4	4	3.5
060824	A-AS 5 96	3/4	5.1	5	9	2.75	4	6	5.5
060818	A-AS 5 97	7/8	5.1	5	9	2.75	7.3	6	5.5
060822	A-AS 5 126	3/4	6.6	5	12	2.75	4	8	7.5
060823	A-AS 5 127	7/8	6.6	5	12	2.75	7.3	8	7.5
060815	A-AS 5 137	7/8	7.1	5	13	2.75	7.3	8.5	8
060814	A-AS 5 139	1 1/8	7.1	5	13	2.75	11.8	8.5	8
060817	A-AS 5 179	1 1/8	8.4	5	17	2.75	11.8	12	10
060816	A-AS 5 1711	1 3/8	8.4	5	17	2.75	18.8	12	10
060825	A-AS 6 117	7/8	10.0	6	11	2.94	7.3	10	9
060826	A-AS 6 137	7/8	11.7	6	13	2.94	7.3	12	11
060968	A-AS 6 139	1 1/8	11.7	6	13	2.94	11.8	12	11
060827	A-AS 6 1411	1 3/8	11.7	6	14	2.94	18.8	15	12
060969	A-AS 6 1713	1 5/8	15.4	6	17	2.94	28.5	16	15
060828	A-AS 6 2013	1 5/8	18.1	6	20	2.94	28.5	20	16
060970	A-AS 6 2513	1 5/8	22.6	6	25	2.94	28.5	25	20

■ Standard Product Offering
*Product Code Number

[Ⓚ]Not supplied with a fusible plug

ACCUMULATOR CAPACITY TABLES IN TONS OF REFRIGERATION

MODEL NUMBER	R-134a					R-404A/R-507				
	-40°F	-20°F	0°F	+20°F	+40°F	-40°F	-20°F	0°F	+20°F	+40°F
A-AS 3 84	.2	.3	0.6	0.8	1.2	.2	.4	0.8	1.0	1.3
A-AS 3 105	.3	.5	0.8	1.2	1.7	.4	.6	1.2	1.6	2.0
A-AS 3 125	.3	.5	0.8	1.2	1.7	.4	.6	1.2	1.6	2.0
A-AS 3 126	.4	.6	1.0	1.6	2.3	.4	.7	1.5	2.0	2.6
A-AS 3 145	.3	.5	0.8	1.2	1.7	.4	.6	1.2	1.6	2.0
A-AS 3 146	.4	.6	1.0	1.6	2.3	.4	.7	1.5	2.0	2.6
A-AS 4 64	.2	.3	0.6	0.8	1.2	.2	.4	0.8	1.0	1.3
A-AS 4 65	.3	.5	0.8	1.2	1.7	.4	.6	1.2	1.6	2.0
A-AS 4 105	.3	.5	0.8	1.2	1.7	.4	.6	1.2	1.6	2.0
A-AS 4 106	.4	.6	1.0	1.6	2.3	.4	.7	1.5	2.0	2.6
A-AS 5 96	.4	.6	1.0	1.6	2.3	.4	.7	1.5	2.0	2.6
A-AS 5 97	.7	1.1	1.8	2.8	4.0	.8	1.3	2.7	3.6	4.6
A-AS 5 126	.4	.6	1.0	1.6	2.3	.4	.7	1.5	2.0	2.6
A-AS 5 127	.7	1.1	1.8	2.8	4.0	.8	1.3	2.7	3.6	4.6
A-AS 5 137	.7	1.1	1.8	2.8	4.0	.8	1.3	2.7	3.6	4.6
A-AS 5 139	1.3	2.0	3.1	5.0	7.2	1.4	2.1	4.4	5.9	7.6
A-AS 5 179	1.9	3.0	3.1	5.0	7.2	1.4	2.1	4.4	5.9	7.6
A-AS 5 1711	1.9	3.0	4.6	7.3	10.7	2.2	3.4	7.2	9.6	12.2
A-AS 6 117	.7	1.1	1.8	2.8	4.0	.8	1.3	2.7	3.6	4.6
A-AS 6 137	.7	1.1	1.8	2.8	4.0	.8	1.3	2.7	3.6	4.6
A-AS 6 139	1.3	2.0	3.1	5.0	7.2	1.4	2.1	4.4	5.9	7.6
A-AS 6 1411	1.9	3.0	4.6	7.3	10.7	2.2	3.4	7.2	9.6	12.2
A-AS 6 1713	3.0	4.8	7.3	11.7	17.0	3.3	5.1	10.7	14.2	18.2
A-AS 6 2013	3.0	4.8	7.3	11.7	17.0	3.3	5.1	10.7	14.2	18.2
A-AS 6 2513	3.0	4.8	7.3	11.7	17.0	3.3	5.1	10.7	14.2	18.2

MODEL NUMBER	R-22					R-502				
	-40°F	-20°F	0°F	+20°F	+40°F	-40°F	-20°F	0°F	+20°F	+40°F
A-AS 3 84	.4	.6	0.9	1.4	2.0	.3	.5	0.8	1.3	1.8
A-AS 3 105	.5	.8	1.4	2.1	3.0	.5	.8	1.2	1.9	2.7
A-AS 3 125	.5	.8	1.4	2.1	3.0	.5	.8	1.2	1.9	2.7
A-AS 3 126	.72	1.1	1.8	2.8	4.0	.6	1.0	1.6	2.5	3.5
A-AS 3 145	.5	.8	1.4	2.1	3.0	.6	.8	1.2	1.9	2.7
A-AS 3 146	.72	1.1	1.8	2.8	4.0	.6	1.0	1.6	2.5	3.5
A-AS 4 64	.4	.6	0.9	1.4	2.0	.3	.5	0.8	1.3	1.8
A-AS 4 65	.5	.8	1.4	2.1	3.0	.5	.8	1.2	1.9	2.7
A-AS 4 105	.5	.8	1.4	2.1	3.0	.5	.8	1.2	1.9	2.7
A-AS 4 106	.72	1.1	1.8	2.8	4.0	.6	1.0	1.6	2.5	3.5
A-AS 5 96	.72	1.1	1.8	2.8	4.0	.6	1.0	1.6	2.5	3.5
A-AS 5 97	1.3	2.0	3.3	5.1	7.3	1.1	1.7	2.8	4.3	6.2
A-AS 5 126	.72	1.1	1.8	2.8	4.0	.6	1.0	1.6	2.5	3.5
A-AS 5 127	1.3	2.0	3.3	5.1	7.3	1.1	1.7	2.8	4.3	6.2
A-AS 5 137	1.3	2.0	3.3	5.1	7.3	1.1	1.7	2.8	4.3	6.2
A-AS 5 139	2.1	3.3	5.3	8.3	11.8	1.9	2.9	4.6	7.1	10.2
A-AS 5 179	2.1	3.3	5.3	8.3	11.8	1.9	2.9	4.6	7.1	10.2
A-AS 5 1711	3.4	5.3	8.5	13.2	18.8	3.0	4.6	7.4	11.6	16.5
A-AS 6 117	1.3	2.0	3.3	5.1	7.3	1.1	1.7	2.8	4.3	6.2
A-AS 6 137	1.3	2.0	3.3	5.1	7.3	1.1	1.7	2.8	4.3	6.2
A-AS 6 139	2.1	3.3	5.3	8.3	11.8	1.9	2.9	4.6	7.1	10.2
A-AS 6 1411	3.4	5.3	8.5	13.2	18.8	3.0	4.6	7.4	11.6	16.5
A-AS 6 1713	5.1	8.0	12.8	20.0	28.5	4.4	6.9	11.0	17.2	24.5
A-AS 6 2013	5.1	8.0	12.8	20.0	28.5	4.4	6.9	11.0	17.2	24.5
A-AS 6 2513			12.8	20.8	28.5	4.4	6.9	11.0	17.2	24.5

The maximum capacity in tons recommended is based on a pressure drop through the accumulator equivalent to 1.0°F.

Note:

- 1) The minimum capacity in tons must be no less than 15% of the recommended capacity in order to ensure a positive return of oil.
- 2) All of the data is based on tons of refrigeration and is not related to horsepower.
- 3) **Minimum evaporator temperature of -40°F. Minimum temperature of the suction gas through the accumulator is 12°F.** For operation under conditions that are not within the recommended range, please contact Emerson Climate Technologies Flow Controls' Applications Department before proceeding with the installation.

AVR LIQUID REFRIGERANT RECEIVERS

APPLICATION

- ☆ AVR liquid refrigerant receivers provide a reservoir for refrigerant during normal system operation
- ☆ Receivers are selected based on the operating charge for all system components and liquid lines
- ☆ Receivers should be sized to hold no more than 90% of the total internal volume of the receiver is used
- ☆ Direct replacement of popular competitive models

SPECIFICATIONS

- ☆ Maximum working pressure: 450 psig
- ☆ UL/CUL: SA 9447

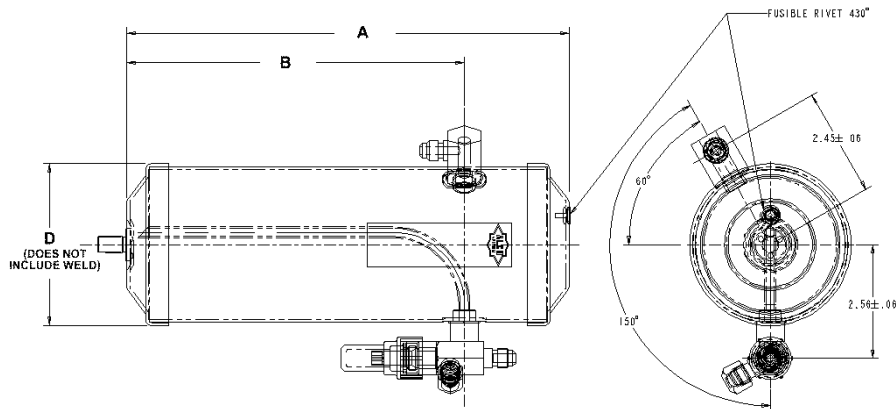
FEATURES

- ☆ Corrosion resistant epoxy powder paint finish

NOMENCLATURE

A	V	R	03	10	2	M	X	P
Series	V = Vertical H = Horizontal	Receiver	Diameter (in inches)	Length (in inches)	Fitting size in 1/8" inches	M = SAE S = ODF	Service Valve	Fusible Plug
Above Example: AVR 03 10 2 MXP								

DIMENSIONAL DATA



ORDERING INFORMATION

PCN*	MODEL NUMBER	DIMENSIONS (IN INCHES)			CONNECTIONS		CROSS REFERENCE		PUMP DOWN CAPACITY (LBS.) 90% OF VOLUME AT 90°F	
		D	A	B	INLET	OUTLET	AC&R	REF. RES.	R22/R134a	R404A/R507
064521	AVR 03 10 2 MX	3	10	7.63	1/4 SAE	1/4 SAE	S-8060	5774	2	1.8
064522	AVR 03 10 2 SX	3	10	7.63	1/4 ODF	1/4 ODF	-	-	2	1.8
064523	AVR 05 10 2 MXP	5	10	6.75	1/4 SAE	1/4 SAE	S-8064	1918	6	5.4
064524	AVR 05 10 3 MXP	5	10	6.75	3/8 SAE	3/8 SAE	-	5315	6	5.4
064525	AVR 06 12 3 MXP	6	12	7.75	3/8 SAE	3/8 SAE	S-8065	1911	10	9.0
064526	AVR 06 18 4 MXP	6	18	14.50	1/2 SAE	1/2 SAE	-	3212	16	14.4
064527	AVR 35 10 2 MXP	3.50	10	7.63	1/4 SAE	1/4 SAE	S-8062	1917	3	2.7
064528	AVR 35 75 2 MXP	3.50	7.50	5.13	1/4 SAE	1/4 SAE	S-8061	1920	2	1.8

Standard Product Offering

*Product Code Number

AOR OIL RESERVOIRS

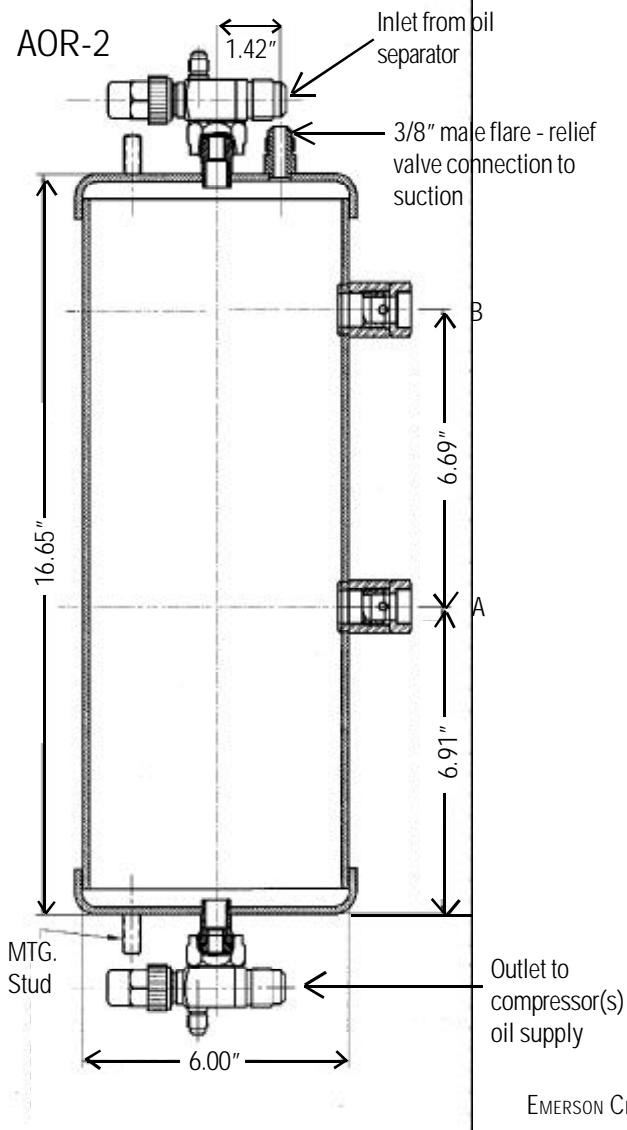
APPLICATION

- ✂ The Oil Reservoir is a holding vessel for stand-by oil necessary for the operation of commercial refrigeration systems
- ✂ Direct replacements of popular competitive models

FEATURES

- ✂ Two sight glasses with floating ball indicators - 2 gallon model
- ✂ Three sight glasses with floating ball indicators - 4 gallon model
- ✂ 3/8" flare rotolock valves on top and bottom
- ✂ Corrosion resistant epoxy powder paint finish
- ✂ Standard mounting stud 1/2 x 14 TPI

DIMENSIONAL DATA



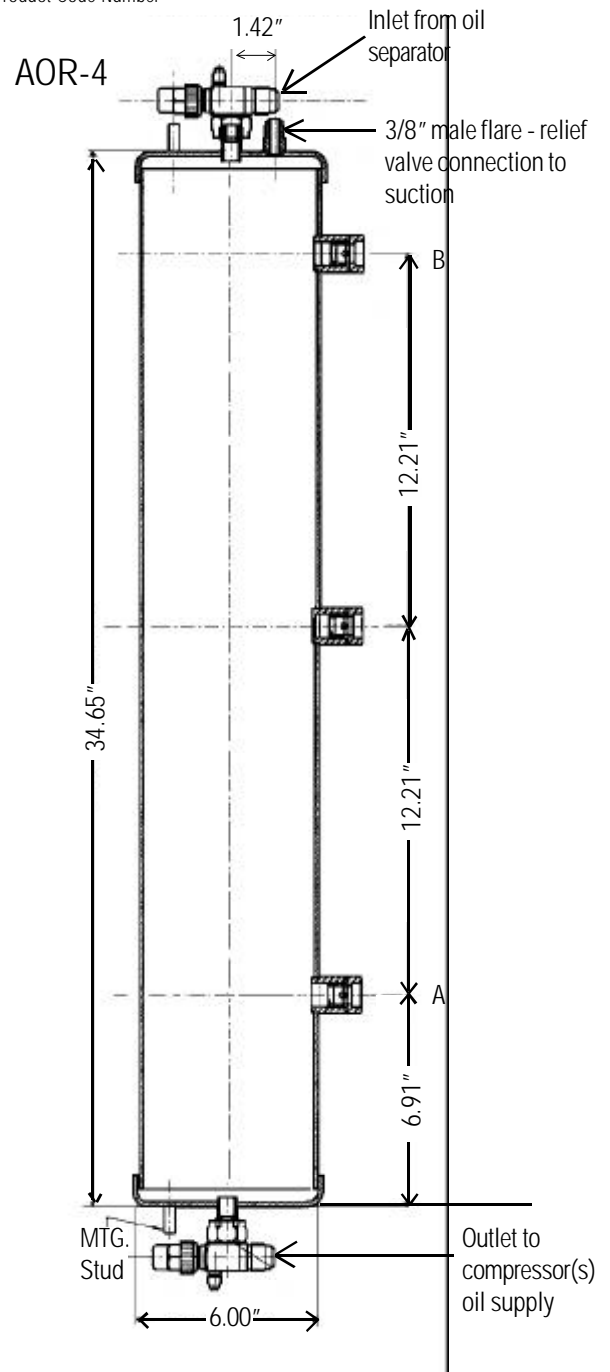
SPECIFICATIONS

- ✂ Maximum working pressure: 450 psig
- ✂ UL/CUL file #: SA8547

ORDERING INFORMATION

PCN*	Product Description	Total Volume Gallons	'A' Level Volume (gals)	'B' Level Volume (gals)	Length in Inches
064950	AOR-2	2	3/4	1-2/3	20"
065283	AOR-3.5	3.0	2/3	2-2/3	34"
064951	AOR-4	4	1-1/2	3-3/4	38"

*Product Code Number



W-OLC MECHANICAL OIL LEVEL REGULATORS

APPLICATION

- Controls the oil level in the compressor crankcase with a float operated valve
- Keeps the oil level at the compressor manufacturer's recommended level
- Direct replacement of popular competitive models

FEATURES

- Corrosion resistant epoxy powder paint finish
- 1/4 level sight glass (Carrier)
- 1/2 level sight glass (Copeland)

SPECIFICATIONS

- Maximum Working Pressure: 450 psig
- UL file number: SA8547
- Max. OPD: 90 psi

ORDERING INFORMATION

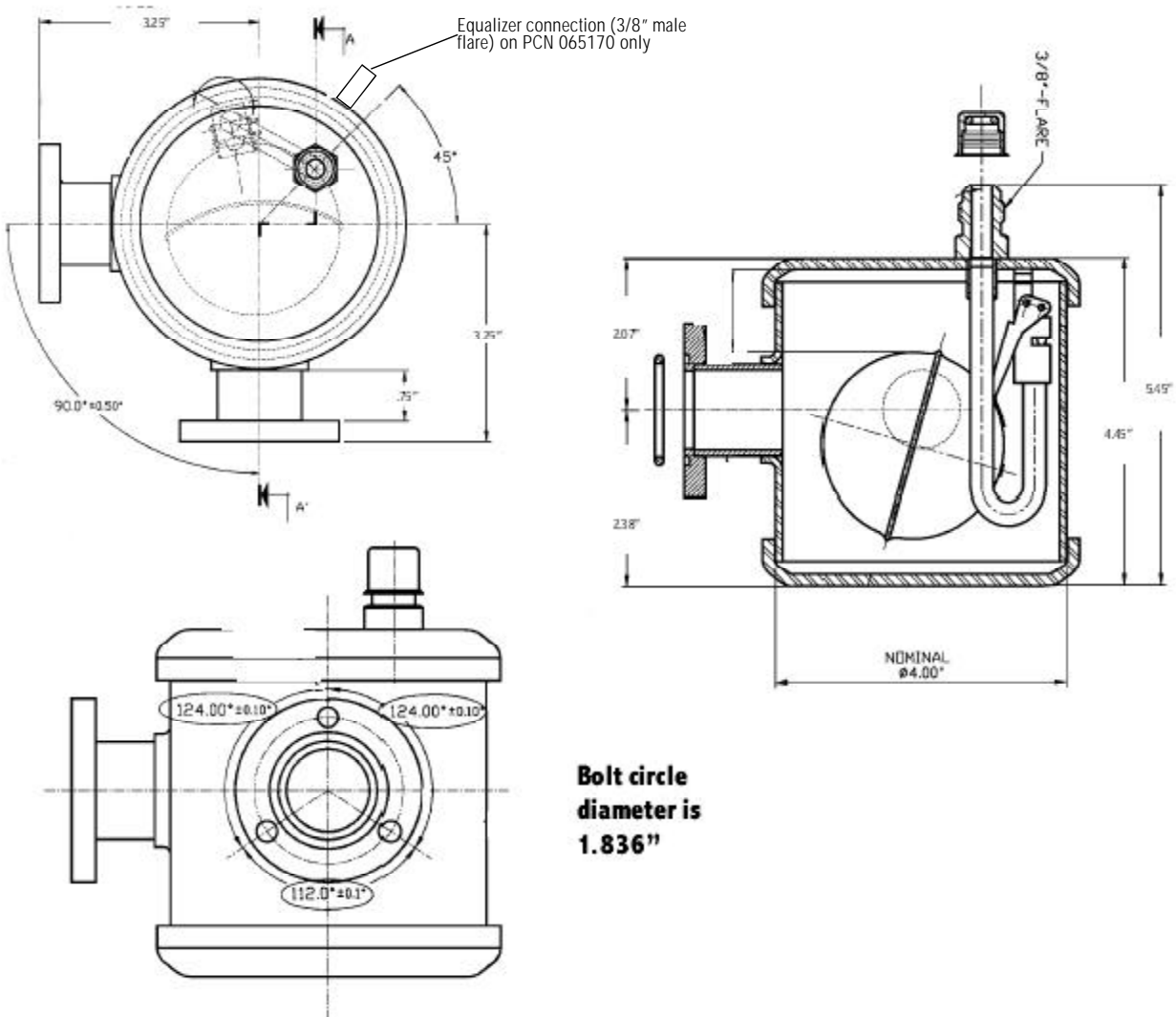
PCN*	Product Description
064953	W-OLC-2 (1/2 Sight Glass)
064954	W-OLC-4 (1/4 Sight Glass)
065170	W-OLC-2-4 (Adjustable) 1/4 to 1/2 Level**

Standard Product Offering

* Product Code Number

** This model has a 3/8" equalizer connection

DIMENSIONAL DATA



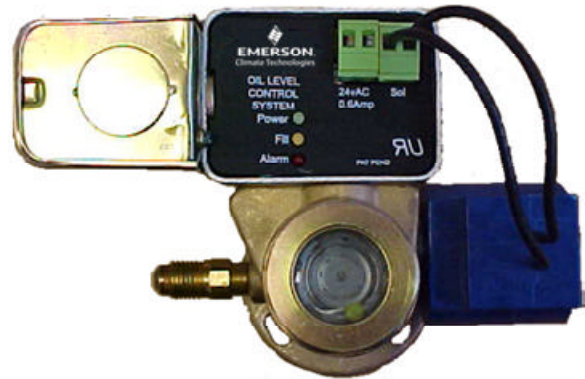
OMB

APPLICATION

- Compressor crankcase oil level protective control
- For Copeland ZF, ZB, ZR and ZS refrigeration scroll compressors
- Recommended for Copeland, Carlyle, Bitzer and other semi-hermetic compressors

FEATURES

- Self-contained unit with oil level sensor and integral solenoid to manage oil level supply
- Reverse Hall-effect sensor for precise measurement of oil level and protection from sensor magnetic debris contamination
- Alarm and status indication by LEDs
- SPDT output contact for compressor shut-down and alarming
- Easy installation by sightglass replacement
- Adapters suitable for various types of scroll compressors (not required for reciprocating compressors)
- Signal generated by gravity based float - not prone to errors from foaming like optical sensors
- Debris retention magnet for reliable operation
- UL Recognized
- Fluorescent floating ball
- Integral sight glass



SPECIFICATIONS

- Max. Working Pressure: 500 psig
- Solenoid MOPD: 350 psi
- Supply Voltage: 24 V AC, 50/60 Hz
- Solenoid Coil: ASC2 24 V AC, 50/60 Hz
- Current Consumption: 0.6A
- Time delay for Low Level Signalling: 5-10 seconds
- Time Delay After Setpoint Recovery: 5-10 seconds
- Alarm Delay Time: 120 seconds
- Alarm Switch: SPDT
- Alarm Contact Rating: 10A @ 125; 5A @ 220 V AC 50/60
- Refrigerant Compatibility: HFC, HCFC, CFC
- Oil Temperature: 180°F Max.
- Storage & Transport Temperature: 140°F Max.
- Operating Ambient Temperature: 120°F Max.
- Oil Supply Fitting: 1/4" Male SAE
- UL File Number: MP604

NOMENCLATURE

Example: OMB-JB1 ASC 2 24 50/60

OMB	JB1	ASC2 24 50/60 Hz
Oil Management Control	JB1 - Junction Box MO1 - Stress Relief Connector	Solenoid Coil Model Number, Voltage, Frequency (included)

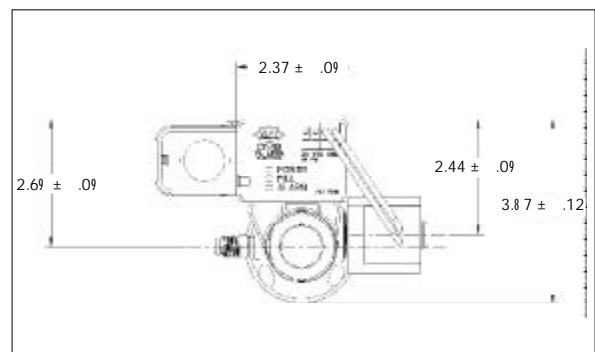
ORDERING INFORMATION FOR OMB

PCN*	DESCRIPTION
	OIL MANAGEMENT CONTROL
065365	OMB-JB1 ASC 2 24/50-60 - STD
065366	OMB-MO1 ASC 2 24/50-60 - STD
	ADAPTERS (TO ATTACH OMB TO SCROLL COMPRESSOR FOR NEW INSTALLATIONS ONLY)
065667	OMB-ACB ADAPTER (Copeland Scroll ZR)
065668	OMB-ACA ADAPTER (Copeland Scroll ZF, ZS, ZB)
	SERVICE PARTS
048638	Inlet Flare Screen
020877	Sight Glass O-Ring
064812	Mounting O-Rings (3 pieces)

Standard Product Offering

*Product Code Number

DIMENSIONAL DATA



Unit must be mounted horizontally for correct operation.

A-W & A-F OIL SEPARATORS

APPLICATION

- Multiple compressor racks for supermarkets and air conditioning
- Systems with long refrigerant lines
- Systems with inherent oil return problems
- Ultra-low temperature systems
- For use with HCFCs, HFCs and their lubricants

FEATURES

- Hermetic welded or accessible bolted flange construction
- Solid copper connections
- Corrosion resistant paint



NOMENCLATURE

Example: AW55824

A	W	5582	4
Series	W = Welded F = Flanged	Competitive Cross Reference	Connection Size (in 1/8")

SPECIFICATIONS

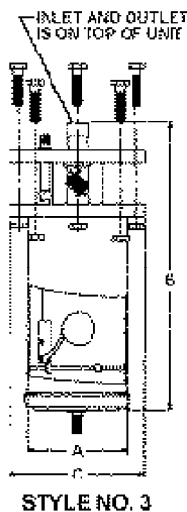
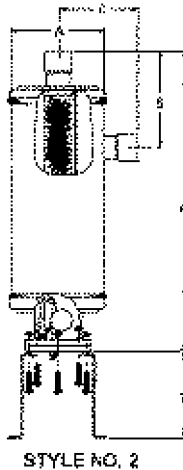
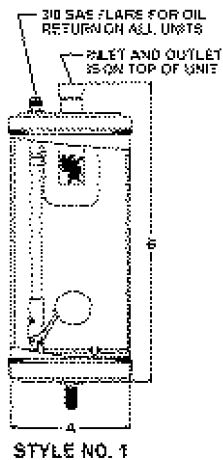
- Maximum working pressure: 450 psig
- U.L listed (file #5168)
- C.S.A. Listed (LR100624)

ORDERING INFORMATION AND CAPACITY TABLE

MODEL NO.				R12				R22/R407C				R502				R134a				R-404A/R-507			
FLANGED	PCN*	SEALED	PCN*	-40F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)	
				Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW
A-F 58824		A-W 55824	060933	1	3.54	1.5	5.31	1.5	5.31	2	7.08	1.5	5.31	2	7.08	1.5	5.31	1.75	6.2	1.5	5.31	2	7.0
A-F 58855	060878	A-W 55855	060934	3	10.62	4	14.2	4.5	15.9	5.5	19.5	4.75	16.8	5.75	20.36	3.25	11.5	4.5	15.9	4	14.16	5.5	19.0
A-F 58877		A-W 55877	060931	4.5	15.93	5.5	19.5	7	24.8	8	28.3	7.5	26.6	8.5	30.09	4.75	16.8	6.5	23	6.5	23.01	8.5	30.0
A-F 58889	060759	A-W 55889	060974	6	21.24	7.5	26.6	9	31.9	11	37.2	9.5	33.6	11.5	40.71	6.5	23	8.5	30.1	8.5	30.09	11	38.0
A-F 589011	060760	A-W 559011	060930	7.5	26.55	10	35.4	11.5	40.7	14	47.8	12	42.5	14.5	51.33	8	28.3	11.5	40.7	10.5	37.17	14	49.0
A-F 589213		A-W 559213	060975	9	31.86	11.5	40.7	14	49.6	18	62	16	56.6	17.5	61.95	9.5	33.6	13.25	46.9	14	49.56	17	60.0
-	-	A-W 569011	060978	9	31.69	12	42.25	13	45.77	14	49.8	15	52.8	20	70.4	9.5	33.4	13.7	48.2	11	38.7	19	66.9
A-F 579213	060875	A-W 569213	060979	11	38.94	14	49.6	16	56.6	18	63.7	20	70.8	24	84.96	11.8	41.6	16	56.6	17.5	61.95	23	81
A-F 579417	060876	A-W 569417	060980	17	60.18	22	77.9	25	88.5	30	106	30	106	35	123.9	18	63.7	25.25	89.4	26	92.04	34	121.0

Standard Product Offering
*Product Code Number

DIMENSIONAL DATA



SEALED UNITS: A-W

MODEL NO.	STYLE NO.	CONNECTION SIZE	DIMENSIONS (inches)	
			A	B
A-W55824	1	1/2 ODF	4.00	10.75
A-W55855	1	5/8 ODF	4.00	14.25
A-W55877	1	7/8 ODF	4.00	17.75
A-W55889	1	1-1/8 ODF	4.00	21.00
A-W559011	1	1-3/8 ODF	4.00	21.25
A-W569011	1	1-3/8 ODF	6.00	15.75
A-W569213	1	1-5/8 ODF	6.00	19.00
A-W569417	1	2-1/8 ODF	6.00	19.50

FLANGED UNITS: A-F

MODEL NO.	STYLE NO.	CONNECTION SIZE	DIMENSIONS		
			A	B	C
A-F 58824	3	1/2 ODF	4.00	10.25	5.50
A-F 58855	3	5/8 ODF	4.00	14.25	5.50
A-F 58877	3	7/8 ODF	4.00	17.75	5.50
A-F 58889	3	1 1/8 ODF	4.00	21.00	5.50
A-F 589011	3	1 3/8 ODF	4.00	21.25	5.50
A-F 589213	3	1 5/8 ODF	4.00	21.63	5.50
A-F 579213	2	1 5/8 ODF	6.00	20.25	4.25
A-F 579417	2	2 1/8 ODF	6.00	20.31	4.50

HIGH EFFICIENCY CENTRIFUGAL OIL SEPARATOR

APPLICATION

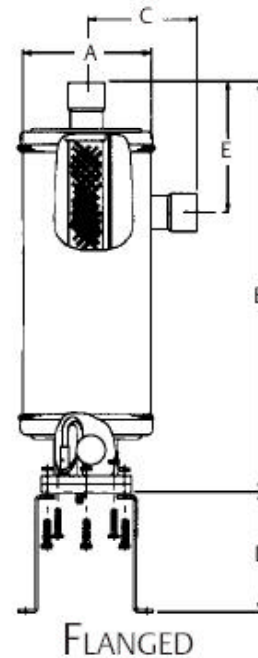
- Internal oil collection screen
- Hermetic welded or accessible bolted flange construction
- Solid copper connections
- Corrosion resistant paint
- High efficiency (95%) centrifugal separation

FEATURES

- Multiple compressor racks for supermarkets and air conditioning
- Systems with long refrigerant lines
- Systems with inherent oil return problems
- Ultra-low temperature systems
- For use with HCFCs, HFCs and their lubricants

SPECIFICATIONS

- Maximum working pressure: 450 psig
- U.L listed (file #5168)
- C.S.A. Listed (LR100624)



DIMENSIONAL DATA

Model Number	Connection Size (in)	Dimensions				
		A	B	C	D	E
A-FC 6221313	1-5/8 ODF	6	17	4-1/2	5	4
A-FC 8241717	2-1/8 ODF	8	19	5-3/8	5	6-13/16

NOMENCLATURE

Example: A-FC 8 241717

A	F	C	8	24	17	17
Series	F=Flanged W=Welded	Centrifugal	Diameter in Inches	Length in Inches	Inlet Connection in 1/8"	Outlet Connection in 1/8"

ORDERING INFORMATION AND CAPACITY TABLE

Model Number		R-12				R-22/R-407C				R-502				R-134a				R-404A/R-507				AC&R Cross Reference
Flanged	PCN	-40° F/C		40°F (14°C)		-40° F/C		40°F (14°C)		-40° F/C		40°F (14°C)		-40° F/C		40°F (14°C)		-40° F/C		40°F (14°C)		
		Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	Tons	Kw	
A-FC 6221313	065362	10	35	12	42	16	57	18	64	15.5	55	20	71	11	39	13	46	15	53	19	67	S-5292
A-FC 8241717	065276	20	71	25	88	35	124	39	138	32	113	42	157	22	78	27	95	31	110	41	145	S-5202

AOFD 553 OIL FILTER-DRIER

AOFD is designed specifically for refrigerant systems that use POE oil. POE oil is hygroscopic in nature, which means that it attracts and absorbs water. Moisture in a closed system can produce acid and will harm the compressor. AOFD protects compressors by removing moisture and trapping contaminants.

FEATURES

- ✍ Designed to clean and dry POE Oil
- ✍ 3/8" male flare connections for easy replacement
- ✍ Large filter surface area to provide maximum filtration
- ✍ Contains 100% molecular sieve XH-9 Desiccant for moisture removal
- ✍ Designed to operate at a very low pressure drop
- ✍ 10 micron filtration for optimum oil cleaning



(Replaces AC&R S-4005)

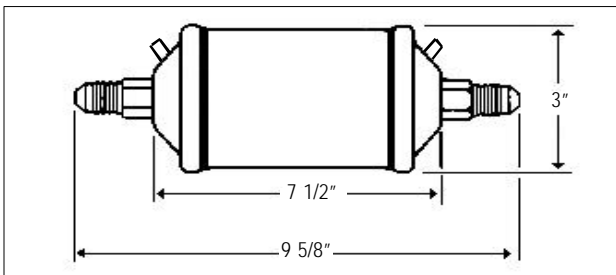
AOFD WATER CAPACITY TABLE

REFRIGERANT TYPE	DROPS @ 125°F
R-22	497
R-134a	518
R-404A	518
R-407C	435

ORDERING INFORMATION FOR AOFD FILTER-DRIER

PCN	DESCRIPTION
062829	AOFD 553 OIL FILTER DRIER

DIMENSIONAL DATA



ASF 45 F 3-VV OIL FILTER

APPLICATION

- ✍ The ASF 45F3-VV effectively removes debris from oil lines

FEATURES

- ✍ Specifically designed to protect the compressor from dirt and all solid contaminants
- ✍ Full flow fittings minimizes pressure drop
- ✍ Dual access valves
- ✍ 3/8" SAE connections for easy installation on oil lines
- ✍ Filtration to 10 microns for maximum compressor protection
- ✍ Corrosion resistant epoxy powder paint finish

SPECIFICATIONS

- ✍ Maximum working pressure: 500 psig
- ✍ UL file number: SA 3124
- ✍ CSA file number: LR 32462



ORDERING INFORMATION FOR ASF

PCN	DESCRIPTION
059999	ASF 45 F 3-VV

* Product Code Number
 Standard Product Offering

SEE PAGE 132 FOR DIMENSIONAL DATA.

AOF High Efficiency Oil Filter

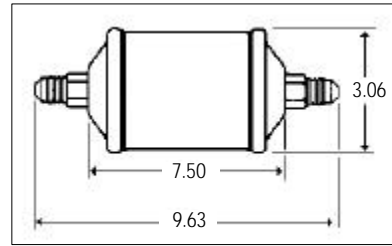
**HIGHLY RECOMMENDED
FOR SCROLL
COMPRESSORS!**

APPLICATION

- Specifically designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles

FEATURES

- Corrosion resistant epoxy powder paint finish
- 3/8" SAE connections for easy installation on oil lines
- 98% efficient to 4 micron particles
- Compatible with all oils



SPECIFICATIONS

- Maximum working pressure: 500 psig
- UL/CUL: SA 3124

ORDERING INFORMATION

PCN*	DESCRIPTION
064952	AOF 303

* Product Code Number

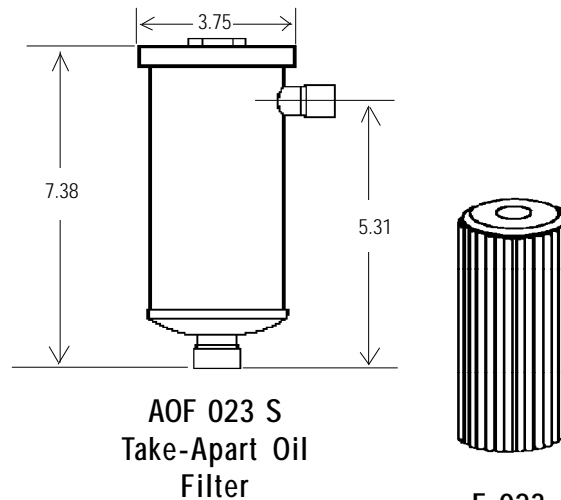
AOF High Efficiency Take-Apart Oil Filter

APPLICATION

- Specifically designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles

FEATURES

- Compatible with all oils
- Solid copper fittings
- Quick change filter cartridge
- Corrosion resistant epoxy paint finish
- 98% efficient to 4 micron particles
- 3/8 ODF connections



**AOF 023 S
Take-Apart Oil
Filter**

**F 023
Replaceable
Filter Cartridge**

ORDERING INFORMATION

PCN*	DESCRIPTION
062784	AOF 023S
064799	F023 Cartridge

* Product Code Number

Standard Product Offering

SPECIFICATIONS

- Maximum working pressure: 500 psig
- UL/CUL: SA7175

UNIVERSAL ACID TEST Kit

**FOR USE WITH BOTH
MINERAL AND
POE OILS!**

APPLICATION

The Universal Acid Alert Test Kit provides a positive indication of whether the acid level of the refrigeration oil is safe or unsafe.

FEATURES

- ☆ Quick and easy test kit
- ☆ Universal acid test kit for use with all refrigeration lubricants
- ☆ By changing the percentage of oil sample taken, the acid number of the oil can be accurately determined
- ☆ Phase separation of the chemicals in the kit provide a positive color change regardless of the color and condition of the oil



ORDERING INFORMATION

PCN*	DESCRIPTION
064427	AA Kit Universal

* Product Code Number

PRESSURE REGULATOR QUICK SELECT

APPLICATION	FEATURE	MODEL	RANGE (IN PSIG)	PAGE
UPSTREAM EVAPORATOR PRESSURE REGULATOR	Stepper Motor Actuated, Direct Drive	ESR	ANY	157
	Direct Acting, Adjustable	IPR	0 – 100	158
	Brass Body, High Pressure Pilot Actuated, Suction Stop Solenoid	EPRB(S)	0 – 110	160
DOWNSTREAM CRANKCASE PRESSURE REGULATOR	Direct Acting, Adjustable	OPR	0 – 130	162
HOT GAS BYPASS ¹	Stepper Motor Actuated, Direct Drive	ESR	ANY	157
	Direct Acting, Adjustable, 1½ tons and below (R-22)	ACP(E)	0 – 80	163
	Direct Acting, Adjustable, ½ to 4 tons (R-22)	EGR(E)	0 – 80	165
	Direct Acting, Adjustable, 4 to 8 tons (R-22)	DGR(E)	0 – 80	167
	Direct Acting, Adjustable, Take-A-Part Construction, ½ to 7 tons (R-22)	CPH(E)	0 – 80	168
HEAD PRESSURE CONTROL	Stepper Motor Actuated, Direct Drive	ESR	ANY	157
	3-Way, Non Adjustable	HP(C)	95 – 255	170
STEPPER MOTOR DIAGNOSTIC TOOL	Handheld, Simple to Use, Operates All Stepper Products	MTB-1	--	158

¹Tons of bypass capacity for sizing (not full-open capacity)

ESR ELECTRONIC STEPPER REGULATOR

The ESR is a direct driven suction regulator that uses a linear actuating bi-polar stepper motor to move the piston. The stepper motor is actuated by a voltage pulse to energize each of the motor phases and move the piston in discrete .001 inch increments. When used as an EPR in individual supermarket display cases, the ESR, along with appropriate control electronics, provides state-of-the-art temperature control within less than $\pm 1^\circ\text{F}$ of the desired setpoint temperature. The ESR is compatible with many control electronics widely available in the market today. Applications for the ESR include case control, line-up and rack mounted control, as well as transportation applications on refrigerated trucks, trailers and containers. ESRs are also acceptable for use as hot gas bypass and head pressure, liquid hold-back valves. An ESR may NOT be used as an expansion device.



FEATURES

- ☆ No external sealing o-rings
- ☆ Removable external connector
- ☆ Excellent repeatability
- ☆ Corrosion resistant design
- ☆ Solenoid tight shut-off

OPTIONS

- ☆ Connections: 7/8 ODF (ESR 12)
1-3/8 ODF (ESR 20)

SPECIFICATIONS

- ☆ Operating temperatures
 - Ambient: -40°F to $+150^\circ\text{F}$
 - Refrigerant: -40°F to $+280^\circ\text{F}$
- ☆ Maximum working pressure: 500 psi
- ☆ Linear actuating bi-polar stepper motor
- ☆ Direct drive with no hysteresis
- ☆ Step rate: 50 ± 10 steps per second
- ☆ Steps full travel: - 800 steps
- ☆ Voltage tolerance: $+10\%$ and -15% of rated voltage
- ☆ .001 inch of linear travel per step
- ☆ Resistance (each phase): 29 ohms $\pm 10\%$ (12V) or 116 ohms $\pm 10\%$ (24V)
- ☆ UL and Canadian Recognized, File #MP604
TÜV Bauart Mark Type Approval CE
- ☆ Two motors available. 24V or 12V alternating square wave (see stepper sequence table below)

NOMENCLATURE EXAMPLE: ESR-12 T7 S/T 12V NC

ESR	12	T	7	S/T	12V	NC
ELECTRIC STEPPER REGULATOR	PORT DIAMETER IN 1/16" INCREMENTS ESR-12 = 3/4" DIA. ESR-20 = 1 1/4" DIA.	CONNECTION T = ODF	CONNECTION SIZE IN 1/8" INCREMENTS 7 = 7/8" 11 = 1 3/8"	BODY CONFIGURATION S/T = STRAIGHT-THRU ANG = ANGLE VLB = VALVE LESS BODY	12 VOLT ¹ 24 VOLT BIPOLAR STEPPER MOTOR	NO EXTERNAL CONNECTOR

¹CPC Einstein requires 12V

NOMINAL ESR CAPACITY IN TONS

VALVE	R134a	R22	R507/R404A
ESR-12	5.3	5.8	5.7
ESR-20	10.3	13.4	11.0

VALVE	R12	R407C	R502
ESR-12	4.8	7.9	7.8
ESR-20	9.5	15.1	15.1

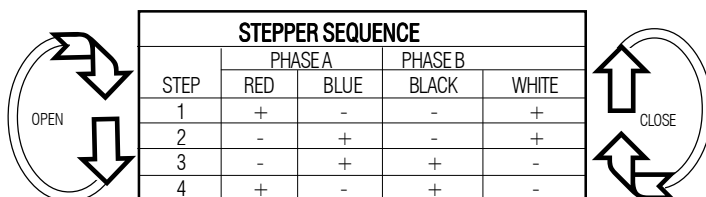
All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the ESR, with the ESR full open 800 steps. For capacities at other evaporator temperatures and pressure drops, see extended capacity tables in tons on page 173. Contact applications engineering for sizing and selection of ESRs in hot gas or head pressure control applications.

ORDERING INFORMATION FOR ESR

PCN*	Description
064773	ESR 12 T 7 S/T 12V NC
064774	ESR 12 T 7 S/T 24V NC
062566	ESR 20 T 11 S/T 12V NC
062750	ESR 20 T 11 S/T 24V NC

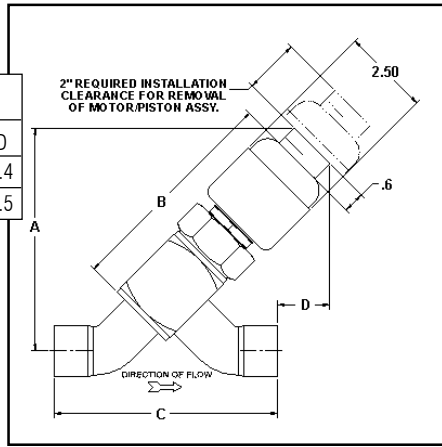
Standard Product Offering

* Product Code Number

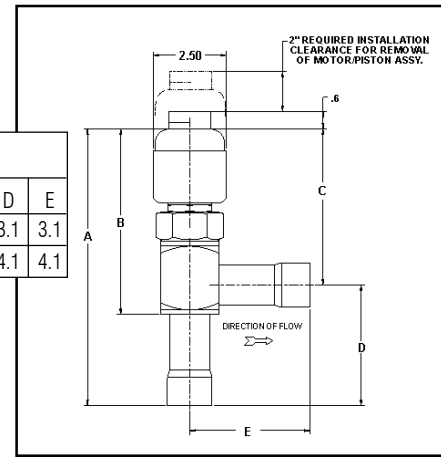


ESR DIMENSIONAL DATA

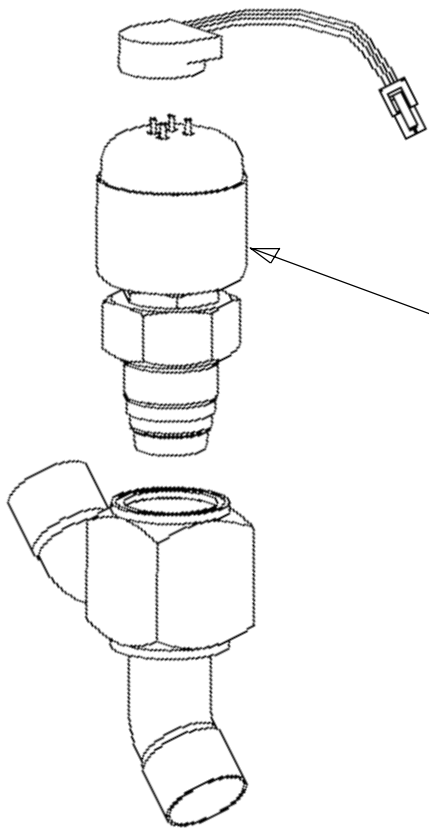
STRAIGHT-THRU				
VALVE	A	B	C	D
ESR-12	6.0	6.2	4.4	2.4
ESR-20	6.4	6.3	6.4	1.5



ANGLE STYLE					
VALVE	A	B	C	D	E
ESR-12	8.5	6.2	5.4	3.1	3.1
ESR-20	9.4	6.3	5.3	4.1	4.1



DIMENSIONS SHOWN ARE IN INCHES.



ESR REPLACEMENT PARTS EXPLODED VIEW

EXTERNAL CONNECTOR	
PCN*	DESCRIPTION
062093	EXTERNAL CONNECTOR, 4-WIRE, 5 FT. (Part #: 28963-1)
062094	EXTERNAL CONNECTOR, 4-WIRE, 22 FT. (Part #: 28963-2)

VALVELESS BODY	
PCN*	DESCRIPTION
064771	ESR-12 VLB 12V NC
064772	ESR-12 VLB 24V NC
064556	ESR-20 VLB 12V NC
064641	ESR-20 VLB 24V NC

Standard Product Offering

* Product Code Number

MTB 1

MTB-1 Stepper Driver is an invaluable troubleshooting and diagnostic tool for use with any stepper valve application.

FEATURES

- ☆ Operates all stepper products (ESR, ESV and ESVB)
- ☆ Easy to use
- ☆ Stepper check-out procedure directions on back of control
- ☆ 2x16 LCD display
- ☆ MTB-1 Included in carrying case with 1.5A, 24VAC transformer and valve connector cable



SPECIFICATIONS

- ☆ Plugs into standard 115VAC outlet
- ☆ Temperature range:

Storage Temperature: 14 to 158°F (-10 to 70°C)
 Operating Temperature: 50 to 113°F (10 to 45°C)

PCN*	DESCRIPTION
063904	MTB-1 Handheld Stepper Driver

IPR INLET PRESSURE UPSTREAM REGULATOR

IPR Upstream Evaporator Pressure Regulators accurately maintain a predetermined minimum evaporator inlet pressure, regardless of sudden load or suction pressure changes. These valves operate from an inlet pressure signal, opening on a rise in pressure above the valve set point and closing at any inlet pressure below the set point. The IPR is a hermetic valve supplied with a pressure tap in the inlet connection as standard.

FEATURES

- ☆ Compact design permits minimal space requirements
- ☆ Install in vertical or horizontal line
- ☆ Supplied with strainer in the inlet connection
- ☆ Supplied with copper line connections for installation ease

OPTIONS

- ☆ 2 adjustment range options:
 - 0-50 psig (factory setting 30 psig) or
 - 30-100 psig (factory setting 60 psig)

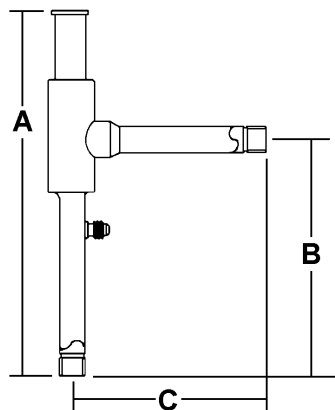
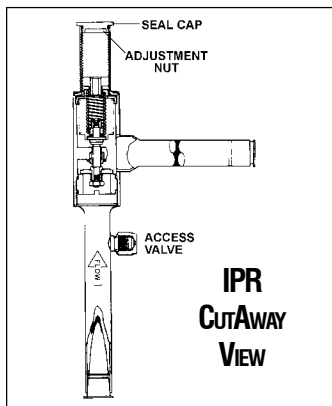
NOMINAL CAPACITY TABLE IN TONS

VALVE	R12	R134a	R22	R407C	R507/R404A	R502
IPR-6	0.8	.94	1.2	1.3	1.11	9.4
IPR-10	2.0	2.2	3.0	3.2	2.5	2.2

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve. For capacities at other evaporator temperatures and pressure drops, see extended capacity tables in tons beginning on page 175.

IPR DIMENSIONAL DATA

VALVE	A	B	C
IPR-6	9.75	6.38	5.25
IPR-10	11.19	6.5	6.69



DIMENSIONS SHOWN ARE IN INCHES.



SPECIFICATIONS

- ☆ Maximum working pressure: 400 psig
- ☆ UL file number SA5312, Guide SFJQ
- ☆ CSA file number LR44005

NOMENCLATURE

EXAMPLE: IPR-6 5/8 ODF 0-50 PSIG

IPR	6	5/8	ODF	0-50 psig
Valve Series	Port Size (in 1/8")	Connection Size	Connction Type (SAE optional)	Adjustment Range

ORDERING INFORMATION

PCN*	DESCRIPTION	ADJUSTMENT RANGE
049239	IPR - 6 (1/2 ODF)	0 - 50 PSIG
047901	IPR - 6 (1/2 SAE)	0 - 50 PSIG
047902	IPR - 6 (1/2 SAE)	30 - 100 PSIG
047300	IPR - 6 (5/8 ODF)	0 - 50 PSIG
047904	IPR - 6 (5/8 SAE)	0 - 50 PSIG
047303	IPR - 6 (5/8 ODF)	30 - 100 PSIG
047301	IPR - 6 (7/8 ODF)	0 - 50 PSIG
047304	IPR - 6 (7/8 ODF)	30 - 100 PSIG
047302	IPR - 6 (1-1/8 ODF)	0 - 50 PSIG
047305	IPR - 6 (1-1/8 ODF)	30 - 100 PSIG

PCN*	DESCRIPTION	ADJUSTMENT RANGE
047306	IPR - 10 (7/8 ODF)	0 - 50 PSIG
047309	IPR - 10 (7/8 ODF)	30 - 100 PSIG
047307	IPR - 10 (1-1/8 ODF)	0 - 50 PSIG
047310	IPR - 10 (1-1/8 ODF)	30 - 100 PSIG
047308	IPR - 10 (1-3/8 ODF)	0 - 50 PSIG
047311	IPR - 10 (1-3/8 ODF)	30 - 100 PSIG

Standard Product Offering

* Product Code Number

EPRB(S) BRASS BODY UPSTREAM REGULATOR

This Evaporator Pressure Regulator is an energy-efficient pilot operated regulator. It is supplied with copper connections to allow easy installation into the system. The pilot operation is dependent upon high side system pressure which minimizes the pressure drop across the regulator. This regulator is of normally-open construction so that a manual operator is not required for system evacuation. A solenoid version having the suction stop is available as an option.

EPRB(S) series regulators are pilot operated and designed to maintain a predetermined minimum inlet pressure. They are available in a "S" version for gas defrost applications.

Function: EPRB(S) without high side pilot pressure: OPEN
 EPRB with high side pilot pressure: EPR
 EPRBS with pilot pressure, solenoid de-energized: CLOSED
 EPRBS with pilot pressure, solenoid energized: EPR

FEATURES

- ☆ Energy efficient as it uses high side pressure for pilot operation, which minimizes system pressure drop
- ☆ Uses copper line connections allowing installation with phos-copper alloy, i.e.: no flux
- ☆ Can be installed without disassembly
- ☆ Has wide adjustment range (0-110 psig, factory setting 30 psig)
- ☆ Easily disassembled to allow easy serviceability
- ☆ Pressure tap on inlet connection
- ☆ External leak tested to less than 1/10 oz. a year
- ☆ Corrosion resistant to 1000 hour salt spray
- ☆ Reduced discharge to suction bleed
- ☆ May be installed in either a vertical or horizontal refrigeration line

NOMENCLATURE

EXAMPLE: EPRBS 12T9 SAE PILOT 1-1/8" ODF VLC

EPRB	S	12	T	9	SAE PILOT	VLC
Valve Series	Suction Stop (optional)	Port Size (in 1/16") 12 = 3/4" 16 = 1" 20 = 1 1/4"	Connection Style T = ODF	Connection Size (in 1/8") 9 = 1 1/8" 11 = 1 3/8" 13 = 1 5/8"	Pilot type 1/4" SAE or ODF	Coil Type VLC - Valve Less Coil

"S" version for use with DMG, AMG or AMC coils only. See the section on coils, pages 85-87 for coil selection.

EPRB(S)

ORDERING INFORMATION & DIMENSIONAL DATA

PCN*	VALVE	A	B
057242	EPRB 12 T 9 ODF PILOT 1-1/8 ODF VLC	6.88	8.50
057241	EPRB 12 T 9 SAE PILOT 1-1/8 ODF VLC		
057248	EPRB 16 T 11 ODF PILOT 1-3/8 ODF VLC	7.50	11.06
057244	EPRB 16 T 11 SAE PILOT 1-3/8 ODF VLC		
057251	EPRB 20 T 13 ODF PILOT 1-5/8 ODF VLC	8.25	12.38
057247	EPRB 20 T 13 SAE PILOT 1-5/8 ODF VLC		
057894	EPRBS 12 T 7 SAE PILOT 7/8 ODF VLC		
057243	EPRBS 12 T 9 SAE PILOT 1-1/8 ODF VLC	6.88	8.50
057245	EPRBS 12 T 9 ODF PILOT 1-1/8 ODF VLC		
057250	EPRBS 16 T 11 ODF PILOT 1-3/8 ODF VLC	7.50	11.06
057246	EPRBS 16 T 11 SAE PILOT 1-3/8 ODF VLC		
057249	EPRBS 20 T 13 SAE PILOT 1-5/8 ODF VLC	8.25	12.38
057253	EPRBS 20 T 13 ODF PILOT 1-5/8 ODF VLC		

Standard Product Offering

* Product Code Number



OPTIONS

- ☆ Pilot connection available in 1/4" SAE or ODF
- ☆ Available with suction stop feature using a take-apart solenoid for additional serviceability

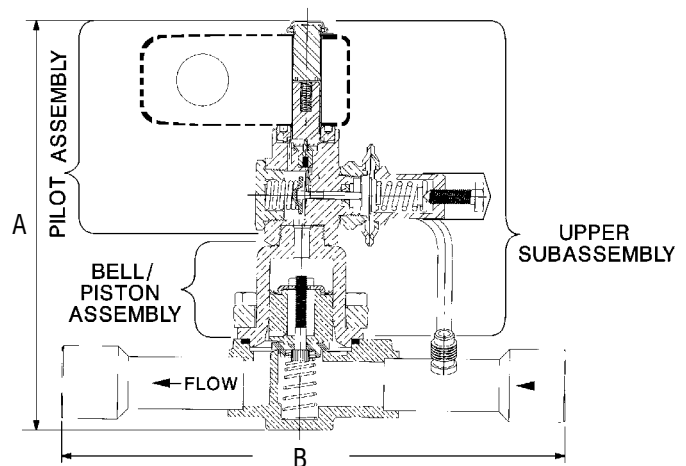
SPECIFICATIONS

- ☆ UL file number MP604, Guide number Y10Z
- ☆ Maximum Working Pressure: 450 psig (3100 KPa).
- ☆ MOPD: 350 psi (2412 KPa) "S" version.
- ☆ Maximum Temperature: 250°F (121°C).
- ☆ 25 lb. system pressure differential needed for valve operation

NOMINAL CAPACITY TABLE IN TONS

VALVE	R12	R134a	R22	R407C	R507/R404A	R502
EPRB(S)-12	2.9	3.41	4.47	5.1	3.77	3.5
EPRB(S)-16	5.3	6.00	7.88	8.3	6.64	6.2
EPRB(S)-20	8.4	11.19	14.70	15.5	12.39	11.7

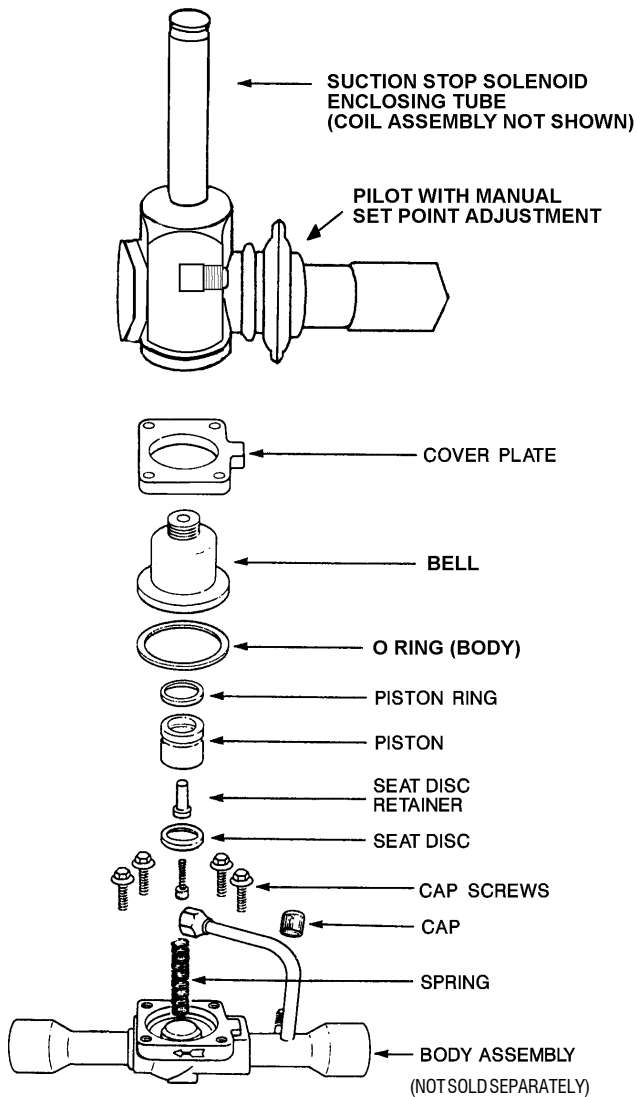
All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve. For capacities at other evaporator temperatures and pressure drops, see extended capacity tables in tons beginning on page 178.



DIMENSIONS SHOWN ARE IN INCHES.

EPRB(S) REPLACEMENT PARTS

EXPLODED VIEW



EPRB(S) REPLACEMENT PARTS

PILOT ASSEMBLY		
1/4" ODF PILOT	PART #	PCN*
EPRBS	KR-50067	058492
1/4" SAE PILOT	PART #	PCN*
EPRB	KR-50052	058026

Consists of pilot assembly (EPRB) or pilot assembly with suction stop solenoid (EPRBS).

UPPER SUBASSEMBLY		
1/4" ODF PILOT	PART #	PCN*
EPRB-16	KR-50069	058494
EPRBS-12	KR-50072	058497
EPRBS-16	KR-50073	058498
EPRBS-20	KR-50074	058499
1/4" SAE PILOT	PART #	PCN*
EPRB-20	KR-50050	058024
EPRBS-12	KR-50054	058028
EPRBS-16	KR-50055	058029
EPRBS-20	KR-50056	058030

Consists of all parts except body assembly and cap.

BELL/PISTON ASSEMBLY		
VALVE	PART #	PCN*
EPRB(S)-12	KR-50045	058019
EPRB(S)-20	KR-50047	058021

Consists of piston ring, piston, seat disc retainer, seat disc and bell.

GASKETS		
	PART #	PCN*
ALLEPRB ALLEPRBS	KR-50053	058027

Gaskets mate with EPRB and EPRBS with SAE or ODF pilot connections.
Gaskets consist of Body O-ring and suction stop enclosing tube o-ring.

Standard Product Offering

* Product Code Number

OPR OUTLET PRESSURE DOWNSTREAM REGULATOR

OPR Series Downstream Pressure Regulators accurately maintain a predetermined maximum outlet pressure. Designed to prevent compressor motor overload, the OPR is a hermetic valve supplied with a pressure tap in the inlet connection as standard.

FEATURES

- ☆ Compact design permits minimal space requirements
- ☆ Install in vertical or horizontal line
- ☆ Supplied with strainer in the inlet connection
- ☆ Supplied with copper line connections for installation ease
- ☆ Maximum working pressure: 400 psig

OPTIONS

- ☆ 3 adjustment range options:
 - 0-60 psig (factory setting 30 psig)
 - 20-90 psig (factory setting 60 psig)
 - 50-130 psig (factory setting 90 psig)



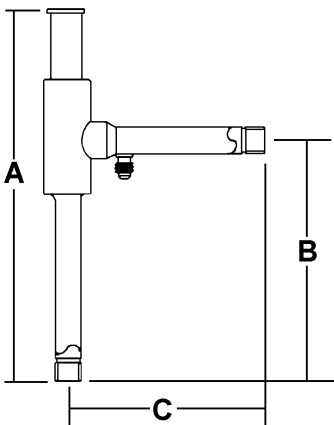
SPECIFICATIONS

- ☆ Maximum working pressure: 400 psig
- ☆ UL file number SA5312, Guide SFJQ
- ☆ CSA file number LR44005

NOMENCLATURE EXAMPLE: OPR-6 5/8 ODF 0-60 PSIG

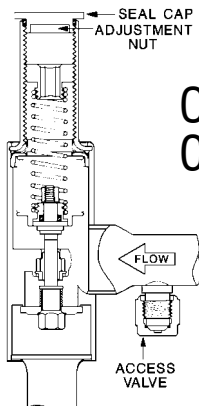
OPR Series	6	5/8	ODF	0-60 psig
Valve	Port Size (in 1/8")	Connection Size	Connection Type SAE or ODF	Adjustment Range

DIMENSIONAL DATA



VALVE	A	B	C
OPR-6	9.75	6.38	5.25
OPR-10	11.19	6.50	5.69

DIMENSIONS SHOWN ARE IN INCHES.



OPR CUTAWAY VIEW

ORDERING INFORMATION

PCN*	DESCRIPTION	ADJUSTMENT RANGE
049241	OPR - 6 (1/2 ODF)	0 - 60 PSIG
054405	OPR - 6 (1/2 ODF)	20 - 90 PSIG
047907	OPR - 6 (1/2 SAE)	0 - 60 PSIG
047314	OPR - 6 (1-1/8 ODF)	0 - 60 PSIG
047312	OPR - 6 (5/8 ODF)	0 - 60 PSIG
054406	OPR - 6 (5/8 ODF)	20 - 90 PSIG
049712	OPR - 6 (5/8 ODF)	50 - 130 PSIG
047908	OPR - 6 (5/8 SAE)	0 - 60 PSIG
047313	OPR - 6 (7/8 ODF)	0 - 60 PSIG
058172	OPR - 6 (7/8 ODF)	20 - 90 PSIG
047909	OPR - 6 (7/8 ODF)	50 - 130 PSIG
059223	OPR - 10 (1-1/8 ODF)	20 - 90 PSIG
049788	OPR - 10 (1-1/8 ODF)	50 - 130 PSIG
047316	OPR - 10 (1-1/8 ODF)	0 - 60 PSIG
049787	OPR - 10 (1-3/8 ODF)	50 - 130 PSIG
047318	OPR - 10 (1-3/8 ODF)	0 - 60 PSIG
047315	OPR - 10 (7/8 ODF)	0 - 60 PSIG
061786	OPR - 10 (7/8 ODF)	20 - 90 PSIG
049789	OPR - 10 (7/8 ODF)	50 - 130 PSIG

Standard Product Offering

* Product Code Number

For extended capacities, see tables in tons on page 176.

ACP(E) DIRECT ACTING, HOT GAS REGULATOR

ACP(E) series direct acting, hot gas bypass regulator is designed for small capacity systems.

FEATURES

- ☆ Small, compact size adapts to any installation
- ☆ Friction-free floating design
- ☆ Covers multiple capacity ranges
- ☆ Fully adjustable from 0-80 psig (factory setting 40 psig)
- ☆ Wrench flats on inlets and outlets
- ☆ Can be used as a constant pressure automatic expansion valve



OPTIONS

- ☆ Angle or straight-thru style
- ☆ Internal or external equalizer
- ☆ SAE or ODF connections
- ☆ Available with fixed setting/non-adjustable

SPECIFICATIONS

- ☆ Safe working pressure: 450 psig
- ☆ Safe working temperature: 300°F
- ☆ UL file #SA5312, CSA file #LR44005

ORDERING INFORMATION

PCN*	DESCRIPTION	PCN*	DESCRIPTION
046838	ACP 1 IE 1/4 x 3/8-1/2 SAE ANG	047654	ACP 7 IE 3/8 x 1/2 ODF ANG
057233	ACP 1 IE 1/4 x 3/8 ODF S/T	047285	ACP 7 IE 3/8 x 3/8-1/2 SAE ANG
047680	ACP 1 IE 1/4 x 3/8 ODF ANG	047655	ACP 8 IE 3/8 x 1/2 ODF ANG
047651	ACP 2 IE 1/4 x 3/8 ODF ANG	057771	ACP 9 IE 1/2 x 5/8 ODF ANG
046840	ACP 3 IE 1/4 x 3/8 SAE ANG	047658	ACP 9 IE 3/8 x 3/8-1/2 SAE ANG
047105	ACP 4 IE 1/4 x 3/8 ODF ANG	047280	ACPE 1 SAE EE 1/4 x 3/8 SAE S/T
047284	ACP 5 IE 1/4 x 3/8 ODF ANG	047790	ACPE 7 SAE EE 3/8 x 1/2 ODF ANG
053374	ACP 5 IE 3/8 x 3/8 ODF ANG	048657	ACPE 9 SAE EE 3/8 x 1/2 ODF S/T
047653	ACP 6 IE 1/4 x 3/8 SAE ANG	058674	ACPE 9 SAE EE 1/2 x 5/8 ODF S/T

NOMENCLATURE

EXAMPLE: ACPE 6 SAE EE 1/4 x 3/8 ODF ANG

Standard Product Offering

* Product Code Number

ACP	E	6	SAE EE	1/4	x	3/8	ODF	ANG
Valve Series	External Equalizer (optional)	Port Size (diameter)	External Equalizer Type	Inlet Connection Size		Outlet Connection Size	Connection Type ODF or SAE	Body Style ANG = Angle S/T = Straight-thru

NOMINAL CAPACITY TABLE IN TONS

VALVE	PORT DIA. (inches)	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
ACP(E)-1	.047	0.05	0.07	0.09	0.09	0.09	0.08
ACP(E)-2	.059	0.07	0.09	0.12	0.12	0.11	0.11
ACP(E)-3	.101	0.12	0.16	0.22	0.22	0.20	0.20
ACP(E)-4	.113	0.18	0.23	0.32	0.32	0.28	0.29
ACP(E)-5	.125	0.28	0.37	0.50	0.50	0.45	0.45
ACP(E)-6	.140	0.38	0.50	0.69	0.69	0.60	0.63
ACP(E)-7	.169	0.55	0.71	0.98	0.98	0.90	0.89
ACP(E)-8	.196	0.65	0.84	1.20	1.20	1.00	1.00
ACP(E)-9	.228	0.75	0.98	1.40	1.40	1.20	1.20

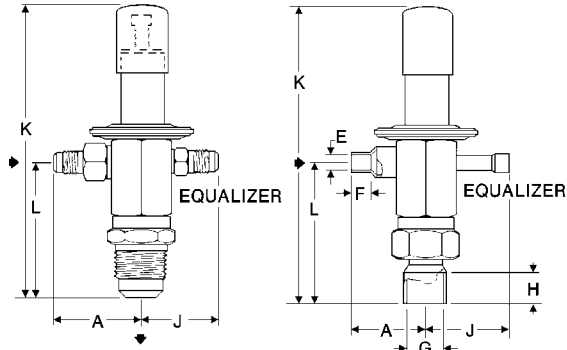
All capacities shown are at 40°F Evaporator Temperature, 100°F Condensing Temperature, Valve Full Open, Compressor Discharge Temperature is 50°F higher than Isentropic Compression and 25°F Superheat at the compressor inlet.

The R-12, R-134a capacities sP = 80 psi (560 kPa)
 The R-22, R-407C capacities sP = 125 psi (875 kPa)
 The R-404A, R-507, R-502 capacities sP = 135 psi (945 kPa)

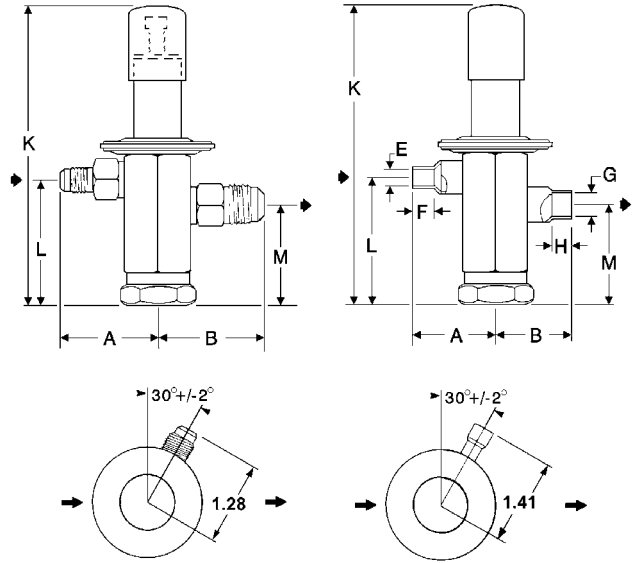
For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section on page 172.

ACP DIMENSIONAL DATA

ACP ANGLE



ACP STRAIGHT-THRU



ACP ROUGH IN DIMENSION TABLE

ACP(E) VALVE TYPE	INLET	OUTLET	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L						
ANGLE SAE	1/4	3/8	1.50	—	—	—	—	—	4.50	2.13						
	3/8	3/8 - 1/2	1.64													
	1/2		1.72													
	1/4	5/8	1.50													
	3/8		1.64													
	1/2		1.72													
1/4	3/8	3/8	1.25	—	.25	.32	.37	.32	4.55	2.17						
3/8			1/2		.37	.32					.50	.38				
1/2		5/8	1.19		1.38	.50	.38	.62	.50	4.73	2.36					
5/8						.62	.50									
1/4						.25	.32									
3/8						.37	.32									
1/4		1/2	1.25		1.19	.25	.32	.50	.38	4.55	2.17					
3/8						.37	.32									
1/4						1/2	.25					.32	.50	.38	4.55	2.17
1/2						7/8	.50					.38	.87	.75	5.11	2.73

ACP(E) VALVE TYPE	INLET	OUTLET	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	M				
STRAIGHT-THRU SAE	1/4	3/8	1.50	1.64	—	—	—	—	4.25	1.88	1.48				
	3/8	1/2	1.64	1.72											
	1/2		1.72												
	1/4	5/8	1.50	1.98											
	3/8		1.64												
	1/2		1.72												
1/4	3/8	3/8	1.25	1.19	.25	.32	.37	.32	4.25	1.88	1.48				
3/8					1/2	.37						.32	.50	.38	
1/2		5/8	1.19		1.38	.50	.38	.62	.50	4.25	1.88	1.48			
5/8						.62	.50								
1/4						.25	.32								
3/8						.37	.32								
1/4		1/2	1.25		1.19	.25	.32	.50	.38	4.25	1.88	1.48			
3/8						.37	.32								
1/4						1/2	.25						.32	.50	.38
1/2						7/8	.50						.38	.87	.75
3/8	1/2	1.25	1.19	1.75	.25	.32	.50	.38	4.25	1.88	1.48				
1/2					.37	.32									

DIMENSIONS SHOWN ARE IN INCHES.

EGR(E) DIRECT ACTING HOT GAS BYPASS REGULATOR

EGRE Series Direct Acting Hot Gas Bypass Regulators are designed for use on light commercial systems. They provide precision system capacity balance at an economical price. The EGRE is an adjustable valve.

The adjustable EGR Regulators are supplied with a factory set point of 50 psig (point at which the regulator starts to open), which can be changed by adjustment. Capacity of these regulators is based on 6° gradient. Rated capacity will be attained when the suction pressure falls 6° below the corresponding set point saturation temperature. This lower temperature, at which the regulator is rated, is termed "178-180).

When the suction pressure decreases below the set point, the regulator opens and allows discharge gas to be bypassed. The discharge gas may be bypassed into the evaporator or the suction line. When bypassed to the suction line, a liquid injection Thermo Valve must be installed to properly desuperheat the suction gas returning to the compressor.



CATALOG NUMBER	LINE CONNECTIONS		STANDARD EQUALIZER ²	ADJUSTMENT RANGE	SHIPPING WEIGHT
	CODE	SIZE & STYLE			
EGRE-4 ¹	S3	3/8 ODF	1/4 SAE or	0-80 psig	2-1/2 lbs.
EGRE-6 ¹	S4	1/2 ODF	1/4 ODF		
EGRE-8 ¹	S5	5/8 ODF	EXTERNAL		

¹ Add connection code to complete catalog number.
Example: EGRE-4S4.

² Internal equalized style available. To order, omit "E" from catalog number.
Example: EGR-4S3.

FEATURES

- ☆ Compact hermetic construction.
- ☆ Contoured power assembly for long life.
- ☆ ODF line connections.
- ☆ Balanced port design.

OPTIONS

- ☆ External or internal equalizer.
- ☆ Sizes available: 4 thru 8.

SPECIFICATIONS

- ☆ Safe working pressure: 440 psig
- ☆ Adjustment range: 0-80 psig (factory setting 50 psig)
- ☆ UL file number SA5312
- ☆ CSA file number LR44005

ORDERING INFORMATION

PCN*	DESCRIPTION
062866	EGRE 4 S 4 B SAE EE
063177	EGRE 4 S 5 B SAE EE
063181	EGRE 6 S 4 B SAE EE
062868	EGRE 6 S 4 C ODF EE
062869	EGRE 6 S 5 B SAE EE
062871	EGRE 8 S 4 B SAE EE
063183	EGRE 8 S 5 B SAE EE

Standard Product Offering

* Product Code Number

NOMENCLATURE EXAMPLE: EGRE 6S4B SAE EE

EGR	E	6	S	4	B	SAEEE
Valve Series	External Equalizer (omit for internal equalizer)	Size	Connection S = ODF connections	Connection (in 1/8")	External Equalizer Connection A = NONE, B = 1/4" SAE C = 1/4" ODF	External Equalizer Type

NOMINAL CAPACITY TABLE IN TONS

VALVE	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
EGR(E)-4	1.6	1.8	2.9	2.9	2.8	2.6
EGR(E)-6	2.0	2.4	3.8	3.8	3.5	2.9
EGR(E)-8	3.6	4.2	6.7	6.7	6.3	5.9

All capacities shown are based on 40°F Evaporator Temperature, 100°F Condensing Temperature, Valve Full Open, Compressor Discharge Temperature is 50°F higher than Isentropic Compression and 25°F Superheat at the compressor inlet.

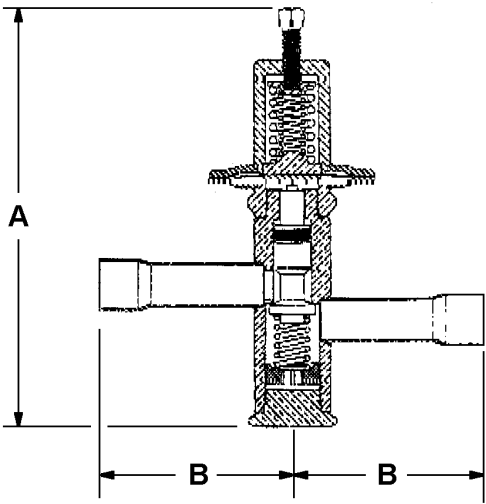
See EGRE Extended Capacity Tables (pages 180-182) before completing selection.

For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section on page 172.

EGR(E) DIMENSIONAL DATA

VALVE	CONNECTIONS	A	B
EGRE4, EGRE6	S3 3/8 ODF	5.63	1.75
	S4 1/2 ODF		1.75
	S5 5/8 ODF		2.13
EGRE8	S3 3/8 ODF	6.25	1.75
	S4 1/2 ODF		1.75
	S5 5/8 ODF		2.13

DIMENSIONS SHOWN ARE IN INCHES.



DGR(E) DIRECT ACTING HOT GAS BYPASS REGULATOR

DGRE Series Direct Acting Hot Gas Bypass Regulators are designed for use on residential and light commercial systems. They provide precision system capacity balance at an economical price. The DGRE is an adjustable valve.

The adjustable DGR Regulators are supplied with a factory set point of 50 psig (point at which the regulator starts to open), which can be changed by adjustment. Capacity of these regulators is based on 6° gradient. Rated capacity will be attained when the suction pressure falls 6° below the corresponding set point saturation temperature. This lower temperature, at which the regulator is rated, is termed "evaporator temperature" in the selection tables (on pages 180-182).

When the suction pressure decreases below the set point, the regulator opens and allows discharge gas to be bypassed. The discharge gas may be bypassed into the evaporator or the suction line. When bypassed to the suction line, a liquid injection Thermo Valve must be installed to properly desuperheat the suction gas returning to the compressor.



OPTIONS

- ☆ External or internal equalizer

SPECIFICATIONS

- ☆ Maximum working pressure: 440 psig
- ☆ Adjustment range: 0-80 psig (factory setting 50 psig)
- ☆ UL file number SA5312, CSA file number 44005

FEATURES

- ☆ Compact hermetic construction
- ☆ Contoured power assembly for long life

NOMENCLATURE EXAMPLE: DGRE 12S7BSAE EE

ORDERING INFORMATION FOR DGRE VALVES

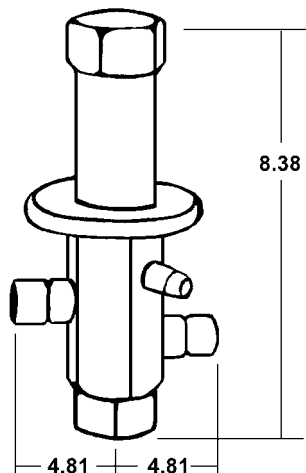
PCN*	DESCRIPTION
049640	DGRE 12 S 7 B SAE EE
029806	DGRE 12 S 7 C ODF EE
049861	DGRE 12 S 9 B SAE EE

Standard Product Offering

* Product Code Number

DGR	E	12	S	7	B	SAEEE
Valve Series	External Equalizer (omit for internal equalizer)	Size	Connection S = ODF connections	Connection (in 1/8")	EE Connection A = NONE, B = 1/4" SAE C = 1/4" ODF	External Equalizer Type

DGRE DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES.

NOMINAL CAPACITY TABLE IN TONS

VALVE	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
DGR(E)-12	8.3	9.7	15.4	15.4	14.5	13.6

All capacities shown are based on 40°F Evaporator Temperature, 100°F Condensing Temperature, Valve Full Open, Compressor Discharge Temperature is 50°F higher than Isentropic Compression and 25°F Superheat at the compressor inlet.

For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section on page 172.

See pages 180-182 for DGRE Extended Capacity Tables.

CPH(E) DIRECT OPERATED HOT GAS BYPASS REGULATOR

CPHE Series Direct Operated Regulators are furnished with an adjustment range of 0-80 psig. Other features include: Take-A-Part construction for service ease without removing the body flange from the line; stainless steel diaphragm; contoured power element; and the “U” gland packing material which eliminates stem friction and packing leaks. Vacuum service is possible by counterclockwise adjustment of the side-mounted adjusting screw. Chart below shows breakdown of parts by number and connection sizes.



OPTIONS

- ☆ Sizes available: 1 thru 6
- ☆ ODF and ODF x ODM connections are available
- ☆ External air connection available for pneumatic compensation (add EAC prefix – example: EAC CPHE)

SPECIFICATIONS

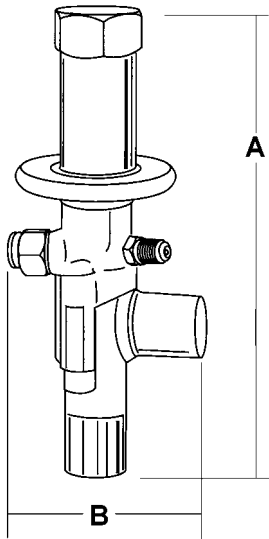
- ☆ Adjustment Range: 0-80 psig (factory setting 20 psig)
- ☆ UL file #SA5312, CSA file #LR44005

FEATURES

- ☆ SAE external equalizer standard

NOMENCLATURE EXAMPLE: CPHE 3 SAE EE 3/8 x 5/8 ODF ANG

CPH	E	3	SAEEE	3/8 x 5/8	ODF	ANG
Valve Series	External Equalizer (omit on CPHE1 & 2 for internal equalizer)	Size	1/4" SAE male External Equalizer	Inlet Connection Size	Outlet Connection Size	Connection Type
						Connection Style



CPH(E) DIMENSIONAL DATA

VALVE	A	B
CPH(E)1	6.81	2.75
CPH(E)2	2.94	
CPH(E)3	8.25	
CPH(E)4	8.25	
CPH(E)5	8.75	
CPH(E)6	8.75	

The above dimensions are maximum height and width variations, dependent on flange selection.

DIMENSIONS SHOWN ARE IN INCHES.

ORDERING INFORMATION FOR CPH(E) VALVES

PCN*	DESCRIPTION	PCN*	DESCRIPTION
088025	CPHE 1 SAE EE 3/8 x 5/8 ODF ANG	087357	CPHE 3 SAE EE 7/8 ODF/1-1/8 ODM S/T
087274	CPHE 1 SAE EE 3/8 x 5/8 ODF S/T	081348	CPHE 4 SAE EE 7/8 ODF/1-1/8 ODM ANG
087774	CPHE 2 SAE EE 1/2 x 5/8 ODF ANG	044783	CPHE 4 SAE EE 7/8 ODF/1-1/8 ODM S/T
087887	CPHE 2 SAE EE 1/2 x 5/8 ODF S/T	045225	CPHE 5 SAE EE 7/8 ODF/1-1/8 ODM ANG
036903	CPHE 3 SAE EE 3/8 x 5/8 ODF ANG	037802	CPHE 5 SAE EE 7/8 ODF/1-1/8 ODM S/T
		028619	CPHE 6 SAE EE 1-1/8X1-1/8 ODM ANG
		038219	CPHE 6 SAE EE 1-1/8X1-1/8 ODM S/T ...

Standard Product Offering

* Product Code Number

See CPHE Extended Capacity Tables (in tons page 180) before completing selection.

NOMINAL CAPACITY TABLE IN TONS

VALVE	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
CPH(E)-1	0.4	0.5	0.7	0.7	0.7	0.6
CPH(E)-2	0.7	0.8	1.2	1.2	1.2	1.0
CPH(E)-3	1.2	1.6	2.3	2.3	2.2	2.0
CPH(E)-4	3.0	3.8	5.5	5.5	5.3	4.8
CPH(E)-5	3.6	4.5	6.7	6.7	6.4	5.8
CPH(E)-6	4.6	5.8	8.5	8.5	8.2	7.4

All capacities shown are based on 40°F Evaporator Temperature, 100°F Condensing Temperature, Valve Full Open, Compressor Discharge Temperature is 50°F higher than Isentropic Compression and 25°F Superheat at the compressor inlet.

For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section on page 172.

CPH(E) REPLACEMENT PARTS AND EXPLODED VIEW

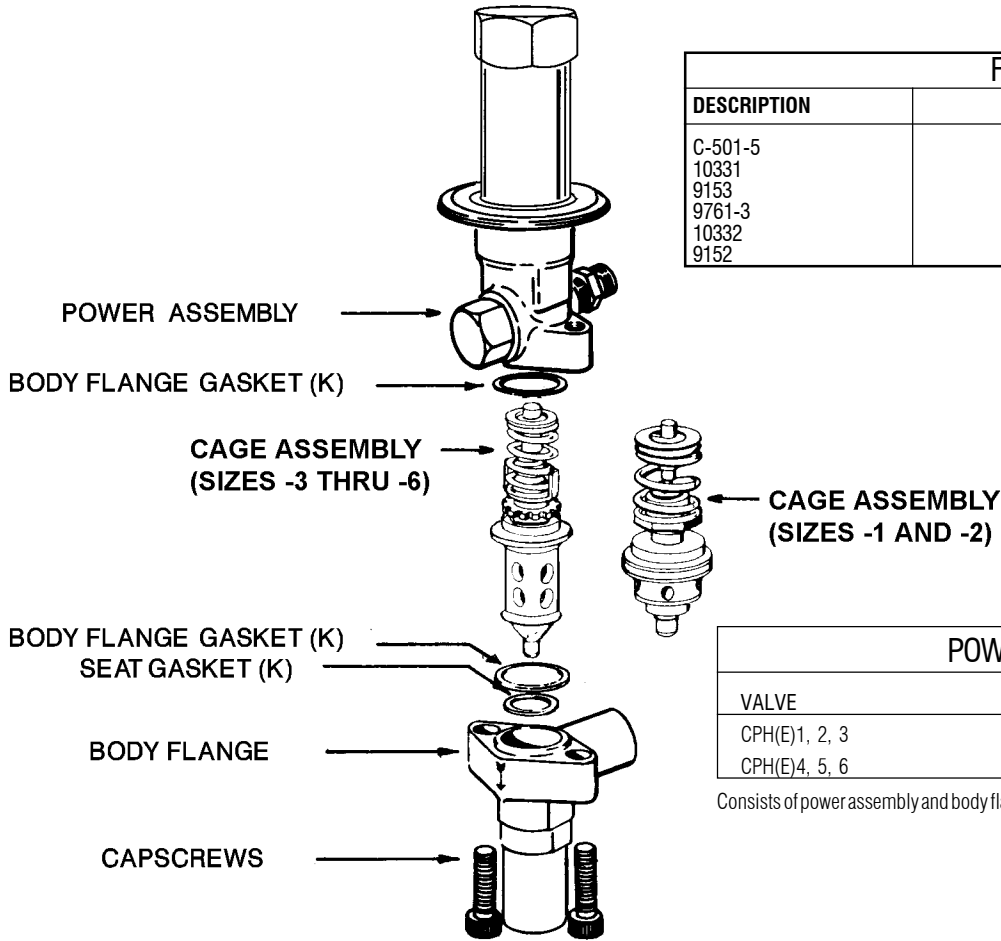
EAC CONVERSION KIT		
KIT	PART #	PCN*
EACCONVERSION	X10227-2	042475

Consists of gasket, 1/4 SAE fitting and seal cap.



CAGE	
DESCRIPTION	PCN
X-22440-B5B	037043
X-22440-B8B	037049
X-11873-B5B	089058
X-9117-B9B	029429
X-9166-B10B	070738
X-9144-B13B	021067

FLANGE		
DESCRIPTION	CONNECTION	PCN
C-501-5	3/8 x 5/8 ODF ANG	065748
10331	7/8 ODF x 1 1/8 ODM ANG	029411
9153	7/8 ODF x 1 1/8 ODM ANG	027919
9761-3	3/8 x 5/8 ODF S/T	027771
10332	7/8 ODF x 1 1/8 ODM S/T	032988
9152	7/8 ODF x 1 1/8 ODM S/T	027918



POWERASSEMBLY		
VALVE	PART #	PCN*
CPH(E)1, 2, 3	X7118-4	026296
CPH(E)4, 5, 6	X7428-2	029055

Consists of power assembly and body flange gasket.

Standard Product Offering

* Product Code Number

HP/HPC HEADMASTER® HEAD PRESSURE CONTROLS

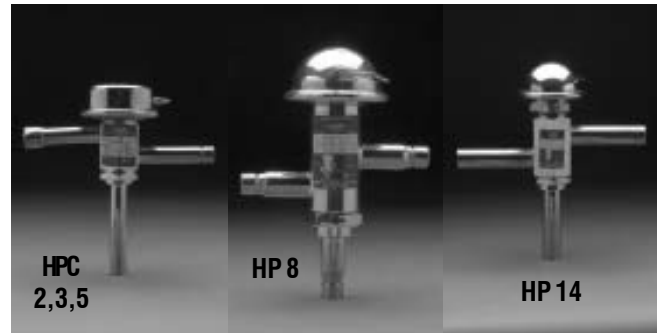
HeadMaster HP/HPC Series 3-Way Head Pressure Control Valves are controlled by the system discharge pressure. Adequate head pressure, the system pressure imposed by the compressor, is necessary for optimum system performance. When ambient air temperature flowing thru air-cooled condensers is warm enough, there is no problem maintaining head pressure. However, when ambient temperature falls, there is a corresponding head pressure drop and a method of controlling this situation is necessary. The HP/HPC is designed specifically to maintain proper air-cooled condenser pressures during periods of low ambient conditions. The HP/HPC eliminates the need for special piping or multiple control valves. As a single unit, the HP/HPC simplifies piping and reduces installation costs.

FEATURES

- ☆ Accurate head pressure control, even at low ambient temperatures
- ☆ Precise control in maintaining optimum pressure
- ☆ Maintains liquid subcooling and prevents liquid line flash gas
- ☆ Eliminates the need for special piping or multiple control valves
- ☆ Superior operation at low ambients

NOMENCLATURE EXAMPLE: HP 8T4 180 1/2 x 1/2 x 1/2 ODF

HP	8	T	4	180	1/2	x	1/2	x	1/2	ODF
Valve Series HP or HPC	Size	Connection Style T = ODF F = SAE	Connection Size (in 1/8")	Condensing Pressure Set Point (for corresponding Condensing Temp. see P-T Chart)	Bypass Connection Size		Receiver Connection Size		Condenser Connection Size	Connection Type



OPTIONS

- ☆ ODF or SAE connections available – HP Series
- ☆ 3/8" or 1/2" ODF connections – HPC Series

SPECIFICATIONS

- ☆ Maximum working pressure: HP5,8 – 500 psig
HP14 – 440 psig
- ☆ Shipping weights: HP5 & HP8 = 2-1/2 lbs
HP14 = 5 lbs
- ☆ UL file #SA5312, CSA file #LR44005

ORDERING INFORMATION FOR HP/HPC VALVES

PCN*	HPC VALVE	CONNECTIONS
064188	HPC 2 T 4 -100	1/2 x 1/2 x 1/2 ODF
064190	HPC 2 T 4 -180	1/2 x 1/2 x 1/2 ODF
064192	HPC 3 T 4 -180	1/2 x 1/2 x 1/2 ODF
064177	HPC 5 T 3 -100	3/8 x 3/8 x 3/8 ODF
064179	HPC 5 T 3 -180	3/8 x 3/8 x 3/8 ODF
064175	HPC 5 T 3 -225	3/8 x 3/8 x 3/8 ODF
064180	HPC 5 T 4 -100	1/2 x 1/2 x 1/2 ODF
064183	HPC 5 T 4 -180	1/2 x 1/2 x 1/2 ODF
064187	HPC 5 T A -180	1/2 x 3/8 x 3/8 ODF
PCN*	HP VALVE	CONNECTIONS
046094	HP 5 F 3-110	3/8 x 3/8 x 3/8 SAE
046093	HP 5 F 3-185	3/8 x 3/8 x 3/8 SAE
055130	HP 5 F 4-110	1/2 x 1/2 x 1/2 SAE
046091	HP 5 F 4-185	1/2 x 1/2 x 1/2 SAE
046090	HP 5 T 3-110	3/8 x 3/8 x 3/8 ODF
046088	HP 5 T 3-185	3/8 x 3/8 x 3/8 ODF
054173	HP 5 T 3-215	3/8 x 3/8 x 3/8 ODF
046087	HP 5 T 4-110	1/2 x 1/2 x 1/2 ODF
046086	HP 5 T 4-185	1/2 x 1/2 x 1/2 ODF
062240	HP 5 T 4-215	1/2 x 1/2 x 1/2 ODF

ORDERING INFORMATION FOR HP/HPC VALVES

PCN*	HP VALVE	CONNECTIONS
052979	HP 8 F 4-110	1/2 x 1/2 x 1/2 SAE
053200	HP 8 F 4-185	1/2 x 1/2 x 1/2 SAE
046209	HP 8 T 4-110	1/2 x 1/2 x 1/2 ODF
046208	HP 8 T 4-185	1/2 x 1/2 x 1/2 ODF
062027	HP 8 T 4-225	1/2 x 1/2 x 1/2 ODF
033862	HP 8 T 5-110	5/8 x 5/8 x 5/8 ODF
032407	HP 8 T 5-185	5/8 x 5/8 x 5/8 ODF
034246	HP 8 T 5-175	5/8 x 5/8 x 5/8 ODF
046535	HP 8 T 5-215	5/8 x 5/8 x 5/8 ODF
046389	HP 8 T 5-225	5/8 x 5/8 x 5/8 ODF
046207	HP 8 T 7-110	7/8 x 7/8 x 7/8 ODF
054023	HP 8 T 7-125	7/8 x 7/8 x 7/8 ODF
046206	HP 8 T 7-185	7/8 x 7/8 x 7/8 ODF
046498	HP 8 T 7-215	7/8 x 7/8 x 7/8 ODF
046632	HP 8 T 7-205	7/8 x 7/8 x 7/8 ODF
032210	HP 14 T 7-120	7/8 x 7/8 x 7/8 ODF
024935	HP 14 T 7-175	7/8 x 7/8 x 7/8 ODF
043405	HP 14 T 7-215	7/8 x 7/8 x 7/8 ODF
024405	HP 14 T 9-120	1-1/8 x 1-1/8 x 1-1/8 ODF
045927	HP 14 T 9-125	1-1/8 x 1-1/8 x 1-1/8 ODF
029805	HP 14 T 9-175	1-1/8 x 1-1/8 x 1-1/8 ODF
043406	HP 14 T 9-215	1-1/8 x 1-1/8 x 1-1/8 ODF
024380	HP 14 T11-120	1-3/8 x 1-3/8 x 1-3/8 ODF
024601	HP 14 T11-175	1-3/8 x 1-3/8 x 1-3/8 ODF
043407	HP 14 T11-215	1-3/8 x 1-3/8 x 1-3/8 ODF

Standard Product Offering

* Product Code Number

HEAD PRESSURE CONTROL

HP/HPC SIZING SELECTION

Consideration must be given to the system design requirements, such as: equivalent line length (vertical lift or unusual pressure drop), equipment location, etc., to determine if the minimum control range meets design requirements. There are numerous alternatives involving head pressure control applications worth considering. For engineering assistance, consult your field engineer or Technical Services Department.

NOTE: Be sure the HP valve is not required to operate at conditions exceeding the maximum working pressure.

NOTE: Not recommended for systems utilizing patented subcooling coils in conjunction with low head pressure systems or on systems where the condensate line bypasses the receiver in order to maintain subcooling effect in the liquid line.

TABLE 1 – NOMINAL CAPACITY TABLE IN TONS

REFRIGERANT	VALVE	PRESSURE DROP – psi				
		1	2	3	4	5
		TONS	TONS	TONS	TONS	TONS
R-134a	HPC-2	1.0	1.4	1.8	2.0	2.3
	HPC-3	1.7	2.4	3.0	3.5	3.9
	HPC-5	2.2	3.2	3.9	4.5	5.0
	HP-5	2.0	2.9	3.6	4.1	4.6
	HP-8	5.5	7.8	9.6	11.0	12.4
	HP-14	14.0	19.8	24.2	28.3	31.7
R-22/ R-407C	HPC-2	1.1	1.6	1.9	2.2	2.5
	HPC-3	1.9	2.7	3.3	3.8	4.2
	HPC-5	2.4	3.4	4.2	4.9	5.4
	HP-5	2.2	3.2	3.9	4.5	5.0
	HP-8	6.0	8.5	10.5	12.0	13.5
	HP-14	14.7	20.8	25.6	29.7	33.8
R-404A/ R-507	HPC-2	0.7	1.0	1.3	1.5	1.7
	HPC-3	1.3	1.8	2.2	2.5	2.8
	HPC-5	1.6	2.3	2.8	3.3	3.6
	HP-5	1.5	2.1	2.6	3.0	3.3
	HP-8	3.9	5.5	6.7	7.8	8.7
	HP-14	10.1	14.3	17.6	20.5	23.0
R-12	HPC-2	0.9	1.2	1.5	1.7	1.9
	HPC-3	1.5	2.1	2.6	3.0	3.4
	HPC-5	1.8	2.5	3.1	3.6	4.0
	HP-5	1.7	2.4	3.0	3.4	3.8
	HP-8	4.6	6.5	8.0	9.2	10.3
	HP-14	11.7	58.4	20.2	23.6	26.4
R-502	HPC-2	0.7	3.7	1.3	1.5	1.6
	HPC-3	1.3	6.5	2.3	2.6	2.9
	HPC-5	1.6	8.0	2.8	3.2	3.6
	HP-5	1.5	7.4	2.6	3.0	3.3
	HP-8	3.9	19.5	6.7	7.8	8.7
	HP-14	10.1	50.6	17.6	20.5	23.0

All capacities shown are based on 40°F Evaporator Temperature and 100°F liquid.

TABLE 2 – MULTIPLIER FACTORS FOR CAPACITIES AT CONDITIONS OTHER THAN NOMINAL RATINGS

LIQUID TEMP. °F	EVAPORATOR TEMPERATURE °F														
	R-134a/R-12					R-22/R-407C					R-404A/R-507/R-502				
	40°	20°	0°	-20°	-40°	40°	20°	0°	-20°	-40°	40°	20°	0°	-20°	-40°
120°	0.87	0.82	0.78	0.71	0.69	0.89	0.86	0.84	0.82	0.78	0.84	0.79	0.74	0.69	0.63
100°	1.00	0.96	0.91	0.86	0.82	1.00	0.98	0.95	0.93	0.89	1.00	0.96	0.90	0.85	0.79
80°	1.13	1.08	1.04	0.99	0.95	1.12	1.09	1.06	1.03	1.00	1.14	1.09	1.04	0.99	0.93
60°	1.27	1.22	1.17	1.12	1.07	1.22	1.20	1.17	1.14	1.10	1.32	1.27	1.21	1.16	1.09
40°	–	1.34	1.29	1.24	1.19	–	1.30	1.27	1.24	1.21	–	1.42	1.37	1.31	1.26
20°	–	–	1.42	1.38	1.32	–	–	1.39	1.35	1.32	–	–	1.51	1.46	1.41

EXTENDED HOT GAS BYPASS CAPACITY MULTIPLIER FACTOR TABLES FOR ACP(E), EGR(E), DGR(E) AND CPH(E)

R12 TABLE OF MULTIPLIERS – FAHRENHEIT

COND. TEMP: °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.952	0.927	0.905	0.884	0.862	0.840	0.816	0.793	0.770	0.747
100	1.071	1.000	0.977	0.953	0.928	0.904	0.879	0.854	0.827	0.802
120	1.235	1.205	1.175	1.143	1.110	1.079	1.044	1.012	0.977	0.946
140	1.439	1.399	1.359	1.318	1.277	1.236	1.192	1.151	1.107	1.065

R22 TABLE OF MULTIPLIERS – FAHRENHEIT

COND. TEMP: °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.836	0.819	0.804	0.786	0.770	0.752	0.734	0.716	0.696	0.678
100	1.023	1.000	0.981	0.958	0.937	0.913	0.889	0.865	0.841	0.791
120	1.230	1.177	1.153	1.124	1.095	1.066	1.038	1.008	0.976	0.947
140	1.402	1.366	1.335	1.298	1.264	1.227	1.190	1.153	1.113	1.076

R134a TABLE OF MULTIPLIERS – FAHRENHEIT

COND. TEMP: °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.810	0.792	0.775	0.756	0.737	0.719	0.699	0.679	0.659	0.639
100	1.027	1.000	0.987	0.956	0.931	0.906	0.880	0.854	0.827	0.800
120	1.231	1.198	1.166	1.132	1.098	1.062	1.026	0.991	0.954	0.917
140	1.440	1.396	1.353	1.307	1.263	1.217	1.170	1.122	1.074	1.026

R404A/507 TABLE OF MULTIPLIERS – FAHRENHEIT

COND. TEMP: °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.905	0.872	0.863	0.824	0.816	0.790	0.767	0.728	0.703	0.677
100	1.045	1.000	0.989	0.943	0.929	0.896	0.864	0.813	0.780	0.745
120	1.170	1.111	1.092	1.026	1.010	0.966	0.926	0.856	0.812	0.768
140	1.165	1.073	1.053	0.971	0.949	0.896	0.841	0.754	0.699	0.643

R502 TABLE OF MULTIPLIERS – FAHRENHEIT

COND. TEMP: °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.883	0.863	0.842	0.820	0.800	0.776	0.752	0.727	0.703	0.679
100	1.027	1.000	0.973	0.945	0.918	0.889	0.859	0.827	0.797	0.766
120	1.153	1.119	1.086	1.050	1.016	0.979	0.940	0.903	0.865	0.826
140	1.243	1.201	1.159	1.115	1.072	1.027	0.982	0.932	0.886	0.839

ESR EXTENDED CAPACITIES IN TONS (AT 800 STEPS FULL OPEN)

R-22														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.6	5.08	7.19	8.81	11.37	14.38	15.22	3.27	4.62	6.53	8.00	10.32	12.39	13.69
ESR 20	7.0	9.9	14.0	17.14	22.13	28.0	29.38	6.35	8.98	12.7	15.56	20.08	23.93	26.24
20°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.80	3.97	5.61	6.87	8.87	10.48	11.53	2.52	3.56	5.04	6.17	7.56	9.29	10.18
ESR 20	5.45	7.71	10.9	13.35	17.23	20.03	21.82	4.89	6.92	9.79	11.99	14.58	17.59	19.03
0°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.25	3.19	4.50	5.52	6.68	8.15	8.89	2.00	2.83	4.01	4.68	5.86	7.08	7.67
ESR 20	4.37	6.19	8.75	10.72	12.8	15.26	16.37	3.89	5.5	7.78	9.04	11.13	13.05	13.82
-20°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.77	2.51	3.54	4.09	5.08	6.06	6.50	1.56	2.20	2.96	3.54	4.35	5.10	5.39
ESR 20	3.44	4.87	6.88	7.85	9.54	10.92	11.36	3.03	4.28	5.71	6.74	8.03	8.89	8.99

R-404A/507														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.02	4.27	6.04	7.40	9.56	12.09	12.89	2.70	3.83	5.41	6.63	8.55	10.82	11.45
ESR 20	5.82	8.25	11.65	14.27	18.42	23.3	24.68	5.2	7.35	10.4	12.73	16.44	19.77	21.74
20°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.27	3.21	4.55	5.57	7.19	8.58	9.47	2.01	2.85	4.02	4.93	6.36	7.52	8.27
ESR 20	4.35	6.15	8.7	10.66	13.76	16.21	17.72	3.84	5.43	7.68	9.41	11.56	14.04	15.27
0°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.77	2.51	3.55	4.34	5.32	6.53	7.15	1.55	2.20	3.10	3.80	4.60	5.61	6.12
ESR 20	3.37	4.77	6.74	8.26	10.0	12.03	12.99	2.94	4.16	5.89	7.21	8.56	10.16	10.87
-20°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.35	1.91	2.70	3.15	3.94	4.76	5.15	1.16	1.64	2.33	2.68	3.33	3.97	4.25
ESR 20	2.55	3.61	5.1	5.9	7.24	8.43	8.89	2.2	3.11	4.39	4.98	6.02	6.83	7.06

R-134a														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.79	3.95	5.59	6.84	8.41	10.36	11.38	2.49	3.52	4.98	6.10	7.43	9.10	9.94
ESR 20	5.44	7.69	10.87	13.31	16.29	19.74	21.43	4.84	6.84	9.68	11.85	14.29	17.14	18.46
20°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.08	2.94	4.15	4.85	6.08	7.34	7.95	1.83	2.58	3.66	4.22	5.25	6.27	6.73
ESR 20	4.03	5.7	8.07	9.37	11.54	13.53	14.34	3.55	5.02	7.1	8.11	9.85	11.3	11.77
0°														
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.60	2.26	3.04	3.64	4.48	5.26	5.57							
ESR 20	3.11	4.39	5.87	6.93	8.28	9.19	9.32							

ESR EXTENDED CAPACITIES IN TONS (AT 800 STEPS FULL OPEN)

R-12														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.5	3.6	5.1	6.2	8.0	10.2	11.4	2.3	3.3	4.6	5.6	7.3	9.2	10.3
ESR 20	4.9	7.0	9.9	12.1	15.6	19.7	22.1	4.5	6.3	9.0	11.0	14.2	17.9	20.0
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.0	2.8	4.0	4.8	6.3	7.9	8.9	1.8	2.5	3.5	4.3	5.6	7.1	7.9
ESR 20	3.9	5.4	7.7	9.4	12.2	15.4	17.2	3.4	4.9	6.9	8.4	10.8	13.7	15.3
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.5	2.2	3.1	3.8	4.9	6.2	6.9	1.4	1.9	2.7	3.1	4.3	5.5	6.1
ESR 20	3.0	4.3	6.0	7.4	9.5	12.0	13.5	2.7	3.8	5.3	6.5	8.4	10.6	11.9
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.2	1.7	2.4	2.9	3.8	4.8	5.3	1.0	1.5	2.1	2.6	3.3	4.2	4.7
ESR 20	2.3	3.3	4.6	5.7	7.3	9.2	10.3	2.0	2.9	4.1	5.0	6.4	8.1	9.1
R-502														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	4.0	5.6	7.9	9.7	12.5	15.8	17.7	3.8	5.3	7.6	9.3	12.0	15.1	16.9
ESR 20	7.7	10.9	15.4	18.9	24.3	30.8	34.4	7.4	10.4	14.7	18.0	23.2	29.4	32.9
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.1	4.3	6.1	7.5	9.7	12.2	13.7	2.7	3.9	5.5	6.7	8.7	10.9	12.2
ESR 20	6.0	8.4	11.9	14.6	18.8	23.8	26.6	5.3	7.5	10.6	13.0	16.8	21.3	23.8
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.4	3.5	4.9	6.0	7.7	9.8	10.9	2.2	3.1	4.3	5.3	6.8	8.6	9.7
ESR 20	4.8	6.7	9.5	11.7	15.1	19.0	21.3	4.2	5.9	8.4	10.3	13.3	16.8	18.8
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.9	2.6	3.7	4.6	5.9	7.5	8.4	1.6	2.3	3.2	4.0	5.1	6.5	7.2
ESR 20	3.6	5.1	7.3	8.9	11.5	14.6	16.3	3.2	4.5	6.3	7.7	10.0	12.6	14.1
R-407C														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	4.0	5.6	7.9	9.7	12.5	15.8	17.7	3.8	5.3	7.6	9.3	12.0	15.1	16.9
ESR 20	7.7	10.9	15.4	18.9	24.3	30.8	34.4	7.4	10.4	14.7	18.0	23.2	29.4	32.9
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.1	4.3	6.1	7.5	9.7	12.2	13.7	2.7	3.9	5.5	6.7	8.7	10.9	12.2
ESR 20	6.0	8.4	11.9	14.6	18.8	23.8	26.6	5.3	7.5	10.6	13.0	16.8	21.3	23.8
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.4	3.5	4.9	6.0	7.7	9.8	10.9	2.2	3.1	4.3	5.3	6.8	8.6	9.7
ESR 20	4.8	6.7	9.5	11.7	15.1	19.0	21.3	4.2	5.9	8.4	10.3	13.3	16.8	18.8
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.9	2.6	3.7	4.6	5.9	7.5	8.4	1.6	2.3	3.2	4.0	5.1	6.5	7.2
ESR 20	3.6	5.1	7.3	8.9	11.5	14.6	16.3	3.2	4.5	6.3	7.7	10.0	12.6	14.1

IPR-6 EXTENDED CAPACITY TABLES IN TONS – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R134a				R22				R404A/R507			
		R-134A	R-22	R404A/R-507	PRESSURE DROP ACROSS VALVE – PSI											
					2	5	10	20	2	5	10	20	2	5	10	20
IPR-6 0/50 or 30/100 psig	40	35.0	68.5	85.7	0.94	1.35	1.57	1.57	1.2	2.0	3.0	4.4	1.11	1.67	2.18	2.56
	30	26.1	54.9	69.7	0.82	1.15	1.26	1.26	1.1	1.8	2.7	3.8	0.98	1.47	1.88	2.10
	20	18.4	43.0	55.7	0.72	0.96	1.00	1.00	1.0	1.6	2.4	3.3	0.87	1.28	1.60	1.70
	10	12.0	36.8	43.5	0.61	0.78	0.79	0.79	0.9	1.4	2.1	2.7	0.75	1.10	1.33	1.36
	0	6.5	24.0	33.0	0.52	0.62	0.62	0.62	0.8	1.2	1.8	2.2	0.66	0.93	1.07	1.07
	-10	2.0	16.5	24.0	0.43	0.48	0.48	0.48	0.7	1.1	1.5	1.8	0.57	0.78	0.84	0.84
	-20	–	–	10.1	16.3	–	–	–	–	0.6	0.9	1.2	1.4	0.48	0.64	0.66

IPR-6 EXTENDED CAPACITY TABLES IN TONS – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – PSI											
					2	5	10	20	2	5	10	20	2	5	10	20
IPR-6 0/50 or 30/100 psig	40	37	61.7	80.2	0.8	1.4	2	2.7	1.3	2.1	3.2	4.6	0.9	1.5	2.3	3.5
	30	28.4	48.4	65.4	0.8	1.2	1.7	2.2	1.0	1.7	2.6	3.6	0.8	1.3	2	3
	20	21	36.9	52.4	0.7	1.1	1.5	1.8	0.9	1.4	2.0	2.8	0.7	1.2	1.8	2.5
	10	14.6	27.1	41.1	0.6	0.9	1.2	1.5	0.7	1.1	1.6	2.1	0.6	1	1.5	2.1
	0	9.2	18.9	31.2	0.5	0.8	1	1.2	0.5	0.8	1.2	1.5	0.5	0.9	1.3	1.7
	-10	4.5	11.9	22.8	0.5	0.6	0.8		0.4	0.7	0.9	1.1	0.5	0.8	1.1	1.4
	-20	0.6	6.17	15.5	0.4	0.5	0.6		0.3	0.5	0.6	0.7	0.4	0.6	0.9	1.1

IPR-10 EXTENDED CAPACITY TABLES IN TONS – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R134a				R22				R404A/R507			
		R-134a	R-22	R-404A/R-507	PRESSURE DROP ACROSS VALVE – PSI											
					2	5	10	20	2	5	10	20	2	5	10	20
IPR-10 0/50 or 30/100 psig	40	35	68.5	85.7	2.2	3.1	3.6	4.8	3.0	4.8	6.9	9.5	2.5	3.8	5.0	5.9
	30	26.1	54.9	69.7	1.9	2.6	2.9	3.7	2.7	4.3	6.1	8.3	2.3	3.4	4.3	4.8
	20	18.4	43	55.7	1.7	2.2	2.3	2.8	2.4	3.8	5.4	7.2	2.0	2.9	3.7	3.9
	10	12	36.8	43.5	1.4	1.8	1.8	2.3	2.1	3.3	4.7	5.9	1.7	2.5	3.1	3.1
	0	6.5	24	33	1.2	1.4	1.4	1.6	1.9	2.9	4.0	4.8	1.5	2.1	2.5	2.5
	-10	2	16.5	24	1.0	1.1	1.1	0.0	1.6	2.5	3.3	3.9	1.3	1.8	1.9	1.9
	-20		10.1	16.3	0.0	0.0	0.0	0.0	1.4	2.1	2.7	3.0	1.1	1.5	1.5	1.5

IPR-10 EXTENDED CAPACITY TABLES IN TONS – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – PSI											
					2	5	10	20	2	5	10	20	2	5	10	20
IPR-10 0/50 or 30/100 psig	40	37	61.7	80.2	2	3.2	4.5	5.8	3.2	5.0	7.2	10.0	2.2	3.5	5.3	7.5
	30	28.4	48.4	65.4	1.8	2.9	3.9	4.8	2.6	4.1	5.8	7.9	2	3.1	4.6	6.5
	20	21	36.9	52.4	1.6	2.5	3.3	3.9	2.0	3.2	4.6	6.1	1.8	2.8	4	5.5
	10	14.6	27.1	41.1	1.4	2.2	2.8	3.2	1.6	2.5	3.6	4.5	1.5	2.4	3.5	4.6
	0	9.2	18.9	31.2	1.2	1.9	2.3	2.5	1.3	2.0	2.7	3.3	1.3	2.1	3	3.7
	-10	4.5	11.9	22.8	1.1	1.5	1.8		1.0	1.5	2.0	2.3	1.1	1.8	2.5	3
	-20	0.6	6.17	15.5	0.9	1.2	1.3		0.7	1.1	1.4	1.6	0.9	1.5	2	2.3

REGULATORS EXTENDED CAPACITIES IN TONS

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-12 – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-12 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP								
			VALVE SET POINT – PSIG																				
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60			
OPR-6 0-60, 20-90, or 50-130 psig	30	28.5			0.27	0.48	0.68	0.89			0.63	0.67	0.96	1.25			0.50	0.91	1.32	1.74			
	20	21.1			0.38	0.57	0.75	0.93			0.53	0.79	1.05	1.30			0.71	1.08	1.45	1.82			
	10	14.7			0.28	0.44	0.61	0.77	0.83			0.38	0.62	0.85	1.08	1.17			0.50	0.84	1.17	1.49	1.61
	0	9.2	0.18	0.33	0.47	0.62	0.74	0.74	0.24	0.45	0.65	0.86	1.03	1.03	0.30	0.60	0.88	1.18	1.41	17.85			
	-10	4.5	0.22	0.35	0.47	0.60	0.64	0.64	0.29	0.47	0.65	0.83	0.90	0.90	0.38	0.63	0.88	1.14	1.23	1.05			
OPR-10 0-60, 20-90, or 50-130 psig	30	28.5			0.20	1.48	2.26	2.26			0.28	2.09	3.19	3.19			0.39	2.94	4.49	4.49			
	20	21.1			1.03	2.02	2.02	2.02			1.45	2.86	2.86	2.86			2.04	4.02	4.02	4.02			
	10	14.7			0.55	1.58	1.80	1.80	0.78	2.23	2.54	2.54	2.54	1.08	3.12	3.58	3.58	3.58	3.58				
	0	9.2	0.08	0.99	1.60	1.60	1.60	1.60	0.11	1.39	2.25	2.25	2.25	0.14	1.94	3.17	3.17	3.17	3.17				
	-10	4.5	0.44	1.24	1.41	1.41	1.41	1.41	0.62	1.74	1.98	1.98	1.98	0.86	2.45	2.78	2.78	2.78	2.78				

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-22 – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-22 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP							
			VALVE SET POINT – PSIG																			
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60		
OPR-6 0-60, 20-90, or 50-130 psig	30	54.9					0.53						0.74						1.01			
	20	43.1					0.53	0.80					0.74	1.12					1.01	1.55		
	10	32.8				0.47	0.72	0.97					0.66	1.01	1.37				0.90	1.40	1.90	
	0	24			0.40	0.62	0.84	1.06					0.55	0.86	1.18	1.49			0.75	1.19	1.63	2.07
	-10	16.5		0.30	0.49	0.69	0.88	1.00	0.41	0.69	0.97	1.24	1.41	0.55	0.95	1.33	1.73	1.94	1.94			
	-20	10.2		0.38	0.55	0.72	0.88	0.88	0.51	0.76	1.01	1.24	1.24						1.70	1.70		
	-40	0.6	0.27	0.41	0.55	0.67	0.67	0.67	0.38	0.57	0.76	0.93	0.93	0.93					1.27	1.27		
OPR-10 0-60, 20-90, or 50-130 psig	30	54.9					0.98						1.38						1.93			
	20	43.1				1.20	2.92					1.69	4.13						2.38	5.83		
	10	32.8				1.11	2.67	2.73				1.58	4.04	3.85				2.22	5.31	5.44		
	0	24			0.83	2.22	2.44	2.44			1.17	3.13	3.44	3.44			1.65	4.41	4.86	4.86		
	-10	16.5		0.43	1.66	2.17	2.17	2.17	0.61	2.34	3.07	3.07	3.07	0.84	3.31	4.32	4.32	4.32	4.32			
	-20	10.2		1.07	1.92	1.92	1.92	1.92	1.50	2.71	2.71	2.71	2.71	2.11	3.81	3.81	3.81	3.81	3.81			
	-40	0.6	0.79	1.47	1.47	1.47	1.47	1.47	1.11	2.08	2.08	2.08	2.08	1.55	2.92	2.92	2.92	2.92	2.92			

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-134a – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-134a SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	30	26.1			0.37	0.59	0.82	1.06			0.50	0.83	1.16	1.48			0.67	1.13	1.60	2.06
	20	18.4			0.27	0.47	0.68	0.88	1.04	0.37	0.66	0.95	1.24	1.45	0.49	0.89	1.30	1.71	2.02	2.02
	10	12			0.36	0.54	0.71	0.89	0.91	0.48	0.75	1.00	1.25	1.27	0.65	1.00	1.37	1.72	1.75	1.75
	0	6.5	0.23	0.39	0.55	0.70	0.80	0.80	0.32	0.54	0.77	0.99	1.10	1.10	0.40	0.71	1.03	1.34	1.52	1.52
	-10	2	0.26	0.40	0.54	0.67	0.68	0.68	0.36	0.55	0.75	0.93	0.96	0.96	0.45	0.72	1.00	1.27	1.30	1.30
OPR-10 0-60, 20-90, or 50-130 psig	30	26.1			0.57	2.01	2.53	2.53			0.80	2.84	3.59	3.59			1.12	4.00	5.05	5.05
	20	18.4			0.21	1.48	2.24	2.24	0.28	2.08	3.17	3.17	3.17	0.39	2.93	4.46	4.46	4.46	4.46	
	10	12			0.90	1.97	1.97	1.97	1.27	2.78	2.78	2.78	2.78	1.79	3.93	3.93	3.93	3.93	3.93	
	0	6.5	0.35	1.32	1.72	1.72	1.72	1.72	0.48	1.87	2.44	2.44	2.44	0.66	2.63	3.42	3.42	3.42	3.42	
	-10	2	0.68	1.50	1.50	1.50	1.50	1.50	0.97	2.12	2.12	2.12	2.12	1.34	2.97	2.97	2.97	2.97	2.97	

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-502 – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-502 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	20	52.5					0.42						0.59						0.82	
	10	41					0.40	0.60					0.57	0.84					0.78	1.16
	0	31.1				0.36	0.53	0.69				0.49	0.74	0.98				0.67	1.02	1.35
	-10	22.6			0.29	0.44	0.59	0.74			0.40	0.62	0.83	1.04			0.55	0.84	1.14	1.44
	-20	15.3	0.22	0.35	0.48	0.61	0.67	0.29	0.48	0.67	0.85	0.93	0.39	0.65	0.92	1.19	1.29	1.29		
OPR-10 0-60, 20-90, or 50-130 psig	20	52.5					1.02						1.45						2.04	
	10	41					1.08	2.11					1.53	2.99					2.16	4.22
	0	31.1				0.96	1.87	1.87			1.34	2.65	2.65				1.89	3.74	3.74	
	-10	22.6			0.70	1.64	1.65	1.65	0.00	0.99	2.31	2.33	2.33			1.39	3.27	3.29	3.29	
	-20	15.3		0.39	1.21	1.45	1.45	1.45	0.00	0.55	1.70	2.05	2.05	2.05	0.77	2.40	2.88	2.88	2.88	

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-404A – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-404A SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP						
			VALVE SET POINT – PSIG																		
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60	
OPR-6 0-60, 20-90, or 50-130 psig	20	55.7					0.38						0.53							0.71	
	10	43.5					0.40	0.58					0.55	0.82						0.76	1.13
	0	33				0.35	0.54	0.70				0.47	0.75	0.99				0.65	1.04	1.37	
	-10	24			0.28	0.44	0.61	0.76			0.39	0.62	0.85	1.06			0.54	0.85	1.19	1.47	
	-20	16.3		0.21	0.35	0.48	0.63	0.70	0.29	0.48	0.68	0.89	0.98		0.39	0.66	0.93	1.23	1.37		
OPR-10 0-60, 20-90, or 50-130 psig	20	55.7					0.60						0.84							1.18	
	10	43.5					0.92	2.09					1.30	2.96						1.84	4.17
	0	33				0.80	2.01	2.01				1.12	2.82	2.82				1.59	3.99	3.99	
	-10	24			0.61	1.59	1.75	1.75			0.85	2.25	2.47	2.47			1.20	3.16	3.49	3.49	
	-20	16.3		0.32	1.19	1.52	1.52	1.52	0.45	1.67	2.14	2.14	2.14	0.62	2.35	3.02	3.02	3.02	3.02		

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-407C – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-407C SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP						
			VALVE SET POINT – PSIG																		
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60	
OPR-6 0-60, 20-90, or 50-130 psig	30	63.1					0.53						0.74							1.01	
	20	51.6					0.53	0.80					0.74	1.12						1.01	1.55
	10	41.8				0.47	0.72	0.97				0.66	1.01	1.37				0.90	1.40	1.90	
	0	33.6			0.40	0.62	0.84	1.06			0.55	0.86	1.18	1.49			0.75	1.19	1.63	2.07	
	-10	26.7		0.30	0.49	0.69	0.88	1.00	0.41	0.69	0.97	1.24	1.41		0.55	0.95	1.33	1.73	1.94		
OPR-10 0-60, 20-90, or 50-130 psig	30	63.1					0.98						1.38							1.93	
	20	51.6					1.20	2.92					1.69	4.13						2.38	5.83
	10	41.8				1.11	2.67	2.73				1.58	4.04	3.85				2.22	5.31	5.44	
	0	33.6			0.83	2.22	2.44	2.44			1.17	3.13	3.44	3.44			1.65	4.41	4.86	4.86	
	-10	26.7		0.43	1.66	2.17	2.17	2.17	0.61	2.34	3.07	3.07	3.07	0.84	3.31	4.32	4.32	4.32	4.32		

OPR-6, -10 EXTENDED CAPACITY TABLES IN TONS R-507 – SUCTION GAS

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-507 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP						
			VALVE SET POINT – PSIG																		
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60	
OPR-6 0-60, 20-90, or 50-130 psig	10	46.2					0.32	0.53					0.44	0.75						0.61	1.03
	0	35.2				0.30	0.47	0.66				0.42	0.66	0.92				0.57	0.91	1.29	
	-10	25.8			0.25	0.41	0.57	0.72			0.35	0.57	0.79	1.02			0.47	0.79	1.09	1.42	
	-20	17.8			0.33	0.46	0.60	0.69			0.45	0.65	0.84	0.98			0.62	0.89	1.16	1.35	
	-40	5.5	0.16	0.26	0.37	0.46	0.51	0.51	0.22	0.37	0.50	0.65	0.71	0.71	0.27	0.48	0.68	0.89	0.98	0.98	
OPR-10 0-60, 20-90, or 50-130 psig	10	46.2					0.46	1.79					0.66	2.52						0.92	3.47
	0	35.2				0.55	1.64	1.97				0.77	2.31	2.79				1.08	3.26	3.94	
	-10	25.8			0.41	1.40	1.73	1.73			0.58	1.97	2.45	2.45			0.81	2.78	3.45	3.45	
	-20	17.8			1.04	1.51	1.51	1.51			1.47	2.13	2.13	2.13			2.07	3.00	3.00	3.00	
	-40	5.5	0.28	0.92	1.11	1.11	1.11	1.11	0.39	1.30	1.58	1.58	1.58	1.58	0.55	1.84	2.22	2.22	2.22	2.22	

REGULATORS EXTENDED CAPACITIES IN TONS

EPRB(S) EXTENDED CAPACITY TABLES

R134a	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 25°F					+ 20°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.75	2.52	3.61	4.44	5.14	5.60	1.55	2.24	3.20	3.95	4.48	4.86	1.37	1.97	2.83	3.49	3.87	4.17	1.28	1.85	2.66	3.22	3.58	3.83
EPRBS 16T11	3.09	4.44	6.35	7.82	9.06	9.90	2.74	3.94	5.64	6.95	7.91	8.63	2.41	3.48	4.99	6.15	6.86	7.45	2.26	3.26	4.68	5.70	6.37	6.88
EPRBS 20T13	5.76	8.28	11.85	14.59	16.90	18.16	5.11	7.35	10.53	12.97	14.49	16.00	4.50	6.49	9.31	11.47	12.71	13.98	4.21	6.08	8.73	10.45	11.86	13.03

R134a	EVAPORATOR TEMP.																							
	+ 15°F					+ 10°F					+ 5°F					0°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.20	1.73	2.49	2.99	3.29	3.51	1.12	1.62	2.33	2.76	3.02	3.20	1.04	1.51	2.19	2.53	2.76	2.89	0.97	1.41	2.02	2.32	2.50	2.60
EPRBS 16T11	2.11	3.05	4.38	5.29	5.89	6.34	1.97	2.85	4.10	4.90	5.42	5.80	1.84	2.66	3.86	4.52	4.97	5.29	1.71	2.48	3.57	4.15	4.54	4.79
EPRBS 20T13	3.94	5.70	8.18	9.75	11.04	12.11	3.68	5.32	7.65	9.08	10.26	11.22	3.43	4.97	7.05	8.43	9.50	10.36	3.19	4.63	6.55	7.81	8.78	9.53

R22	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	2.29	3.29	4.69	5.77	6.68	7.49	2.07	2.97	4.25	5.23	6.06	6.78	1.76	2.54	3.63	4.47	5.18	5.81	1.58	2.27	3.25	4.01	4.64	5.02
EPRBS 16T11	4.04	5.79	8.27	10.17	11.77	13.19	3.65	5.24	7.49	9.21	10.67	11.95	3.11	4.47	6.40	7.88	9.13	10.23	2.78	4.00	5.73	7.06	8.18	8.89
EPRBS 20T13	7.53	10.80	15.42	18.97	21.97	24.60	6.81	9.77	13.97	17.19	19.90	22.29	5.80	8.34	11.94	14.70	17.03	19.08	5.18	7.46	10.69	13.17	15.26	16.38

R22	EVAPORATOR TEMP.																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.40	2.02	2.90	3.57	4.02	4.35	1.24	1.79	2.57	3.13	3.47	3.72	1.08	1.57	2.26	2.68	2.94	3.11	0.94	1.37	1.97	2.26	2.44	2.53
EPRBS 16T11	2.47	3.56	5.11	6.29	7.12	7.75	2.18	3.15	4.52	5.53	6.18	6.68	1.91	2.77	3.98	4.77	5.28	5.65	1.66	2.42	3.49	4.05	4.43	4.66
EPRBS 20T13	4.60	6.64	9.53	11.74	13.11	14.45	4.06	5.87	8.44	10.14	11.50	12.64	3.56	5.16	7.43	8.85	10.00	10.93	3.10	4.51	6.42	7.64	8.58	9.31

R404A/ R507	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.95	2.79	3.98	4.90	5.66	6.34	1.74	2.49	3.56	4.38	5.06	5.67	1.45	2.09	2.98	3.67	4.25	4.76	1.28	1.84	2.63	3.24	3.75	4.11
EPRBS 16T11	3.44	4.92	7.01	8.62	9.98	11.17	3.07	4.39	6.27	7.71	8.92	9.99	2.56	3.67	5.25	6.46	7.48	8.38	2.26	3.24	4.64	5.71	6.61	7.26
EPRBS 20T13	6.41	9.18	13.09	16.09	18.62	20.84	5.72	8.19	11.69	14.38	16.64	18.64	4.78	6.86	9.80	12.05	13.96	15.63	4.21	6.05	8.66	10.65	12.34	13.29

R404A/ R507	EVAPORATOR TEMP.																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.12	1.62	2.32	2.85	3.30	3.54	0.98	1.41	2.02	2.49	2.78	3.01	0.85	1.22	1.76	2.12	2.35	2.51	0.73	1.06	1.52	1.78	1.95	2.05
EPRBS 16T11	1.98	2.85	4.08	5.02	5.82	6.28	1.73	2.49	3.56	4.39	4.93	5.36	1.49	2.16	3.10	3.75	4.19	4.52	1.29	1.86	2.67	3.17	3.50	3.74
EPRBS 20T13	3.69	5.31	7.61	9.37	10.86	11.59	3.22	4.64	6.65	8.20	9.10	10.03	2.79	4.03	5.78	6.90	7.83	8.59	2.40	3.47	4.99	5.90	6.66	7.27

REGULATORS EXTENDED CAPACITIES IN TONS

EPRB(S) EXTENDED CAPACITY TABLES

R12	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	1.60	2.30	3.28	4.04	4.68	5.24	1.3	1.9	2.7	3.3	3.9	4.3	1.0	1.4	2.0	2.5	2.8	3.2	0.8	1.1	1.6	2.0	2.3	2.5
EPRBS16T11	2.83	4.05	5.79	7.12	8.24	9.23	2.3	3.4	4.8	5.9	6.8	7.6	1.7	2.5	3.5	4.3	5.0	5.6	1.4	2.0	2.8	3.5	4.0	4.4
EPRBS20T13	5.27	7.56	10.79	13.28	15.38	17.22	4.4	6.3	8.9	11.0	12.7	14.3	3.2	4.6	6.6	8.1	9.4	10.5	2.5	3.7	5.2	6.5	7.5	8.0

R12	EVAPORATOR TEMP.																							
	0°F					-10°F					-20°F					-30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	0.6	0.9	1.2	1.5	1.7	1.9	0.5	0.7	1.0	1.2	1.3	1.4	0.4	0.5	0.7	0.9	1.0	1.0	0.3	0.4	0.6	0.7	0.7	0.7
EPRBS16T11	1.1	1.5	2.2	2.7	3.1	3.3	0.8	1.2	1.7	2.1	2.3	2.5	0.6	0.9	1.3	1.6	1.7	1.9	0.5	0.7	1.0	1.2	1.3	1.4
EPRBS20T13	2.0	2.9	4.1	5.0	5.6	6.2	1.5	2.2	3.2	3.9	4.4	4.8	1.2	1.7	2.5	2.9	3.3	3.6	0.9	1.3	1.9	2.2	2.5	2.7

R407C	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	2.52	3.62	5.16	6.35	7.35	8.24	2.1	3.0	4.3	5.2	6.1	6.8	1.5	2.2	3.1	3.8	4.4	4.9	1.2	1.7	2.5	3.0	3.5	3.8
EPRBS16T11	4.44	6.37	9.10	11.19	12.95	14.51	3.7	5.2	7.5	9.2	10.7	12.0	2.6	3.8	5.4	6.7	7.8	8.7	2.1	3.0	4.4	5.4	6.2	6.8
EPRBS20T13	8.28	11.88	16.96	20.87	24.17	27.06	6.8	9.8	14.0	17.2	19.9	22.3	4.9	7.1	10.1	12.5	14.5	16.2	3.9	5.7	8.1	10.0	11.6	12.4

R407C	EVAPORATOR TEMP.																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	1.0	1.4	2.0	2.4	2.7	3.0	0.7	1.1	1.5	1.9	2.1	2.2	0.6	0.8	1.2	1.4	1.5	1.6	0.4	0.6	0.9	1.0	1.1	1.1
EPRBS16T11	1.7	2.4	3.5	4.3	4.8	5.3	1.3	1.9	2.7	3.3	3.7	4.0	1.0	1.4	2.1	2.5	2.7	2.9	0.7	1.1	1.6	1.8	2.0	2.1
EPRBS20T13	3.1	4.5	6.5	8.0	8.9	9.8	2.4	3.5	5.1	6.1	6.9	7.6	1.9	2.7	3.9	4.6	5.2	5.7	1.4	2.0	2.9	3.4	3.9	4.2

R502	EVAPORATOR TEMP.																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	1.90	2.73	3.89	4.79	5.54	6.22	1.6	2.2	3.2	3.9	4.5	5.1	1.1	1.6	2.3	2.9	3.3	3.7	0.9	1.3	1.9	2.3	2.6	2.9
EPRBS16T11	3.35	4.81	6.86	8.44	9.77	10.95	2.7	3.9	5.6	6.9	8.0	9.0	2.0	2.9	4.1	5.0	5.8	6.5	1.6	2.3	3.3	4.0	4.7	5.1
EPRBS20T13	6.25	8.96	12.80	15.75	18.24	20.42	5.1	7.3	10.5	12.9	14.9	16.7	3.7	5.3	7.6	9.4	10.9	12.2	3.0	4.3	6.1	7.5	8.7	9.3

R502	EVAPORATOR TEMP.																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS12T9	0.7	1.0	1.5	1.8	2.1	2.2	0.6	0.8	1.2	1.4	1.6	1.7	0.4	0.6	0.9	1.0	1.1	1.2	0.3	0.5	0.7	0.8	0.8	0.9
EPRBS16T11	1.3	1.8	2.6	3.2	3.6	4.0	1.0	1.4	2.0	2.5	2.8	3.0	0.7	1.1	1.6	1.9	2.1	2.2	0.6	0.8	1.2	1.4	1.5	1.6
EPRBS20T13	2.3	3.4	4.9	6.0	6.7	7.4	1.8	2.6	3.8	4.6	5.2	5.7	1.4	2.0	2.9	3.5	3.9	4.3	1.1	1.5	2.2	2.6	2.9	3.2

HOT GAS BYPASS REGULATORS EXTENDED CAPACITIES

CPH(E) FOR R134a IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F								
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°
1/2	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C

DGR(E) & EGR(E) VALVES FOR R134a IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	-
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	-
2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	-	-	-	-	-	-
3	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) VALVES FOR R22 IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL2C	LCL2C	LCL2C	LCL2C	-
4	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2B	LCL2C	LCL3C	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	-	-	-	-	-	-	-	-	-

HOT GAS BYPASS REGULATORS EXTENDED CAPACITIES

DGR(E) & EGR(E) VALVES FOR R12 IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	–
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	–
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	–
2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	–	–	–	–	–	–
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	–	–	–	–	–	–
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	–	–	–	–	–	–
3	BYPASS REGULATOR	DGRE12	DGRE12	–	–	–	–	–	–	–	–
	HOT GAS SOL.	200RB6	200RB6	–	–	–	–	–	–	–	–
	LIQ. INJ. VALVE	LCL2B	LCL2B	–	–	–	–	–	–	–	–

DGR(E) & EGR(E) VALVES FOR R404A & R507 IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F								
		30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	–
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	–
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL3B	LCL3C	LCL3C	LCL3C	–
4	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	–	–
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	–	–
	LIQ. INJ. VALVE	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	–	–
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	–	–	–	–
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	–	–	–	–
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	–	–	–	–
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	–	–	–	–	–
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	–	–	–	–	–
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL4B	–	–	–	–	–
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	–	–	–	–	–	–
	HOT GAS SOL.	240RA8	240RA8	240RA8	–	–	–	–	–	–
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	–	–	–	–	–	–
8	BYPASS REGULATOR	DGRE12	DGRE12	–	–	–	–	–	–	–
	HOT GAS SOL.	240RA8	240RA8	–	–	–	–	–	–	–
	LIQ. INJ. VALVE	LCL4A	LCL4A	–	–	–	–	–	–	–
9	BYPASS REGULATOR	DGRE12	–	–	–	–	–	–	–	–
	HOT GAS SOL.	240RA9	–	–	–	–	–	–	–	–
	LIQ. INJ. VALVE	LCL4A	–	–	–	–	–	–	–	–

DGR(E) & EGR(E) VALVES FOR R407C IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL. LIQ. INJ. VALVE	100RB2 LCL1A	100RB2 LCL1A	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1C	100RB2 LCL1C	100RB2 LCL1C	100RB2 LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL. LIQ. INJ. VALVE	200RB3 LCL1A	200RB3 LCL1A	200RB3 LCL1B	200RB3 LCL1B	200RB3 LCL1B	200RB3 LCL1C	200RB3 LCL1C	200RB3 LCL1C	200RB3 LCL1C	200RB3 LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL. LIQ. INJ. VALVE	200RB4 LCL1A	200RB4 LCL1A	200RB4 LCL1B	200RB4 LCL1B	200RB4 LCL1B	200RB4 LCL1C	200RB4 LCL1C	200RB4 LCL1C	200RB4 LCL1C	200RB4 LCL1C
3	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB5 LCL1A	200RB5 LCL1A	200RB5 LCL1B	200RB5 LCL1B	200RB5 LCL1B	200RB5 LCL2C	200RB5 LCL2C	200RB5 LCL2C	200RB5 LCL2C	-
4	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB5 LCL2A	200RB5 LCL2A	200RB5 LCL2B	200RB5 LCL2B	200RB5 LCL2B	200RB5 LCL2C	200RB5 LCL3C	-	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB6 LCL2A	200RB6 LCL2A	200RB6 LCL2B	200RB6 LCL2B	200RB6 LCL2B	200RB6 LCL2C	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB6 LCL2A	200RB6 LCL2A	200RB6 LCL2B	200RB6 LCL2B	200RB6 LCL2B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL2A	240RA8 LCL2A	240RA8 LCL2B	240RA8 LCL3B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL3A	240RA8 LCL3A	240RA8 LCL3B	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL3A	240RA8 LCL3A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL3A	-	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) VALVES FOR R502 IN TONS

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6
	HOT GAS SOL. LIQ. INJ. VALVE	100RB2 LCL1A	100RB2 LCL1A	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1B	100RB2 LCL1C	100RB2 LCL1C	100RB2 LCL1C	100RB2 LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6
	HOT GAS SOL. LIQ. INJ. VALVE	200RB3 LCL1A	200RB3 LCL1A	200RB3 LCL1A	200RB3 LCL1B	200RB3 LCL1B	200RB3 LCL1B	200RB3 LCL1C	200RB3 LCL1C	200RB3 LCL1C	200RB3 LCL1C
2	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL. LIQ. INJ. VALVE	200RB4 LCL2A	200RB4 LCL2A	200RB4 LCL2B	200RB4 LCL2B	200RB4 LCL2B	200RB4 LCL2B	200RB4 LCL2C	200RB4 LCL2C	200RB4 LCL2C	200RB4 LCL2C
3	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB5 LCL2A	200RB5 LCL2A	200RB5 LCL2A	200RB5 LCL2B	200RB5 LCL2B	200RB5 LCL3B	200RB5 LCL3C	200RB5 LCL3C	200RB5 LCL3C	-
4	BYPASS REGULATOR	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB6 LCL2A	200RB6 LCL2A	200RB6 LCL3A	200RB6 LCL3B	200RB6 LCL3B	200RB6 LCL3B	200RB6 LCL3C	200RB6 LCL3C	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	200RB6 LCL3A	200RB6 LCL3A	200RB6 LCL3A	200RB6 LCL3B	200RB6 LCL3B	200RB6 LCL3B	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL3A	240RA8 LCL3A	240RA8 LCL3A	240RA8 LCL3B	240RA8 LCL4B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL3A	240RA8 LCL4A	240RA8 LCL4A	240RA8 LCL4B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA8 LCL4A	240RA8 LCL4A	240RA8 LCL4A	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA9 LCL4A	240RA9 LCL4A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL. LIQ. INJ. VALVE	240RA9 LCL4A	-	-	-	-	-	-	-	-	-



TEMPERATURE PRESSURE CONTROLS QUICK SELECT CHART

APPLICATION	FEATURE	TYPE	PAGE
COMMERCIAL REFRIGERATION AIR CONDITIONING CONTROLS	Temperature Control, Adjustable Set Point and Differential	TS1	184
	Single Pressure Control, Adjustable Set Point and Differential	PS1	188
	Dual Pressure Control, Adjustable Set Point and Differential	PS2	190
	Differential PressureControl	FD113	192
MINI-PRESSURE CONTROLS	Mini-Pressure Control	PS3	193
	Electronic Fan Speed Control	FS	196
INDUSTRIAL PRESSURE CONTROLS	Industrial Pressure Control	FF4	198
	Industrial Pressure Control, U.L. Approved	FF444	199

TS1 SERIES TEMPERATURE CONTROLS

The TS1 Series is our range of adjustable thermostats for application in refrigeration and heat pump systems. In these systems, thermostats serve control and monitoring functions, such as space temperature control, high/low temperature alarming or defrost termination. By operating a set of electrical contacts, a temperature value is kept inside a certain limit.

Several housing variants and sensors are provided in order to suit a control to a specific application.

FEATURES

- ☆ Adjustable temperatures and differentials
- ☆ Range and differential pointer in units °C and °F
- ☆ Range and differential individually lockable by wire seal
- ☆ Captive terminal and cover screws
- ☆ Manual toggle for system checkout and override
- ☆ Bellows heater for thermostats with vapour charge
- ☆ Room thermostats with insulation console
- ☆ Standard accessories include mounting brackets and knob with lockplate on all individually packed controls
- ☆ Non-ambient sensitive
- ☆ Heavy-duty SPDT switch allows handling of most loads directly without the use of relays

SPECIFICATIONS

- ☆ Ambient temperature ranges -50°C to +70°C (-58°F to 158°F)
- ☆ SPDT switch rated for 120VAC/240VAC at 24FLA and 144LRA
- ☆ Agency approvals include: UL/CUL file #E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG

NOMENCLATURE — EXAMPLE TS1 B1E

TS1	B	1	E
Product Name TS1 = Adjustable thermostat TSA = Customer specials	Housing Variant/function A = Wall mount design, top adjustment B = Wall mount design, top adjustment, off-switch C = Frost monitor, auto reset D = Frost monitor, manual reset E = Wall mount design, front adjustment F = Wall mount design, front adjustment, off-switch G = Flush mount design, front adjustment H = Flush mount design, front adjustment, off-switch R = Wall mounting, top adjustment, manual reset X = Wall mount design, top adjustment, Y = Frost monitor, manual reset	Temperature Range 0 = +40 to +68°F (+4.5 to +20°C) 1 = -50 to +14°F (-45 to -10°C) 2* = -22 to +50°F (-30 to +10°C) -22 to +59°F (-30 to +15°C) 3* = +14 to +77°F (-10 to +25°C) +14 to +95°F (-10 to +35°C) 4* = -13 to +86°F (-25 to +30°C) -22 to +95°F (-30 to +35°C) 5* = +68 to +140°F (+20 to +60°C) +77 to +167°F (+25 to +75°C) 6 = +122 to +212°F (+50 to +100°C) 7 = +32 to +50°F (0 to +10°C) 8 = +194 to +284°F (+90 to +140°C) 9 = +266 to +356°F (+130 to +180°C) NOTES Temp ranges 0-4: manual reset for falling temperature Temp ranges 5-9: manual reset for rising temperature * First line is range for controls with housing variant/function A, B, C, D, R, X or Y. Second temperature range applies to controls with housing variant/function E, F, G or H.	Sensor Type A = Vapor Charge, 2 m. capillary C = Liquid Charge, 2 m. bulb E = Vapor Charge, 0 m. coil F = Adsorption Charge, 2 m. bulb P = Vapor Charge, 2 m. capillary for housing variant A/B/E/F/G/H/R. 6 m. capillary for housing variant C/D/X/Y.



OPTIONS

- ☆ Housing variants for top and front operation
- ☆ Flush mounted version
- ☆ Vapor, liquid and cross-ambient charges
- ☆ Sensor shapes for various applications
- ☆ Versions with and without manual override
- ☆ Factory set to customer specification
- ☆ Different types of mounting brackets
- ☆ Sensor bulb wells and capillary tube holders
- ☆ Special approvals

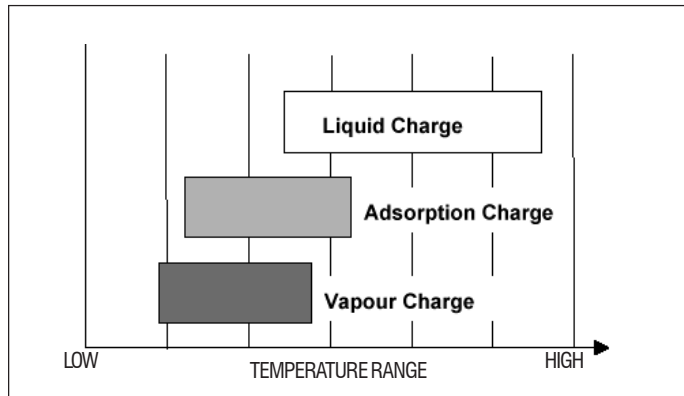
TF115 REPLACEMENT

See following page for Old to New Cross Reference (TF115 to TS1)

TEMPERATURE SENSING

TS1 thermostats sense temperature by means of a thermal system, consisting of temperature charge, bulb, capillary and bellows. The temperature charge changes its pressure based on the refrigerant temperature to be sensed. The sensor is the portion of the system which is in thermal contact with the refrigerant, the capillary connects the sensor with the bellows and the bellows contracts or expands depending on the pressure, causing the thermostat to operate the electrical contacts. An exception are capillary type of sensors, which do not have a bulb, instead, their capillary serves as the bulb directly. Charges and sensor types are matched to temperature ranges and other application specific characteristics.

TS1 thermostats come with one of three charge types: vapor charges, adsorption charges or liquid charges. The application temperature range covered by each charge type is shown in the chart below.



Vapor Charge—Sensor Type A, E, P

These sensing elements always sense from the coldest point on the capillary, coil, bulb or power element head. For proper operation it must be ensured that this coldest point is at the sensor portion which is exposed to the temperature to be sensed. The sensing location should be at least 4°F (2 K) colder than the other parts of the thermal system.

In order to avoid unwanted effects of heat transfer, e.g. from a cold wall, vapour charged thermostats come with an integrated bellows heater, which is rated for 230 V applications. For other applications the heater must be disabled, alternatively, a bellows heater with a different rating may be available.

In addition to the bellows heater, room thermostats are supplied with an insulation console for the same reason.

Sensor type 'A' is a coiled bulb sensor with two meter capillary, which may be used with or without a bulb well. Style 'E' is a coil sensor for space temperature sensing, and type 'P' is a capillary type of sensor which can be wrapped around a heat exchanger's surface in order to sense the coldest point on the heat exchanger for frost protection applications.

Vapor charges respond faster to temperature changes than adsorption and liquid charges.

Adsorption Charge—Sensor Type F

Adsorption charged sensor types operate on the basis of a temperature dependent adsorption material, which is located inside the bulb only. Therefore these sensor types always respond to temperature changes at the bulb only. This makes them suitable to applications where it is not always defined which part of the thermal system the coldest point is (cross ambient applications). An example for such applications is defrost control.

Adsorption charges are slower in response to temperature changes than vapour charges.

Liquid Charge—Sensor Type C

Liquid charge sensors of type 'C' always sense from the warmest point of the thermal system. This condition must always be ensured. The sensing location should always be warmer than 4°F (2 K) than other parts of the thermal system.

HOUSING VARIANTS

TS1 controls can be delivered in three main housing variants, top operated, front operated and flush mounted. All three variants are available either with or without off-switch, which cuts off power supply to the thermostat in off position

Top operated controls—Function/Housing Variant A,B,C,D,R,X,Y

Have adjustment spindles at the top and a display scale, indicating temperature setpoint and differential, at the front. A knob which may be permanently plugged onto one of the adjustment spindles comes with every control. Frost monitors and room thermostats are derivatives of top operated thermostats. They differ by their sensors and other features to suit their particular target applications.

Front operated controls—Function/Housing Variant E,F

Have an adjustment knob at the front for the temperature setpoint with an approximate scale imprinted on the knob. In order to adjust the temperature differential, the cover of the control must be removed.

Flush Mounted controls—Function/Housing Variant G,H

Designed in a way that they can be integrated into a panel or housing, for example into display cases.

OLD TO NEW CROSS REFERENCE (TF115 TO TS1)				REPLACES THE COMPETITION					
OLD MODEL	OLD PCN	NEW MODEL	NEW PCN	RANCO	PENN	WHITE-RODGERS	HONEYWELL	DANFOSS	SAGINOMIYA
TF115-S2-AA10	097457	TS1-X2A 21/30	097926	010-1408, 010-1409 010-1410, 010-104		1609-90	T4031A1008		
TF115-S4-AF10	097458	TS1-X4F 32/41	097929	060-100 F25-107	A19ABC-24 A19ZBC-2	1609-101, 1609-102 1609-103	T6031A1029		
TF115-S2-AE00	097467	TS1-X2E 36/40	097932	010-1418, 016-594 010-1072	A19BBC-2	201-20	T6054A		
TF115-S3-AE00	097468	TS1-X3E 64/68	097935	010-301, 016-165	A19BAB-3, A19BAC-1	201-8	T6054B		
TF115-S1-AA10	097466	TS1-X1A -4/0	097940	010-1433		1609-100			
TF115-S0-AP20	097140	TS1-C0P 36/40	097882						
TF115-S0-DP20	097141	TS1-D0P 36	097885						
TF115-S2-AP06	097423	TS1-X2P		016-109				KP61 60L1100	BNS-C1030X
TF115-S4-AF06	097329	TS1-A4F 32/41		016-109				KP71 60L1113, KP71 60L1115 KP73 60L1117, KP73 60L1118 KP73 60L1140, KP73 60L1143 KP75 60L1120, KP75 60L1137	TNS-C1010XC TNS-C1034XC

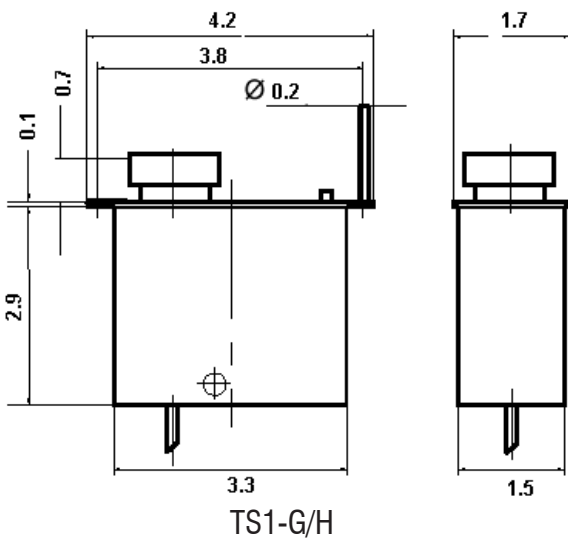
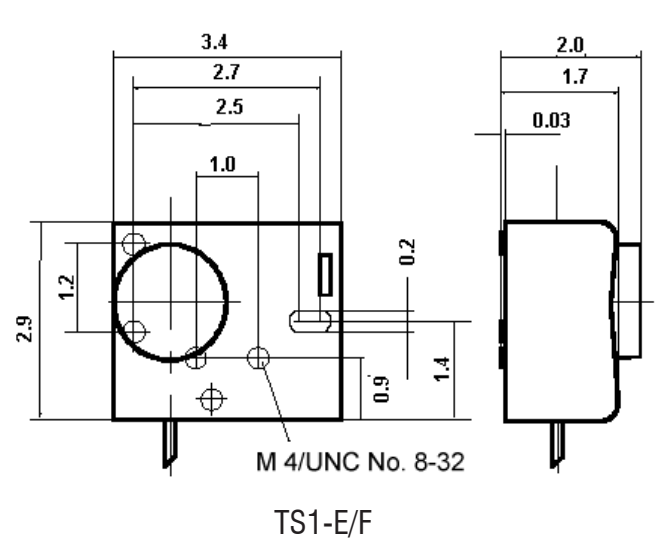
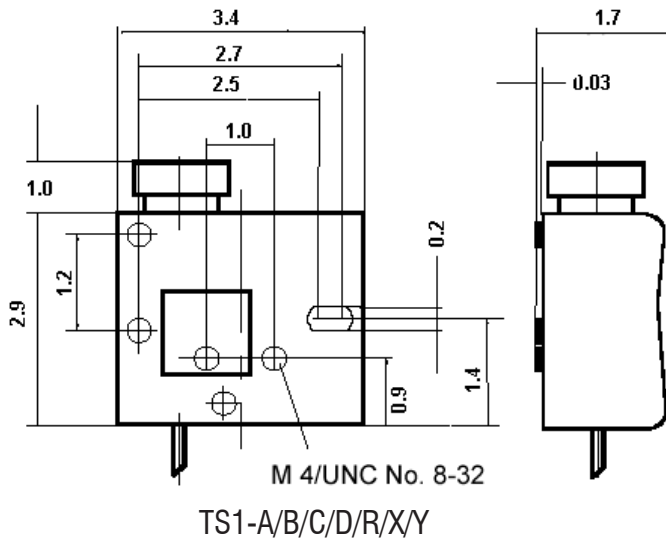
ORDERING INFORMATION FOR TS1 TEMPERATURE CONTROLS

TYPE	PCN*	ADJUSTMENT RANGE		FACTORY SETTING °F (°C)	TEMPERATURE SENSOR	
		UPPER SETPOINT °F (°C)	DIFFER. SETPOINT °F (°K)		CHARGE	TYPE
		TOP OPERATED THERMOSTATS WITHOUT OFF-SWITCH (CAPILLARY TYPE SENSOR)				
TS1-X1A	097940	-49 TO 14 (-45...-10)	3 TO 29 (2 TO 16)	0/-4 (-18/-20)	VAPOR	6 FT. (2 m.) capillary
TS1-X2A	097926	-22 TO 59 (-30...+15)	3 TO 29 (2 TO 16)	30/21 (-1/-6)	VAPOR	6 FT. (2 m.) capillary
TS1-X4F	097929	-22 TO 95 (-30...+35)	5 TO 36 (3...20)	41/32 (+5/0)	ADSORPTION	6 FT. (2 m.) cap. & bulb
ROOM THERMOSTATS TOP OPERATED WITHOUT OFF-SWITCH (INCLUDES INSULATION CONSOLE AND COIL TYPE SENSOR)						
TS1-X2E	097932	-22 TO 59 (-30...+15)	3 TO 29 (2 TO 16)	39/35 (+4/+2)	VAPOR	Coil
TS1-X3E	097935	14 TO 95 (-10...+35)	3 TO 29 (2 TO 16)	68/64 (+20/+18)	VAPOR	Coil
FREEZE-STAT, TOP OPERATED WITHOUT OFF-SWITCH (CAPILLARY TYPE SENSOR)						
TS1-C0P	097882	40 TO 68 (+4.5...+20)	5 (3) fix	40/36 (4.5/+2)	VAPOR	20 FT. (6 m.) capillary
TS1-D0P	097885	40 TO 68 (+4.5...+20)	man. reset ca. 5 (3) fix	36 (+2)	VAPOR	20 FT. (6 m.) capillary

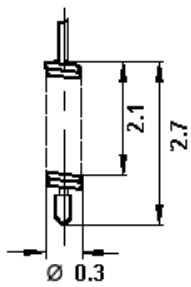
Standard Product Offering

* Product Code Number

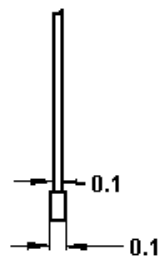
TS1 DIMENSIONAL DIAGRAMS



DIMENSIONS SHOWN ARE IN INCHES

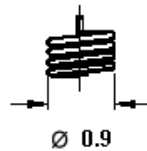


Sensor type A
Vapour charge
2m (6.56 ft)



Sensor type P*
Vapour charge

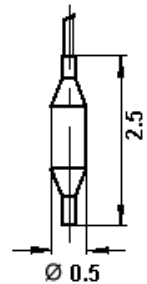
* 2 m. (6.56 ft) length with housing variant A/B/E/F/G/H/R
6 m. (19.68 ft) length with housing variant C/D/XY



Sensor type E
Vapour charge



Sensor type F
Adsorption charge
2m (6.56 ft)



Sensor type C
Liquid charge
2m (6.56 ft)

PS1 SERIES SINGLE PRESSURE CONTROLS

PS1 Single Pressure Controls are designed for use on high and low pressure applications in refrigeration and heat pump systems. By operating a set of electrical contacts, a pressure is kept inside a certain limit.

FEATURES

- ☆ Adjustable pressures and differentials
- ☆ Narrow adjustable differential depending on model
- ☆ Range and differential pointer in units bar and psig
- ☆ Range and differential individually lockable by wire seal
- ☆ High rated SPDT contacts for all versions
- ☆ Captive terminal and cover screws
- ☆ Manual toggle for system checkout and override
- ☆ Factory installed wire bridge for reduced installation effort

OPTIONS

- ☆ Different pressure connections
- ☆ Automatic and manual reset versions
- ☆ Factory set to customer specification
- ☆ Different types of mounting brackets



SPECIFICATIONS

- ☆ SPDT switch rated for 120VAC/240VAC at 24FLA and 144LRA
- ☆ Agency approvals include: UL/CUL file #E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG
- ☆ Low pressure and high pressure versions available with TÜV approval according to EN 12263 (supercedes DIN 32733) to meet requirements of DIN 8901 and EN378 (supercedes DIN 8975)

FF115 REPLACEMENT

See following page for Old to New Cross Reference (FF115 to PS1)

NOMENCLATURE — EXAMPLE PS1-A5K

PS1	A	5	K
Product Name PS1 = Adjustable single Pressure Control PSA = Customer specials	Function A = Pressure control, automatic reset, internal range & differential adjustments B = Pressure cut out, external manual reset, DIN/TUV approved, internal range and differential adjustments ^{1, 2} R = Pressure cut out, external manual reset, internal range and differential adjustments ^{1, 2} S = Safety pressure cut out, internal manual reset, DIN/TUV approved, internal range & differential adjustments ^{1, 2} U = Convertible from R to A W = Pressure control, automatic reset, DIN/TUV approved, internal range and differential adjustments X = Pressure control, automatic reset, external range and differential adjustments Y = Pressure cut out, external manual reset, external range and differential adjustments ¹ Function types B, R, S in combination with Pressure Range 1 or 3 have a low pressure manual reset function. (15 psi differential) ² Function types B, R, S in combination with Pressure Range 4 or 5 have a high pressure manual reset function. (60 psi diff.)	Pressure Range 1 = 24" Hg to 42 psi (-0.75 to 3 bar) 2 = 26" Hg to 21 psi (-0.8 to 1.5 bar) 3 = 15" Hg to 100 psi (-0.5 to 7 bar) 4 = 15 to 290 psi (1 to 20 bar) 5 = 90 to 450 psi (6 to 31 bar)	Pressure Connector Type A = 7/16"-20 UNF male for 1/4" SAE male flare C = R 1/4" stainless steel with steel bellows F = 1/4"-18 NPTF stainless steel with steel bellows K* = 7/16"-20 UNF flare nut with 1 meter (3 ft.) cap tube L = 1/4" ODF solder with 1 meter (3 ft.) cap tube R = R 1/4" U = 6 mm ODF solder, 80 mm tube length X = 1/4" ODF solder, 80 mm tube length * Controls with housing variant X/Y have extended copper ends, without schrader valve depressor. All other housing variants have schrader valve depressor and brass end fitting with copper gasket.

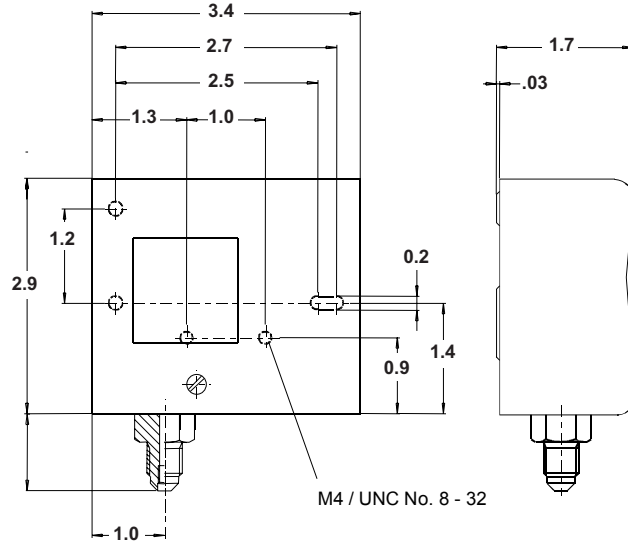
ORDERING INFORMATION FOR PS1 SINGLE PRESSURE CONTROLS

Single Pressure Control	PCN	Adjustment Range		Factory Setting PSI	Pressure Connection
		Upper Setpoint PSI	Diff. Setpoint psi		
Low Pressure Controls					
PS1-X1K	097898	24" Hg to 42" Hg	4 to 29	7/15	Capillary Nut
PS1-X1A	097894				7/16"-20 UNF, 1/4" SAE male
PS1-X3A	097914	15" Hg to 100" Hg	7 to 73	50/65	Capillary Nut
PS1-X3K	097904				Capillary Nut
High Pressure Controls					
PS1-X4K	097901	15" Hg to 290" Hg	15 to 100	145/115	Capillary Nut
PS1-X5K	097908	90" Hg to 450" Hg	29 to 217	230/290	
PS1-Y5A	097923		Ext. Manual Reset	50	7/16"-20 UNF, 1/4" SAE male
PS1-Y5K	097911		Capillary Nut		

Standard Product Offering

* Product Code Number

PS1 DIMENSIONAL DIAGRAM



DIMENSIONS SHOWN ARE IN INCHES.

OLD TO NEW CROSS REFERENCE (TF115 TO TS1)				REPLACES THE COMPETITION				
OLD MODEL	OLD PCN	NEW MODEL	NEW PCN	COPELAND ¹	RANCO	PENN	DANFOSS	SAGINOMIYA
FF115-S1-BAK	097450	PS1-X1K 7/15	097898	085-0098-21 985-CP1A-1K	010-1402 016-557	P70AB-12		
FF115-S4-BAK	097565	PS1-X4K 115/145	097901	085-0098-33	010-2000 016-593	P70AA-2		
FF115-S3-BAK	097451	PS1-X3K 50/65	097904	085-0098-00 985-CP1A-3K	010-1483, 011-3099 016-527	P70AB-12, P70AB-2 P70CA-2		
FF115-S5-BAK	097452	PS1-X5K 230/290	097908	085-0098-08 985-CP1A-5K	010-2054, 011-1711 016-108, 020-7006	P70AA-118 P70CA-3		
FF115-S5-BRK	097453	PS1-Y5K 230/290	097911		016-200	P70DA-1 P70KA-1		
FF115-S3-BAA	097459	PS1-X3A 50/65	097914	985-CP1A-3A	010-1401, 010-1831 011-1799, 016-106 016-107	P170AB-12 P170AB-2	KP1 60-1101	SNS-C106X
FF115-S5-BAA	097460	PS1-X5A 140/280	097919	985-CP1A-5A	010-1894, 011-1713 016-503, 016-570 016-106	P170AA-118, P170CA-3 P77AAA-9350 P77AAA-9370	KP5 60-1171	SNS-C130X, SNS-C135X
FF115-S5-BRA	097462	PS1-Y5A 330/390	097923		016-209, 016-106	P170DA-1, P77BEA-9350 P77BEA-9370	KP5 60-1173	
		PS1-U5A 385		985-CP1U-5A				
		PS1-U5K 385		985-CP1U-5K				

¹The control may be used with bracket (PCN 097221) to allow replacement of the Copeland control with the same mounting configuration.

PS2 SERIES DUAL PRESSURE CONTROLS

PS2 Dual Pressure Controls are designed for use on high and low pressure applications in refrigeration and heat pump systems. By operating a set of electrical contacts, a pressure is kept inside certain limits.

FEATURES

- ☆ Adjustable pressures and differentials
- ☆ Narrow adjustable differential depending on model
- ☆ Range and differential pointer in units bar and psig
- ☆ Range and differential individually lockable by wire seal
- ☆ High rated SPDT contacts for all versions
- ☆ Captive terminal and cover screws
- ☆ Manual toggle for system checkout and override
- ☆ Factory installed wire bridge for reduced installation effort

OPTIONS

- ☆ Different pressure connections
- ☆ Automatic and manual reset versions
- ☆ Factory set to customer specification
- ☆ Different types of mounting brackets



SPECIFICATIONS

- ☆ SPDT switch rated for 120VAC/240VAC at 24FLA and 144LRA
- ☆ Agency approvals include: UL/CUL file #E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG
- ☆ Low pressure and high pressure versions available with TÜV approval according to DIN 32733 to meet requirements of DIN 8901 and DIN 8975

FF215 REPLACEMENT

See following page for Old to New Cross Reference (FF215 to PS2)

NOMENCLATURE — EXAMPLE PS2-G8A

PS2	G	8	A
<p>Product Name PS2 = Adjustable Dual Pressostat</p> <p>PSB = Customer special Version</p>	<p>Function</p> <p>A = <u>Both sides</u>: Pressure controls, Automatic reset, Internal range and differential adjustments.</p> <p>B = <u>Both sides</u>: Pressure cut out, External manual reset, DIN/TÜV approved, internal range and differential adjustments.</p> <p>C = <u>Left side</u>: Pressure control, Automatic reset, DIN/TÜV approved, Internal range and differential adjustments. <u>Right side</u>: Safety cut out, External manual reset, DIN/TÜV approved, Internal range & differential adjustments.</p> <p>G = <u>Left side</u>: Pressure control, Automatic reset, DIN/TÜV approved, Internal range and differential adjustments. <u>Right Side</u>: Safety limiter, internal manual reset, DIN/TÜV approved, Internal range & differential adjustments.</p> <p>L = <u>Left side</u>: Pressure control, Automatic reset, Internal range and differential adjustments. <u>Right side</u>: Pressure cut out, External manual reset, Internal range and differential adjustments.</p> <p>M = <u>Left side</u>: Pressure control, Automatic reset, Internal range and differential adjustments. <u>Right side</u>: Convertible reset from R to A, Internal range and differential adjustments.</p> <p>R = <u>Both sides</u>: Pressure cut out, External manual reset, Internal range and differential adjustments.</p> <p>S = <u>Both sides</u>: Pressure safety cut out, Internal manual reset, DIN/TÜV approved, Internal range and differential adjustments.</p> <p>T = <u>Left side</u>: Pressure control, Automatic reset, DIN/TÜV approved, Internal range and differential adjustments. <u>Right Side</u>: Safety limiter, internal manual reset, DIN/TÜV approved, Internal range & differential adjustments.</p> <p>U = <u>Both sides</u>: Convertible from R to A.</p> <p>W = <u>Both sides</u>: Pressure control, Automatic reset, TÜV approved, Internal range and differential adjustments.</p> <p>X = <u>Both sides</u>: Pressure controls, Automatic reset, External range and differential adjustments.</p> <p>Y = <u>Left side</u>: Pressure control, Automatic reset, External range and differential adjustments. <u>Right side</u>: Convertible from external manual reset to automatic reset, External range and differential adjustments.</p> <p>Z = <u>Both sides</u>: Convertible from External manual reset to automatic reset, External range and differential adjustments.</p> <p>LOW PRESSURE MANUAL RESET: Cut outs with manual reset function and in combination with the low pressure side of Pressure Ranges 7 & 9 have a low pressure manual reset function (15 psi differential).</p> <p>HIGH PRESSURE MANUAL RESET: Cut outs with manual reset function and in combination with the high pressure side of Pressure Ranges 7 & 9 have a high pressure manual reset function (60 psi differential).</p>	<p>Pressure Ranges</p> <p>7 = Left side: 15"Hg to 100 psi (-0.5 to 7 bar) Right side: 90 to 450 psi (6 to 31 bar)</p> <p>8 = Left side: 90 to 450 psi (6 to 31 bar) Right side: 90 to 450 psi (6 to 31 bar)</p> <p>9 = Left side: 24"Hg to 45 psi (-0.75 to 3 bar) Right side: 90 to 450 psi (6 to 31 bar)</p>	<p>Pressure Connector Type</p> <p>A = 7/16" -20 UNF male for 1/4" SAE flare fitting</p> <p>C = R 1/4" stainless steel with steel bellows</p> <p>F = 1/4" -18 NPTF stainless steel with steel bellows</p> <p>K* = 7/16" -20 UNF flare nut with 1 meter (3 ft.) cap tube</p> <p>L = 1/4" ODM solder with 1 meter (3 ft.) cap tube</p> <p>R = R 1/4"</p> <p>U = 6 mm ODF solder, 80 mm tube length</p> <p>X = 1/4" ODF solder, 80 mm tube length</p> <p>* Controls with housing variants X/Y/Z have extended copper ends, without schrader valve depressor. All other housing variants have schrader valve depressor and brass end fitting with copper gasket.</p>

ORDERING INFORMATION FOR PS2 DUAL PRESSURE CONTROLS

Standard Product Offering

* Product Code Number

OLD TO NEW CROSS REFERENCE (FF215 TO PS2)				REPLACES THE COMPETITION				
OLD MODEL	OLD PCN	NEW MODEL	NEW PCN	COPELAND ¹	RANCO	PENN	DANFOSS	SAGINOMIYA
FF215-S7-BAUK	097454	PS2-Y7K50/65* 230/290	097943	085-0098-02, 085-7000-00 985-CP2M-7K	012-1549 012-4834	P70LB-1,P70LB-6 P70MA-1,P70MA-18		
FF215-S9-BAUK	097455	PS2-Y9K7/15* 230/290	097960	085-0098-22, 085-0098-23	012-1502, 012-1506 012-1554, 012-4833	P70LB-1,P70LB-6 P70MA-1,P70MA-18		
FF215-S7-BAUA	097463	PS2-Y7A50/65* 230/290		985-CP2M-7A	012-1550	P170LB-1 P170MA-1		
FF215-S7-BAAA	097006	PS2-A7A50/65* 230/290			017-108	P78LCA-9300 P78LCA-9320	KP1560-1241 KP1560-1265	DNS-D304X,DNS-D306X DNS-D604X,DNS-D606X DNS-D706X
FF215-S7-BAAK	097261	PS2-X7K50/65* 230/290	097875					
FF215-S7-BAAL	097145	PS2-A7L50/65* 230/290						
FF215-S7-BARA	097034	PS2-L7A50/65* 290			017-108	P78MCA-9300 P78MCA-9320	KP1560-1243 KP1560-1264	DNS-D304XM, DNS-D304XML DNS-D306XM, DNS-D306XML DNS-D604XM, DNS-D606XM DNS-D606XMM
FF215-S7-BARL	097344	PS2-L7L50/65* 290						
FF215-S7-BAUL	097057	PS2-Y7L50/65* 290						

¹The control may be used with bracket (PCN 097221) to allow replacement of the Copeland control with the same mounting configuration.

Dual Pressure Control	PCN	Adjustment Range				Factory Setting		Pressure Connection
		Upper Setpoint		Differential Setpoint		Left PSI	Right PSI	
		Left PSI	Right PSI	Left PSI	Right PSI			
Combined Pressure Limiter/Pressure Cut Out for Low Pressure/High Pressure Protection								
PS2-Y7A	097954	15" Hg to 100" Hg	90" Hg to 450" Hg	7 to 72	Convertible Auto/Manual Reset	50/65	290	7/16"-20 UNF
PS2-Y7K	097943			4 to 29		7/15		Capillary Nut
PS2-Y9K	097950	24" Hg to 45" Hg						

FD113-ZU(K) OIL PRESSURE SAFETY CONTROLS

The FD113 Oil Pressure Safety Control senses the effective oil pressure on pressure lubricate compressors. If inadequate oil pressure exists, a time delay is energized. If the oil pressure does not recover to safe levels within the time delay setting, the compressor is shut down. The time delay allows the compressor adequate time to establish oil pressure on start up and avoids nuisance shutdowns on pressure drop of short duration during the run cycle.

Maximum application flexibility is assured by providing an adjustable differential pressure switch which can be adjusted to the compressor's minimum required oil pressure needs and an adjustable electronic time delay which allows you to select the length of time the compressor runs below the minimum pressure before shutdown. The minimum pressure setting and time delay values specified by the compressor manufacturer should be used when installing the FD113 control.

FEATURES

- ☆ Pressure Range adjustable from 4 to 65 PSID; Timer start pressure—timer stop pressure is 3 PSID above timer start pressure
- ☆ A SPDT switch is used in the pressure portion of the control which allows the addition of a "safe light" if desired
- ☆ Electronic Timer is Time-Adjustable from 20 to 150 seconds
Supply voltage—24 to 240 Volt AC/DC; Timing unaffected by voltage or ambient temperature variations
- ☆ A SPDT Manual Reset Switch is used in the Timer Module; Upon time-out, the compressor is stopped and an alarm circuit is energized; To restart the compressor and de-energize the alarm circuit, the reset button is pushed
- ☆ A factory installed Jumper allows the FD113 to be powered from a single power source; Should separate circuits be desired for the timer and "Lockout" switch, the Jumper can be removed

SPECIFICATIONS

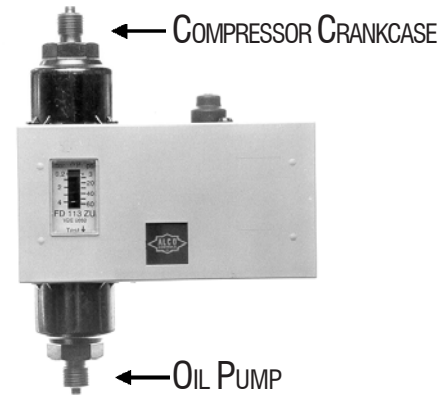
- ☆ Agency approvals include: UL/CUL file #E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG

ORDERING INFORMATION FOR FD113-ZU(K) OIL PRESSURE SAFETY CONTROLS

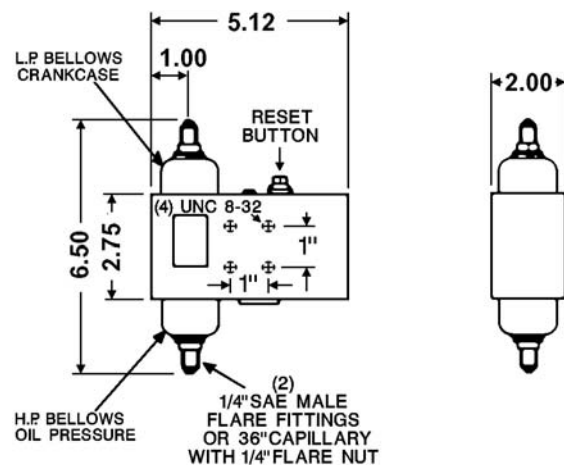
PCN	Part Number	Adjustable Pressure Range	Adjustable Time Delay	Supply Voltage	Pressure Connection	REPLACES		
						Penn	Copeland	Ranco
097456	FD113-ZUK	4-65 PSID	20 to 150 seconds	24 to 240V AC/DC	(2) 36" capillary with 1/4" flare nut	P45NCA-12 P45NCA-82 P28AA-1,-2 P28AA-17,-18 P28DA-1 P28GA-2 P28NA-5	085-0062-00	P30-5826 P30-3601 P30-3701 P30-3801
097464	FD113-ZU		Factory-set at 120seconds		(2) 1/4" male flare ¹	P128AA-1,-2,-3 P145NCA-12,-82 P145NCB-12,-82		P30-5827

Standard Product Offering * Product Code Number

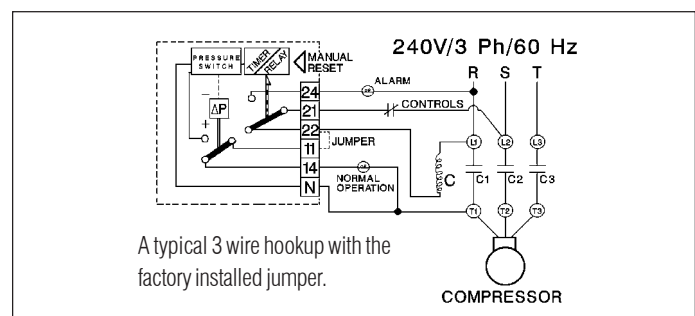
¹ For applications where the condensing unit/control is exposed to temperatures below 20°F, 1/4" lines are recommended.



FD113 DIMENSIONAL DATA



DIMENSIONS SHOWN ARE IN INCHES.



PS3 MINI-PRESSURE CONTROLS

The PS3 Mini-Pressure Control provides the ultimate in reliability and flexibility in a commercial grade mini-pressure control. A standard plug connectable design simplifies installation and service. The SPDT switch allows the addition of alarm circuits on high or low pressure applications. The PS3 makes your application and selection easy. Models with high temperature diaphragms and built-in pressure pulsation snubbers make the PS3 ideally suited for compressor head mounting high pressure limit control applications—automatic or manual reset versions are available.

Pressure Ranges/Differential also make the PS3 controls ideally suited for condenser fan cycling applications. Field Trimable Low Pressure versions with standard or narrow differential switches make these controls ideally suited low pressure limit or back-up safety controls on electronically controlled systems. Numerous options, such as panel mount or capillary connections are available on high volume applications. Standard on all models are worldwide agency approvals.

TYPICAL APPLICATIONS

- ☆ High Pressure Limit/Alarm
- ☆ Condenser Fan Cycling
- ☆ Low Pressure Limit/Alarm
- ☆ Low Pressure Cycling (Back-Up)
- ☆ Defrost Termination/Fan Delay
- ☆ Rupture Guard Alarm

SPECIFICATIONS

- ☆ Worldwide Approvals: UL/CUL/VDE/TUV
- ☆ UL file #E85974

NOMENCLATURE — EXAMPLE PS3-AF1HNB



FEATURES

- ☆ Commercial Grade High/Low/Condenser Fan Cycling Pressure Controls for use on Refrigeration/AC Applications
- ☆ Mini-Size 2" x 1-1/2" x 2-3/4"
- ☆ Standard SPDT Switch Action
- ☆ Automatic or Manual Reset
- ☆ Models available with high temperature double diaphragms and built-in pressure pulsation snubber for direct head mount high pressure sensing/limit applications
- ☆ Plug Connectable with hub for 1/2" flexible conduit or Compression Fitting for cable
- ☆ Factory preset to customer's desired pressure specifications
- ☆ Selected Models Field "Trimable" to match application pressure requirements
- ☆ Precise, repeatable settings
- ☆ Narrow differential "Micro" switch available on low pressure models
- ☆ Panel Mount configurations with fitting or capillary available on special order
- ☆ Terminal Covers available for protecting individual wire connections when 1/4" QC's used on Panel Mount configurations

PS3	A	F	1	H	N	B
Product Name	Function	Mounting	Pressure Range	Electrical Connection	Contact Type	Pressure Connection
A	Automatic Reset, High Pressure with Single Bronze Diaphragm Material	F Free Standing	1 15" Hg to 90 psig (-0.6 to 6 bar)	H Spade for DIN connector	N Standard	S 1/4" SAE Female (7/16"-20 UNF) with Schrader valve depressor
W	Automatic Reset, High Pressure with safety cut-out with Double Bronze Diaphragm Material, DIN/TUV approved	P Panel Mount design with mounting flange	3 2 to 230 psig (0.1 to 16 bar)	T 1/4" x .032" Spade connections	M MicroSwitch	A 1/4" SAE Male (7/16"-20 UNF)
X	Automatic Reset, High Pressure with Double Nickel Beryllium Diaphragm Material (High Temp), DIN/TUV approved		5 100 to 465 psig (6 to 32 bar)		G Gold plated contacts	B 1/4" SAE Female (7/16"-20 UNF) with Snubber orifice and Schrader valve depressor for High Temp/Pressure Application
B	Manual Reset, High Pressure Safety Limiter with Double Bronze Diaphragm Material, DIN/TUV approved				O Standard switch with Gold plated contacts	L 1/4" ODM Solder with 36" capillary tube
C	Manual Reset, High Pressure Safety Limiter with Double Nickel Beryllium Diaphragm Material (High Temp), DIN/TUV approved					K 1/4" SAE Female Flare Nut (7/16"-20 UNF) with 36" capillary tube
D	Manual Reset, Low Pressure with Single Bronze Diaphragm Material					
R	Manual Reset, High Pressure with Single Bronze Diaphragm Material					
S	Manual Reset (only with special reset tool), High Pressure Safety Limiter with Double Bronze Diaphragm Material, DIN/TUV approved					
T	Manual Reset (only with special reset tool), High Pressure Safety Limiter with Double Nickel Beryllium Diaphragm Material (High Temp), DIN/TUV approved					

SPECIFICATIONS

Electrical Ratings—SPDT Switch

☆ Standard Switch—High/Low Pressure

- Load Contact
6 FLA – 36 LRA – 120/240 VAC
Pilot Duty: 240VA @ 120
480VA @ 240VAC

- Back Contact
0.5 Amp 120/240 VAC Pilot Duty

☆ Micro Switch—Low Pressure

- 2.5 FLA – 15 LRA – 120/240 VAC
Pilot Duty: 120VA @ 120
240VA @ 240VAC

- Back Contact
0.5 Amp 120/240 VAC Pilot Duty

Ambient Temperature

- Storage: -30° to +160°F
Operating: -20° to +140°F

Protection

- Protect from rain, direct sunlight and exterior damage.

Weight

- Approximately 0.25 pound, depending upon configuration.

Compatibility

- HFC, HCFC, CFC

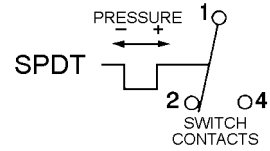
Agency Approvals

- UL/CUL/DIN/TUV, depending upon configuration.

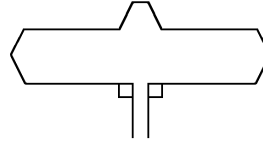
SWITCH ACTION

☆ SPDT Standard

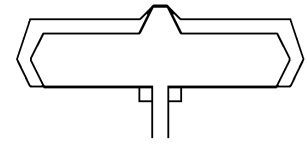
- 1-2 Open on Rise
Close on Fall
- 1-4 Close on Rise
Open on Fall



CONSTRUCTION



SINGLE DIAPHRAGM



DOUBLE DIAPHRAGM

☆ Low Pressure

- Single Diaphragm
Maximum Media Temp. 150°F.

☆ High Pressure

- Double Diaphragm
Maximum Media Temp. 300°F.
- Internal Pressure Pulsation Snubber available for direct head mount.

NOTE: Single Diaphragm High Pressure Configurations are also available.

PS3 MINI-PRESSURE CONTROL SPECIFICATIONS SELECTION TABLE

PCN	Type and Description	High Event Range PSIG	Differential Range PSID	Settings	Reset	Pressure Connection	Electrical Connection	Electrical Ratings ²	Maximum Over Pressure	Mounting
Low Pressure Controls										
097705	PS3-AF1 HMS ¹	15" to 90	4 Low/7 High	1.5/6	Auto	1/4" SAE Female with Valve Depressor	DIN Plug with 1/2" NPTF Hub for Flex Conduit Connection 36" Cable	2.5 FLA/15 LRA	360 PSIG	Free Standing Direct Mount
097735	PS3-AF1 HNS		9 Low/15 High	5/15				6 FLA/36 LRA		
097764	PS3-AF1 HNS		15/4.4							
High Pressure Control										
097147	PS3-AF5 HNS	100-465	9 Low/15 High	180/240	Auto	Same as above, plus Hi-Temp Double Diaphragm and Snubber	DIN Plug with 1/2" NPTF Hub for Flex Conduit Connection 36" Cable	6 FLA/36 LRA	360 PSIG	Free Standing Direct Mount
097805	PS3-XF5 HNB		45 Low/80 High	320/395					520 PSIG	
097835	PS3-CF5 HNB		Manual Reset	395	Manual					

¹ Micro-Switch Construction.

² All switches SPDT ratings stated are 1 side only 120/240 VAC. Opposite switch side - 1/2 amp pilot duty 120/240.

Standard Product Offering * Product Code Number

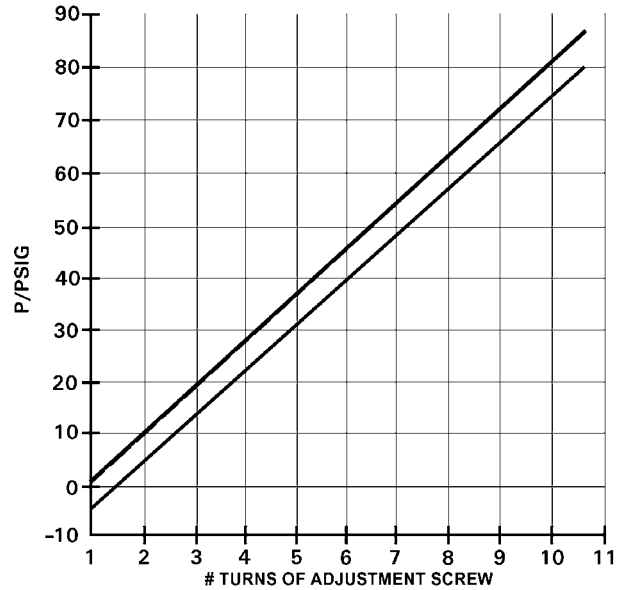
PS3 SETTING CAPABILITIES

The PS3 is factory preset. The selection table on page 368 lists setting specifications for standard PS3 models.

For special applications, these controls can be factory preset to other values as illustrated on the appropriate graphs.

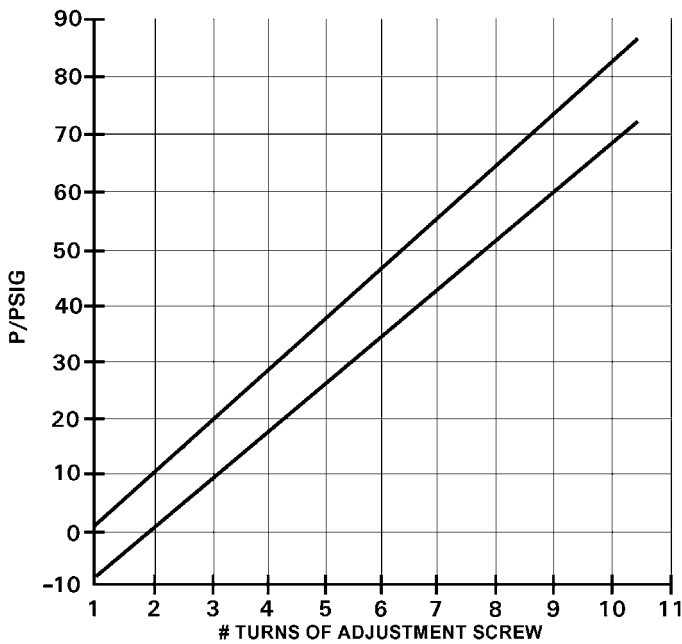
MICRO-SWITCH SETTING CAPABILITY

PRESSURE RANGE = 1



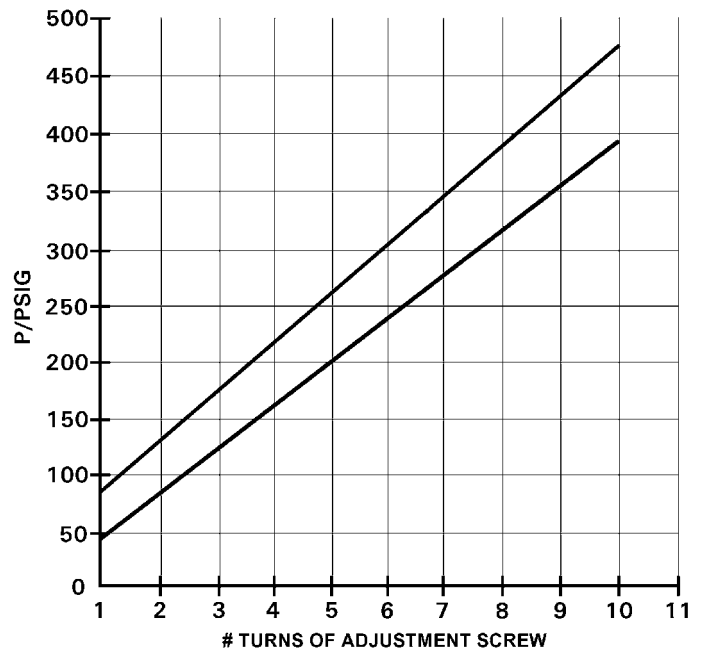
STANDARD SWITCH SETTING CAPABILITY

PRESSURE RANGE = 1



STANDARD SWITCH SETTING CAPABILITY

PRESSURE RANGE = 5



FS ELECTRONIC FAN SPEED CONTROL

The FS Fan Speed Control controls the head pressure in air-cooled condensers by reducing the fan speed to maintain head pressure as the outside temperatures/condenser pressure drops. As the motor speed drops under lower ambient/load condition fan noise is also reduced.

The FS is designed for use with permanent split capacitor and shaded pole fan motors, approved for use by motor/equipment manufacturers for variable voltage, phase angle (triac) speed control.

FEATURES

- ☆ FSF = FV-31 control + EMF-004 filter to eliminate EMI, included in larger connector (DIN 43650)
- ☆ FSO = FV-31 control + EMO-004 connector with Integrated Varistor for protection against voltage peaks
- ☆ Connector includes 2 m. cable installed (FSF and FSO)
- ☆ FSF Connector turnable (in 90° steps)
- ☆ Compact Design
- ☆ State-of-the-Art Electronics
- ☆ Direct mount—Easily retrofit to suitable motor
- ☆ Selectable Low Pressure Minimum Speed or “Turn Off” Operation
- ☆ Adjustable Pressure Setting
- ☆ Multiple FS controls can be used in parallel on multi-circuit condensers

OPTIONS

- ☆ Custom Calibration
- ☆ Choice of 4 Possible Pressure Connection Types
- ☆ Other Operating Voltages/Pressure Ranges

ORDERING INFORMATION

Description	PCN	Adjustment Range	Modulating Band	Factory Setting	Pressure Connection
		PSI			
FSO-41S	097816	95 TO 220	36	160	7/16"-20 UNF Female
FSO-42S	097817	190 TO 360	55	235	

NOMENCLATURE — EXAMPLE FSF-41S

FS	F	4	1			S
Fan Speed Control	EMC Protection	Max. Current Rating 4 = 4 Amps maximum at 104°F ambient temperature	Pressure Range			Pressure Connection
	F = FS Control + EMF Connector O = FS Control + Standard DIN Connector with Varistor		Pressure Range	Modulating Band	Factory Setting*	S = 1/4" SAE female (7/16"-20 UNF) with Schrader Depressor
			1 = 6.5 to 15 bar (95 to 220 psig)	35 psig	11 bar (160 psig)	A = 1/4" SAE male (7/16"-20 UNF)
			2 = 13 to 25 bar (190 to 360 psig)	55 psig	16.2 bar (235 psig)	K = 1/4" SAE female (7/16"-20 UNF) flare nut with Schrader Depressor and 1 meter capillary tube.
						L = 1/4" ODM Solder Connection and 1 meter capillary tube
					U = Solder tube 6 mm	
					X = Solder tube 1/4"	

* Factory setting is the calibration pressure at which the motor is at maximum speed.



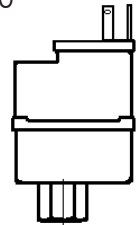
FSO

SPECIFICATIONS

- ☆ Nominal current:
 - 0.2 to 4 Amp max up to 104°F (40°C)
 - 0.2 to 2.5 Amp max up to 140°F (60°C)
- Starting current: max. 8 Amp
- ☆ Temperature Range
 - Storage and transportation: -30°C to 70°C
 - Ambient temp: -20°C to 55°C
 - Medium temperature: -20°C to 70°C
- ☆ Pressure Operated Fan Speed Control to maintain
- ☆ Supply Voltage: 230V AC + 15-20%.
- ☆ Protection: Provide an ultimate enclosure to protect from direct rain, sunlight and external damage.
- ☆ Weight: 3-1/2 ounces
- ☆ Approvals:
 - UL/CUL file #E183816
 - CE Low Voltage Directive 72/23/EC
 - Connector per DIN 43650

FS PARTS/ACCESSORIES

PCN	TYPE	ADJUSTABLE PRESSURE RANGE	MODULATING BAND
097521	FV-31-S2-15-S	95 to 220 psig	35 psig

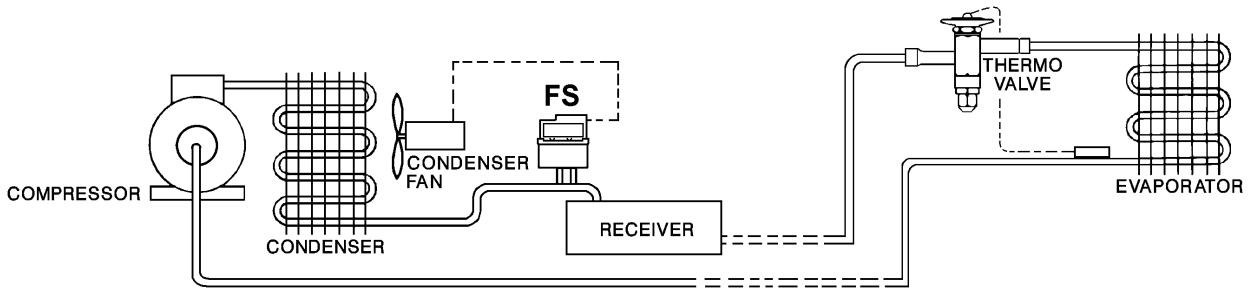


MODEL FSO:

- Single package includes FV-31 control, Allen Key and EMO-004 connector with varistor with 2 meter cable (DIN 43650)
- Bulk pack 20 pcs.

SYSTEM INSTALLATION INSTRUCTIONS

The FS connects to the top of the receiver or liquid line after the condenser, where it will sense the high side pressure. The standard FS with 1/4" SAE female flare includes a valve depressor for ease of installation. The FS should ideally be mounted in a location where there is moving outside air.



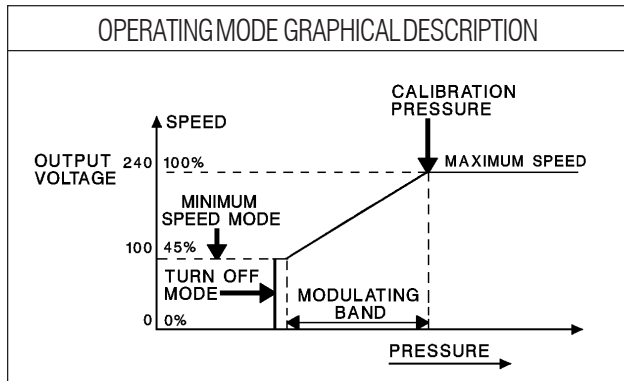
ADJUSTMENTS TO OPERATING MODE

TURN OFF MODE:

Within the modulating band pressure range, the FS varies fan speed from maximum to minimum speed on decreasing pressure. On a further decrease in pressure below the minimum speed point, the fan motor will be turned off. On increasing pressure, the fan motor will then restart at minimum speed.

MINIMUM SPEED MODE:

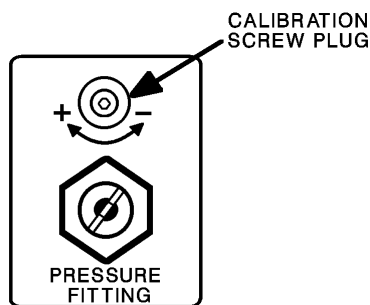
Within the modulating band pressure range, the FS varies fan speed from maximum to minimum speed on decreasing pressure. On a further decrease in pressure below the minimum speed point, the fan motor will continue to operate at the minimum speed setting. On increasing pressure, the fan motor will speed up once the pressure rises above the minimum speed point.



SETPOINT ADJUSTMENT (CALIBRATION)

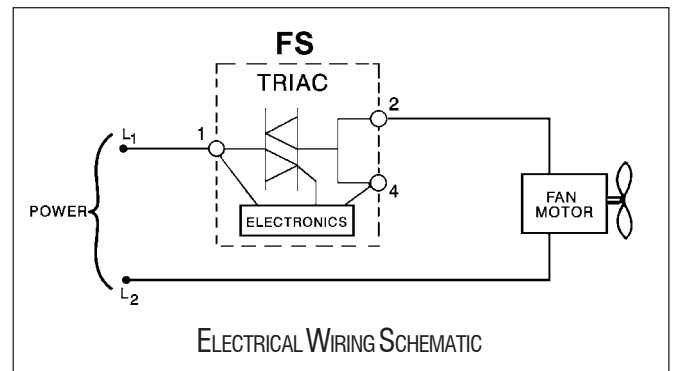
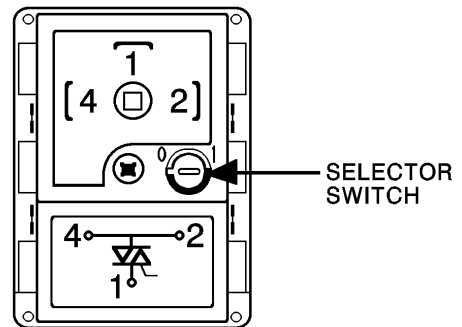
From the Pressure Fitting End of the control, remove the calibration screw plug exposing the allen head calibration screw. With Allen wrench, rotate calibration screw: CLOCKWISE to increase pressure COUNTERCLOCKWISE to decrease pressure. 1 full turn equals approximately the following PSIG change in the pressure setting (see table below). After changing pressure setting, the actual operating pressure range should be verified with a gauge and the calibration plug replaced.

CONTROL TYPE	OPERATING PRESSURE RANGE	1 TURN EQUALS
FSO/FSF-41x	95 to 220 PSIG	20 PSI
FSO/FSF-42x	190 to 360 PSIG	36 PSI



OPERATING MODE SELECTION

With electrical connection plug removed, rotate selector switch:
CLOCKWISE to "0" for Turn-Off Mode
COUNTERCLOCKWISE to "1" for Minimum Speed Mode



FF4 INDUSTRIAL PRESSURE CONTROLS

The FF4 Industrial Pressure Controls are general purpose switches suitable for oil, water and air at pressures up to 465 psig.

TYPICAL APPLICATIONS

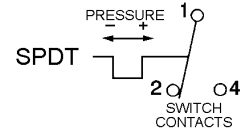
- ☆ Industrial Pressure Control
- ☆ Pneumatic and Hydraulic Systems
- ☆ Oil Lubrication Systems
- ☆ Pump/Compressor Control

FEATURES

- ☆ SPDT snap-action contacts
- ☆ Independent adjustable upper and lower switching pressures
- ☆ Diaphragm-type control for low pressure applications (Buna N diaphragm):
 - resistant to mineral oils
 - medium temperatures up to 160°F
- ☆ Transparent polyamide hood – U.V. resistant
- ☆ Surface mounted Type 4 enclosure
- ☆ Optional manual reset locking on pressure rise

OPTIONS

- ☆ Optional manual reset locking on pressure rise.



SPECIFICATIONS

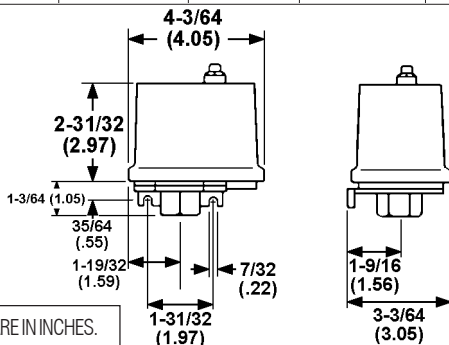
- ☆ Control circuit rating: 5 A (B300)
- ☆ Rated voltage: 300VAC Max.
- ☆ Ambient operating temperature: -10°F to +120°F
- ☆ Medium temperature at pressure element: +160°F maximum
- ☆ Resistance to vibration (4 Hz to 1000 Hz) 4g
- ☆ Weight: 1.1 lbs.

	120VAC	240VAC
Maximum motor rating single phase	1/2 hp	1-1/2 hp
Motor rated, FLA	10 A	10 A
Motor rated, LRA	60 A	60 A

NOMENCLATURE — EXAMPLE FF4-2 DAH

FF4	2					D	A	H
Industrial Pressure Control	Lower Switch Point Range	Upper Switch Point Range	Smallest Differential @ Lower-Higher end of Range	Standard Settings	Valve Design D = Diaphragm	Reset Type A = Auto R = Manual, Locking on Pressure Rise	Pressure Connection G = 1/4 female, DIN ISO 228/1 H = 3/8 female, DIN ISO 228/1 I = 1/2 female, DIN ISO 228/1	
	2	0.5-27 psig 0.04-1.89 bar	1.5-29 psig 0.11-2 bar	1-1.5 psig 0.07-0.11 bar	7/22 psig 0.5/1.5 bar			
	4	1-54 psig 0.07-3.75 bar	3-58 psig 0.22-4 bar	2-4 psig 0.15-0.11 bar	14/44 psig 1/3 bar			
	8	3-109 psig 0.2-7.5 bar	7-116 psig 0.5-8 bar	4-7 psig 0.3-0.5 bar	29/87 psig 2/6 bar			
	16	6-217 psig 0.4-15 bar	15-232 psig 1-16 bar	9-14 psig 0.6-1 bar	58/174 psig 4/12 bar			
	32	12-435 psig 0.8-30 bar	29-464 psig 2-32 bar	17-29 psig 1.2-2 bar	145/290 psig 10/20 bar			

FF4 DIMENSIONAL DATA



FF4 ORDERING INFORMATION

PCN*	DESCRIPTION
097869	FF4-2 DAH
097380	FF4-8 DAH
097182	FF4-16 DAH
097870	FF4-32 DAH
097342	FF4-2 DAI
097187	FF4-10 DAI

Standard Product Offering

* Product Code Number

FF444 INDUSTRIAL PRESSURE CONTROLS

The FF444 Industrial Pressure Controls are U.L. approved general purpose switches suitable for oil, water and air at pressures up to 465 psig.

TYPICAL APPLICATIONS

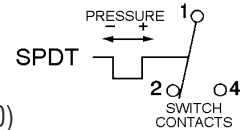
- ☆ Industrial Pressure Control
- ☆ Pneumatic and Hydraulic Systems
- ☆ Oil Lubrication Systems
- ☆ Pump/Compressor Control

FEATURES

- ☆ SPDT snap-action contacts
- ☆ Independent adjustable upper and lower switching pressures
- ☆ Diaphragm-type control for low pressure applications (Buna N diaphragm):
 - resistant to mineral oils
 - medium temperatures up to 160°F
- ☆ Transparent polyamide hood – U.V. resistant
- ☆ Surface mounted Type 4 enclosure
- ☆ Optional manual reset locking on pressure rise

OPTIONS

- ☆ Optional manual reset locking on pressure rise.



SPECIFICATIONS

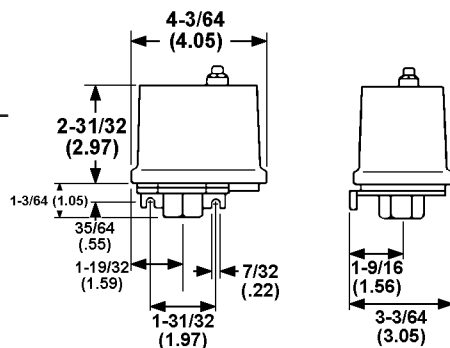
- ☆ Control circuit rating: 5 A (B300)
- ☆ Rated voltage: 300 VAC Max.
- ☆ Ambient operating temperature: -10°F to +120°F
- ☆ Medium temperature at pressure element: +160°F maximum
- ☆ Resistance to vibration (4 Hz to 1000 Hz) 4g
- ☆ Weight: 1.1 lbs.
- ☆ U.L. and CSA approved, U.L. File #E85974

	120VAC	240VAC
Maximum motor rating single phase	1/2 hp	1-1/2 hp
Motor rated, FLA	10 A	10 A
Motor rated, LRA	60 A	60 A

NOMENCLATURE — EXAMPLE FF444-V2-DRF

FF444	V2					D	R	F
Industrial Pressure Control	Lower Switch Point Range	Upper Switch Point Range	Smallest Differential @ Lower-Higher end of Range	Standard Settings	Valve Design D = Diaphragm	Reset Type A = Auto R = Manual, Locking on Pressure Rise	Pressure Connection A = 7/16" -20 UNF male F = 1/4" -18 NPTF	
V1	0.5-27 psig 0.04-1.89 bar	1.5-29 psig 0.11-2 bar	1-1.5 psig 0.07-0.11 bar	7/22 psig 0.5/1.5 bar				
V2	1-54 psig 0.07-3.75 bar	3-58 psig 0.22-4 bar	2-4 psig 0.15-0.11 bar	14/44 psig 1/3 bar				
V3	3-109 psig 0.2-7.5 bar	7-116 psig 0.5-8 bar	4-7 psig 0.3-0.5 bar	29/87 psig 2/6 bar				
V4	6-217 psig 0.4-15 bar	15-232 psig 1-16 bar	9-14 psig 0.6-1 bar	58/174 psig 4/12 bar				
V5	12-435 psig 0.8-30 bar	29-464 psig 2-32 bar	17-29 psig 1.2-2 bar	145/290 psig 10/20 bar				

FF444 DIMENSIONAL DATA



FF444 ORDERING INFORMATION

PCN*	DESCRIPTION
097308	FF444-V1-DAF
097309	FF444-V2-DAF
097310	FF444-V3-DAF
097311	FF444-V4-DAF
097312	FF444-V5-DAF
097058	FF444-V3-DRF
097379	FF444-V4-DRF

Standard Product Offering

* Product Code Number

TROUBLESHOOTING QUICK SELECT CHART

PRODUCT	TROUBLESHOOTING	PAGE
THERMO® EXPANSION VALVES	Superheat Too Low – Valve Feeds Too Much	201
	Superheat Too High – Valve Doesn't Feed or Doesn't Feed Enough	201
	No Superheat at Start Up Only	201
	Superheat is Erratic or Hunts	201
	Superheat Appears Normal – System Performs Poorly	202
SOLENOID VALVES	Troubleshooting Solenoid Valves	202
	Special Considerations for Industrial Solenoid Valves	203
BALL VALVES	Troubleshooting Refrigeration Ball Valves	203
SYSTEM DEVICES	Troubleshooting System Protection	203
	Troubleshooting Storage Devices	203
	Suction Line Accumulators	203
	Liquid Refrigerant Receivers	204
OIL CONTROLS	Troubleshooting Oil Controls	204
	Troubleshooting Oil Separators	204
REGULATORS	Troubleshooting Regulators	205
	Troubleshooting Hot Gas Regulators	205
	Troubleshooting Crankcase Regulators	205
	Troubleshooting Head Pressure Controls	206

TROUBLESHOOTING EXPANSION VALVES

Superheat Is Too Low -- TXV Feeds Too Much

Problem	Symptoms	Causes	Corrective Action
Valve Feeds Too Much	1) Liquid Slugging 2) Low Superheat 3) Suction Pressure Normal or High	Oversized Valve	Replace with correct size valve
		Incorrect Superheat Setting	Adjust the superheat to correct setting
		Moisture	Replace the filter-driers; evacuate the system and replace the refrigerant
		Dirt or Foreign Material	Clean out the material or replace the valve
		Incorrect Charge Selection	Select proper charge based on refrigerant type
		Incorrect Bulb Location	Relocate the bulb to proper location
		Incorrect Equalizer Location	Relocate the equalizer to proper location
		Plugged Equalizer (Balanced Port Valve)	Remove any restriction in the equalizer tube

Superheat Is Too High -- TXV Doesn't Feed or Doesn't Feed Enough

Problem	Symptoms	Causes	Corrective Action
Valve Doesn't Feed or Doesn't Feed Enough	1) Evaporator Temperature Too High 2) High Superheat 3) Low Suction Pressure	Short of Refrigerant	Add correct amount of refrigerant
		High Superheat	Change superheat setting
		Flash Gas In Liquid Line	Remove source of restriction
		Low or Lost Bulb Charge	Replace power element or valve
		Moisture	Replace driers or evacuate the system and replace refrigerant
		Plugged Equalizer (Conventional Valve)	Remove restriction in equalizer tube
		Insufficient Pressure Drop or Valve Too Small	Replace existing valve with properly sized valve
		Dirt or Foreign Material	Clean out material or replace valve
		Incorrect Charge Selection	Select correct charge
		Incorrect Bulb Location	Move bulb to correct location
		Incorrect Equalizer Location	Move equalizer to correct location
		Charge Migration (MOP Only, Vapor Charges)	Move valve to a warmer location or apply heat tape to powerhead
		Wax	Use charcoal drier
		Wrong equalizer Type Valve	Use externally equalized valve
		Rod Leakage (Balanced Port Valve)	Replace valve
Heat Damaged Powerhead	Replace powerhead or valve		

No Superheat At Start Up Only

Problem	Symptoms	Causes	Corrective Action
Valve Feeds Too Much At Start Up	1) Liquid Slugging 2) Zero Superheat 3) Suction Pressure Too High	Refrigerant Drainage	Use pump down control; install trap at the top of the evaporator
		Compressor or Suction Line in a Cold Location	Install crankcase heater; install suction solenoid
		Partially Restricted or Plugged External Equalizer (Balanced Port Valve)	Remove restriction
		Liquid Line Solenoid Won't Shut	Replace powerhead or valve

Superheat Is Erratic Or Hunts

Problem	Symptoms	Causes	Corrective Action
System Hunts or Cycles	1) Suction Pressure Hunts 2) Superheat Hunts 3) Erratic Valve Feeding	Bulb Location Incorrect	Reposition Bulb
		Valve Too Large	Replace with correctly sized valve
		Incorrect Superheat Setting	Adjust superheat to correct setting
		System Design	Redesign system

Superheat Appears Normal -- System Performs Poorly

Problem	Symptoms	Causes	Corrective Action
Valve Doesn't Feed Properly	1) Poor System Performance 2) Low or Normal Superheat 3) Low Suction Pressure	Unequal Circuit Loading	Make modification to balance load
		Flow From One Coil Affecting Another Coil	Correct piping
		Low Load	Correct conditions causing low load
		Mismatched Coil/Compressor	Correct match
		Incorrect Distributor	Install correct distributor
		Evaporator Oil-Logged	Increase gas velocity through coil

TROUBLESHOOTING SOLENOID VALVES

Problem	Causes	Corrective Action
Normally Closed Valve Will Not Open -or- Normally Open Valve Will Not Close	Movement of plunger or diaphragm restricted a) Corroded parts b) Foreign material lodged in valve c) Dented or bent enclosing tube d) warped or distorted body due to improper brazing or crushing in vice	Clean affected parts and replace parts as required. Correct the cause of corrosion or source of foreign materials in the system.
	Improper wiring	Check electrical circuit for loose or broken connections. Attach voltmeter to coil leads and check voltage, inrush and holding currents
	Faulty contacts on relays or thermostats	Check contacts in relays and thermostats. clean or replace as required.
	Voltage and frequency rating or solenoid coil not matched to electrical supply: a) low voltage b) high voltage c) incorrect frequency	Check voltage and frequency stamped on coil assembly to make certain it matches electrical source. If it does not, obtain new coil assembly with proper voltage and frequency rating: a) Locate cause of voltage drop and correct. Install proper transformer, wire size as needed. Be sure all connections are tight and that relays function properly. b) Excessively high voltage will cause coil burnout. Obtain new coil assembly with proper voltage rating. c) Obtain new coil assembly with proper frequency rating.
	Oversized Valve	Install correct sized valve. Consult extended capacities tables.
	Valve improperly assembled.	Assemble parts in proper position making certain none are missing from valve assembly.
	Coil Burnout a) Supply voltage at coil too low (below 85% of rated coil voltage) b) Supply voltage at valve too high (more than 10% above coil voltage rating) c) Valve located at high ambient d) Plunger restricted due to: corroded parts, foreign materials lodged in valve, dented or bent enclosing tube or warped or distorted body due to improper brazing or crushing in vice e) With valve closed, pressure difference across valve is too high preventing valve from opening f) Improper wiring. Inrush voltage drop causing plunger to fail to pull magnetic field due to: - Wiring the valve to the load side of the motor starter - Wiring the valve in parallel with another appliance with high inrush current draw - Poor connections, especially on low voltage, where connections should be soldered - Wire size of electrical supply too small g) Electrical supply (voltage and frequency) not matched to solenoid coil rating	a) Locate cause of low voltage and correct (check transformer, wire size, and control rating) b) Locate cause of high voltage and correct (install proper transformer or service) c) Ventilate the area from high ambient. Remove covering from coil housing d) Clean affected parts and replace as required. Correct cause of corrosion or source of foreign material in the system e) Reduce pressure differential to less than 300psi f) Correct wiring according to valve manufacturers' instructions. solder all low voltage connections. Use correct wire size. Check coil voltage and frequency to ensure match to electrical service rating. Install new coil with proper voltage and frequency rating.

Problem	Causes	Corrective Action
Normally Closed Valve Will Not Close -or- Normally Open Valve Will Not Open	Diaphragm or plunger restricted due to: corroded parts, foreign material lodged in valve, dented or bent closing tube, or warped body due to improper brazing or crushing in vise	Clean affected parts and replace parts as required. Correct the cause of corrosion or source of foreign materials in the system. Install a filter-drier upstream of solenoid valve
	Manual opening stem holding valve open	With coil de-energized, turn manual stem in counter clockwise direction until valve closes
	Closign spring missing or inoperative	Re-assemble with spring in proper position
	Electrical feedback keeping coil energized, or switch contacts not breaking circuit to coil	Attach voltmeter at coil leads and check for feedack or closed circuit. Correct faulty contacts or wiring
	Reverse pressures (outlet pressure greater than inlet pressure), or valve installed backwards	Install check valve at valve outlet, or install with flow arrow in proper direction
Problem	Causes	Corrective Action
Valve Closes, But Flow Continues (Seat Leakage)	Foreign material lodged under seat	Clean internal arts and remove foreign material
	Valve seat damaged	Replace valve or affected parts
	Synthetic seat materials chipped	Replace valve or affected parts
	Valve improperly applied or assembled	Replace valve iwht proper valve or re-assemble

Special Considerations For Industrial Solenoid Valves

Symptoms	Causes	Corrective Action
High Internal Seat Leakage (high temperature steam up to 400°)	Wrong Seat Elastomer Used (Buna N)	Use Valve with Teflon Seat Elastomer
External Leakage (high temperature steam up to 400°)	Wrong Gasket Material Used (Neoprene)	Use Ethylene Propylene Gasket
High Internal Seat Leakage (high temperature steam up to 250° or water up to 210°)	Wrong Seat Elastomer Used (Buna N)	Use Valve with Ethylene Propylene Seat Elastomer
External leakage (high temperature steam up to 250° or water up to 210°)	Wrong Gasket Material Used (Neoprene)	Use Ethylene Propylene Gaske

TROUBLESHOOTING BALL VALVES

Symptoms	Causes	Corrective Action
Doesn't Flow	Valve Isn't Open	Turn Stem
Leak at Access Schrader Valve	Schrader Valve Isn't Tight	Tighten Schrader Valve
Leak at Stem	Valve Stem is Leaking	Replace Valve
Excessive Pressure Drop	Valve Isn't Fully Open	Turn Stem to Open Valve

TROUBLESHOOTING SYSTEM PROTECTORS

Allowable Pressure Drop -- Permanent Installation

Refrigerant	Evaporator Temperature				
	40°F	20°F	0°F	-20°F	-40°F
R12, R134a	2.0	1.5	1.0	0.5	-
R22, R410A	3.0	2.0	1.5	1.0	0.5
R502, R404A/507	3.0	2.0	1.5	1.0	0.5

TROUBLESHOOTING STORAGE DEVICES

Suction Line Accumulators

Problem	Causes	Corrective Action
Oil Not Returning to Compressor	Bleed Hole in U-Tube Plugged	Replace Accumulator; Install Filter Ahead of Accumulator
	U-Tube Broken Off	Replace Accumulator
	Accumulator Too Large for Application	Replace with Smaller Accumulator
	Accumulator Installed Incorrectly	Re-Install with Correct Inlet & Outlet Connections

Liquid Refrigerant Receivers		
Problem	Causes	Corrective Action
Flashing In Liquid Sight Glass Downstream Of Receiver	Receiver Outlet Not Fully Open	Open Valve Fully
	On Receivers with Top Outlet Connections, the Dip Tube may be Broken Off Or Plugged	Replace Receiver
	Receiver Installed Upside Down	Re-Install Receiver Correctly

TROUBLESHOOTING OIL CONTROLS - OMA TraxOil

Problem	Causes	Corrective Action
Oil Level Too High In Sight Glass	Magnet on float arm loaded with metallic debris	Disassemble; clean float and replace oil filter
	Float arm "catching" on sight glass	Replace float assembly or TraxOil
	TraxOil out of calibration	Replace TraxOil
	Too much oil in system	Remove oil from oil separator or reservoir until proper level is maintained
	Too much oil coming back from evaporator	Check system piping design for: - Proper velocities - P-traps at the bottom of all suction risers - Piping pitched to compressor - Overlapping or defrosts that are not staggered
	Debris under solenoid valve seat	Unscrew solenoid valve from TraxOil; clean & replace

Problem	Causes	Corrective Action
Oil Level Too Low In Sight Glass	Oil separator or reservoir empty	Add oil to maintain a liquid seal in teh bottom of the serparator or reservoir
	Magnet on float loaded with debris	Clean and replace float assembly or TraxOil
	Float arm "catching" on sight glass	Replace float assembly or TraxOil
	Plugged oil line filter	Replace filter
	Plugged inlet strainer(s) on TraxOil(s)	Remove and clean strainer on all affected TraxOil
	Solenoid coil defective	Replace coil
	Power loss to TraxOil	Check power to TraxOil. Green light should be lit.

Problem	Causes	Corrective Action
Foaming In Sight Glass	Liquid refrigerant in oil	Flood back through suction; Increase superheat on expansion valve; Refrigerant condensing in oil separator - add heater to oil separator and/or adjust system setting to eliminate flood back
	If so equipped, liquid injection overfeeding	Correct liquid injection overfeed
	Excess quantity of oil in crankcase	Remove excess oil

Problem	Causes	Corrective Action
Nuisance Oil Alarms	"Filling" light remains on even though level is 1/2 above sight glass	Replace TraxOil
	Alarm light on all the time	Replace TraxOil
	Intermittent oil return from system	Check system piping design for: - Proper velocities - P-traps at the bottom of all suction risers - Piping pitched to compressor - Overlapping or defrosts that are not staggered

Troubleshooting Oil Separators

Problem	Causes	Corrective Action
Reduced or Not Oil Feed to Compressor	Oil outlet valve closed or partially closed	Open oil outlet valve
	Inadequate oil charge in system	Add oil in system
	Oil float defective or dirty (will not open)	Disassemble and clean or replace defective float component (flanged versions); Replace oil separator (welded version).
	Separator too small for application	Repalce separator with larger size
Heat Gas Entering Compressor	Oil float defective or dirty (will not close)	Disassemble and clean or replace defective float component (flanged versions); Replace oil separator (welded version).

TROUBLESHOOTING REGULATORS

Problem	Causes	Corrective Action
Erratic Pressure Control	Pilot inlet filter screen obstructed	Clean or replace.
	Piston bleed hole restriction	
Regulator Will Not Open EPRBS Version	Excessive dirt in pilot/solenoid	Disassemble valve and clean. Replace if necessary.
	Piston bleed hole restriction	
	Coil is damaged or not energized	Verify coil is energized. Replace if necessary.
Excessive Pressure Drop Across the Regulator	Piston bleed partially obstructed	Disassemble and clean regulator.
	Pilot or solenoid leaking internally	Replace pilot assembly.
	Regulator undersized	Refer to extended capacities table. Install correct sized regulator.
Regulator Hunting-side Fluctuations in Controlled Pressure	Piston bleed port obstructed	Clean or replace.
	Pilot inlet filter screen obstructed	
	Regulator oversized	Refer to extended capacities table. Install correct sized regulator.
	Regulator and TXV have control interaction	Turn off pilot pressure, Ensure regulator is wide open. Adjust superheat to required setting. Turn pilot pressure back on.
	Regulator and cylinder unloaders have control interaction	The unloader should be set to control at least 5 psig lower than regulator.
Regulator Will Not Provide Pressure Control	Pilot inlet filter screen obstructed	Clean or replace.
	Pilot inlet pressure is too low	Increase pressure of a minimum of 25 psi higher than the main valve outlet pressure.
	Piston jammed due to excessive dirt; Inoperative pilot or broken diaphragm	Locate and remove the stoppage or dirt. Replace pilot. A broken diaphragm can be detected by checking for leaks around the adjusting stem.
Regulator Will Not Close EPRBS Version	Dirt under seat	Disassemble and clean.
	Excessive piston seal leakage	Replace bell piston assembly.
	Plugged pilot filter	Clean or replace.
	Pilot supply turned off or restricted	Verify pilot inlet pressure is at least 25 psig greater than valve outlet.
	Excessive dirt in pilot/solenoid	Replace pilot assembly.

TROUBLESHOOTING HOT GAS REGULATORS

Problem	Causes	Corrective Action
Low Suction Pressure - Valve Open	Valve undersized	Replace valve with correct size
Will Not Bypass - Valve Not Open	1. Solenoid (if present) not energized 2. Valve sticking closed 3. Not set properly 4. Bad pilot	1. Repair (replace solenoid coil) 2. Replace 3. Recalibrate 4. Replace
Suction Pressure Swings Erratically	Oversized valve	Replace valve with correct size
Bypass Continuously - Suction Pressure High	1. Manual stem screwed down 2. Valve sticking open 3. Bad pilot	1. Back stem out 2. Repair/replace valve 3. Replace pilot
Setpoint Drifts	Bad pilot	Replace pilot

TROUBLESHOOTING CRANKCASE REGULATORS

Problem	Causes	Corrective Action
Valve Won't Adjust or Is Erratic	Dirt under seat	With system running, open the valve adjustment to open the valve and flush away the contaminant. If this fails, replace valve.
Valve Throttles Constantly	On system equipped with Hot Gas Bypass Valves, the bypass valve setting is higher than CPR	Re-adjust bypass and/or CPR valves so that the COR setting is higher than the discharge bypass valve
Temperature Pull-Down After Defrost is Too Long	TXV with MOP feature used with the CPR	To improve pull-down time, replace TXV with equivalent without MOP feature
	Valve setting is too low	Re-adjust the CPR to a higher setting - see adjustment procedure

Problem	Causes	Corrective Action
Compressor tripping on Internal Thermal Protector - Fails to Start-Up and Run Long Enough to Pull Down Temperature	CPR setting too high	Re-adjust the CPR to a lower setting - see adjustment procedure
Valve Fails to Open	CPR setting is too low	
		Valve defective - bellows leak, pressurizing the upper adjustment assembly

TROUBLESHOOTING HEAD PRESSURE CONTROLS

Problem	Causes	Corrective Action
Low Head Pressure During Operation	Valve unable to throttle "C" port 1. Foreign material wedged between "C" port seat and seat disc 2. Power element lost its charge 3. Indufficient winter-time system charge	1. Artificially raise head pressure and tap valve body to dislodge foreign material 2. Change valve 3. Add refrigerant per Table 3
	Wrong charge pressure in valve for refrigerant	Change valve
	Receiver exposed to low ambient conditions is acting as condenser	Insulate the receiver
	Hot gas bypass line restricted or shut off	Clear obstruction or open valve
System Runs High Head Pressure -or- Cycles on High Pressure Cut-Out	Compressor not pumping, r restriction in liquid line, low side causing very low suction pressure	Change or repair compressor; clear obstruction or other reason for low suction pressure
	Condenser fan not running or turning in wrong direction	Replace or repair fan motor, belts, wiring or controls as required
	Fan cycling	Run condenser fan continuously while system is running
	Pressure drop through condenser exceeds allowable 20 psi forcing "B" port partially open	Repipe, recircuit, or change condenser as required to reduce condenser pressure drop to less than 20 psi
	Condenser undersized or air flow restricted or short circuiting	Increase size of condenser or remove air flow restriction or short circuit as required
	"B" port wedged open due to foreign material between seat and seat disc	Artificially reduce head pressure below valve setpoint and tap valve body with system running to dislodge foreign material
	"B" port seat damaged due to foreign material	Change valve
	Wrong charge pressure in valve for refrigerant	
	Excessive system charge or air in system	Purge or bleed off refrigerant or non-condensables as system requires
Obstruction or valve closed in discharge or condenser drain line	Clear obstruction or open valve	
Liquid line solenoid fails to open	Check solenoid	

CHARGING THE SYSTEM -- THEORETICAL METHOD

Weighing the Charge (Method has practical limitations)

Add refrigerant until the sight glass is clear and free of bubbles.

Determine refrigerant required to fill the condenser, see Table 3 below. Add this additional amount.

Table 3 - Refrigerant lbs. per ft.*

Refrigerant	Condenser Tube Size - O.D. (in inches)** and Ambient Temperature ° F											
	3/8"				1/2"				5/8"			
	40°	0°	-20°	-40°	40°	0°	-20°	-40°	40°	0°	-20°	-40°
R134a	.051	.054	.055	.057	.095	.099	.102	.105	.150	.157	.164	.167
R22	.051	.054	.055	.056	.094	.099	.102	.104	.150	.159	.163	.167
R404A/R507	.053	.056	.058	.059	.098	.104	.107	.109	.157	.166	.171	.175

* Return bends: 3/8" O.D. - .20 ft.; 1/2" O.D. - .25 ft.; 5/8" O.D. - .30 ft.

** Wall thickness: 3/8" O.D. - .016"; 1/2" O.D. - .017"; 5/8" O.D. - .018"

A-1 COMPONENTS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
MS-4	CHECK VALVE			ACK-4	064985	1/4 ODF	
MS-6	CHECK VALVE			ACK-6	064986	3/8 ODF	
MS-8	CHECK VALVE			ACK-8	064987	1/2 ODF	
MS-10	CHECK VALVE			ACK-10	064988	5/8 ODF	
MS-12	CHECK VALVE			ACK-12	064989	3/4 ODF	
MS-14	CHECK VALVE			ACK-14	064990	7/8 ODF	
MS-18	CHECK VALVE			ACK-18	064991	1-1/8 ODF	
MS-22	CHECK VALVE			ACK-22	064992	1-3/8 ODF	
MS-26	CHECK VALVE			ACK-26	064993	1-5/8 ODF	
MS-34	CHECK VALVE			ACK-34	064994	2-1/8 ODF	
MS-42	CHECK VALVE			ACK-42	064995	2-5/8 ODF	

AC&R TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
S-5182	OIL SEPARATOR	HELICAL		A-W55824	060933	CONVENTIONAL	SEALED UNIT 4 X 1/2 OD
S-5185	OIL SEPARATOR	HELICAL		A-W55855	060934	CONVENTIONAL	SEALED UNIT 4 X 5/8 OD
S-5187	OIL SEPARATOR	HELICAL		A-W55877	060931	CONVENTIONAL	SEALED UNIT 4 X 7/8 OD
S-5188	OIL SEPARATOR	HELICAL		A-W55889	060974	CONVENTIONAL	SEALED UNIT 4 X 1 1/8 OD
S-5190	OIL SEPARATOR	HELICAL		A-W569011	060930	CONVENTIONAL	SEALED UNIT 6 X 1 3/8 OD
S-5192	OIL SEPARATOR	HELICAL		A-W569213	060979	CONVENTIONAL	SEALED UNIT 6 X 1 5/8 OD
S-5292	OIL SEPARATOR	HELICAL		A-F579213	060875	CONVENTIONAL	FLANGED UNIT 6 X 1 7/8 OD
S-5294	OIL SEPARATOR	HELICAL		A-F579417	060876	CONVENTIONAL	FLANGED UNIT 6 X 2 1/8 OD
S-5582	OIL SEPARATOR	CONVENTIONAL		A-W55824	060933	CONVENTIONAL	SEALED UNIT 4 X 1/2 OD
S-5585	OIL SEPARATOR	CONVENTIONAL		A-W55855	060934	CONVENTIONAL	SEALED UNIT 4 X 5/8 OD
S-5587	OIL SEPARATOR	CONVENTIONAL		A-W55877	060931	CONVENTIONAL	SEALED UNIT 4 X 7/8 OD
S-5588	OIL SEPARATOR	CONVENTIONAL		A-W55889	060974	CONVENTIONAL	SEALED UNIT 4 X 1 1/8 OD
S-5590	OIL SEPARATOR	CONVENTIONAL		A-W559011	060930	CONVENTIONAL	SEALED UNIT 4 X 1 3/8 OD
S-5690	OIL SEPARATOR	CONVENTIONAL		A-W569011	060978	CONVENTIONAL	SEALED UNIT 6 X 1 3/8 OD
S-5692	OIL SEPARATOR	CONVENTIONAL		A-W569213	060979	CONVENTIONAL	SEALED UNIT 6 X 1 5/8 OD
S-5792	OIL SEPARATOR	CONVENTIONAL		A-F579213	060875	CONVENTIONAL	FLANGED UNIT 6 X 1 5/8 OD
S-5794	OIL SEPARATOR	CONVENTIONAL		A-F579417	060876	CONVENTIONAL	FLANGED UNIT 6 X 2 1/8 OD
S-5882	OIL SEPARATOR	CONVENTIONAL		A-F58824	060877	CONVENTIONAL	FLANGED UNIT 4 X 1/2 OD
S-5885	OIL SEPARATOR	CONVENTIONAL		A-F58855	060878	CONVENTIONAL	FLANGED UNIT 4 X 5/8 OD
S-5887	OIL SEPARATOR	CONVENTIONAL		A-F58877	060879	CONVENTIONAL	FLANGED UNIT 4 X 7/8 OD
S-5888	OIL SEPARATOR	CONVENTIONAL		A-F5889	060759	CONVENTIONAL	FLANGED UNIT 4 X 1 1/8 OD
S-5890	OIL SEPARATOR	CONVENTIONAL		A-F589011	060760	CONVENTIONAL	FLANGED UNIT 4 X 1 3/8 OD
S-9108	OIL SEPARATOR	4 GALLON		A0R4	NONE	CONVENTIONAL	3 SIGHT GLASSES
S-9109	OIL SEPARATOR	2 GALLON		A0R2	NONE	CONVENTIONAL	2 SIGHT GLASSES

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
102	TXV			HF 1/2 FC	054892	R12 3/8 X 1/2 SAE	
2255N	REGULATOR			OBSOLETE	NONE	NAVY	
228RB3S3	SOLENOID			200RB3T3	049609	3/8 ODF	
230RA12T7M	SOLENOID			240RA12T7M	040849	VLC	
230RA12T7T	SOLENOID			240RA12T7T	040850	VLC	
230RA12T9M	SOLENOID			240RA12T9M	045549	VLC	
230RA12T9T	SOLENOID			240RA12T9T	043959	VLC	
230RA16T11M	SOLENOID			240RA16T11M	044788	VLC	
230RA16T11T	SOLENOID			240RA16T11T	044428	VLC	
230RA16T9M	SOLENOID			240RA16T9M	042548	VLC	
230RA16T9T	SOLENOID			240RA16T9T	042549	VLC	
230RA20T11M	SOLENOID			240RA20T11M	046636	VLC	
230RA20T11T	SOLENOID			240RA20T11T	047761	VLC	
230RA20T13M	SOLENOID			240RA20T13M	046637	VLC	
230RA20T13T	SOLENOID			240RA20T13T	047747	VLC	
230RA20T17M	SOLENOID			240RA20T17M	046638	VLC	
230RA20T17T	SOLENOID			240RA20T17T	054297	VLC	
230RA8T5M	SOLENOID			240RA8T5M	040845	VLC	
230RA8T5T	SOLENOID			240RA8T5T	040846	VLC	
230RA8T7M	SOLENOID			240RA8T7M	045753	VLC	
230RA8T7T	SOLENOID			240RA8T7T	044860	VLC	
230RA9T5M	SOLENOID			240RA9T5M	040847	VLC	
230RA9T5T	SOLENOID			240RA9T5T	040848	VLC	
230RA9T7M	SOLENOID			240RA9T7M	043204	VLC	
230RA9T7T	SOLENOID			240RA9T7T	043205	VLC	
230RA9T9M	SOLENOID			240RA9T9M	045752	VLC	
230RA9T9T	SOLENOID			240RA9T9T	044861	VLC	
231SB08P04	SOLENOID			222CB 1/2B 1/2T	037958	1/2 FPT - STEAM	
231SB12P06	SOLENOID			222CB 3/4B 3/4T	039930	3/4 FPT - STEAM	
231SB16P08	SOLENOID			222CB 1B 1T	039834	1" FPT - STEAM	
231SB20P10	SOLENOID			222CB 1 1/4B 1 1/4T	040532	1 1/4 FPT - STEAM	
231SB24P12	SOLENOID			222CB 1 1/2B 1 1/2T	040582	1 1/2 FPT - STEAM	
231WB08P04	SOLENOID			222CB 1/2B 1/2B	039917	1/2 FPT - WATER	
231WB12P06	SOLENOID			222CB 3/4B 3/4B	028192	3/4 FPT - WATER	
231WB16P08	SOLENOID			222CB 1B 1B	039913	1" FPT - WATER	
231WB20P10	SOLENOID			222CB 1 1/4B 1 1/4B	039918	1 1/4 FPT - WATER	
231WB24P12	SOLENOID			222CB 1 1/2B 1 1/2B	038879	1 1/2 FPT - WATER	
241WA10W04	SOLENOID			210CA 1/2B 5/8B	030620	1/2 FPT - WATER	
241WA12P06	SOLENOID			210CA 3/4B 3/4B	030621	3/4 FPT - WATER	
241WA16P08	SOLENOID			210CA 1B 1B	038629	1" FPT - WATER	
3031RB12S7	SOLENOID			3031RC12S7	055939	7/8 ODF	
3031RB12S9	SOLENOID			3031RC12S9	055940	1 1/8 ODF	
401RD10	4 WAY VALVE			OBSOLETE	NONE	HEAT PUMP	
401RD15	4 WAY VALVE			OBSOLETE	NONE	HEAT PUMP	
401RD2F34	4 WAY VALVE			RV2F34	062796	3/8 X 1/2 ODF	
401RD2F35	4 WAY VALVE			RV2F35	062199	3/8 X 5/8 ODF	
401RD3F45	4 WAY VALVE			RV3F45	061795	1/2 X 5/8 ODF	
401RD3F46	4 WAY VALVE			RV3F46	061792	1/2 X 3/4 ODF	
401RD4F46	4 WAY VALVE			RV4F46	062168	1/2 X 3/4 ODF	
401RD4F47	4 WAY VALVE			RV4F47	062173	1/2 X 7/8 ODF	
401RD6F46	4 WAY VALVE			RV6F46	062181	1/2 X 3/4 ODF	
401RD6F47	4 WAY VALVE			RV6F47	062270	1/2 X 7/8 ODF	
401RD6F57	4 WAY VALVE			RV6F57	062190	5/8 X 7/8 ODF	
402-1	TXV			HF 1/2 HC	054135	R22 3/8 X 1/2 SAE	
402-2	TXV			HF 1 HC	054927	R22 3/8 X 1/2 SAE	
4WE4-47	4 WAY VALVE			RV4F47	062173	1/2 X 7/8 ODF	
4WE4-57	4 WAY VALVE			RV4F57	062176	5/8 X 7/8 ODF	
5091 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE	
5092 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE	
722 SERIES	REGULATOR			OBSOLETE	NONE	REMOTE PILOT	
724	REGULATOR			OBSOLETE	NONE	REMOTE PILOT	
726 SCP	REGULATOR			OBSOLETE	NONE	PILOT FOR FA8	
905 SERIES	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
927 SERIES	STRAINER			OBSOLETE	NONE	AMMONIA	
932R	STRAINER			OBSOLETE	NONE	AMMONIA	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
935 SERIES	TXV			OEM SPECIAL	NONE	TEMP PILOT	
A 3436	PARTS			OBSOLETE	NONE	FLANGE CAP	
AA 1 FC	TXV			AFA 1 FC	047758	3/8 X 3/8-1/2 SAE	
AA 1 HC	TXV			AFA 1 HC	054231	3/8 X 3/8-1/2 SAE	
AA 1/2 FC	TXV			AFA 1/2 FC	054226	3/8 X 3/8-1/2 SAE	
AA 1/2 HC	TXV			AFA 1/2 HC	057260	1/4 X 3/8-1/2 SAE	
AA 1/2 RC	TXV			AFA 1/2 RC	048431	1/4 X 3/8-1/2 SAE	
AA 1/4 FC	TXV			AFA 1/4 FC	047753	1/4 X 3/8-1/2 SAE	
AA 1/4 RC	TXV			AFA 1/4 RC	049871	1/4 X 3/8-1/2 SAE	
AA 11/2 HC	TXV			AFA 11/2 HC	054232	3/8 X 3/8-1/2 SAE	
AA 2 HC	TXV			AFA 2 HC	054233	3/8 X 3/8-1/2 SAE	
AAE 1 FC	TXV			AFAE 1 FC	057048	3/8 X 3/8-1/2 SAE	
AAE 1 HC	TXV			AFAE 1 HC	054246	3/8 X 3/8-1/2 SAE	
AAE 1/2 FC	TXV			AFAE 1/2 FC	057023	1/4 X 3/8-1/2 SAE	
AAE 1/2 HC	TXV			AFAE 1/2 HC	054243	1/4 X 3/8-1/2 SAE	
AAE 1/4 FC	TXV			AFAE 1/4 FC	054240	1/4 X 3/8-1/2 SAE	
AAE 11/2 HC	TXV			AFAE 11/2 HC	054247	3/8 X 3/8-1/2 SAE	
AAE 2 HC	TXV			AFAE 2 HC	054248	3/8 X 3/8-1/2 SAE	
AAE 5 HC	TXV			AFAE 5 HC	054250	3/8 X 3/8-1/2 SAE	
ADKS-14411T	DRIER			STAS-14411T	053022	SHELL (FOR BLOCKS)	
ADKS-14413T	DRIER			STAS-14413T	053024	SHELL (FOR BLOCKS)	
ADKS-14417T	DRIER			STAS-14417T	053025	SHELL (FOR BLOCKS)	
ADKS-1449T	DRIER			STAS-1449T	053020	SHELL (FOR BLOCKS)	
ADKS-19211T	DRIER			STAS-19211T	053028	SHELL (FOR BLOCKS)	
ADKS-485T	DRIER			STAS-485T	053001	SHELL (FOR BLOCKS)	
ADKS-487T	DRIER			STAS-487T	053003	SHELL (FOR BLOCKS)	
ADKS-489T	DRIER			STAS-489T	053005	SHELL (FOR BLOCKS)	
ADKS-9611T	DRIER			STAS-9611T	053014	SHELL (FOR BLOCKS)	
ADKS-9613T	DRIER			STAS-9613T	053017	SHELL (FOR BLOCKS)	
ADKS-967T	DRIER			STAS-967T	053010	SHELL (FOR BLOCKS)	
ADKS-969T	DRIER			STAS-969T	053012	SHELL (FOR BLOCKS)	
AN 1 FC	TXV			AFA 1 FC	047758	3/8 X 3/8-1/2 SAE	
AN 1 HC	TXV			AFA 1 HC	054231	3/8 X 3/8-1/2 SAE	
AN 1/2 FC	TXV			AFA 1/2 FC	054226	3/8 X 3/8-1/2 SAE	
AN 1/2 HC	TXV			AFA 1/2 HC	057260	1/4 X 3/8-1/2 SAE	
AN 1/2 RC	TXV			AFA 1/2 RC	048431	1/4 X 3/8-1/2 SAE	
AN 1/4 FC	TXV			AFA 1/4 FC	047753	1/4 X 3/8-1/2 SAE	
AN 1/4 RC	TXV			AFA 1/4 RC	049871	1/4 X 3/8-1/2 SAE	
AN 11/2 HC	TXV			AFA 11/2 HC	054232	3/8 X 3/8-1/2 SAE	
AN 2 HC	TXV			AFA 2 HC	054233	3/8 X 3/8-1/2 SAE	
ANDE	TXV			OBSOLETE	NONE	BLEED	
ANE 1 FC	TXV			AFAE 1 FC	057048	3/8 X 3/8-1/2 SAE	
ANE 1 HC	TXV			AFAE 1 HC	054246	3/8 X 3/8-1/2 SAE	
ANE 1/2 FC	TXV			AFAE 1/2 FC	057023	1/4 X 3/8-1/2 SAE	
ANE 1/2 HC	TXV			AFAE 1/2 HC	054243	1/4 X 3/8-1/2 SAE	
ANE 1/4 FC	TXV			AFAE 1/4 FC	054240	1/4 X 3/8-1/2 SAE	
ANE 11/2 HC	TXV			AFAE 11/2 HC	054247	3/8 X 3/8-1/2 SAE	
ANE 2 HC	TXV			AFAE 2 HC	054248	3/8 X 3/8-1/2 SAE	
ANE 5 HC	TXV			AFAE 5 HC	054250	3/8 X 3/8-1/2 SAE	
BEPR 12T9	REGULATOR			EPRB 12T9	057242	EVAP PRES.	
BEPR 16T11	REGULATOR			EPRB 16T11	057248	EVAP PRES.	
BEPR 20T13	REGULATOR			EPRB 20T13	057247	EVAP PRES.	
BEPRS 12T9	REGULATOR			EPRBS 12T9	057245	EVAP PRES.	
BEPRS 16T11	REGULATOR			EPRBS 16T11	057250	EVAP PRES.	
BEPRS 20T13	REGULATOR			EPRBS 20T13	057249	EVAP PRES.	
BGG-70	COILS			BMG 208-240/50-60	034906	6 IN LEADS	
BGG-71	COILS			BMG 24/ 50-60	036902	6 IN LEADS	
BGG-72	COILS			BMG 120/50-60	035325	6 IN LEADS	
CDDC	CONTROL			OBSOLETE	NONE	DEFROST	
CFDH	SENSOR			OBSOLETE	NONE	FROST CONTROL	
CPGR5035	AXV			OBSOLETE	NONE	AMMONIA	
CTR	REGULATOR			OBSOLETE	NONE	CASE CONTROL	
D 865	PARTS			OBSOLETE	NONE	EPRV PILOT	
DCU	CONTROL			OBSOLETE	NONE	FROST CONTROL	
DGRE 4	REGULATOR			EGRE 6S5B	062869	HOT GAS 5/8	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
DGRE 6	REGULATOR			EGRE 8S5B	063183	HOT GAS 5/8	
DP8410	REGULATOR			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
DS2184	SOLENOID			OBSOLETE	NONE	AMMONIA (3/8 PORT)	
DS2228	SOLENOID			200RB3T3	049609	3/8 ODF	
DT SERIES	TXV			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
EACFA2	REGULATOR			OEM SPECIAL	NONE	DIFFERENTIAL PRES.	
EPR SERIES	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
EPRV SERIES	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
ETR	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
FA SERIES	REGULATOR			OBSOLETE	NONE	FLANGED BODY	
FS1RA	FLOAT SWITCH			OBSOLETE	NONE	FLOODED SYSTEM	
GS SERIES	SOLENOID			NONE	NONE	OEM SPECIAL	OEM SPECIAL
GT SERIES	TXV			NONE	NONE	OEM SPECIAL	OEM SPECIAL
HC 1 FW	TXV			HF 1 FC	054905	3/8 X 1/2 SAE	
HC 1 HW	TXV			HF 1 HC	054927	3/8 X 1/2 SAE	
HC 1 RW	TXV			HF 1 RC	054976	3/8 X 1/2 SAE	
HC 1/2 FW	TXV			HF 1/2 FC	054892	3/8 X 1/2 SAE	
HC 1/2 HW	TXV			HF 1/2 HC	054135	3/8 X 1/2 SAE	
HC 1/2 RW	TXV			HF 1/2 RC	054964	3/8 X 1/2 SAE	
HC 1/4 FW	TXV			HF 1/4 FC	054134	3/8 X 1/2 SAE	
HC 1/4 HW	TXV			HF 1/4 HC	054921	3/8 X 1/2 SAE	
HC 1/4 RW	TXV			HF 1/4 RC	054137	3/8 X 1/2 SAE	
HC 11/2 FW	TXV			HF 11/2 FC	054914	3/8 X 1/2 SAE	
HC 11/2 HW	TXV			HF 11/2 HC	054933	3/8 X 1/2 SAE	
HC 11/2 RW	TXV			HF 11/2 RC	054984	3/8 X 1/2 SAE	
HC 2 FW	TXV			HF 2 FC	053060	3/8 X 1/2 SAE	
HC 2 HW	TXV			HF 2 HC	054939	3/8 X 1/2 SAE	
HC 2 RW	TXV			HF 2 RC	053061	3/8 X 1/2 SAE	
HC 3 HW	TXV			HF 3 HC	053316	3/8 X 1/2 SAE	
HC 31/2 RW	TXV			HF 31/2 RC	055936	3/8 X 1/2 SAE	
HCE 1 FW	TXV			HFE 1 FC	054909	3/8 X 1/2 SAE	
HCE 1 HW	TXV			HFE 1 HC	054930	3/8 X 1/2 SAE	
HCE 1 RW	TXV			HFE 1 RC	054979	3/8 X 1/2 SAE	
HCE 1/2 FW	TXV			HFE 1/2 FC	054895	3/8 X 1/2 SAE	
HCE 1/2 HW	TXV			HFE 1/2 HC	054361	3/8 X 1/2 SAE	
HCE 1/2 RW	TXV			HFE 1/2 RC	054967	3/8 X 1/2 SAE	
HCE 1/4 FW	TXV			HFE 1/4 FC	054360	3/8 X 1/2 SAE	
HCE 1/4 HW	TXV			HFE 1/4 HC	054924	3/8 X 1/2 SAE	
HCE 1/4 RW	TXV			HFE 1/4 RC	054366	3/8 X 1/2 SAE	
HCE 11/2 FW	TXV			HFE 11/2 FC	054917	3/8 X 1/2 SAE	
HCE 11/2 HW	TXV			HFE 11/2 HC	054936	3/8 X 1/2 SAE	
HCE 11/2 RW	TXV			HFE 11/2 RC	054988	3/8 X 1/2 SAE	
HCE 2 FW	TXV			HFE 2 FC	053069	3/8 X 1/2 SAE	
HCE 2 HW	TXV			HFE 2 HC	054942	3/8 X 1/2 SAE	
HCE 2 RW	TXV			HFE 2 RC	053070	3/8 X 1/2 SAE	
HCE 3 HW	TXV			HFE 3 HC	053317	3/8 X 1/2 SAE	
HCE 3 RW	TXV			HFE 31/3 RC	054142	3/8 X 1/2 SAE	
HF D FC	TXV			HF 1/4 FC	054134	R12 3/8 X 1/2 SAE	
HF D HC	TXV			HF 1/2 HC	054135	R22 3/8 X 1/2 SAE	
HF D RC	TXV			HF 1/4 RC	054137	R502 3/8 X 1/2 SAE	
HF J FC	TXV			HF 1 FC	054905	R12 3/8 X 1/2 SAE	
HF J HC	TXV			HF 2 HC	054939	R22 3/8 X 1/2 SAE	
HF J RC	TXV			HF 1 RC	054976	R502 3/8 X 1/2 SAE	
HF K FC	TXV			HF 2 FC	053060	R12 3/8 X 1/2 SAE	
HF K HC	TXV			HF 3 HC	053316	R22 3/8 X 1/2 SAE	
HF K RC	TXV			HF 2 RC	053061	R502 3/8 X 1/2 SAE	
HFE D FC	TXV			HFE 1/4 FC	054360	R12 3/8 X 1/2 SAE	
HFE D HC	TXV			HFE 1/2 HC	054361	R22 3/8 X 1/2 SAE	
HFE D RC	TXV			HFE 1/4 RC	054366	R502 3/8 X 1/2 SAE	
HFE J FC	TXV			HFE 1 FC	054909	R12 3/8 X 1/2 SAE	
HFE J HC	TXV			HFE 2 HC	054942	R22 3/8 X 1/2 SAE	
HFE J RC	TXV			HFE 1 RC	054979	R502 3/8 X 1/2 SAE	
HFE K FC	TXV			HFE 2 FC	053069	R12 3/8 X 1/2 SAE	
HFE K HC	TXV			HFE 3 HC	053317	R22 3/8 X 1/2 SAE	
HFE K RC	TXV			HFE 2 RC	053070	R502 3/8 X 1/2 SAE	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
HFES D HC	TXV			HFES 1/2 HC	055827	R22 3/8 X 1/2 ODF	
HFES D RC	TXV			HFES 1/4 RC	055092	R502 3/8 X 1/2 ODF	
HFES J FC	TXV			HFES 1 FC	055993	R12 3/8 X 1/2 ODF	
HFES J HC	TXV			HFES 2 HC	055706	R22 3/8 X 1/2 ODF	
HFES J RC	TXV			HFES 1 RC	056029	R502 3/8 X 1/2 ODF	
HFES K HC	TXV			HFES 3 HC	053916	R22 3/8 X 1/2 ODF	
HFES K RC	TXV			HFES 2 RC	053270	R502 3/8 X 1/2 ODF	
HFS D HC	TXV			HFS 1/2 HC	054136	R22 3/8 X 1/2 ODF	
HFS D RC	TXV			HFS 1/4 RC	055490	R502 3/8 X 1/2 ODF	
HGR	REGULATOR			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
HNDE SERIES	TXV			OBSOLETE	NONE	BLEED	
J56	FLOAT SWITCH			OBSOLETE	NONE	FLOODED SYSTEM	
K34A	TXV			OBSOLETE	NONE	AMMONIA	
KS30061	KIT			KS30321	060626	FOR 240RA8	
KS30062	KIT			KS30322	060627	FOR 240RA9	
KS30063	KIT			KS30323	060628	FOR 240RA12	
KS30065	KIT			KS30324	060629	FOR 240RA16	
KS30097	KIT			KS30325	060630	FOR 240RA20	
KS30108	KIT			KS30115	049194	FOR 200RB	
KS30109	KIT			KS30115	049194	FOR 200RB	
KS30309	KIT			KS30112	049191	FOR 100RB	
M344	SOLENOID			240RA12T7M	040849	7/8 ODF	
M355-1	SOLENOID			240RA12T7M	040849	7/8 ODF	
M511	SOLENOID			OBSOLETE	NONE	AMMONIA (3/4 PORT)	
M635-1	SOLENOID			240RA9T7M	043204	7/8 ODF	
M811	SOLENOID			OBSOLETE	NONE	AMMONIA (1/2 PORT)	
M91F	SOLENOID			OBSOLETE	NONE	AMMONIA (1/8 PORT)	
NDGRE	REGULATOR			OBSOLETE	NONE	HOT GAS	
NS115-1	SOLENOID			200RBGS1465-1	007580	NAVY - 120 V	
NS115-2	SOLENOID			200RBGS1465-2	007581	NAVY - 480V	
NS120-1	SOLENOID			200RBGS1466-1	007582	NAVY - 120 V	
NS120-2	SOLENOID			200RBGS1466-2	007583	NAVY - 480V	
PETR	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
POS SERIES	TXV			OBSOLETE	NONE	PILOT OPERATED	
R1	SOLENOID			240RA16T9M	042548	11/8 ODF	
R11	SOLENOID			240RA16T9M	042548	11/8 ODF	
R12	SOLENOID			240RA16T9M	042548	11/8 ODF	
R1H	SOLENOID			240RA16T9M	042550	11/8 ODF	
R2	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R21	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R22	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R2H	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R345-1	SOLENOID			240RA16T9M	042548	11/8 ODF	
R355	SOLENOID			240RA16T9M	042548	11/8 ODF	
R61	SOLENOID			240RA20T11M	046636	13/8 ODF	
R62	SOLENOID			240RA20T11M	046636	13/8 ODF	
R6H	SOLENOID			240RA20T11M	046636	13/8 ODF	
RCD (A) FW	TXV			HF 1/4 FC	009811	(LETTER) CAGE CAPACITY	
RCD (A) HW	TXV			HF 1/2 HC	054135	(LETTER) CAGE CAPACITY	
RCD (A) RW	TXV			HF 1/4 RC	054137	(LETTER) CAGE CAPACITY	
RCD (B) FW	TXV			HF 1/2 FC	009810	(LETTER) CAGE CAPACITY	
RCD (B) HW	TXV			HF 1 HC	054927	(LETTER) CAGE CAPACITY	
RCD (B) RW	TXV			HF 1/2 RC	054964	(LETTER) CAGE CAPACITY	
RCD (C) FW	TXV			HF 1 FC	054905	(LETTER) CAGE CAPACITY	
RCD (C) HW	TXV			HF 11/2 HC	054933	(LETTER) CAGE CAPACITY	
RCD (C) RW	TXV			HF 1 RC	054976	(LETTER) CAGE CAPACITY	
RCD (D) FW	TXV			HF 11/2 FC	054914	(LETTER) CAGE CAPACITY	
RCD (D) HW	TXV			HF 2 HC	054939	(LETTER) CAGE CAPACITY	
RCD (D) RW	TXV			HF 11/2 RC	054984	(LETTER) CAGE CAPACITY	
RCD (E) FW	TXV			HF 2 FC	053060	(LETTER) CAGE CAPACITY	
RCD (E) HW	TXV			HF 3 HC	053316	(LETTER) CAGE CAPACITY	
RCD (E) RW	TXV			HF 2 RC	053061	(LETTER) CAGE CAPACITY	
RCD (F) RW	TXV			HF 31/3 RC	055936	(LETTER) CAGE CAPACITY	
RCDE (A) FW	TXV			HFE 1/4 FC	054360	(LETTER) CAGE CAPACITY	
RCDE (A) HW	TXV			HFE 1/2 HC	054361	(LETTER) CAGE CAPACITY	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
RCDE (A) RW	TXV			HFE 1/4 RC	054366	(LETTER) CAGE CAPACITY	
RCDE (B) FW	TXV			HFE 1/2 FC	054895	(LETTER) CAGE CAPACITY	
RCDE (B) HW	TXV			HFE 1 HC	054930	(LETTER) CAGE CAPACITY	
RCDE (B) RW	TXV			HFE 1/2 RC	054967	(LETTER) CAGE CAPACITY	
RCDE (C) FW	TXV			HFE 1 FC	054909	(LETTER) CAGE CAPACITY	
RCDE (C) HW	TXV			HFE 1 1/2 HC	054936	(LETTER) CAGE CAPACITY	
RCDE (C) RW	TXV			HFE 1 RC	054979	(LETTER) CAGE CAPACITY	
RCDE (D) FW	TXV			HFE 1 1/2 FC	054917	(LETTER) CAGE CAPACITY	
RCDE (D) HW	TXV			HFE 2 HC	054942	(LETTER) CAGE CAPACITY	
RCDE (D) RW	TXV			HFE 1 1/2 RC	054988	(LETTER) CAGE CAPACITY	
RCDE (E) FW	TXV			HFE 2 FC	053069	(LETTER) CAGE CAPACITY	
RCDE (E) HW	TXV			HFE 3 HC	053317	(LETTER) CAGE CAPACITY	
RCDE (E) RW	TXV			HFE 2 RC	053070	(LETTER) CAGE CAPACITY	
RCDE (F) FW	TXV			HFE 3 1/2 FC	054138	(LETTER) CAGE CAPACITY	
RCDE (F) HW	TXV			HFE 5 1/2 HC	054140	(LETTER) CAGE CAPACITY	
RCDE (F) RW	TXV			HFE 3 1/2 RC	054142	(LETTER) CAGE CAPACITY	
RX	FLANGE SET			OBSOLETE	NONE	FLANGED BODY	
S101	SOLENOID			100RB2S3	047504	3/8 ODF	
S115	SOLENOID			200RB4F3M	047507	3/8 SAE	
S120	SOLENOID			100RB2S4	047505	1/2 ODF	
S155	SOLENOID			200RB4T3M	049186	3/8 ODF	
S221	SOLENOID			200RB6T5M	047547	5/8 ODF	
S225	SOLENOID			200RB6T5M	047547	5/8 ODF	
S2N20-1	SOLENOID			240RAGS740-1	006049	NAVY - 120 V	
S2N20-2	SOLENOID			240RAGS740-2	006050	NAVY - 480V	
S310	SOLENOID			240RA9T7M	043204	7/8 ODF	
S34	SOLENOID			200RB4T3M	049186	3/8 ODF	
S36	SOLENOID			200RB6T4M	047545	1/2 ODF	
S37	SOLENOID			200RB6T5M	047547	5/8 ODF	
S804	SOLENOID			200RB6T5M	047547	5/8 ODF	
S896	SOLENOID			240RA9T7M	043204	7/8 ODF	
TEL 2200 HW	TXV			TER 22 HC	061673	VLF	
TEL 2600 HW	TXV			TER 26 HC	061674	VLF	
TEL 3500 HW	TXV			TER 35 HC	061675	VLF	
TEL 3500 HW100	TXV			TER 35 HW100	058038	VLF	
TG	TXV			OBSOLETE	NONE	AMMONIA	
TLE 0050 FW	TXV			TCLE 1/2 FC	054413	VLF	
TLE 0050 HW	TXV			TCLE 1/2 HC	060768	VLF	
TLE 100 FW	TXV			TCLE 1FC	052940	VLF	
TLE 100 HW	TXV			TCLE 1 HC	062884	VLF	
TLE 1000 HW	TXV			TCLE 10 HC	054404	VLF	
TLE 1000 HW100	TXV			TCLE 10 HW100	059076	VLF	
TLE 1200 HW	TXV			TCLE 12 HC	060854	VLF	
TLE 200 FW	TXV			TCLE 2 FC	052941	VLF	
TLE 200 HW	TXV			TCLE 2 HC	061724	VLF	
TLE 200 RW	TXV			TCLE 2 RC	061215	VLF	
TLE 300 FW	TXV			TCLE 3 FC	052942	VLF	
TLE 300 HW	TXV			TCLE 3 HC	054395	VLF	
TLE 300 RW	TXV			TCLE 3 RC	055501	VLF	
TLE 400 FW	TXV			TCLE 4 FC	052943	VLF	
TLE 500 HW	TXV			TCLE 5 HC	054399	VLF	
TLE 650 FW	TXV			TCLE 6 1/2 FC	052944	VLF	
TLE 750 FW	TXV			TCLE 7 1/2 FC	052945	VLF	
TLE 750 HW	TXV			TCLE 7 1/2 HC	054401	VLF	
TLE 800 RW	TXV			TCLE 8 RC	063501	VLF	
TLX 0050 HW	TXV			TCLE 1/2 HC	060768	VLF	
TLX 100 FW	TXV			TCLE 1 FC	052940	VLF	
TLX 100 HW	TXV			TCLE 1 HW	062884	VLF	
TLX 1000 HW	TXV			TCLE 10 HC	054404	VLF	
TLX 200 FW	TXV			TCLE 2 FC	052941	VLF	
TLX 200 HW	TXV			TCLE 2 HC	061724	VLF	
TLX 300 HW	TXV			TCLE 3 HC	054395	VLF	
TLX 400 FW	TXV			TCLE 4 FC	052943	VLF	
TLX 400 HW	TXV			TCLE 3 HC	054395	VLF	
TLX 500 HW	TXV			TCLE 5 HC	054399	VLF	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TLX 650 FW	TXV			TCLE 61/2 FC	052944	VLF	
TLX 750 FW	TXV			TCLE 71/2 FC	052945	VLF	
TLX 750 HW	TXV			TCLE 71/2 HC	054401	VLF	
TN SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TO SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TP SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TR SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TS SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TU SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TV SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TW SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TX SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TX2 SERIES	TXV			OEM SPECIAL	NONE	ALCO - EUROPE	
TX3 - H01	TXV			HFS 1/4 HC	055633	ALCO - EUROPE	
TX3 - H02	TXV			HFS 1/2 HC	054136	ALCO - EUROPE	
TX3 - H21	TXV			HFES 1/4 HC	055927	ALCO - EUROPE	
TX3 - H22	TXV			HFES 1/2 HC	054838	ALCO - EUROPE	
TX3 - H23	TXV			HFES 1 HC	055708	ALCO - EUROPE	
TX3 - H24	TXV			HFES 11/2 HC	055863	ALCO - EUROPE	
TX3 - H25	TXV			HFES 2 HC	055706	ALCO - EUROPE	
TX3 - M23	TXV			HFES 3/4 MC	059422	ALCO - EUROPE	
TX3 - M24	TXV			HFES 1 MC	058546	ALCO - EUROPE	
TX3 - M01	TXV			HFS 1/4 MC	058545	ALCO - EUROPE	
TX3 - N21	TXV			HFS 1/4 RC	055490	ALCO - EUROPE	
TX3 - N23	TXV			HFES 1 RC	054983	ALCO - EUROPE	
UGZ 2	TXV			OBSOLETE	NONE	AMMONIA	
X 7188	PARTS			OBSOLETE	NONE	ENCL. TUBE	
X-137551-70	COILS			AMS 208-240/50-60	057531	SPADE	
X-137551-71	COILS			AMS 24/50-60	057603	SPADE	
X-137551-72	COILS			AMS 120/50-60	057349	SPADE	
X-13758-70	COILS			AMG 208-240/50-60	057342	6 IN LEADS	
X-13758-70 (18")	COILS			AMG 208-240/50-60	057342	6" LEADS	
X-13758-71	COILS			AMG 24/50-60	057341	6 IN LEADS	
X-13758-71 (18")	COILS			AMG 24/50-60	057341	6" LEADS	
X-13758-72	COILS			AMG 120/50-60	057331	6 IN LEADS	
X-13758-72 (18")	COILS			AMG 120/50-60	057331	6" LEADS	
X-22071-70	COILS			AHG 208-240/50-60	057671	6" LEADS	
X-22071-71	COILS			AHG 24/50-60	057669	6" LEADS	
X-22071-72	COILS			AHG 120/50-60	057673	6" LEADS	
X-22163-69	COILS			X-22606-69-18	035020	240/50-60 (M SERIES)	
X-22163-72	COILS			X-22606-72-18	035036	120/50-60 (M SERIES)	
X-22163-82	COILS			X-22606-82-18	036069	208/50-60 (M SERIES)	
X-22202-71	COILS			X-8321-71-18	039244	24/50-60 (4W SERIES)	
X-22202-72	COILS			X-8321-72-18	039166	120/50-60 (4W SERIES)	
X-22202-87	COILS			X-8321-87-18	041579	208-240/50-60(4W SERIES)	
X-22203-70	COILS			BMG 208-240/50-60	034906	6" LEADS	
X-22203-71	COILS			BMG 24/50-60	036902	6" LEADS	
X-22203-72	COILS			BMG 120/50-60	035325	6" LEADS	
X-22275-70	COILS			AMF 208-240/50-60	057504	18" LEADS	
X-22275-71	COILS			AMF 24/50-60	057539	18" LEADS	
X-22275-72	COILS			AMF 120/50-60	057546	18" LEADS	
X-22332-70	COILS			AMG 208-240/50-60	057342	6"LEADS	
X-22332-71	COILS			AMG 24/50-60	057341	6"LEADS	
X-22332-72	COILS			AMG 120/50-60	057331	6"LEADS	
X-24910-71	COILS			DMS 24/50-60	062013	SPADE	
X-24915-70	COILS			DMG 208-240/50-60	054764	6" LEADS	
X-24915-71	COILS			DMG 24/50-60	055129	6" LEADS	
X-24915-72	COILS			DMG 120/50-60	054762	6" LEADS	
X-5409 SERIES	POWER ASSY.			OEM SPECIAL	NONE	TEMP. PILOT	
X5488-17	COILS			X-22164-17-18	038947	230/DC (S SERIES)	
X5488-71	COILS			X-22164-71-18	032096	24/50-60 (S SERIES)	
X5488-72	COILS			X-22164-72-18	031340	120/50-60 (S SERIES)	
X5488-82	COILS			X-22164-82-18	032095	208/50-60 (S SERIES)	
X5488-88	COILS			X-22164-88-18	033675	480/50-60 (S SERIES)	
X5578 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
X6308 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
X7585 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE	
X8400-71	COILS			X-8321-71-18	039244	24/50-60 (4W SERIES)	
X8400-72	COILS			X-8321-72-18	039166	120/50-60(4W SERIES)	
X8400-87	COILS			X-8321-87-18	041579	208-240/50-60 (4W SERIES)	
X9600-69	COILS			X-22164-69-18	032813	240/50-60 (S SERIES)	
X9600-71	COILS			X-22164-71-18	032096	24/50-60 (S SERIES)	
X9600-72	COILS			X-22164-72-18	031340	120/50-60 (S SERIES)	
X9600-82	COILS			X-22164-82-18	032095	208/50-60 (S SERIES)	
XA1550-69	COILS			X-22164-69-18	032813	240/50-60 (S SERIES)	
XA1550-71	COILS			X-22164-71-18	032096	24/50-60 (S SERIES)	
XA1550-72	COILS			X-22164-72-18	031340	120/50-60 (S SERIES)	
XA1550-82	COILS			X-22164-82-18	032095	208/50-60 (S SERIES)	
XA1702-69	COILS			X-22606-69-18	035020	240/50-60 (M SERIES)	
XA1702-72	COILS			X-22606-72-18	035036	120/50-60 (M SERIES)	
XA1702-82	COILS			X-22606-82-18	036069	208/50-60 (M SERIES)	
XA1704-69	COILS			X-22200-69-18	032813	240/50-60 (R SERIES)	
XA1704-72	COILS			X-22200-72-18	032139	120/50-60 (R SERIES)	
XA1704-82	COILS			X-22200-82-18	032242	208/50-60 (R SERIES)	
XB1024FW1C	POWER ASSY.			X23048FW1C	043424	NAVY	
XB1024FW2C	POWER ASSY.			X23048FW2C	043542	NAVY	
XB1024FW4C	POWER ASSY.			X23048FW4C	043464	NAVY	
XB1024FW554C	POWER ASSY.			X23048FW554C	052838	NAVY	
XB1024FW6C	POWER ASSY.			X23048FW6C	043465	NAVY	
XB1047 SERIES	POWER ASSY.			OBSOLETE	NONE	MULTI OUTLET	
XB1049 SERIES	POWER ASSY.			OBSOLETE	NONE	AMMONIA - TG	
XB1050 SERIES	POWER ASSY.			OBSOLETE	NONE	MULTI OUTLET	
XC 717 B00B	CAGE			X-22517 B3B	041556	TLE SERIES	
XC 717 B1B	CAGE			X-22517 B5B	041562	TLE SERIES	
XC 717 B3B	CAGE			X-22517 B7B	041566	TLE SERIES	
XC709-B0B	CAGE			X-22440B4B	037041	TCLE SERIES	
XC709-B1B	CAGE			X-22440B5B	037043	TCLE SERIES	
XC709-B3B	CAGE			X-22440B7B	037047	TCLE SERIES	
XC709-B4B	CAGE			X-22440B6B	037045	TCLE SERIES	
XC709-B5B	CAGE			X-22440B8B	037049	TCLE SERIES	
XC713 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
XC736 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
XC739 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
XC741 SERIES	CAGE			OBSOLETE	NONE	AMMONIA	
XC743 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
XC763 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	
XW SERIES	WIPER			NONE	NONE	AIRCRAFT	

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
48DA	DRIER	48 CU. IN.		W48	061235	SAME	REPLACABLE DRIER BLOCK
48DN	DRIER	48 CU. IN.		H48	059542	SAME	REPLACABLE DRIER BLOCK
48DU	DRIER	48 CU. IN.		UK48	061617	SAME	REPLACABLE DRIER BLOCK
48F	DRIER	48 CU. IN.		F48R	047664	SAME	REPLACABLE FILTER CORE
AKS 3000	PRESS. TRAN.	Range: 0-87		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-175		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-290		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-435		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-87; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-175; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-175; DIN		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-290; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-495; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-100; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-200; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-300; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-87; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-87; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-175; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-175; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-290; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-290; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-495; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-495; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/8"	PRESS. TRAN.	0-200; 6.5 FT		NONE	NONE	NONE	NO CROSS
CPCE 12	REGULATOR	1/2 SAE		CPHE 5	038302	SAME	7/8 X 1-1/8 ODF ONLY
CPCE 12	REGULATOR	1/2 ODF		CPHE 5	038302	SAME	7/8 X 1-1/8 ODF ONLY
CPCE 15	REGULATOR	5/8 ODF		CPHE 6	064577	SAME	1-1/8 X 1-1/8 ONLY
CPCE 22	REGULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 083SW	DRIER	3/8 ODF		SFD 08S3-VV	064044	SAME	SUCTION FILTER-DRIER
DAS 083W	DRIER	3/8 SAE		SFD 08F3-VV	064042	SAME	SUCTION FILTER-DRIER
DAS 084 SW	DRIER	1/2 ODF		SFD 08S4-VV	064045	SAME	SUCTION FILTER-DRIER
DAS 084W	DRIER	1/2 SAE		SFD 08F4-VV	064043	SAME	SUCTION FILTER-DRIER
DAS 085 SW	DRIER	5/8 ODF		SFD 08S5-VV	064046	SAME	SUCTION FILTER-DRIER
DAS 086 SW	DRIER	3/4 ODF		SFD 08S6-VV	064047	SAME	SUCTION FILTER-DRIER
DAS 164 SW	DRIER	1/2 ODF		NONE	NONE	NONE	NO CROSS
DAS 164W	DRIER	1/2 SAE		NONE	NONE	NONE	NO CROSS
DAS 165 SW	DRIER	5/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 165W	DRIER	5/8 SAE		NONE	NONE	NONE	NO CROSS
DAS 166 SW	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
DAS 167 SW	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 305 SW	DRIER	5/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 306 SW	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
DAS 307 SW	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 309 SW	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 417 SW	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 419 SW	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 607 SW	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 609 SW	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DCL 032	DRIER	1/4 SAE		EK 032	060009	SAME	LIQUID LINE SERVICE
DCL 032 S	DRIER	1/4 ODF		EK 032S	060012	SAME	LIQUID LINE SERVICE
DCL 033	DRIER	3/8 SAE		EK 033	060013	SAME	LIQUID LINE SERVICE
DCL 033 S	DRIER	3/8 ODF		EK 033S	060014	SAME	LIQUID LINE SERVICE
DCL 052	DRIER	1/4 SAE		EK 052	047601	SAME	LIQUID LINE SERVICE
DCL 052 S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
DCL 052.5 S	DRIER	5/16 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE
DCL 053	DRIER	3/8 SAE		EK 053	047603	SAME	LIQUID LINE SERVICE
DCL 053 S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
DCL 082	DRIER	1/4 SAE		EK 082	047605	SAME	LIQUID LINE SERVICE
DCL 082 S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
DCL 082.5 S	DRIER	5/16 ODF		EK 08 25 S	049551	SAME	LIQUID LINE SERVICE
DCL 083	DRIER	3/8 SAE		EK 083	047606	SAME	LIQUID LINE SERVICE
DCL 083 S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
DCL 084	DRIER	1/2 SAE		EK 084	047609	SAME	LIQUID LINE SERVICE
DCL 084 S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
DCL 162	DRIER	1/4 SAE		EK 162	047611	SAME	LIQUID LINE SERVICE
DCL 162 S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
DCL 162.5 S	DRIER	5/16 ODF		EK 16 25S	056045	SAME	LIQUID LINE SERVICE
DCL 163	DRIER	3/8 SAE		EK 163	047613	SAME	LIQUID LINE SERVICE
DCL 163 S	DRIER	3/8 ODF		EK 163S	047614	SAME	LIQUID LINE SERVICE
DCL 164	DRIER	1/2 SAE		EK 164	047615	SAME	LIQUID LINE SERVICE
DCL 164 S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
DCL 165	DRIER	5/8 SAE		EK 165	047617	SAME	LIQUID LINE SERVICE
DCL 165 S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
DCL 167 S	DRIER	7/8 ODF		EK 167S	047619	SAME	LIQUID LINE SERVICE
DCL 303	DRIER	3/8 SAE		EK 303	048210	SAME	LIQUID LINE SERVICE
DCL 303 S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
DCL 304	DRIER	1/2 SAE		EK 304	048212	SAME	LIQUID LINE SERVICE
DCL 304 S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
DCL 305	DRIER	5/8 SAE		EK 305	048214	SAME	LIQUID LINE SERVICE
DCL 305 S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
DCL 306 S	DRIER	3/4 ODF		EK 306S	048216	SAME	LIQUID LINE SERVICE
DCL 307 S	DRIER	7/8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
DCL 309 S	DRIER	1-1/8 ODF		EK 309S	048218	SAME	LIQUID LINE SERVICE
DCL 413	DRIER	3/8 SAE		EK 413	048219	SAME	LIQUID LINE SERVICE
DCL 414	DRIER	1/2 SAE		EK 414	048220	SAME	LIQUID LINE SERVICE
DCL 414 S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
DCL 415	DRIER	5/8 SAE		EK 415	048222	SAME	LIQUID LINE SERVICE
DCL 415 S	DRIER	5/8 ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
DCL 417 S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
DCL 419 S	DRIER	1-1/8 ODF		EK 419S	048225	SAME	LIQUID LINE SERVICE
DCL 607 S	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DCL 609 S	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DCL 757 S	DRIER	7/8 ODF		EK 757S	048228	SAME	LIQUID LINE SERVICE
DCL 759 S	DRIER	1-1/8 ODF		EK 759S	048229	SAME	LIQUID LINE SERVICE
DCR 0485s	DRIER	5/8 ODF		STAS 485T	053001	SAME	DRIER SHELL - 1 CORE
DCR 0487s	DRIER	7/8 ODF		STAS 487T	053003	SAME	DRIER SHELL - 1 CORE
DCR 0489s	DRIER	1-1/8 ODF		STAS 489T	053005	SAME	DRIER SHELL - 1 CORE
DCR 09611s	DRIER	1-3/8 ODF		STAS 9611T	053014	SAME	DRIER SHELL - 2 CORE
DCR 09613s	DRIER	1-5/8 ODF		STAS 9613T	053017	SAME	DRIER SHELL - 2 CORE
DCR 09617s	DRIER	2-1/8 ODF		STAS 9617T	053018	SAME	DRIER SHELL - 2 CORE
DCR 0967s	DRIER	7/8 ODF		STAS 967T	053010	SAME	DRIER SHELL - 2 CORE
DCR 0969s	DRIER	11/8 ODF		STAS 969T	053012	SAME	DRIER SHELL - 2 CORE
DCR 14411s	DRIER	13/8 ODF		STAS 14411T	053022	SAME	DRIER SHELL - 3 CORE
DCR 14413s	DRIER	1-5/8 ODF		STAS 14413T	053024	SAME	DRIER SHELL - 3 CORE
DCR 14419s	DRIER	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
DCR 1449s	DRIER	1-1/8 ODF		STAS 1449T	053020	SAME	DRIER SHELL - 3 CORE
DCR 19211s	DRIER	1-3/8 ODF		STAS 19211T	053028	SAME	DRIER SHELL - 4 CORE
DCR 19213s	DRIER	15/8 ODF		STAS 19213T	053030	SAME	DRIER SHELL - 4 CORE
DCR 19217s	DRIER	2-1/8 ODF		STAS 19217T	053031	SAME	DRIER SHELL - 4 CORE
DCR 4811s	DRIER	1-3/8 ODF		STAS 4811T	053007	SAME	DRIER SHELL - 1 CORE
DCR 4813s	DRIER	1-5/8 ODF		STAS 4813T	053375	SAME	DRIER SHELL - 1 CORE
DCR 4817s	DRIER	2-1/8 ODF		STAS 4817 SV	053044	SAME	DRIER SHELL - 1 CORE
DCR 4821s	DRIER	2-5/8 ODF		STAS 4821 SV	053045	SAME	DRIER SHELL - 1 CORE
DML 032	DRIER	1/4 SAE		EK 032	060009		LIQUID LINE SERVICE
DML 032 S	DRIER	1/4 ODF		EK 032S	060012		LIQUID LINE SERVICE
DML 033	DRIER	3/8 SAE		EK 033	060013		LIQUID LINE SERVICE
DML 033 S	DRIER	3/8 ODF		EK 033S	060014		LIQUID LINE SERVICE
DML 052	DRIER	1/4 SAE		EK 052	047601		LIQUID LINE SERVICE
DML 052 S	DRIER	1/4 ODF		EK 052S	047602		LIQUID LINE SERVICE
DML 052.5 S	DRIER	5/16 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE
DML 053	DRIER	3/8 SAE		EK 053	047603		LIQUID LINE SERVICE
DML 053 S	DRIER	3/8 ODF		EK 053S	047604		LIQUID LINE SERVICE
DML 082	DRIER	1/4 SAE		EK 082	047605		LIQUID LINE SERVICE
DML 082 S	DRIER	1/4 ODF		EK 082S	047606		LIQUID LINE SERVICE
DML 082.5 S	DRIER	5/16 ODF		EK 08 25S	049551		LIQUID LINE SERVICE
DML 083	DRIER	3/8 SAE		EK 083	047606		LIQUID LINE SERVICE
DML 083 S	DRIER	3/8 ODF		EK 083S	047608		LIQUID LINE SERVICE
DML 084	DRIER	1/2 SAE		EK 084	047609		LIQUID LINE SERVICE
DML 084 S	DRIER	1/2 ODF		EK 084S	047610		LIQUID LINE SERVICE

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
DML 162	DRIER	1/4 SAE		EK 162	047611		LIQUID LINE SERVICE
DML 162 S	DRIER	1/4 ODF		EK 162S	047612		LIQUID LINE SERVICE
DML 162.5 S	DRIER	5/16 ODF		EK 16 25S	056045		LIQUID LINE SERVICE
DML 163	DRIER	3/8 SAE		EK 163	047613		LIQUID LINE SERVICE
DML 163 S	DRIER	3/8 ODF		EK 163S	047614		LIQUID LINE SERVICE
DML 164	DRIER	1/2 SAE		EK 164	047615		LIQUID LINE SERVICE
DML 164 S	DRIER	1/2 ODF		EK 164S	047616		LIQUID LINE SERVICE
DML 165	DRIER	5/8 SAE		EK 165	047617		LIQUID LINE SERVICE
DML 165 S	DRIER	5/8 ODF		EK 165S	047618		LIQUID LINE SERVICE
DML 167 S	DRIER	7/8 ODF		EK 167S	047619		LIQUID LINE SERVICE
DML 303	DRIER	3/8 SAE		EK 303	048210		LIQUID LINE SERVICE
DML 303 S	DRIER	3/8 ODF		EK 303S	048211		LIQUID LINE SERVICE
DML 304	DRIER	1/2 SAE		EK 304	048212		LIQUID LINE SERVICE
DML 304 S	DRIER	1/2 ODF		EK 304S	048213		LIQUID LINE SERVICE
DML 305	DRIER	5/8 SAE		EK 305	048214		LIQUID LINE SERVICE
DML 305 S	DRIER	5/8 ODF		EK 305S	048215		LIQUID LINE SERVICE
DML 306 S	DRIER	3/4 ODF		EK 306S	048216		LIQUID LINE SERVICE
DML 307 S	DRIER	7/8 ODF		EK 307S	048217		LIQUID LINE SERVICE
DML 309 S	DRIER	1-1/8 ODF		EK 309S	048218		LIQUID LINE SERVICE
DML 413	DRIER	3/8 SAE		EK 413	048219		LIQUID LINE SERVICE
DML 414	DRIER	1/2 SAE		EK 414	048220		LIQUID LINE SERVICE
DML 414 S	DRIER	1/2 ODF		EK 414S	048221		LIQUID LINE SERVICE
DML 415	DRIER	5/8 SAE		EK 415	048222		LIQUID LINE SERVICE
DML 415 S	DRIER	5/8 ODF		EK 415S	048223		LIQUID LINE SERVICE
DML 417 S	DRIER	7/8 ODF		EK 417S	048224		LIQUID LINE SERVICE
DML 419 S	DRIER	1-1/8 ODF		EK 419S	048225		LIQUID LINE SERVICE
DML 607 S	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DML 609 S	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DML 757 S	DRIER	7/8 ODF		EK 757S	048228		LIQUID LINE SERVICE
DML 759 S	DRIER	1-1/8 ODF		EK759S	048229		LIQUID LINE SERVICE
EVR 10	SOLENOID	3/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 10	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 10	SOLENOID	1/2 SAE		200RB 6F4	059731	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 ODF		200RB 6T4	047544	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	5/8 SAE		200RB 6F5	059732	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	5/8 ODF		200RB 6T5	056766	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 SAE WITH MANUAL STEM		200RB 6F4M	047530	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 ODF WITH MANUAL STEM		200RB 6T4M	047545	SAME	REFRIGERATION SERVICE - VLC
EVR 10 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 10 NO	SOLENOID	1/2 ODF		500RB 6T4	063339	SAME	REFRIGERATION SERVICE - VLC
EVR 15	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 15	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 15	SOLENOID	7/8 ODF		200RB 7T7	064282	SAME	REFRIGERATION SERVICE - VLC
EVR 15	SOLENOID	5/8 ODF WITH MANUAL STEM		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
EVR 15 NO	SOLENOID	5/8 ODF WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS
EVR 15 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 18	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
EVR 18	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
EVR 18	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 2	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 2	SOLENOID	1/4 SAE		100RB 2F2	047500	SAME	REFRIGERATION SERVICE - VLC
EVR 2	SOLENOID	1/4 ODF		100RB 2T2	048489	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 20	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	7/8 ODF WITH MANUAL STEM		200RB 9T9M	064768	SAME	REFRIGERATION SERVICE - VLC
EVR 22	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 22	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 22	SOLENOID	1-1/8 ODF		200RB 12T9	064821	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 25	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS
EVR 25	SOLENOID	1-1/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-3/8 ODF		240RA 16T11	060382	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-1/8 ODF WITH MANUAL STEM		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-3/8 ODF WITH MANUAL STEM		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EVR 3	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 3	SOLENOID	1/4 SAE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC
EVR 3	SOLENOID	1/4 ODF		200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC
EVR 3	SOLENOID	3/8 SAE		200RB 2F3	062611	SAME	REFRIGERATION SERVICE - VLC
EVR 3	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC
EVR 32	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 32	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS
EVR 32	SOLENOID	1-5/8 ODF		240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC
EVR 32	SOLENOID	1-5/8 ODF	WITH MANUAL STEM	240RA 20T13M	046637	SAME	REFRIGERATION SERVICE - VLC
EVR 4	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 4	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC
EVR 4	SOLENOID	1/2 SAE		200RB 3F4	052727	SAME	REFRIGERATION SERVICE - VLC
EVR 4	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC
EVR 40	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 40	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 40	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS
EVR 6	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 6	SOLENOID	3/8 SAE WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS
EVR 6	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 6	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC
EVR 6	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC
EVR 6	SOLENOID	1/2 SAE		200RB 3F4	052727	SAME	REFRIGERATION SERVICE - VLC
EVR 6	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
EVR 6	SOLENOID	3/8 ODF WITH MANUAL STEM		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
EVR 6 NO	SOLENOID	3/8 SAE WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS
EVR 6 NO	SOLENOID	3/8 ODF WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS
EVR 6 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 8	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 8	SOLENOID	3/8 ODF		200RB 5T3	061227	SAME	REFRIGERATION SERVICE - VLC
EVR 8	SOLENOID	1/2 SAE		200RB 5F4	047519	SAME	REFRIGERATION SERVICE - VLC
EVR 8	SOLENOID	1/2 ODF		200RB 5T4	057206	SAME	REFRIGERATION SERVICE - VLC
EVR 8	SOLENOID	5/8 ODF		200RB 5T5	059730	SAME	REFRIGERATION SERVICE - VLC
KP1 1/4" FLARE	TPC	060-2001		NONE	NONE	NONE	NO CROSS
KP1 36" Cap Tube w/1/4" Fl.	TPC	060-2051		NONE	NONE	NONE	NO CROSS
KP1 36" Cap Tube w/1/4" Fl.	TPC	060-2052		NONE	NONE	NONE	NO CROSS
KP1 60-1101	TPC	LOW PRES		PS1-X3A	097914	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP15 1/4" FLARE	TPC	060-2008		NONE	NONE	NONE	NO CROSS
KP15 1/4" FLARE	TPC	060-2026		NONE	NONE	NONE	NO CROSS
KP15 36" Cap Tube w/1/4" Fl.	TPC	060-2058		NONE	NONE	NONE	NO CROSS
KP15 36" Cap Tube w/1/4" Fl.	TPC	060-2059		NONE	NONE	NONE	NO CROSS
KP15 36" Cap Tube w/1/4" Fl.	TPC	060-2060		NONE	NONE	NONE	NO CROSS
KP15 36" Cap Tube w/1/4" Fl.	TPC	060-2031		NONE	NONE	NONE	NO CROSS
KP15 60-1241	TPC	DUAL PRES		PS2-A7A	097874	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP15 60-1243	TPC	DUAL PRES		PS2-L7A	097877	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP15 60-1264	TPC	DUAL PRES		PS2-L7A	097877	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP15 60-1265	TPC	DUAL PRES		PS2-A7A	097874	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP17W 36" Cap Tube w/1/4" Fl.	TPC	060-2029		NONE	NONE	NONE	NO CROSS
KP17W 36" Cap Tube w/1/4" Fl.	TPC	060-2055		NONE	NONE	NONE	NO CROSS
KP2 1/4" FLARE	TPC	060-2013		NONE	NONE	NONE	NO CROSS
KP2 36" Cap Tube w/1/4" Fl.	TPC	060-2063		NONE	NONE	NONE	NO CROSS
KP2 60-1120	TPC	LOW PRES		PS1-X1A	097889	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP5 1/4" FLARE	TPC	060-2014		NONE	NONE	NONE	NO CROSS
KP5 36" Cap Tube w/1/4" Fl.	TPC	060-2064		NONE	NONE	NONE	NO CROSS
KP5 60-1171	TPC	HIGH PRES		PS1-X5A	097919	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP5 60-1173	TPC	HIGH PRES		PS1-Y5A	097923	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP61 60L1100	TPC	TEMP CONTROL		TS1-X2P	097887	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP62 60L1106	TPC	TEMP CONTROL		TS1- *	*	SAME	* SEE CATALOG SECTION TO COMPLETE PART NO.
KP63 60L1107	TPC	TEMP CONTROL		TS1- *	*	SAME	* SEE CATALOG SECTION TO COMPLETE PART NO.
KP71 60L1113	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP73 60L1117	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP75 60L1120	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS
KP7B 1/4" FLARE	TPC	060-2004		NONE	NONE	NONE	NO CROSS
KP7B 36" Cap Tube w/1/4" Fl.	TPC	060-2054		NONE	NONE	NONE	NO CROSS
KP7W 1/4" FLARE	TPC	060-2003		NONE	NONE	NONE	NO CROSS
KP7W 36" Cap Tube w/1/4" Fl.	TPC	060-2053		NONE	NONE	NONE	NO CROSS

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KVC 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVC 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVC 15	REGULATOR	5/8 SAE		NONE	NONE	NONE	NO CROSS
KVC 15	REGULATOR	5/8 ODF		NONE	NONE	NONE	NO CROSS
KVC 22	REGULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
KVD 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVD 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVD 15	REGULATOR	5/8 SAE		NONE	NONE	NONE	NO CROSS
KVD 15	REGULATOR	5/8 ODF		NONE	NONE	NONE	NO CROSS
KVL 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVL 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVL 15	REGULATOR	5/8 SAE		OPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVL 15	REGULATOR	5/8 ODF		OPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVL 22	REGULATOR	7/8 ODF		OPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVL 28	REGULATOR	1-1/8 ODF		OPR - 10		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVL 35	REGULATOR	1-3/8 ODF		OPR - 10		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP12	REGULATOR	1/2 SAE		IPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP12	REGULATOR	1/2 ODF		IPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP15	REGULATOR	5/8 SAE		IPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP15	REGULATOR	5/8 ODF		IPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP22	REGULATOR	7/8 ODF		IPR - 6		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP28	REGULATOR	11/8 ODF		IPR - 10		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVP35	REGULATOR	13/8 ODF		IPR - 10		SAME	VARIOUS PRESSURE RANGES AVAILABLE
KVR 12	REGULATOR	1/2 SAE		HP 8 T 4			HEAD PRESSURE REGULATOR
KVR 12	REGULATOR	1/2 ODF		HP 8 T 4			HEAD PRESSURE REGULATOR
KVR 15	REGULATOR	5/8 SAE		HP 8 T 5			HEAD PRESSURE REGULATOR
KVR 15	REGULATOR	5/8 ODF		HP 8 T 5			HEAD PRESSURE REGULATOR
KVR 22	REGULATOR	7/8 ODF		HP 8 T 7			HEAD PRESSURE REGULATOR
KVR 28	REGULATOR	1-1/8 ODF		HP 14 T 9			HEAD PRESSURE REGULATOR
KVR 35	REGULATOR	1-3/8 ODF		HP 14 T 11			HEAD PRESSURE REGULATOR
MP 54 (120 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 54 (120 SEC)	TPC	3/6" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 54 (45 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 54 (45 SEC)	TPC	3/6" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	3/6" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	3/6" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 54 (90 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 54 (90 SEC)	TPC	3/6" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 55 (120 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 55 (120 SEC)	TPC	3/6" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 55 (45 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 55 (45 SEC)	TPC	3/6" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
MP 55 (60 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 55 (60 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 55 (90 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAME	Adjustable Differential and time delay
MP 55 (90 SEC)	TPC	3/6" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAME	Adjustable Differential and time delay
NRD	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
NRV 10	CHECK	3/8 ODF		ACK-6	064986	SAME	CHECK VALVES
NRV 10	CHECK	3/8 SAE		NONE	NONE	NONE	
NRV 12	CHECK	1/2 ODF		ACK-8	064987	SAME	CHECK VALVES
NRV 12	CHECK	1/2 SAE		NONE	NONE	NONE	
NRV 16	CHECK	5/8 ODF		ACK-10	064988	SAME	CHECK VALVES
NRV 16	CHECK	5/8 SAE		NONE	NONE	NONE	
NRV 19	CHECK	3/4 ODF		ACK-12	064989	SAME	CHECK VALVES
NRV 19	CHECK	3/4 SAE		NONE	NONE	NONE	
NRV 19	CHECK	7/8 ODF		ACK-14	064990	SAME	CHECK VALVES
NRV 22S	CHECK	7/8 ODF		NONE	NONE	NONE	
NRV 28S	CHECK	1-1/8 ODF		NONE	NONE	NONE	
NRV 35S	CHECK	1-3/8 ODF		NONE	NONE	NONE	
NRV 6	CHECK	1/4 ODF		ACK-4	064985	SAME	CHECK VALVES
NRV 6	CHECK	1/4 SAE		NONE	NONE	NONE	
OUB 1	OIL SEP	3/8 SAE		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP	3/8 ODF		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP	1/2 SAE		NONE	NONE	NONE	NO CROSS

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
OUB 1	OIL SEP	1/2 ODF		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP	5/8 SAE		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP	5/8 ODF		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	5/8 SAE		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	5/8 ODF		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	3/4 SAE		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	3/4 ODF		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	7/8 ODF		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	1 SAE		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	1 ODF		NONE	NONE	NONE	NO CROSS
OUB 4	OIL SEP	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
PHTF - 125	TXV	125 TON R12		NONE	NONE	NONE	NO CROSS
PHTF - 300 - 1	TXV	200 TON R12		NONE	NONE	NONE	NO CROSS
PHTF - 300 - 2	TXV	300 TON R12		NONE	NONE	NONE	NO CROSS
PHTF 85 - 2	TXV	20 TON R12		NONE	NONE	NONE	NO CROSS
PHTF 85 - 3	TXV	40 TON R12		NONE	NONE	NONE	NO CROSS
PHTF 85 - 4	TXV	50 TON R12		NONE	NONE	NONE	NO CROSS
PHTX 125	TXV	200 TON R22		NONE	NONE	NONE	NO CROSS
PHTX 300 - 1	TXV	350 TON R22		NONE	NONE	NONE	NO CROSS
PHTX 85 - 1	TXV	30 TON R22		NONE	NONE	NONE	NO CROSS
PHTX 85 - 2	TXV	50 TON R22		NONE	NONE	NONE	NO CROSS
PHTX 85 - 3	TXV	75 TON R22		NONE	NONE	NONE	NO CROSS
PHTX 85 - 4	TXV	125 TON R22		NONE	NONE	NONE	NO CROSS
PKV12	REGULATOR	11/8 ODF		NONE	NONE	NONE	NO CROSS
PKV15	REGULATOR	13/8 ODF		NONE	NONE	NONE	NO CROSS
PKV20	REGULATOR	15/8 ODF		NONE	NONE	NONE	NO CROSS
PKVS12	REGULATOR	11/8 ODF		NONE	NONE	NONE	NO CROSS
PKVS15	REGULATOR	13/8 ODF		NONE	NONE	NONE	NO CROSS
PKVS20	REGULATOR	15/8 ODF		NONE	NONE	NONE	NO CROSS
PM1-10	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM1-15	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM1-20	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM1-25	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM1-32	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM1-5	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-10	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-15	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-20	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-25	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-32	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
PM3-5	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
RT1	TPC	1/4" SAE		NONE	NONE	NONE	Enclosure to IP 44 per IEC 529
RT260A	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
RT262A	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
RT262AL	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
RT36B	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT36S	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT5	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT5	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT6AB	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
RT6AS	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
RT6B	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT6S	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
RT6W	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
Sgi 10	SIGHT GLASS	3/8 SAE EXT X EXT		HMI-1MM3	065392	SAME	MOISTURE INDICATOR
Sgi 10	SIGHT GLASS	3/8 SAE INT X EXT		HMI-1FM3	065397	SAME	MOISTURE INDICATOR
Sgi 10s	SIGHT GLASS	3/8 ODF X ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
Sgi 10s	SIGHT GLASS	3/8 ODF ODM		NONE	NONE	NONE	NO CROSS
Sgi 12	SIGHT GLASS	1/2 SAE EXT X EXT		HMI-1MM4	065393	SAME	MOISTURE INDICATOR
Sgi 12	SIGHT GLASS	1/2 SAE INT X EXT		HMI-1FM4	065398	SAME	MOISTURE INDICATOR
Sgi 12s	SIGHT GLASS	1/2 ODF X ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
Sgi 16	SIGHT GLASS	5/8 SAE EXT X EXT		HMI-1MM5	065394	SAME	MOISTURE INDICATOR
Sgi 16	SIGHT GLASS	5/8 SAE INT X EXT		NONE	NONE	NONE	NO CROSS
Sgi 16s	SIGHT GLASS	5/8 ODF X ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
Sgi 22s	SIGHT GLASS	7/8 ODF X ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SGI 6	SIGHT GLASS	1/4 SAE EXT X EXT		HMI-1MM2	065391	SAME	MOISTURE INDICATOR
SGI 6	SIGHT GLASS	1/4 SAE INT X EXT		HMI-1FM2	065396	SAME	MOISTURE INDICATOR
SGI 6s	SIGHT GLASS	1/4 ODF X ODF		HMI-*1TT2	065405	SAME	MOISTURE INDICATOR
SGN 10	SIGHT GLASS	3/8 SAE EXT X EXT		HMI-1MM3	065392	SAME	MOISTURE INDICATOR
SGN 10	SIGHT GLASS	3/8 SAE INT X EXT		HMI-1FM3	065397	SAME	MOISTURE INDICATOR
SGN 10s	SIGHT GLASS	3/8 ODF X ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
SGN 10s	SIGHT GLASS	3/8 ODF ODM		NONE	NONE	NONE	NO CROSS
SGN 12	SIGHT GLASS	1/2 SAE INT X EXT		HMI-1MM4	065393	SAME	MOISTURE INDICATOR
SGN 12s	SIGHT GLASS	1/2 ODF X ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
SGN 12s	SIGHT GLASS	1/2 ODF X ODM		NONE	NONE	NONE	NO CROSS
SGN 16	SIGHT GLASS	5/8 SAE INT X EXT		NONE	NONE	NONE	NO CROSS
SGN 16s	SIGHT GLASS	5/8 ODF X ODF		HMI-1MM5	065394	SAME	MOISTURE INDICATOR
SGN 16s	SIGHT GLASS	5/8 ODF X ODM		NONE	NONE	NONE	NO CROSS
SGN 22s	SIGHT GLASS	7/8 ODF X ODM		NONE	NONE	NONE	MOISTURE INDICATOR
SGN 22s	SIGHT GLASS	7/8 ODF X ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
SGN 6	SIGHT GLASS	1/4 SAE EXT X EXT		HMI-1MM2	065391	SAME	MOISTURE INDICATOR
SGN 6	SIGHT GLASS	1/4 SAE INT X EXT		HMI-1FM2	065396	SAME	MOISTURE INDICATOR
SGN 6s	SIGHT GLASS	1/4 ODF X ODF		HMI-*1TT2	065405	SAME	MOISTURE INDICATOR
SGR	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
SGR	SIGHT GLASS	3/4 NPT		NONE	NONE	NONE	NO CROSS
SGR SGI	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
SGR SGN	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
T2	KITS	00MMKBOX1		NONE	NONE	NONE	NO CROSS
T2 FLARE X FLARE	KITS	000MMK-A		NONE	NONE	NONE	NO CROSS
T2 FLARE X FLARE	KITS	000MMK-I		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	0X		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	00		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	01		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	02		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	03		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	04		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	05		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	06		NONE	NONE	NONE	NO CROSS
TDEBX11 5/8 X 1-1/8	TXV	068H7134		TFES 10 HCA	061610	SAME	5/8 X 7/8 ODF
TDEBX11 5/8 X 7/8	TXV	068H7132		TFES 10 HCA	061610	SAME	5/8 X 7/8 ODF
TDEBX12.5 5/8 X 7/8	TXV	068H7136		NONE	NONE	NONE	NO REPLACEMENT
TDEBX12.5 7/8 X 1-1/8	TXV	068H7138		NONE	NONE	NONE	NO REPLACEMENT
TDEBX16 5/8 X 1-1/8	TXV	068H7140		TRAE + 15 HCA	063510	SAME	5/8 X 7/8 ODF
TDEBX16 7/8 X 1-1/8	TXV	068H7142		TRAE + 15 HCA	062721	SAME	SAME CONNECTION SIZE
TDEBX19 7/8 X 1-1/8	TXV	068H7144		TRAE + 20 HCA	062725	SAME	SAME CONNECTION SIZE
TDEBX20 7/8 X 1-1/8	TXV	068H7146		TRAE + 20 HCA	062725	SAME	SAME CONNECTION SIZE
TDEBX26 7/8 X 1-3/8	TXV	068H7148		TRAE + 30 HCA	062727	SAME	7/8 X 1-1/8 ODF
TDEBX30 7/8 X 1-3/8	TXV	068H7150		TRAE + 30 HCA	062727	SAME	7/8 X 1-1/8 ODF
TDEBX40 1-1/8 X 1-3/8	TXV	068H7154		TRAE + 40 HCA	062734	SAME	SAME CONNECTION SIZE
TDEBX8 5/8 X 7/8	TXV	068H7130		NONE	NONE	NONE	NO REPLACEMENT
TDEX 11	TXV	10 TON R22		TFES 10 HCA 5/8 X 7/8 ODFS/T	061610	SAME	EMERSON IS BALANCED PORT
TDEX 12.5	TXV	12 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 18	TXV	20 TON R22		TRAE + 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 19	TXV	20 TON R22		TRAE + 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 20	TXV	20 TON R22		TRAE + 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 25	TXV	30 TON R22		TRAE + 30 HCA 1-1/8 X 1-3/8 ODFS/T	062730	SAME	EMERSON IS BALANCED PORT
TDEX 3	TXV	3 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 30	TXV	30 TON R22		TRAE + 30 HCA 1-1/8 X 1-3/8 ODFS/T	062730	SAME	EMERSON IS BALANCED PORT
TDEX 4	TXV	4 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 40	TXV	40 TON R22		TRAE + 40 HCA 1-1/8 X 1-3/8 ODFS/T	062734	SAME	EMERSON IS BALANCED PORT
TDEX 6	TXV	6 TON R22		HFES 51/2 HCA 1/2 X 5/8 ODFS/T	057378	SAME	EMERSON IS BALANCED PORT
TDEX 7.5	TXV	8 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 8	TXV	8 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX3 1/2 X 5/8	TXV	068H6201		HFES 3 HC	053916	SAME	3/8 X 1/2 CONNECTION SIZE
TDEX3 3/8 X 5/8	TXV	068H6200		HFES 3 HC	053916	SAME	3/8 X 1/2 CONNECTION SIZE
TDEX4 1/2 X 7/8	TXV	068H6202		NONE	NONE	NONE	NO REPLACEMENT
TDEX6 1/2 X 5/8	TXV	068H6234		HFES 5 1/2 HC	057378	SAME	SAME CONNECTION SIZE
TDEX6 1/2 X 7/8	TXV	068H6203		HFES 5 1/2 HC	055187	SAME	SAME CONNECTION SIZE
TDEX6 5/8 X 7/8	TXV	068H6204		HFES 5 1/2 HC	054779	SAME	SAME CONNECTION SIZE
TDEX7.5 5/8 X 7/8	TXV	068H6205		NONE	NONE	NONE	NO REPLACEMENT

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TEF 12 - 12 R12	TXV	12 TON R12		TJRE 11 FC VLF	055105	SAME	
TEF 12 - 3 R12	TXV	3 TON R12		TCLE 3 FC VLF	052942	SAME	
TEF 12 - 5 R12	TXV	4 TON R12		TCLE 4 FC VLF	052943	SAME	
TEF 12 - 8 R12	TXV	7 1/2 TON R12		TCLE 7 1/2 FC VLF	052945	SAME	
TEF 2 - 0.3 R12	TXV	1/3 TON R12		TIE 1 MW	065017	SAME	USE CAGE 065090
TEF 2 - 0.5 R12	TXV	1/2 TON R12		TIE 2 MW	065017	SAME	USE CAGE 065091
TEF 2 - 1.0 R12	TXV	1 TON R12		TIE 3 MW	065017	SAME	USE CAGE 065091
TEF 2 - 1.5 R12	TXV	1 1/2 TON R12		TIE 4 MW	065017	SAME	USE CAGE 065092
TEF 2 - 2.0 R12	TXV	2 TON R12		TIE 5 MW	065017	SAME	USE CAGE 065092
TEF 2 - 3.0 R12	TXV	2 1/2 TON R12		TIE 6 MW	065017	SAME	USE CAGE 065093
TEF 20 - 20 R12	TXV	20 TON R12		TER 20 FC VLF	055111	SAME	
TEF 5 - 2 R12	TXV	2 TON R12		TCLE 2 FC VLF	052941	SAME	
TEF 5 - 3 R12	TXV	3 TON R12		TCLE 3 FC VLF	052942	SAME	
TEF 5 - 5 R12	TXV	4 TON R12		TCLE 4 FC VLF	052943	SAME	
TEF 5 - 8 R12	TXV	8 TON R12		TCLE 7 1/2 FC VLF	052945	SAME	
TEF 55 - 33 R12	TXV	35 TON R12		NONE	NONE	NONE	
TEF 55 - 55 R12	TXV	55 TON R12		NONE	NONE	NONE	
TEF12 R12	POWER ELEM.	067B3204		NONE	NONE	NONE	NO CROSS
TEF12 R12	POWER ELEM.	067B3203		NONE	NONE	NONE	NO CROSS
TEF12 R12	POWER ELEM.	067B3228		NONE	NONE	NONE	NO CROSS
TEF12 R12	POWER ELEM.	067B3201		NONE	NONE	NONE	NO CROSS
TEF12 R12	POWER ELEM.	067B3205		NONE	NONE	NONE	NO CROSS
TEF20 R12	POWER ELEM.	067B3270		NONE	NONE	NONE	NO CROSS
TEF20 R12	POWER ELEM.	067B3289		NONE	NONE	NONE	NO CROSS
TEF20 R12	POWER ELEM.	037B3285		NONE	NONE	NONE	NO CROSS
TEF20 R12	POWER ELEM.	067B3271		NONE	NONE	NONE	NO CROSS
TEF5 R12	POWER ELEM.	067B3244		NONE	NONE	NONE	NO CROSS
TEF5 R12	POWER ELEM.	067B3266		NONE	NONE	NONE	NO CROSS
TEF5 R12	POWER ELEM.	067B3242		NONE	NONE	NONE	NO CROSS
TEF5 R12	POWER ELEM.	067B3245		NONE	NONE	NONE	NO CROSS
TEF55 R12	POWER ELEM.	067G3201		NONE	NONE	NONE	NO CROSS
TEF55 R12	POWER ELEM.	067G3204		NONE	NONE	NONE	NO CROSS
TEF55 R12	POWER ELEM.	067G3202		NONE	NONE	NONE	NO CROSS
TEF55 R12	POWER ELEM.	067G3203		NONE	NONE	NONE	NO CROSS
TEN12 R134a	POWER ELEM.	067B3232		NONE	NONE	NONE	NO CROSS
TEN12 R134a	POWER ELEM.	067B3233		NONE	NONE	NONE	NO CROSS
TEN12 R134a	POWER ELEM.	067B3364		NONE	NONE	NONE	NO CROSS
TEN12 R134a	POWER ELEM.	067B3365		NONE	NONE	NONE	NO CROSS
TEN20 R134a	POWER ELEM.	067B3292		NONE	NONE	NONE	NO CROSS
TEN20 R134a	POWER ELEM.	067B3293		NONE	NONE	NONE	NO CROSS
TEN20 R134a	POWER ELEM.	067B3371		NONE	NONE	NONE	NO CROSS
TEN5 R134a	POWER ELEM.	067B3297		NONE	NONE	NONE	NO CROSS
TEN5 R134a	POWER ELEM.	067B3298		NONE	NONE	NONE	NO CROSS
TEN5 R134a	POWER ELEM.	067B3327		NONE	NONE	NONE	NO CROSS
TEN55 R134a	POWER ELEM.	067G3222		NONE	NONE	NONE	NO CROSS
TEN55 R134a	POWER ELEM.	067G3230		NONE	NONE	NONE	NO CROSS
TEN55 R134a	POWER ELEM.	067G3223		NONE	NONE	NONE	NO CROSS
TEN55 R134a	POWER ELEM.	067G3231		NONE	NONE	NONE	NO CROSS
TEN55 R134a	POWER ELEM.	067G3232		NONE	NONE	NONE	NO CROSS
TES12 404A/507	POWER ELEM.	067B3347		NONE	NONE	NONE	NO CROSS
TES12 404A/507	POWER ELEM.	067B3346		NONE	NONE	NONE	NO CROSS
TES12 404A/507	POWER ELEM.	067B3348		NONE	NONE	NONE	NO CROSS
TES12 404A/507	POWER ELEM.	067B3349		NONE	NONE	NONE	NO CROSS
TES12 404A/507	POWER ELEM.	067B3350		NONE	NONE	NONE	NO CROSS
TES20 404A/507	POWER ELEM.	067B3352		NONE	NONE	NONE	NO CROSS
TES20 404A/507	POWER ELEM.	067B3356		NONE	NONE	NONE	NO CROSS
TES20 404A/507	POWER ELEM.	067B3351		NONE	NONE	NONE	NO CROSS
TES20 404A/507	POWER ELEM.	067B3354		NONE	NONE	NONE	NO CROSS
TES5 404A/507	POWER ELEM.	067B3342		NONE	NONE	NONE	NO CROSS
TES5 404A/507	POWER ELEM.	067B3357		NONE	NONE	NONE	NO CROSS
TES5 404A/507	POWER ELEM.	067B3358		NONE	NONE	NONE	NO CROSS
TES5 404A/507	POWER ELEM.	067B3344		NONE	NONE	NONE	NO CROSS
TES5 404A/507	POWER ELEM.	067B3343		NONE	NONE	NONE	NO CROSS
TES55 404A/507	POWER ELEM.	067G3302		NONE	NONE	NONE	NO CROSS
TES55 404A/507	POWER ELEM.	067G3306		NONE	NONE	NONE	NO CROSS

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TEX 12 - 12 R22	TXV	12 TON R22		TCLE 12 HC VLF	060854	SAME	
TEX 12 - 18 R22	TXV	18 TON R22		TJRE 18 HC VLF	060858	SAME	
TEX 12 - 4.5 R22	TXV	5 TON R22		TCLE 5 HC VLF	054399	SAME	
TEX 12 - 7.5 R22	TXV	7 1/2 TON R22		TCLE 7 1/2 HC VLF	054401	SAME	
TEX 2 - 0.7 R22	TXV	1/3 TON R22		TIE 1/3 HW	065021	SAME	USE CAGE 065087
TEX 2 - 1.0 R22	TXV	3/4 TON R22		TIE 1 HW	065021	SAME	USE CAGE 065088
TEX 2 - 1.5 R22	TXV	1 TON R22		TIE 2 HW	065021	SAME	USE CAGE 065090
TEX 2 - 2.3 R22	TXV	2 TON R22		TIE 3 HW	065021	SAME	USE CAGE 065090
TEX 2 - 3.0 R22	TXV	3 TON R22		TIE 4 HW	065021	SAME	USE CAGE 065091
TEX 2 - 4.5 R22	TXV	4 TON R22		TIE 5 HW	065021	SAME	USE CAGE 065091
TEX 20 - 30 R22	TXV	30 TON R22		TER 26 HC VLF	061674	SAME	
TEX 5 - 12 R22	TXV	12 TON R22		TCLE 12 HC VLF	060854	SAME	
TEX 5 - 3 R22	TXV	3 TON R22		TCLE 3 HC VLF	054395	SAME	
TEX 5 - 4.5 R22	TXV	5 TON R22		TCLE 5 HC VLF	054399	SAME	
TEX 5 - 7.5 R22	TXV	7 1/2 TON R22		TCLE 7 1/2 HC VLF	054401	SAME	
TEX 55 - 50 R22	TXV	50 TON R22		TER 45 HC VLF	061676	SAME	
TEX 55 - 85 R22	TXV	85 TON R22		THR 100 HC VLF	062036	SAME	
TEX12 R22	POWER ELEM.	067B3210		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3209		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3227		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3213		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3211		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3212		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3274		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3290		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3286		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3275		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3276		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3250		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3267		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3249		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3253		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3263		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3251		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3205		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3209		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3220		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3207		NONE	NONE	NONE	NO CROSS
TEY 12 - 3 R502	TXV	2 TON R502		TCLE 2 RC VLF	061215	SAME	
TEY 12 - 5 R502	TXV	5 TON R502		NONE	NONE	NONE	
TEY 12 - 8 R502	TXV	7 TON R502		NONE	NONE	NONE	
TEY 12 -12 R502	TXV	12 TON R502		NONE	NONE	NONE	
TEY 2 - 0.2 R502	TXV	1/4 TON R502		TIE1/4SW	065031	SAME	USE CAGE 065087
TEY 2 - 0.3 R502	TXV	1/2 TON R502		TIE 1 SW	065031	SAME	USE CAGE 065088
TEY 2 - 0.6 R502	TXV	3/4 TON R502		TIE 2 SW	065031	SAME	USE CAGE 065090
TEY 2 - 1.0 R502	TXV	1 1/2 TON R502		TIE 3 SW	065031	SAME	USE CAGE 065091
TEY 2 - 1.5 R502	TXV	2 TON R502		NONE	NONE	NONE	
TEY 2 - 2.0 R502	TXV	2 1/2 TON R502		NONE	NONE	NONE	
TEY 2 - 3.0 R502	TXV	3 TON R502		TIE 6 SW	065031	SAME	USE CAGE 065092
TEY 20 - 20 R502	TXV	20 TON R502		NONE	NONE	NONE	
TEY 5 - 2 R502	TXV	2 TON R502		TCLE 2 RC VLF	061215	SAME	
TEY 5 - 3 R502	TXV	3 TON R502		TCLE 3 RC VLF	055501	SAME	
TEY 5 - 5 R502	TXV	5 TON R502		NONE	NONE	NONE	
TEY 5 - 8 R502	TXV	8 TON R502		TCLE 8 RC VLF	063501	SAME	
TEY 55 - 33 R502	TXV	33 TON R502		NONE	NONE	NONE	
TEY 55 - 55 R502	TXV	55 TON R502		NONE	NONE	NONE	
TEY12 R502	POWER ELEM.	067B3218		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3217		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3215		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3221		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3219		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3220		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3280		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3291		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3279		NONE	NONE	NONE	NO CROSS

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TEY20 R502	POWER ELEM.	067B3281		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3282		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3288		NONE	NONE	NONE	NO CROSS
TEY5 R502	POWER ELEM.	067B3257		NONE	NONE	NONE	NO CROSS
TEY5 R502	POWER ELEM.	067B3259		NONE	NONE	NONE	NO CROSS
TEY5 R502	POWER ELEM.	067B3261		NONE	NONE	NONE	NO CROSS
TEY5 R502	POWER ELEM.	067B3265		NONE	NONE	NONE	NO CROSS
TEY5 R502	POWER ELEM.	067B3258		NONE	NONE	NONE	NO CROSS
TEY55 R502	POWER ELEM.	067G3211		NONE	NONE	NONE	NO CROSS
TEY55 R502	POWER ELEM.	067G3210		NONE	NONE	NONE	NO CROSS
TEY55 R502	POWER ELEM.	067G3213		NONE	NONE	NONE	NO CROSS
TEY55 R502	POWER ELEM.	067G3218		NONE	NONE	NONE	NO CROSS
TF 2 - 0.2 R12	TXV	1/6 TON R12		NONE	NONE	NONE	
TF 2 - 0.3 R12	TXV	1/3 TON R12		T1 1 MW	065016	SAME	USE CAGE 065090
TF 2 - 0.5 R12	TXV	1/2 TON R12		NONE	NONE	NONE	
TF 2 - 1.0 R12	TXV	1 TON R12		T1 3 MW	065016	SAME	USE CAGE 065091
TF 2 - 1.5 R12	TXV	1 1/2 TON R12		NONE	NONE	NONE	
TF 2 - 2.0 R12	TXV	2 TON R12		T1 5 MW	065016	SAME	USE CAGE 065092
TF 2 - 3.0 R12	TXV	2 1/2 TON R12		NONE	NONE	NONE	
TKEF 20 - 10 R12	TXV	10 TON R12		TJRE 11 FC VLF	055105	SAME	
TKEF 20 - 12 R12	TXV	12 TON R12		NONE	NONE	NONE	
TKEF 20 - 16 R12	TXV	16 TON R12		NONE	NONE	NONE	
TKEF 20 - 20 R12	TXV	20 TON R12		TER 20 FC VLF	055109	SAME	
TKEF 3 - 2 R12	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
TKEF 3 - 3 R12	TXV	3 TON R12		NONE	NONE	NONE	
TKEF 8 - 5 R12	TXV	5 TON R12		HFES 6 MC 5/8 X 7/8 ODFS/T	057903	SAME	
TKEF 8 - 6 R12	TXV	6 TON R12		HFES 6 MC 5/8 X 7/8 ODFS/T	057903	SAME	
TKEF 8 - 8 R12	TXV	8 TON R12		NONE	NONE	NONE	
TKEF 20 - 20 R22	TXV	20 TON R22		HFES 20 HC 7/8 X 1-1/8 ODFS/T	062055	SAME	
TKEF 20 - 30 R22	TXV	30 TON R22		TRAE + 30 HC 1-1/8 X 1-3/8 ODFS/T	062728	SAME	
TKEF 3 - 3 R22	TXV	21/2 TON R22		HFE 21/2 HC 3/8 X 1/2 ODFS/T	055931	SAME	
TKEF 8 - 12 R22	TXV	10 TON R22		HFES 10 HC 5/8 X 7/8 ODFS/T	057256	SAME	
TKEF 8 - 15 R22	TXV	15 TON R22		HFES 15 HC 5/8 X 7/8 ODFS/T	057317	SAME	
TKEF 8 - 7.5 R22	TXV	8 TON R22		HFE 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
TKEY 20 - 12 R502	TXV	12 TON R502		NONE	NONE	NONE	
TKEY 20 - 21 R502	TXV	21 TON R502		NONE	NONE	NONE	
TKEY 3 - 2 R502	TXV	11/2 TON R502		HFE 11/2 RC 3/8 X 1/0 SAEANG	054967	SAME	
TKEY 3 - 3 R502	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
TKEY 3 - 4 R502	TXV	3 1/2 TON R502		HFE 3 1/2 RC 3/8 X 1/2 SAEANG	054142	SAME	
TKEY 8 - 6 R502	TXV	5 TON R502		HFES 5 RC 3/8 X 1/2 ODFS/T	058875	SAME	
TKEY 8 - 7 R502	TXV	7 TON R502		NONE	NONE	NONE	
TKEY 8 - 9 R502	TXV	10 TON R502		HFES 10 RC 5/8 X 7/8 ODFS/T	058808	SAME	
TRE10-10 5/8X7/8	TXV	067L1024		NONE	NONE	NONE	NO REPLACEMENT
TRE10-5N 5/8X7/8	TXV	067L1003		NONE	NONE	NONE	NO REPLACEMENT
TRE10-7N 5/8X7/8	TXV	067L1006		NONE	NONE	NONE	NO REPLACEMENT
TRE10-8X 5/8X7/8	TXV	067L1021		NONE	NONE	NONE	NO REPLACEMENT
TRE20-10X 5/8X7/8	TXV	067L1075		NONE	NONE	NONE	NO REPLACEMENT
TRE20-11N 7/8X1-1/8	TXV	067L1050		NONE	NONE	NONE	NO REPLACEMENT
TRE20-12.5 5/8X7/8	TXV	067L1079		NONE	NONE	NONE	NO REPLACEMENT
TRE20-14N 7/8-1-1/8	TXV	067L1053		NONE	NONE	NONE	NO REPLACEMENT
TRE20-14N 7/8X1-3/8	TXV	067L1054		NONE	NONE	NONE	NO REPLACEMENT
TRE20-15X 7/8X1-1/8	TXV	067L1084		NONE	NONE	NONE	NO REPLACEMENT
TRE20-20X 7/8X1-1/8	TXV	067L1087		NONE	NONE	NONE	NO REPLACEMENT
TRE20-20X 7/8X1-3/8	TXV	067L1088		NONE	NONE	NONE	NO REPLACEMENT
TRE20-7N 5/8X7/8	TXV	067L1041		NONE	NONE	NONE	NO REPLACEMENT
TRE20-9N 5/8X7/8	TXV	068L1045		NONE	NONE	NONE	NO REPLACEMENT
TUA	KITS	00MMKBOX2		NONE	NONE	NONE	NO CROSS
TUA 3/8 x 1/2	TXV	R22: Interchangeable orifices, SAE connections		T1 HW	065020	SAME	Need to select orifices and order
TUA 3/8 x 1/2	TXV	R134a: Interchangeable orifices, SAE connections		T1 MW	065016	SAME	Need to select orifices and order
TUA 3/8 x 1/2	TXV	R404A/R507: Interchangeable orifices, SAE connections		T1 SW	065028	SAME	Need to select orifices and order
TUA 3/8 x 1/2	TXV	R407C: Interchangeable orifices, SAE connections		T1 NW	065038	SAME	Need to select orifices and order
TUA SWEAT X SWEAT	KITS	000MMK-U		NONE	NONE	NONE	NO CROSS
TUAE 3/8 x 1/2	TXV	R22: Interchangeable orifices, SAE connections		T1E HW	065021	SAME	Need to select orifices and order
TUAE 3/8 x 1/2	TXV	R134a: Interchangeable orifices, SAE connections		T1E MW	065017	SAME	Need to select orifices and order
TUAE 3/8 x 1/2	TXV	R404A/R507: Interchangeable orifices, SAE connections		T1E SW	065031	SAME	Need to select orifices and order

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TUAE 3/8 x 1/2	TXV	R407C: Interchangeable orifices	SAE Connections	TIE-NW	065039	SAME	Need to select orifices and order
TUB-00 1/4 X 1/2 R22	TXV	068U2056	ANG STYLE	NONE	NONE	NONE	S/T BODY TYPE
TUB-00 3/8 X 1/2 R22	TXV	068U2156	ANG STYLE	NONE	NONE	NONE	NO REPLACEMENT
TUB-01 1/4 X 1/2 R134a	TXV	068U2027	ANG STYLE	TIS-MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 1/4 X 1/2 R22	TXV	068U2057	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 1/4X1/2 404A/507	TXV	068U2094	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 404A/507	TXV	068U2129	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 R134a	TXV	068U2117	ANG STYLE	TIS-MW	065064	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 R22	TXV	068U2157	ANG STYLE	TIS-HW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 1/4 X 1/2 R134a	TXV	068U2028	ANG STYLE	TIS-MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 1/4 X 1/2 R22	TXV	068U2058	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 1/4X1/2 404A/507	TXV	068U2095	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 404A/507	TXV	068U2130	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 R134a	TXV	068U2118	ANG STYLE	TIS-MW	065064	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 R22	TXV	068U2179	ANG STYLE	TIS-HW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 1/4 X 1/2 R134a	TXV	068U2029	ANG STYLE	TIS-MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 1/4 X 1/2 R22	TXV	068U2059	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 1/4X1/2 404A/507	TXV	068U2096	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 404A/507	TXV	068U2131	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 R134a	TXV	068U2119	ANG STYLE	TIS-MW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 R22	TXV	068U2180	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 1/4 X 1/2 R134a	TXV	068U2030	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 1/4 X 1/2 R22	TXV	068U2060	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 1/4X1/2 404A/507	TXV	068U2097	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 404A/507	TXV	068U2132	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 R134a	TXV	068U2120	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 R22	TXV	068U2183	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 1/4 X 1/2 R134a	TXV	068U2031	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 1/4 X 1/2 R22	TXV	068U2051	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 1/4X1/2 404A/507	TXV	068U2098	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 404A/507	TXV	068U2133	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 R134a	TXV	068U2121	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 R22	TXV	068U2181	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 1/4 X 1/2 R134a	TXV	068U2032	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 1/4 X 1/2 R22	TXV	068U2062	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 1/4X1/2 404A/507	TXV	068U2099	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 404A/507	TXV	068U2134	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 R134a	TXV	068U2122	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 R22	TXV	068U2182	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 404A/507	TXV	068U2100	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 R134a	TXV	068U2033	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 R22	TXV	068U2063	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 404A/507	TXV	068U2101	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 R134a	TXV	068U2034	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 R22	TXV	068U2064	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-09 3/8 X 1/2 404A/507	TXV	068U2102	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-09 3/8 X 1/2 R134a	TXV	068U2035	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-1 3/8X1/2 R22	TXV	068U1858	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 404A/507	TXV	068U1850	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 R134a	TXV	068U1867	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 R22	TXV	068U1859	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-4 3/8X1/2 404A/507	TXV	068U1851	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-4 3/8X1/2 R134a	TXV	068U1868	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-00 1/4 X 1/2 R22	TXV	068U2066	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-00 3/8 X 1/2 R22	TXV	068U2158	ANG STYLE	NONE	NONE	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4 X 1/2 R134a	TXV	068U2018	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4 X 1/2 R22	TXV	068U2067	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4X1/2 404A/507	TXV	068U2103	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 3/8 X 1/2 R22	TXV	068U2159	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-01 3/8X1/2 404A/507	TXV	068U2135	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-02 1/4 X 1/2 R134a	TXV	068U2019	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 1/4 X 1/2 R22	TXV	068U2068	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 1/4X1/2 404A/507	TXV	068U2104	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 3/8 X 1/2 R134a	TXV	068U2124	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-02 3/8 X 1/2 R22	TXV	068U2160	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TUBE-03 1/4 X 1/2 R134a	TXV	068U2020	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-03 1/4 X 1/2 R22	TXV	068U2069	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-03 1/4X1/2 404A/507	TXV	068U2105	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-03 3/8 X 1/2 R134a	TXV	068U2125	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-03 3/8 X 1/2 R22	TXV	068U2161	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-03 3/8X1/2 404A/507	TXV	068U2137	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-04 1/4 X 1/2 R134a	TXV	068U2021	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-04 1/4 X 1/2 R22	TXV	068U2070	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-04 1/4X1/2 404A/507	TXV	068U2106	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-04 3/8 X 1/2 R134a	TXV	068U2126	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-04 3/8 X 1/2 R22	TXV	068U2162	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-04 3/8X1/2 404A/507	TXV	068U2138	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-05 1/4 X 1/2 R134a	TXV	068U2022	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-05 1/4 X 1/2 R22	TXV	068U2071	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-05 1/4X1/2 404A/507	TXV	068U2107	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-05 3/8 X 1/2 R134a	TXV	068U2127	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-05 3/8 X 1/2 R22	TXV	068U2163	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-05 3/8X1/2 404A/507	TXV	068U2139	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-06 1/4 X 1/2 R134a	TXV	068U2023	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-06 1/4 X 1/2 R22	TXV	068U2072	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-06 1/4X1/2 404A/507	TXV	068U2108	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-06 3/8 X 1/2 R134a	TXV	068U2128	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-06 3/8 X 1/2 R22	TXV	068U2164	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-06 3/8X1/2 404A/507	TXV	068U2185	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-07 3/8 X 1/2 R134a	TXV	068U2024	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-07 3/8 X 1/2 R22	TXV	068U2073	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-07 3/8X1/2 404A/507	TXV	068U2109	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-08 3/8 X 1/2 R134a	TXV	068U2025	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-08 3/8 X 1/2 R22	TXV	068U2074	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-08 3/8X1/2 404A/507	TXV	068U2110	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-09 3/8 X 1/2 R134a	TXV	068U2026	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-09 3/8 X 1/2 R22	TXV	068U2075	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-09 3/8X1/2 404A/507	TXV	068U2111	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-3 3/8X1/2 R22	TXV	068U1862	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-4 3/8X1/2 404A/507	TXV	068U1853	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-4 3/8X1/2 R134a	TXV	068U1870	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-5 3/8X1/2 R22	TXV	068U1864	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-6 3/8X1/2 404A/507	TXV	068U1855	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-6 3/8X1/2 R22	TXV	068U1865	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-7 3/8X1/2 404A/507	TXV	068U1856	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-7 3/8X1/2 R134a	TXV	068U1873	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-7 3/8X1/2 R22	TXV	068U1866	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TX 2 - 0.7 R22	TXV	1/3 TON R22		TI 1/3 HW	065020	SAME	USE CAGE 065087
TX 2 - 1.0 R22	TXV	3/4 TON R22		TI 1 HW	065020	SAME	USE CAGE 065088
TX 2 - 1.5 R22	TXV	1 TON R22		TI 2 HW	065020	SAME	USE CAGE 065090
TX 2 - 2.3 R22	TXV	2 TON R22		TI 3 HW	065020	SAME	USE CAGE 065090
TX 2 - 3.0 R22	TXV	3 TON R22		TI 4 HW	065020	SAME	USE CAGE 065091
TX 2 - 4.5 R22	TXV	4 TON R22		TI 5 HW	065020	SAME	USE CAGE 065091
TY 2 - 0.2 R502	TXV	1/4 TON R502		NONE	NONE	NONE	
TY 2 - 0.3 R502	TXV	1/2 TON R502		TI 1 SW	065028	SAME	USE CAGE 065088
TY 2 - 0.6 R502	TXV	3/4 TON R502		TI 2 SW	065028	SAME	USE CAGE 065090
TY 2 - 1.0 R502	TXV	1 1/2 TON R502		TI 3 SW	065028	SAME	USE CAGE 065091
TY 2 - 1.5 R502	TXV	2 TON R502		NONE	NONE	NONE	
TY 2 - 2.0 R502	TXV	2 1/2 TON R502		NONE	NONE	NONE	
TY 2 - 3.0 R502	TXV	3 TON R502		TI 6SW	065028	SAME	USE CAGE 065092

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
032	DRIER	1/4 SAE		EK 032	060009		LIQUID LINE SERVICE
032S	DRIER	1/4 ODF		EK 032S	060012	SAME	LIQUID LINE SERVICE
052	DRIER	1/4 SAE		EK 052	047601		LIQUID LINE SERVICE
0525S	DRIER	5/16 ODF		EK 0525S	063978	SAME	LIQUID LINE SERVICE
052S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
053S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
082	DRIER	1/4 SAE		EK 082	047605		LIQUID LINE SERVICE
0825S	DRIER	5/16 ODF		EK 0825S	049551	SAME	LIQUID LINE SERVICE
082S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
083	DRIER	3/8 SAE		EK 083	047606		LIQUID LINE SERVICE
083S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
084	DRIER	1/2 SAE		EK 084	047609		LIQUID LINE SERVICE
084S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE
104A	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
104AB	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
162	DRIER	1/4 SAE		EK 162	047611		LIQUID LINE SERVICE
1625S	DRIER	5/16 ODF		EK 1625S	056045	SAME	LIQUID LINE SERVICE
162S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
163	DRIER	3/8 SAE		EK 163	047613		LIQUID LINE SERVICE
163S	DRIER	3/8 ODF		EK 163S	047633	SAME	LIQUID LINE SERVICE
164	DRIER	1/2 SAE		EK 164	047615		LIQUID LINE SERVICE
164S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
165	DRIER	5/8 SAE		EK 165	047617		LIQUID LINE SERVICE
165S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
302V	DRIER	1/4" M X 1/4" M		NONE	NONE	NONE	NO CROSS
303	DRIER	3/8 SAE		EK 303	048210		LIQUID LINE SERVICE
303S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
304	DRIER	1/2 SAE		EK 304	048212		LIQUID LINE SERVICE
304S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
305	DRIER	5/8 SAE		EK 305	048214		LIQUID LINE SERVICE
305S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
307S	DRIER	7/8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
319 (Hercules)	SERVICE DRIER	5/16 X CAP		CU-319	064025	SAME	
413	DRIER	3/8 SAE		EK 413	048219		LIQUID LINE SERVICE
414	DRIER	1/2 SAE		EK 414	048220		LIQUID LINE SERVICE
414S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
415	DRIER	5/8 SAE		EK 415	048222		LIQUID LINE SERVICE
415S	DRIER	5/8 ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
417S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
619	SERVICE DRIER	1/4 X CAP		CU-619	064026	SAME	
620	SERVICE DRIER	5/16 X CAP		CU-620	064027		
621	SERVICE DRIER	1/4 X CAP		CU-621	064119	SAME	
712 (Little Giant)	SERVICE DRIER	1/4 X CAP		NONE	NONE	NONE	NO CROSS
756S	DRIER	3/4 SAE		NONE	NONE	NONE	NO CROSS
757S	DRIER	7/8 ODF		EK 757S	048228	SAME	LIQUID LINE SERVICE
759S	DRIER	1 1/8 ODF		EK 759S	048229	SAME	LIQUID LINE SERVICE
A-1	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-1	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-1	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A7-A	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 5	053374	3/8 X 3/8 ODF ANG STYLE	
A7-AA	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 3	047283	1/4 X 3/8 ODF ANG STYLE	
A7-B	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 7	047654	3/8 X 1/2 ODF ANG STYLE	
A7-C	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 9	057209	3/8 X 3/8 ODF ANG STYLE	
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A81B: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81BL: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81L: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Differential Pressure Regulator
A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Differential Pressure Regulator
A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Differential Pressure Regulator
A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Differential Pressure Regulator
A81OE: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A81OES: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A81S: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A82: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A82: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A82: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
A82B: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82B: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82B: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82BL: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82BL: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82BL: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A82L: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A82L: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A82L: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
A82OE: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A82OE: 1-5/8, 2-1/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A82OE: 1-5/8, 2-1/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
A82S: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A82S: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A82S: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
A8A 1: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A8A: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
A8A: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
A8A: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A8AB: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8AB: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8AB: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8ABL: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8ABL: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8ABL: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A8AL: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
A8AL: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
A8AL: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A8AOE: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
A8AOE: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
A8AOE: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A8AOES: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
A8AOES: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
A8AOES: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A8AS: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
A8AS: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
A8AS: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
A9, A9E: 1-1/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A9, A9E: 3/8, 5/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A9, A9E: 5/8, 7/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A9S, A9SE: 3/8, 5/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
A9S, A9SE: 5/8, 7/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A9S, A9SE: 7/8, 1-1/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
AE-3	TXV	2		NONE	NONE	NONE	NO CROSS
AE-3	TXV	3		NONE	NONE	NONE	NO CROSS
AE-3	TXV	2		NONE	NONE	NONE	NO CROSS
AS	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
AS	TXV	1/2 - 1-1/2		NONE	NONE	NONE	NO CROSS
ASB20 WITH BLEED	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
ASB20 WITH BLEED	TXV	1/2 - 1-1/2		NONE	NONE	NONE	NO CROSS
BF082S	DRIER	1/4 ODF		BFK 082S	058584	SAME	BI FLOW
BF083	DRIER	3/8 SAE		BFK 083	043321	SAME	BI FLOW
BF083S	DRIER	3/8 ODF		BFK 083S	043323	SAME	BI FLOW
BF084	DRIER	1/2 SAE		BFK 084	043325	SAME	BI FLOW
BF084S	DRIER	1/2 ODF		BFK 084S	043327	SAME	BI FLOW
BF162S	DRIER	1/4 ODF		NONE	NONE	NONE	NO CROSS
BF163	DRIER	3/8 SAE		BFK 163	043330	SAME	BI FLOW
BF163S	DRIER	3/8 ODF		BFK 163S	043333	SAME	BI FLOW
BF164	DRIER	1/2 SAE		BFK 164	043335	SAME	BI FLOW
BF164S	DRIER	1/2 ODF		BFK 164S	043337	SAME	BI FLOW
BF165S	DRIER	5/8 ODF		BFK 165S	043734	SAME	BI FLOW
C 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2SAEANG	054976	SAME	
C 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
C 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
C 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
C 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
C 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
C 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
C 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
C 3/4 VW	TXV	3/4 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAME	
C 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
C 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
C A FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C A RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2SAEANG	054976	SAME	
C A VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
C AA FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
C AA RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
C AA VW	TXV	3/4 TON R22		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C B FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
C B RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
C B VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
C C FW	TXV	3 TON R12		NONE	NONE	NONE	
C C RW	TXV	4 TON R502		NONE	NONE	NONE	
C C VW	TXV	5 TON R22		NONE	NONE	NONE	
C073S	SERVICE DRIER	3/8 X 3/8		NONE	NONE	NONE	NO CROSS
CE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAME	
CE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
CE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
CE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
CE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
CE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
CE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
CE 3 FW	TXV	3 TON R12		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE 3/4 VW	TXV	3/4 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
CE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
CE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
CE A FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAME	
CE A RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
CE A VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
CE AA FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
CE AA RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
CE AA VW	TXV	3/4 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
CE B FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
CE B RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
CE B VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE C FW	TXV	3 TON R12		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE C RW	TXV	4 TON R502		NONE	NONE	NONE	
CE C VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
CuLLD16-3S	SOLID CORE	3/8 ODF		CU 163S	064395	SAME	LIQUID LINE SPUN COPPER
CuLLD3-2S	SOLID CORE	1/4 ODF		NONE	NONE	NONE	NO CROSS
CuLLD3-3S	SOLID CORE	3/8 ODF		CU 033S	064389	SAME	LIQUID LINE SPUN COPPER
CuLLD5-3S	SOLID CORE	3/8 ODF		CU 053S	064391	SAME	LIQUID LINE SPUN COPPER
CuLLD8-3S	SOLID CORE	3/8 ODF		CU 083S	064393	SAME	LIQUID LINE SPUN COPPER
CuSLD 5/16	SERVICE DRIER	5/16 ODF		NONE	NONE	NONE	NO CROSS
CuSLD-3S	SOLID CORE	3/8 ODF		NONE	NONE	NONE	NO CROSS
CuSLD-4S	SOLID CORE	1/2 ODF		NONE	NONE	NONE	NO CROSS
D 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
D 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2SAEANG	054976	SAME	
D 1 VW	TXV	1 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAME	
D 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
D 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
D 1/2 VW	TXV	1/2 TON R22		HF 1/2 HC 1/4 X 1/2 SAEANG	009812	SAME	
D 1/4 FW	TXV	1/4 TON R12		HF 1/4 FC 1/4 X 1/2 SAEANG	009811	SAME	
D 1/4 RW	TXV	1/4 TON R502		HF 1/4 RC 3/8 X 1/2 SAEANG	054137	SAME	
D 11/2 FW	TXV	11/2 TON R12		HF 11/2 FC 3/8 X 1/2 SAEANG	054914	SAME	
D 11/2 RW	TXV	11/2 TON R502		HF 11/2 RC 3/8 X 1/2 SAEANG	054984	SAME	
D 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
D 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
D 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
D 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAME	
D 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
D 3 RW	TXV	3 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAME	
D 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
D 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
D 4 VW	TXV	4 TON R22		TCL 3 HW VLF	037882	SAME	
D 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
DE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAME	
DE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
DE 1 VW	TXV	1 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
DE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
DE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
DE 11/2 FW	TXV	11/2 TON R12		HFE 11/2 FC 3/8 X 1/2 SAEANG	054914	SAME	
DE 11/2 RW	TXV	11/2 TON R502		HFE 11/2 RC 3/8 X 1/2 SAEANG	054984	SAME	
DE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
DE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
DE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
DE 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAME	
DE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
DE 3 RW	TXV	3 TON R502		NONE	NONE	NONE	
DE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
DE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
DE 4 VW	TXV	4 TON R22		TCLE 3 HC VLF	054395	SAME	
DE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
EC 1 FW	TXV	1 TON R12		NONE	NONE	SAME	
EC 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
EC 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
EC 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
EC 11/2 VW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 SAEANG	055969	SAME	
EC 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
EC 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
EC 3 VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
EC 3/4 VW	TXV	3/4 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAME	
EC 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
EC 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
EC A FW	TXV	1 TON R12		NONE	NONE	NONE	
EC A RW	TXV	1 TON R502		NONE	NONE	NONE	
EC A VW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFANG	055969	SAME	
EC AA FW	TXV	1/2 TON R12		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAME	
EC AA RW	TXV	1/2 TON R502		NONE	NONE	NONE	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EC AA VW	TXV	3/4 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAME	
EC B FW	TXV	2 TON R12		NONE	NONE	NONE	
EC B RW	TXV	2 TON R502		NONE	NONE	NONE	
EC B VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
EC C FW	TXV	3 TON R12		NONE	NONE	NONE	
EC C RW	TXV	4 TON R502		NONE	NONE	NONE	
EC C VW	TXV	5 TON R22		NONE	NONE	NONE	
ECE 1 FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
ECE 1 RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
ECE 1/2 FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFS/T	056021	SAME	
ECE 1/2 RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
ECE 11/2 VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
ECE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
ECE 2 RW	TXV	2 TON R502		HFES 2 RC 3/8 X1/2 ODFS/T	053270	SAME	
ECE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
ECE 3 HW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
ECE 3/4 VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
ECE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
ECE 5 VW	TXV	5 TON R22		HFES 51/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
ECE A FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
ECE A RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
ECE A VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
ECE AA FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFS/T	056021	SAME	
ECE AA RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
ECE AA VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
ECE B FW	TXV	2 TON R12		NONE	NONE	NONE	
ECE B RW	TXV	2 TON R502		HFES 2 RC 3/8 X1/2 ODFS/T	053270	SAME	
ECE B VW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
ECE C FW	TXV	3 TON R12		NONE	NONE	NONE	
ECE C RW	TXV	4 TON R502		NONE	NONE	NONE	
ECE C VW	TXV	5 TON R22		HFES 51/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
EG 1 FW	TXV	1 TON R12		NONE	NONE	NONE	
EG 1 HW	TXV	1 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAME	
EG 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
EG 1/2 FW	TXV	1/2 TON R12		NONE	NONE	NONE	
EG 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
EG 1/2 VW	TXV	1/2 TON R22		HFS 1/2 HC 3/8 X 1/2 ODFS/T	054136	SAME	
EG 1/4 FW	TXV	1/4 TON R12		HFS 1/4 MC 3/8 X 1/2 ODFANG	058545	SAME	
EG 1/4 RW	TXV	1/4 TON R502		HFS 1/4 RC 3/8 X 1/2 ODFANG	055490	SAME	
EG 1/4 VW	TXV	1/4 TON R22		HFS 1/4 HC 3/8 X 1/2 ODFS/T	055633	SAME	
EG 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
EG 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
EG 11/2	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	
EG 11/2 FW	TXV	11/2 TON R12		NONE	NONE	NONE	
EG 11/2 RW	TXV	11/2 TON R502		NONE	NONE	NONE	
EG 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
EG 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
EG 2 VW	TXV	2 TON R22		NONE	NONE	NONE	
EG 21/2 VW	TXV	21/2 TON R22		NONE	NONE	NONE	
EG 3 VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
EGE 1 FW	TXV	1 TON R12		HFESC 1 FC 3/8 X 1/2 ODFANG	057398	SAME	
EGE 1 RW	TXV	1 TON R502		HFESC 1 RC 3/8 X 1/2 ODFANG	057438	SAME	
EGE 1 VW	TXV	1 TON R22		HFESC 1 HC 3/8 X 1/2 ODFANG	057410	SAME	
EGE 1/2 FW	TXV	1/2 TON R12		HFESC 1/2 FC 3/8 X 1/2 ODFANG	057397	SAME	
EGE 1/2 RW	TXV	1/2 TON R502		HFESC 1/2 RC 3/8 X 1/2 ODFANG	057437	SAME	
EGE 1/2 VW	TXV	1/2 TON R22		HFESC 1/2 HC 3/8 X 1/2 ODFANG	057291	SAME	
EGE 1/4 FW	TXV	1/4 TON R12		NONE	NONE	NONE	
EGE 1/4 RW	TXV	1/4 TON R502		NONE	NONE	NONE	
EGE 1/4 VW	TXV	1/4 TON R22		HFESC 1/4 HC 3/8 X 1/2 ODFANG	057409	SAME	
EGE 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
EGE 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
EGE 11/2 FW	TXV	11/2 TON R12		HFESC 11/2 FC 3/8 X 1/2 ODFANG	057399	SAME	
EGE 11/2 RW	TXV	11/2 TON R502		HFESC 11/2 RC 3/8 X 1/2 ODFANG	057439	SAME	
EGE 11/2 VW	TXV	11/2 TON R22		HFESC 11/2 HC 3/8 X 1/2 ODFANG	057292	SAME	
EGE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EGE 2 RW	TXV	2 TON R502		HFESC 2 RC 3/8 X 1/2 ODFANG	057440	SAME	
EGE 2 VW	TXV	2 TON R22		HFESC 2 HC 3/8 X 1/2 ODFANG	057294	SAME	
EGE 21/2 VW	TXV	21/2 TON R22		HFESC 21/2 HC 3/8 X 1/2 ODFANG	057411	SAME	
EGE 3 VW	TXV	3 TON R22		HFESC 3 HC 3/8 X 1/2 ODFANG	057412	SAME	
FE 15 FW	TXV	15 TON R12		NONE	NONE	NONE	
FE 20 FW	TXV	20 TON R12		TER 20 FC VLF	055109	SAME	
FE 25 FW	TXV	25 TON R12		TER 25 FC VLF	055111	SAME	
FE 35 FW	TXV	35 TON R12		NONE	NONE	NONE	
FE 45 FW	TXV	45 TON R12		NONE	NONE	NONE	
FE 55 FW	TXV	55 TON R12		NONE	NONE	NONE	
G 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
G 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2 SAEANG	054976	SAME	
G 1 VW	TXV	1 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAME	
G 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
G 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
G 1/2 VW	TXV	1/2 TON R22		HF 1/2 HC 1/4 X 1/2 SAEANG	009812	SAME	
G 1/4 FW	TXV	1/4 TON R12		HF 1/4 FC 1/4 X 1/2 SAEANG	009811	SAME	
G 1/4 RW	TXV	1/4 TON R502		HF 1/4 RC 3/8 X 1/2 SAEANG	059304	SAME	
G 1/4 VW	TXV	1/4 TON R22		HF 1/4 HC 1/4 X 1/2 SAEANG	058430	SAME	
G 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
G 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
G 11/2 FW	TXV	11/2 TON R12		HF 11/2 FC 3/8 X 1/2 SAEANG	054914	SAME	
G 11/2 RW	TXV	11/2 TON R502		HF 11/2 RC 3/8 X 1/2 SAEANG	054984	SAME	
G 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
G 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
G 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
G 2 VW	TXV	2 TON R22		HF 2 HC 3/8 X 1/2 SAEANG	054939	SAME	
G 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAME	
G 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
G 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
G 3 RW	TXV	3 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAME	
G 4 RW	TXV	4 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAME	
G 4 VW	TXV	4 TON R22		TCL3 HW VLF	037882	SAME	
G 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
G 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
G 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
G 8 VW	TXV	8 TONS R22		HFS 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
G-23MM (75520)	SOLENOID	12VDC		NONE	NONE	NONE	
G-23MM (75530)	SOLENOID	24VDC		NONE	NONE	NONE	
G-23MM (77300)	SOLENOID	24V/50-60		NONE	NONE	NONE	
G-23MM (77310)	SOLENOID	110-120V/50-60		NONE	NONE	NONE	
G-23MM (77320)	SOLENOID	208-240V/50-60		NONE	NONE	NONE	
G-23MM (77340)	SOLENOID	480V/50-60		NONE	NONE	NONE	
G-23MM (77360)	SOLENOID	110-120/208-240		NONE	NONE	NONE	NO CROSS
GE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054909	SAME	
GE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
GE 1 VW	TXV	1 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
GE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
GE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
GE 1/2 VW	TXV	1/2 TON R22		HFE 1/2 HC 1/4 X 1/2 SAEANG	059079	SAME	
GE 1/4 FW	TXV	1/4 TON R12		HFE 1/4 FC 3/8 X 1/2 SAEANG	054360	SAME	
GE 1/4 RW	TXV	1/4 TON R502		HFE 1/4 RC 3/8 X 1/2 SAEANG	054366	SAME	
GE 1/4 VW	TXV	1/4 TON R22		HFE 1/4 HC 3/8 X 1/2 SAEANG	054924	SAME	
GE 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
GE 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
GE 11/2 FW	TXV	11/2 TON R12		HFE 11/2 FC 3/8 X 1/2 SAEANG	054917	SAME	
GE 11/2 RW	TXV	11/2 TON R502		HFE 11/2 RC 3/8 X 1/2 SAEANG	054988	SAME	
GE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
GE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
GE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
GE 2 VW	TXV	2 TON R22		HFE 21/2 HC 3/8 X 1/2 SAEANG	054950	SAME	
GE 21/2 VW	TXV	21/2 TON R22		HFE 21/2 HC 3/8 X 1/2 SAEANG	054950	SAME	
GE 3 FW	TXV	3 TON R12		HFE 31/2 FC 3/8 X 1/2 SAEANG	054138	SAME	
GE 3 RW	TXV	3 TON R502		HFE 31/2 RC 3/8 X 1/2 SAEANG	054142	SAME	
GE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
GE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
GE 4 VW	TXV	4 TON R22		TCLC 3 HC VLF	054395	SAME	
GE 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
GE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
GE 6 RW	TXV	6 TON R502		NONE	NONE	NONE	
GE 8 VW	TXV	8 TON R22		NONE	NONE	NONE	
GP1007 (70808)	SOLENOID	1 NPT		222CB 1 B 1 T	039834	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP1057 (70777)	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
GP10A (70810)	SOLENOID	1 NPT		222CB 1 B 1 B	039931	SAME	AIR/WATER SERVICE - VLC
GP20	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP200 (70221)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP207 (70222)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP24	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP257 (70223)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP30	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP300 (70392)	SOLENOID	3/8 NPT		222CB 3/8 B 1/2 T	041518	SAME	AIR/WATER SERVICE - VLC
GP307 (70393)	SOLENOID	3/8 NPT		222CB 3/8 B 1/2 T	041518	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP357 (70394)	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
GP400 (70562)	SOLENOID	1/2 NPT		222CB 1/2 B 1/2 B	039917	SAME	AIR/WATER SERVICE - VLC
GP407 (70563)	SOLENOID	1/2 NPT		222CB 1/2 B 1/2 T	037958	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP457 (70564)	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
GP600 (70712)	SOLENOID	3/4 NPT		222CB 3/4 B 3/4 B	028192	SAME	AIR/WATER SERVICE - VLC
GP607 (70713)	SOLENOID	3/4 NPT		222CB 3/4 B 3/4 B	039930	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP657 (70714)	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
HAE3VX100	TXV	3 TON R22		AAE3HAA		3 TON R22	
HAE3VX100B15	TXV	3 TON R22		NONE	NONE	NONE	NO CROSS
HAE5VX100	TXV	5 TON R22		AAE5HAA		5 TON R22	
HAE5VX100B15	TXV	5 TON R22		NONE	NONE	NONE	NO CROSS
HCAE1.5VX100	TXV	1.5 TON R22		AAE1.5HAA		1.5 TON R22	
HCAE3VX100	TXV	3 TON R22		AACE3HAA		3 TON R22	
HCAE3VX100A	TXV	3 TON R22		AACE3HAA		3 TON R22	
HCAE5VX100	TXV	5 TON R22		AACE5HAA		5 TON R22	
HCAE5VX100A	TXV	5 TON R22		AACE5HAA		5 TON R22	
I 1 JW	TXV	1 TON R134a		NONE	NONE	NONE	
I 1/2 JW	TXV	1/2 TON R134a		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAME	
I 1 SW	TXV	1 TON 404A		NONE	NONE	NONE	NO REPLACEMENT
I 1/2 SW	TXV	1/2 TON 404A		NONE	NONE	NONE	NO REPLACEMENT
K-4607-01	DRIER KIT	DRIER KIT					
K-4607-02	DRIER KIT	DRIER KIT					
K-4607-03	DRIER KIT	DRIER KIT					
K-4607-04	DRIER KIT	DRIER KIT					
MMS-100	SERVICE DRIER	1/4 X 1/4		CU-80	064023	SAME	
MMS-200	SERVICE DRIER	Stepped fittings, OD, 1/4,5/16 and 3/8		CU-200	064024	SAME	
MMS-80	SERVICE DRIER	1/4 X 1/4		CU-80	064023	SAME	
N 1 VW	TXV	1 TON R22		AFA 1 HC 3/8 X 3/8-1/2 SAEANG	054231	SAME	
N 1/2 FW	TXV	1/2 TON R12		AFA 1/2 FC 3/8 X 3/8-1/2 SAEANG	057027	SAME	
N 1/2 RW	TXV	1/2 TON R502		AFA 1/2 RC 1/4 X 3/8-1/2 SAEANG	048431	SAME	
N 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
N 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
N 3 VW	TXV	3 TON R22		NONE	NONE	NONE	
NE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
NE 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
NE 3 VW	TXV	3 TON R22		AFAE 3 HC 3/8 X 3/8-1/2 SAEANG	054249	SAME	
OR-23MM (74370)	SOLENOID	110-220/208-240V; For Normally Open Valves		NONE	NONE	NONE	NO CROSS
OR-23MM (74690)	SOLENOID	24V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74740)	SOLENOID	110-120V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74750)	SOLENOID	208-240V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74780)	SOLENOID	12VDC; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74790)	SOLENOID	24VDC; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (TBA)	SOLENOID	SPECIAL VOLTAGE; For Normally Open Valves		NONE	NONE	NONE	NO CROSS
ORA101	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
ORA201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA51	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ORB15E5 (71502)	SOLENOID	5/8 ODF		500RB 7T5	064065	SAME	REFRIGERATION SERVICE - VLC
ORB15P4 (71482)	SOLENOID	1/2 NPT		500RB 7T4	064064	1/2 ODF	REFRIGERATION SERVICE - VLC
ORB1E2 (71164)	SOLENOID	1/4 ODF		500RB 2T2	063278	SAME	REFRIGERATION SERVICE - VLC
ORB1E3 (71171)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
ORB1F2 (71161)	SOLENOID	1/4 SAE MALE		500RB 2F2	063274	SAME	REFRIGERATION SERVICE - VLC
ORB1P2 (71153)	SOLENOID	1/4 NPT		500RB 2T2	063278	1/4 ODF	REFRIGERATION SERVICE - VLC
ORB1P3 (71154)	SOLENOID	3/8 NPT		500RB 2T3	063280	3/8 ODF	REFRIGERATION SERVICE - VLC
ORB201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORB21E7 (71564)	SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	REFRIGERATION SERVICE - VLC
ORB21P6 (71542)	SOLENOID	3/4 NPT		540RA 9T7	060395	7/8 ODF	REFRIGERATION SERVICE - VLC
ORB301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORB3E3 (71236)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
ORB3E4 (71237)	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
ORB3F2 (71221)	SOLENOID	1/4 SAE MALE		500RB 2F2	063274	SAME	REFRIGERATION SERVICE - VLC
ORB3F3 (71222)	SOLENOID	3/8 SAE MALE		500RB 2F3	063276	SAME	REFRIGERATION SERVICE - VLC
ORB3P2 (71213)	SOLENOID	1/4 NPT		500RB 2T2	063278	1/4 ODF	REFRIGERATION SERVICE - VLC
ORB3P3 (71214)	SOLENOID	3/8 NPT		500RB 2T3	063280	3/8 ODF	REFRIGERATION SERVICE - VLC
ORB3S3 (71217)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
ORB401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORB41E11 (71646)	SOLENOID	1-3/8 ODF		540RA 16T11	060400	SAME	REFRIGERATION SERVICE - VLC
ORB41E9 (71645)	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME	REFRIGERATION SERVICE - VLC
ORB41P8 (71632)	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
ORB41S9 (71638)	SOLENOID	1 ODF		NONE	NONE	NONE	NO CROSS
ORB6E4 (71373)	SOLENOID	1/2 ODF		500RB 6T4	063323	SAME	REFRIGERATION SERVICE - VLC
ORB6E5 (71376)	SOLENOID	5/8 ODF		500RB 6T5	063325	SAME	REFRIGERATION SERVICE - VLC
ORB6F4 (71370)	SOLENOID	1/2 SAE MALE		500RB 6F4	063312	SAME	REFRIGERATION SERVICE - VLC
ORB81E13 (71653)	SOLENOID	1-5/8 ODF		540RA 20T13	060402	SAME	REFRIGERATION SERVICE - VLC
ORB81E17 (71655)	SOLENOID	2-1/8 ODF		540RA 20T17	060403	SAME	REFRIGERATION SERVICE - VLC
ORB9E4 (71448)	SOLENOID	1/2 ODF		500RB 6T4	063339	SAME	REFRIGERATION SERVICE - VLC
ORB9E5 (71452)	SOLENOID	5/8 ODF		500RB 6T5	063341	SAME	REFRIGERATION SERVICE - VLC
ORB9F5 (71407)	SOLENOID	5/8 SAE MALE		500RB 6F5	063329	SAME	REFRIGERATION SERVICE - VLC
ORB9P3 (71392)	SOLENOID	3/8 NPT		500RB 6P3	063331	SAME	REFRIGERATION SERVICE - VLC
ORB9P4 (71394)	SOLENOID	1/2 NPT		500RB 6T4	063339	1/2 ODF	NO CROSS
P14411	DRIER SHELL	13/8 ODF		STAS 14411T	053022	SAME	3 REPLACEMENT CORE
P1449	DRIER SHELL	11/8 ODF		STAS 1449T	053020	SAME	3 REPLACEMENT CORE
P19211	DRIER SHELL	13/8 ODF		STAS 19211T	053028	SAME	4 REPLACEMENT CORE
P19213	DRIER SHELL	15/8 ODF		STAS 19213T	053030	SAME	4 REPLACEMENT CORE
P4811	DRIER SHELL	13/8 ODF		STAS 4811T	053014	SAME	1 REPLACEMENT CORE
P4813	DRIER SHELL	15/8 ODF		STAS4813T	053375	SAME	1 REPLACEMENT CORE
P485	DRIER SHELL	5/8 ODF		STAS 485T	053001	SAME	1 REPLACEMENT CORE
P487	DRIER SHELL	7/8 ODF		STAS 487T	053003	SAME	1 REPLACEMENT CORE
P489	DRIER SHELL	11/8 ODF		STAS 489T	053005	SAME	1 REPLACEMENT CORE
P9611	DRIER SHELL	13/8 ODF		STAS 9611T	053014	SAME	2 REPLACEMENT CORE
P9613	DRIER SHELL	15/8 ODF		STAS 9613T	053017	SAME	2 REPLACEMENT CORE
P967	DRIER SHELL	7/8 ODF		STAS 967T	053010	SAME	2 REPLACEMENT CORE
P969	DRIER SHELL	11/8 ODF		STAS 969T	053012	SAME	2 REPLACEMENT CORE
PA3050-15-5	ACCUMULATOR	5/8 ODF					
PA3060-10-5	ACCUMULATOR	5/8 ODF		A-AS-3105	060963	SAME	SUCTION SERVICE
PA3060-15-5	ACCUMULATOR	5/8 ODF		A-AS-3145	060964	SAME	SUCTION SERVICE
PA3060-15-6	ACCUMULATOR	3/4 ODF		A-AS-3146	060965	SAME	SUCTION SERVICE
PA3065-10-4	ACCUMULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
PA4065-9-5C	ACCUMULATOR	5/8 ODF		A-AS-4105	060966	SAME	SUCTION SERVICE
PA4065-9-6C	ACCUMULATOR	3/4 ODF		A-AS-4106	060820	SAME	SUCTION SERVICE
PA5083-11-6C	ACCUMULATOR	3/4 ODF		A-AS-5126	060822	SAME	SUCTION SERVICE
PA5083-11-7C	ACCUMULATOR	7/8 ODF		A-AS-5127	060823	SAME	SUCTION SERVICE
PA5083-12-7C	ACCUMULATOR	7/8 ODF		A-AS-5137	060814	SAME	SUCTION SERVICE
PA5083-15-7C	ACCUMULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
PA5083-17-7C	ACCUMULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
PA5083-9-6C	ACCUMULATOR	3/4 ODF		A-AS-596	060824	SAME	SUCTION SERVICE
PA5083-9-7C	ACCUMULATOR	7/8 ODF		A-AS-597	060818	SAME	SUCTION SERVICE
PA6125-15-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
PA6125-15-9C	ACCUMULATOR	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
PA6125-18-9C	ACCUMULATOR	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
PA6125-20-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
PA6125-21-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
PCK-100	DRIER BLOCK	100 CU. IN.		H 100	089338	SAME	REPLACABLE CORE - STANDARD CAPACITY
PCK-48	DRIER BLOCK	48 CU. IN.		H 48	059542	SAME	REPLACABLE CORE - STANDARD CAPACITY
PCK-48HH	DRIER BLOCK	48 CU. IN.		W 48	061235	SAME	REPLACABLE CORE - BURNOUT
PCX-48	DRIER BLOCK	48 CU. IN.		UK 48	061617	SAME	REPLACABLE CORE - HIGH CAPACITY
PFE-48 BF	DRIER CORE	48 CU. IN.		F 48R	047664	SAME	REPLACABLE CORE - FILTER
PORT	REGULATOR			NONE	NONE	NONE	NO CROSS
PORT II	REGULATOR			NONE	NONE	NONE	NO CROSS
PRA71	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
PS-10T	SIGHT GLASS	ELEMENT		NONE	NONE	NONE	NO CROSS
PSG-11S	SIGHT GLASS	13/8 ODF		AMI - 1TT11	060255	SAME	MOISTURE INDICATOR
PSG-13S	SIGHT GLASS	1-5/8" ODF		NONE	NONE	NONE	NO CROSS
PSG-17S	SIGHT GLASS	2-1/8" ODF		NONE	NONE	NONE	NO CROSS
PSG-2	SIGHT GLASS	1/4 SAE - M		HMI-1MM2	065391	SAME	MOISTURE INDICATOR
PSG-2MF	SIGHT GLASS	1/4 SAE M X F		HMI-1FM2	065396	SAME	MOISTURE INDICATOR
PSG-2S	SIGHT GLASS	1/4 ODF		HMI-1TT2	065405	SAME	MOISTURE INDICATOR
PSG-3	SIGHT GLASS	3/8 SAE - M		HMI-1MM3	065392	SAME	MOISTURE INDICATOR
PSG-3MF	SIGHT GLASS	3/8 SAE M X F		HMI-1FM3	065397	SAME	MOISTURE INDICATOR
PSG-3S	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
PSG-4	SIGHT GLASS	1/2 SAE - M		HMI-1MM4	065393	SAME	MOISTURE INDICATOR
PSG-4MF	SIGHT GLASS	1/2 SAE M X F		HMI-1FM4	065398	SAME	MOISTURE INDICATOR
PSG-4S	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
PSG-5	SIGHT GLASS	5/8 SAE - M		HMI-1MM5	065394	SAME	MOISTURE INDICATOR
PSG-5MF	SIGHT GLASS	5/8 SAE M X F		NONE	NONE	SAME	MOISTURE INDICATOR
PSG-5S	SIGHT GLASS	5/8 ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
PSG-7S	SIGHT GLASS	7/8 ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
PSG-9S	SIGHT GLASS	1 1/8 ODF		HMI-1TT9	065411	SAME	MOISTURE INDICATOR
R-23MM (75370)	SOLENOID	110-120 OR 208-240; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75690)	SOLENOID	24V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75740)	SOLENOID	110-120V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75750)	SOLENOID	208-240V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75760)	SOLENOID	440-480V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75780)	SOLENOID	12VDC; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75790)	SOLENOID	24VDC; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (TBA)	SOLENOID	SPECIAL VOLTAGE; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
RA101/101M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RA201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA201M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA301M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA401M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA51/51M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RA71/71M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RB15E5	SOLENOID	5/8 ODF		200RB 7T5	064063	SAME	REFRIGERATION SERVICE - VLC
RB15E7	SOLENOID	7/8 ODF		200RB 7T7	064282	SAME	REFRIGERATION SERVICE - VLC
RB15E9	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
RB15ME5	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
RB15ME7	SOLENOID	7/8 ODF		200RB 7T7M	064283	SAME	REFRIGERATION SERVICE - VLC
RB15MP4	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
RB15P4	SOLENOID	1/2 FPT		200RB 7T4	064062	1/2 ODF	REFRIGERATION SERVICE - VLC
RB1E2	SOLENOID	1/4 ODF		100RB 2S2	047503	1/4 ODF	REFRIGERATION SERVICE - VLC
RB1E3	SOLENOID	3/8 ODF		100RB 2S3	047504	3/8 ODF	REFRIGERATION SERVICE - VLC
RB1F2	SOLENOID	1/4 SAE		100RB 2F2	047500	SAME	REFRIGERATION SERVICE - VLC
RB1P1	SOLENOID	1/8 NPT		NONE	NONE	NONE	NO CROSS
RB1P2	SOLENOID	1/4 FPT		100RB 2P2	047502	SAME	REFRIGERATION SERVICE - VLC
RB1P3	SOLENOID	3/8 NPT		100RB 2S3	047504	3/8 ODF	REFRIGERATION SERVICE - VLC
RB21E7	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
RB21E9	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
RB21ME9	SOLENOID	1-1/8 ODF		200RB 9T9M	064768	SAME	REFRIGERATION SERVICE - VLC
RB21MP6	SOLENOID	3/4 NPT		200RB 9T7M	064765	7/8 ODF	REFRIGERATION SERVICE - VLC
RB21P6	SOLENOID	3/4 NPT		200RB 9T7	064645	7/8 ODF	REFRIGERATION SERVICE - VLC
RB31ME7	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAME	REFRIGERATION SERVICE - VLC
RB3E3	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
RB3E4	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
RB3F2	SOLENOID	1/4 SAE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
RB3F3	SOLENOID	3/8 SAE		200RB 2F3	062611	SAME	REFRIGERATION SERVICE - VLC
RB3ME3	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
RB3ME4	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAME	REFRIGERATION SERVICE - VLC
RB3P2	SOLENOID	1/4 NPT		200RB 2T2	053105	1/4 ODF	REFRIGERATION SERVICE - VLC
RB3P3	SOLENOID	3/8 NPT		200RB 2T3	053106	3/8 ODF	REFRIGERATION SERVICE - VLC
RB3S3	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
RB3S4	SOLENOID	1/2 ODF		200RB 3T4	049692	NONE	REFRIGERATION SERVICE - VLC
RB41E11	SOLENOID	1-3/8 ODF		240RA 16T11	060382	SAME	REFRIGERATION SERVICE - VLC
RB41E9	SOLENOID	1-3/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
RB41ME11	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC
RB41ME9	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
RB41MP8	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
RB41P8	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
RB41S9	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
RB6E4	SOLENOID	1/2 ODF		200RB 5T4	057206	SAME	REFRIGERATION SERVICE - VLC
RB6E5	SOLENOID	5/8 ODF		200RB 5T5	059730	SAME	REFRIGERATION SERVICE - VLC
RB6F4	SOLENOID	1/2 SAE		200RB 5F4	047519	SAME	REFRIGERATION SERVICE - VLC
RB6ME4	SOLENOID	1/2 ODF		200RB 5T4M	049188	SAME	REFRIGERATION SERVICE - VLC
RB6ME5	SOLENOID	5/8 ODF		200RB 5T5M	049189	SAME	REFRIGERATION SERVICE - VLC
RB81E13	SOLENOID	1-5/8 ODF		240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC
RB81E17	SOLENOID	2-1/8 ODF		240RA 20T17	060385	SAME	REFRIGERATION SERVICE - VLC
RB81ME13	SOLENOID	1-5/8 ODF		240RA 20T13M	046637	SAME	REFRIGERATION SERVICE - VLC
RB81ME17	SOLENOID	2-1/8 ODF		240RA 20T17M	046638	SAME	REFRIGERATION SERVICE - VLC
RB9E4	SOLENOID	1/2 ODF		200RB 6T4	047544	SAME	REFRIGERATION SERVICE - VLC
RB9E5	SOLENOID	5/8 ODF		200RB 6T5	056766	SAME	REFRIGERATION SERVICE - VLC
RB9F5	SOLENOID	5/8 SAE MALE		200RB 6F5	059732	SAME	REFRIGERATION SERVICE - VLC
RB9ME4	SOLENOID	1/2 ODF		200RB 6T4M	047545	SAME	REFRIGERATION SERVICE - VLC
RB9ME5	SOLENOID	5/8 ODF		200RB 6T5M	047547	SAME	REFRIGERATION SERVICE - VLC
RB9MP3	SOLENOID	3/8 NPT		200RB 6P3M	047535	SAME	REFRIGERATION SERVICE - VLC
RB9MP4	SOLENOID	1/2 NPT		200RB 6T4M	047545	1/2 ODF	REFRIGERATION SERVICE - VLC
RB9MS4	SOLENOID	1/2 ODF		200RB 6S4M	047538	SAME	REFRIGERATION SERVICE - VLC
RB9MS5	SOLENOID	5/8 ODF		200RB 6S5M	047541	SAME	REFRIGERATION SERVICE - VLC
RB9P3	SOLENOID	3/8 NPT		200RB 6P3	059733	SAME	REFRIGERATION SERVICE - VLC
RB9S4	SOLENOID	1/2 ODF		200RB 6S4	047537	SAME	REFRIGERATION SERVICE - VLC
RB9S5	SOLENOID	5/8 ODF		200RB 6S5	047540	SAME	REFRIGERATION SERVICE - VLC
RE 10 VW	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
RE 12 FW	TXV	12 TON R12		NONE	NONE	NONE	
RE 12 RW	TXV	12 TON R502		NONE	NONE	NONE	
RE 15 VW	TXV	15 TON R22		HFES 15 HC 7/8 X 1-1/8 ODFS/T	057318	SAME	
RE 16 FW	TXV	16 TON R12		NONE	NONE	NONE	
RE 20 VW	TXV	20 TON R22		HFES 20 HC 7/8 X 1-1/8 ODFS/T	062055	SAME	
RE 21 RW	TXV	21 TON R502		NONE	NONE	NONE	
RE 23 FW	TXV	23 TON R12		TER 25 FC VLF	055111	SAME	
RE 30 RW	TXV	30 TON R502		NONE	NONE	NONE	
RE 30 VW	TXV	30 TON R22		TRAE + 30 HC 1-1/8 X 1-3/8 ODFS/T	062728	SAME	
RE 40 FW	TXV	40 TON R12		NONE	NONE	NONE	
RE 40 VW	TXV	40 TON R22		TRAE+ 40 HC 1-1/8 X 1-3/8 ODFS/T	062733	SAME	
RE 45 RW	TXV	45 TON R502		NONE	NONE	NONE	
RE 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
RE 70 VW	TXV	70 TON R22		THR 75 HC VLF	064961	SAME	
RE 8 FW	TXV	8 TON R12		NONE	NONE	NONE	
RE 9 FW	TXV	8 TON R12		NONE	NONE	NONE	
RE 9 RW	TXV	9 TON R502		HFES 10 RC 5/8 X 7/8 ODFS/T	058808	SAME	
RS55 (76053)	SOLENOID	7/8 x 1-1/8 x 1-1/8		NONE	NONE	NONE	NO CROSS
RS65 (76052)	SOLENOID	7/8 X 1-3/8 X 1-3/8		NONE	NONE	NONE	NO CROSS
RS70 (76051)	SOLENOID	7/8 X 1-3/8 X 1-3/8		NONE	NONE	NONE	NO CROSS
S 1 FW	TXV	1 TON R12		NONE	NONE	NONE	
S 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
S 1/2 FW	TXV	1/2 TON R12		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAME	
S 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
S 10 VW	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
S 11/2 HW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	
S 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
S 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
S 3 FW	TXV	3 TON R12		NONE	NONE	NONE	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
S 3 WW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
S 3/4 VW	TXV	3/4 TON R22		HFS 1 HC 3/8 X 1/2 ODFANG	055702	SAME	
S 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
S 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
S 5 WW	TXV	5 TON R22		NONE	NONE	NONE	
S 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
S 7 1/2 VW	TXV	7 1/2 TON R22		NONE	NONE	NONE	
SE 1 FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
SE 1 RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
SE 1/2 FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFANG	056021	SAME	
SE 1/2 RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
SE 10 VW	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
SE 11/2 VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
SE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
SE 2 RW	TXV	2 TON R502		HFES 2 RC 3/8 X 1/2 ODFS/T	053270	SAME	
SE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
SE 3 VW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
SE 3/4 VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
SE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
SE 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
SE 5 WW	TXV	5 TON R22		HFES 5 1/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
SE 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
SE 7 1/2 VW	TXV	7 1/2 TON R22		HFES 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
SLD13-5VHH	DRIER	5/8 SAE		SFD13S5W	060249	SAME	SUCTION LINE
SLD13-6SV-HH	DRIER	3/4 ODF		SFD13S6W	060250	SAME	SUCTION LINE
SLD13-7SV-HH	DRIER	7/8 ODF		SFD13S7W	060262	SAME	SUCTION LINE
SLD13-9SVHH	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
SLD13-S5V-HH	DRIER	5/8 ODF		SFD13S5W	060249	SAME	SUCTION LINE
SLD27-7SV-HH	DRIER	7/8 ODF		SFD27S7W	060251	SAME	SUCTION LINE
SLD27-9SV-HH	DRIER	1 1/8 ODF		SFD27S9W	060252	SAME	SUCTION LINE
SLD54-11SV-HH	DRIER	1 3/8 ODF		SFD54S11W	060253	SAME	SUCTION LINE
SLD54-13SV-HH	DRIER	1 5/8 ODF		SFD54S13W	060254	SAME	SUCTION LINE
SLD8-3SVHH	DRIER	3/8 ODF		NONE	NONE	NONE	NO CROSS
SLD8-3VHH	DRIER	3/8 SAE		NONE	NONE	NONE	NO CROSS
SLD8-4HH	DRIER	1/2 SAE		NONE	NONE	NONE	NO CROSS
SLD8-4SVHH	DRIER	1/2 ODF		SFD08S4W	064045	SAME	SUCTION LINE
SLD8-5SVHH	DRIER	5/8 ODF		SFD08S5W	064046	SAME	SUCTION LINE
SLD8-6SVHH	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
SPD162	DRIER	1/4"		NONE	NONE	NONE	NO CROSS
SPD162MF	DRIER	1/4"		NONE	NONE	NONE	NO CROSS
SPD163	DRIER	3/8"		NONE	NONE	NONE	NO CROSS
SPORT	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT B	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT II	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT II B	REGULATOR			NONE	NONE	NONE	NO CROSS
VDS	DRIER	3/8" Flare		NONE	NONE	NONE	*Supplied with adaptors for 1/4" flare
Z-48	DRIER BLOCK	48 CU. IN.		HX 48	062549	SAME	REPLACABLE CORE - SUPER CAPACITY

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
180	SOLENOID	1/4 SAE		702RA - 001	029781	SAME	HARD SHUT-OFF VALVE
1013	DISTRIBUTOR	DISTRIBUTOR	1-5/8" ODM	NONE	NONE	NONE	NO CROSS
1104	DISTRIBUTOR	DISTRIBUTOR	5/8" SAE FLARE NUT	NONE	NONE	NONE	NO CROSS
1105	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1109	DISTRIBUTOR	DISTRIBUTOR	H FLANGE	NONE	NONE	NONE	NO CROSS
1110	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1112	DISTRIBUTOR	DISTRIBUTOR	7/8" ODM	701	NONE	NONE	USE NOZZLE G
1113	DISTRIBUTOR	DISTRIBUTOR	7/8" ODM	702	NONE	NONE	USE NOZZLE G
1115	DISTRIBUTOR	DISTRIBUTOR	1 1/8" ODM	901	NONE	NONE	USE NOZZLE E
1116	DISTRIBUTOR	DISTRIBUTOR	1 1/8" ODM	902	NONE	NONE	USE NOZZLE E
1117	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1101	NONE	NONE	USE NOZZLE C
1119	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1121	DISTRIBUTOR	DISTRIBUTOR	M/V FLANGE	NONE	NONE	NONE	NO CROSS
1124	DISTRIBUTOR	DISTRIBUTOR	H FLANGE	NONE	NONE	NONE	NO CROSS
1125	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	1301	NONE	NONE	USE NOZZLE A
1126	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1102	NONE	NONE	USE NOZZLE C
1127	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	NONE	NONE	NONE	NO CROSS
1128	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1103	NONE	NONE	USE NOZZLE C
1130	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1132	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1133	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1138	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1143	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	NONE	NONE	NONE	NO CROSS
1147	DISTRIBUTOR	DISTRIBUTOR	5/8" SAE FLARE NUT	F501	NONE	NONE	USE NOZZLE J - WITH FLARE NUT
1180	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1182	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1185	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1192	DISTRIBUTOR	H FLANGE		NONE	NONE	NONE	NO CROSS
1192	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1193	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1538	KITS	INLET STRAINER		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
1603	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F401	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
1604	DISTRIBUTOR	DISTRIBUTOR	0.430" ODM	S401	NONE	NONE	USE NOZZLE L
1605	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F403	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
1606	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F402	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
1607	DISTRIBUTOR	DISTRIBUTOR	0.430" ODM	S402	NONE	NONE	USE NOZZLE L
1608	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F404	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
1613	DISTRIBUTOR	DISTRIBUTOR	1/2" ODM	401	NONE	NONE	USE NOZZLE L
1616	DISTRIBUTOR	DISTRIBUTOR	1/2" ODM	402	NONE	NONE	USE NOZZLE L
1620	DISTRIBUTOR	DISTRIBUTOR	5/8" ODM	501	NONE	NONE	USE NOZZLE J
1622	DISTRIBUTOR	DISTRIBUTOR	5/8" ODM	502	NONE	NONE	USE NOZZLE J
1650	DISTRIBUTOR	DISTRIBUTOR		F405	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
1651	DISTRIBUTOR	DISTRIBUTOR		503	NONE	NONE	AUX. SIDE INLET
1652	DISTRIBUTOR	DISTRIBUTOR		F503	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
1653	DISTRIBUTOR	DISTRIBUTOR		703	NONE	NONE	AUX. SIDE INLET
1654	DISTRIBUTOR	DISTRIBUTOR		F504	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
1655	DISTRIBUTOR	DISTRIBUTOR		903	NONE	NONE	AUX. SIDE INLET
1656	DISTRIBUTOR	DISTRIBUTOR		F505	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
1657	DISTRIBUTOR	DISTRIBUTOR		1104	NONE	NONE	AUX. SIDE INLET
1659	DISTRIBUTOR	DISTRIBUTOR		1302	NONE	NONE	AUX. SIDE INLET
1935	KITS	INLET STRAINER		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
3427	KITS	INLET STRAINER		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
10G711B	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
10G711C	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
10G713B	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
10G79B	SOLENOID	7/8 X 1-1/8		NONE	NONE	NONE	NO CROSS
1130	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
1132	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
1133	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
1138	DISTRIBUTOR	A FLANGE		NONE	NONE	NONE	NO CROSS
1176-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1179-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
1180	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
1182	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
1185	DISTRIBUTOR	A FLANGE		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
1193	DISTRIBUTOR	M/V FLANGE		NONE	NONE	NONE	NO CROSS
1199-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
12D11B	SOLENOID	1-3/8 ODF		3031RB 20S11B	044831	SAME	HEAT RECLAIM
12D11B-CS	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D11B-CV	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D11C	SOLENOID	1-3/8 ODF		3031RB 20S11B	044831	SAME	HEAT RECLAIM
12D11C-CS	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D13B	SOLENOID	1-5/8 ODF		3031RB 20S13B	NONE	SAME	HEAT RECLAIM
12D13B-CV	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13B-SC	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13C	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13C-SC	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D17B	SOLENOID	2-1/8 ODF		3031RB 20S17B	NONE	SAME	HEAT RECLAIM
12D17B-CV	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
12D17B-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
12D17C	SOLENOID	2-1/8 ODF		3031RB 20S17	NONE	SAME	HEAT RECLAIM
12D17C-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
1650	DISTRIBUTOR	1/2 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1650R	DISTRIBUTOR	1/2 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1651	DISTRIBUTOR	5/8 ODM		NONE	NONE	NONE	NO CROSS
1651R	DISTRIBUTOR	5/8 ODM		NONE	NONE	NONE	NO CROSS
1652	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1652R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1653	DISTRIBUTOR	7/8 ODM		NONE	NONE	NONE	NO CROSS
1653R	DISTRIBUTOR	7/8 ODM		NONE	NONE	NONE	NO CROSS
1654	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1654R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1655	DISTRIBUTOR	1-1/8 ODM		NONE	NONE	NONE	NO CROSS
1655R	DISTRIBUTOR	1-1/8 ODM		NONE	NONE	NONE	NO CROSS
1656	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1656R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1657	DISTRIBUTOR	1-3/8 ODM		NONE	NONE	NONE	NO CROSS
1657R	DISTRIBUTOR	1-3/8 ODM		NONE	NONE	NONE	NO CROSS
1659	DISTRIBUTOR	1-5/8 ODM		NONE	NONE	NONE	NO CROSS
1659R	DISTRIBUTOR	1-5/8 ODM		NONE	NONE	NONE	NO CROSS
16C17C	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16C17C-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B-CV	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
576-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
5D5B	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
5D5C	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
8D7B	SOLENOID	7/8 ODF		3031RC 12S7B	055941	SAME	HEAT RECLAIM
8D7B-CV	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D7B-SC	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D7C	SOLENOID	7/8 ODF		3031RC 12S7	055939	SAME	HEAT RECLAIM
8D7C-CV	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D9B	SOLENOID	1-1/8 ODF		3031RC 12S9B	055942	SAME	HEAT RECLAIM
8D9B-CV	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
8D9B-SC	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
8D9C	SOLENOID	1-1/8 ODF		3031RC 12S9	055940	SAME	HEAT RECLAIM
8D9C-CS	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
A-175-1	MNTG BRACKET			NONE	NONE	NONE	NO CROSS
A-175-2	MNTG BRACKET			NONE	NONE	NONE	NO CROSS
A-3-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
A-3-0/30	KITS			NONE	NONE	NONE	NO CROSS
A-3-0/80	KITS			NONE	NONE	NONE	NO CROSS
A3F1	SOLENOID	1/4 FLARE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC
A3P1	SOLENOID	3/8 FPT		200RB 2T3	053106	3/8 ODF	REFRIGERATION SERVICE - VLC
A3S1	SOLENOID	1/4 ODF		200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC
A3S1	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
A-4	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
A-4-0/100	KITS			NONE	NONE	NONE	NO CROSS
A-4-75/150	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
A-685	MNTG BRACKET			NONE	NONE	NONE	FOR SPORLAN REGULATOR
A-8-	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
A-8-0/30	KITS			NONE	NONE	NONE	NO CROSS
A-8-0/80	KITS			NONE	NONE	NONE	NO CROSS
AA 20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
AA 30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
AA 50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
AA100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
AA-100, AAE-100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
AA-20, AAE-20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
AA-30, AAE-30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
AA-50, AAE-50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
AA75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
AA-75, AAE-75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
AAE 100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
AAE 20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
AAE 30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
AAE 50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
AAE 75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
AC-2	TXV			NONE	NONE	NONE	NO CROSS
AC-20	TXV			NONE	NONE	NONE	NO CROSS
AC-3	TXV			NONE	NONE	NONE	NO CROSS
ADRHE-6	REGULATORS	HOT GAS	5/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
ADRHE-6	REGULATORS	HOT GAS	7/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
ADRHE-6	REGULATORS	HOT GAS	1 1/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
ADRI	REGULATORS	HOT GAS		ACP 3	046840	SAME	DIRECT ACTING
ADRP	REGULATORS	HOT GAS		CPHE 5	037802	SAME	DIRECT ACTING
ADRP-3	REGULATORS	HOT GAS	1/2 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRP-3	REGULATORS	HOT GAS	5/8 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRP-3	REGULATORS	HOT GAS	1/2 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRP-3	REGULATORS	HOT GAS	5/8 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRPE-3	REGULATORS	HOT GAS	1/2 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRPE-3	REGULATORS	HOT GAS	5/8 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRPE-3	REGULATORS	HOT GAS	1/2 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRPE-3	REGULATORS	HOT GAS	5/8 ODF	CPHE 5	037802	SAME	DIRECT ACTING
ADRS	REGULATORS	HOT GAS		CPHE 4	044783	SAME	DIRECT ACTING
ADRS-2	REGULATORS	HOT GAS	1/2 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRS-2	REGULATORS	HOT GAS	5/8 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRS-2	REGULATORS	HOT GAS	1/2 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRS-2	REGULATORS	HOT GAS	5/8 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRSE-2	REGULATORS	HOT GAS	1/2 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRSE-2	REGULATORS	HOT GAS	5/8 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRSE-2	REGULATORS	HOT GAS	3/8 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRSE-2	REGULATORS	HOT GAS	1/2 ODF	CPHE 4	044783	SAME	DIRECT ACTING
ADRSE-2	REGULATORS	HOT GAS	5/8 ODF	CPHE 4	044783	SAME	DIRECT ACTING
AK-3	KITS	ACID TEST		AA KIT	064427	SAME	UNIVERSAL
AKI-16	KITS	ACID TEST		AA KIT	064428	SAME	UNIVERSAL
AKMB	KITS	ACID TEST		AA KIT	064429	SAME	UNIVERSAL
AKN-2	KITS	ACID TEST		AA KIT	064430	SAME	UNIVERSAL
AKOV	KITS	ACID TEST		AA KIT	064431	SAME	UNIVERSAL
AOL-A	OIL CONTROL			NONE	NONE	NONE	NO CROSS
AOL-C	OIL CONTROL			NONE	NONE	NONE	NO CROSS
AOL-K1	OIL CONTROL			NONE	NONE	NONE	NO CROSS
AOL-P	OIL CONTROL			NONE	NONE	NONE	NO CROSS
AOL-R1	OIL CONTROL			NONE	NONE	NONE	NO CROSS
ASC-11-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-11-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-13-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-4-3	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-4-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-5-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-7-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-7-5	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-9-5	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-9-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ASC-H-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-M-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
B10F2	SOLENOID	1/2 SAE		200RB 6F4	059731	SAME	REFRIGERATION SERVICE - VLC
B14P2	SOLENOID	1/2 FPT		240RA 8T4	060373	1/2 ODF	REFRIGERATION SERVICE - VLC
B14S2	SOLENOID	5/8 ODF		240RA 8T5	060374	SAME	REFRIGERATION SERVICE - VLC
B19P2	SOLENOID	3/8 FPT		240RA 9T5	060376	5/8 ODF	REFRIGERATION SERVICE - VLC
B19S2	SOLENOID	7/8 ODF		240RA 9T7	060377	SAME	REFRIGERATION SERVICE - VLC
B25P2	SOLENOID	1-1/8 FPT		240RA 12T9	060380	1-1/8 ODF	REFRIGERATION SERVICE - VLC
B25S2	SOLENOID	7/8 ODF		240RA 12T7	060379	SAME	REFRIGERATION SERVICE - VLC
B33S2	SOLENOID	1-1/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
B-3H-25/35-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-32/44-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-55/70-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-65/80-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-AR	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
B-3P-25/35-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-32/44-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-55/70-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-65/80-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-AR	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
B6F1	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC
B6P1	SOLENOID	3/8 FPT		200RB 3T3	049609	3/8 ODF	REFRIGERATION SERVICE - VLC
B6S1	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
B9F2	SOLENOID	3/8 SAE		200RB 5T3	061227	3/8 ODF	REFRIGERATION SERVICE - VLC
B9P2	SOLENOID	3/8 FPT		200RB 5T3	061227	3/8 ODF	REFRIGERATION SERVICE - VLC
B9S2	SOLENOID	1/2 ODF		200RB 5S4	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
BFF-A - C	TXV	1 TON R12	1/4 X 1/2 SAE - 30°	HF 1 FC	054905	3/8 X 1/2 SAE	MEDIUM TEMP
BFF-A - Z	TXV	1 TON R12	3/8 X 1/2 SAE - 30°	HF 1 FZ	054907	3/8 X 1/2 SAE	LOW TEMP
BFF-A - ZP	TXV	1 TON R12	3/8 X 1/2 SAE - 30°	HF 1 FW15	054908	3/8 X 1/2 SAE	PRESSURE LIMIT
BFF-AA - C	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30°	HF 1/2 FC	009810	SAME	MEDIUM TEMP
BFF-AA - Z	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30°	HF 1/2 FZ	054893	3/8 X 1/2 SAE	LOW TEMP
BFF-AA - ZP	TXV	1/2 TON R12	3/8 X 1/2 SAE - 30°	HF 1/2 FW15	054894	3/8 X 1/2 SAE	PRESSURE LIMIT
BFF-B - C	TXV	11/2 TON R12	3/8 X 1/2 SAE - 30°	HF 11/2 FC	054914	3/8 X 1/2 SAE	MEDIUM TEMP
BFF-C - C	TXV	3 TON R12	3/8 X 1/2 SAE - 30°	HF 31/2 FC	NONE	31/2 TON R12	MEDIUM TEMP - USE HFK KIT
BFFE-A - C	TXV	1 TON R12	3/8 X 1/2 SAE - 30°	HFE 1 FC	054909	SAME	MEDIUM TEMP
BFFE-A - Z	TXV	1 TON R12	3/8 X 1/2 SAE - 30°	HFE 1 FZ	054910	SAME	LOW TEMP
BFFE-A - ZP	TXV	1 TON R12	3/8 X 1/2 SAE - 30°	HFE 1 FW15	054911	SAME	PRESSURE LIMIT
BFFE-AA - C	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30°	HFE 1/2 FC	009955	SAME	MEDIUM TEMP
BFFE-AAA - C	TXV	1/4 TON R12	1/4 X 1/2 SAE - 30°	HFE 1/4 FC	054360	3/8 X 1/2 SAE	MEDIUM TEMP
BFFE-B - C	TXV	11/2 TON R12	3/8 X 1/2 SAE - 30°	HFE 11/2 FC	054917	SAME	MEDIUM TEMP
BFFE-C - C	TXV	3 TON R12	3/8 X 1/2 SAE - 30°	HFE 31/2 FC	054138	31/2 TON R12	MEDIUM TEMP
BFJ-A - C	TXV	11/4 TON R134	1/4 X 1/2 SAE - 30°	HF1 MC	057619	1 TON R134	MEDIUM TEMP
BFJ-AA - C	TXV	1/2 TON R134	1/4 X 1/2 SAE - 30°	HF 1/2 MC	057620	3/8 X 1/2 SAE	MEDIUM TEMP
BFJ-AAA - C	TXV	1/4 TON R134	1/4 X 1/2 SAE - 30°	HF 1/4 MC	057618	3/8 X 1/2 SAE	MEDIUM TEMP
BFJ-B - C	TXV	2 TON R134	3/8 X 1/2 SAE - 30°	HF 13/4 MC	NONE	13/4 TON R134	MEDIUM TEMP - USE HFK KIT
BFJ-C - C	TXV	31/2 TON R134	3/8 X 1/2 SAE - 30°	HF 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
BFJE-A - C	TXV	11/4 TON R134	3/8 X 1/2 SAE - 30°	HFE 1 MC	065108	1 TON R134	MEDIUM TEMP
BFJE-AA - C	TXV	1/2 TON R134	1/4 X 1/2 SAE - 30°	HFE 1/2 MC	057616	3/8 X 1/2 SAE	MEDIUM TEMP
BFJE-AAA - C	TXV	1/4 TON R134	1/4 X 1/2 SAE - 30°	HFE 1/4 MC	057860	3/8 X 1/2 SAE	MEDIUM TEMP
BFJE-B - C	TXV	2 TON R134	3/8 X 1/2 SAE - 30°	HFE 13/4 MC	057896	SAME	MEDIUM TEMP
BFJE-C - C	TXV	31/2 TON R134	3/8 X 1/2 SAE - 30°	HFE 4 MC	057897	4 TON R134	MEDIUM TEMP
BFR-A - C	TXV	1 TON R502	3/8 X 1/2 SAE - 30°	HF 1 RC	054976	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-AA - C	TXV	1/2 TON R502	3/8 X 1/2 SAE - 30°	HF 1/2 RC	054964	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 SAE - 30°	HF 1/4 RC	054137	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-B - C	TXV	2 TON R502	3/8 X 1/2 SAE - 30°	HF 2 R *	053061	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-C - C	TXV	3 TON R502	3/8 X 1/2 SAE - 30°	HF 31/2 RC	055936	31/2 TON R502	MEDIUM TEMP
BFRE-A - C	TXV	1 TON R502	3/8 X 1/2 SAE - 30°	HFE 1 RC	054979	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-AA - C	TXV	1/2 TON R502	3/8 X 1/2 SAE - 30°	HFE 1/2 RC	054967	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 SAE - 30°	HFE 1/4 RC	054366	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-B - C	TXV	2 TON R502	3/8 X 1/2 SAE - 30°	HFE 2 RC	053070	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-C - C	TXV	3 TON R502	3/8 X 1/2 SAE - 30°	HFE 31/2 RC	054142	31/2 R502	MEDIUM TEMP
BFS-A - C	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HF 1 SC	058308	SAME	MEDIUM TEMP
BFS-A - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HF 1 SZ	054977	SAME	LOW TEMP - USE HF 1 RZ
BFS-A - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HF 1 SW45	054978	SAME	PRESSURE LIMIT - USE HF 1 RW45
BFS-AA - C	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HF 1/2 SC	062029	3/8 X 1/2 SAE	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
BFS-AA - Z	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HF 1/2 SZ	054965	3/8 X 1/2 SAE	LOW TEMP - USE HF 1/2 RZ
BFS-AA - ZP	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HF 1/2 SW45	054966	3/8 X 1/2 SAE	PRESSURE LIMIT - USE HF 1/2 RW45
BFS-AAA - C	TXV	1/4 TON R404	1/4 X 1/2 SAE - 30°	HF 1/4 SC	054137	3/8 X 1/2 SAE	MEDIUM TEMP - USE HF 1/4 RC
BFS-B - C	TXV	2 TON R404	3/8 X 1/2 SAE - 30°	HF 2 SC	053061	3/8 X 1/2 SAE	MEDIUM TEMP - USE HF 2 RC
BFS-C - C	TXV	3 TON R404	3/8 X 1/2 SAE - 30°	HF 31/2 SC	055936	3/12 TON R404	MEDIUM TEMP - USE HF 31/2 RC
BFSE-A - C	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HFE 1 SC	054979	SAME	MEDIUM TEMP - USE HFE 1 RC
BFSE-A - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HFE 1 SZ	054980	SAME	LOW TEMP - USE HFE 1 RC
BFSE-A - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 30°	HFE 1 SW45	054981	SAME	PRESSURE LIMIT - USE HFE 1 RW45
BFSE-AA - C	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HFE 1/2 SC	054967	3/8 X 1/2 SAE	MEDIUM TEMP - USE HFE 1/2 RC
BFSE-AA - Z	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HFE 1/2 SZ	054968	3/8 X 1/2 SAE	LOW TEMP - USE HFE 1/2 RZ
BFSE-AA - ZP	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30°	HFE 1/2 SW45	054969	3/8 X 1/2 SAE	PRESSURE LIMIT - USE HFE 1/2 RW45
BFSE-AAA - C	TXV	1/4 TON R404	1/4 X 1/2 SAE - 30°	HFE 1/4 SC	054366	3/8 X 1/2 SAE	MEDIUM TEMP - USE HFE 1/4 RC
BFSE-B - C	TXV	2 TON R404	3/8 X 1/2 SAE - 30°	HFE 2 SC	053070	SAME	MEDIUM TEMP - USE HFE 2 RC
BFSE-B - Z	TXV	2 TON R404	3/8 X 1/2 SAE - 30°	HFE 2 SZ	053071	SAME	LOW TEMP - USE HFE 2 RZ
BFSE-B - ZP	TXV	2 TON R404	3/8 X 1/2 SAE - 30°	HFE 2 SW45	054992	SAME	PRESSURE LIMIT - USE HFE 2 RW45
BFSE-C - C	TXV	3 TON R404	3/8 X 1/2 SAE - 30°	HFE 31/2 SC	054142	31/2 TON R404	MEDIUM TEMP - USE HFE 31/2 RC
BFSE-C - Z	TXV	3 TON R404	3/8 X 1/2 SAE - 30°	HFE 31/2 SZ	054145	31/2 TON R404	LOW TEMP - USE HFE 31/2 RZ
BFSE-C - ZP	TXV	3 TON R404	3/8 X 1/2 SAE - 30°	HFE 31/2 SW45	054993	31/2 TON R404	PRESSURE LIMIT - USE HFE 31/2 RW45
BFV-A - C	TXV	11/2 TON R22	1/4 X 1/2 SAE - 30°	HF 11/2 HC	054933	3/8 X 1/2 SAE	MEDIUM TEMP
BFV-A - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30°	HF 11/2 HZ	NONE	SAME	LOW TEMP - USE HFK KIT
BFV-A - ZP	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30°	HF 11/2 HW35	NONE	SAME	PRESSURE LIMIT - USE HFK KIT
BFV-AA - C	TXV	3/4 TON R22	1/4 X 1/2 SAE - 30°	HF 1 HC	054927	1 TON R22	MEDIUM TEMP
BFV-AA - Z	TXV	3/4 TON R22	3/8 X 1/2 SAE - 30°	HF 1 HZ	054928	1 TON R22	LOW TEMP
BFV-AAA - C	TXV	1/2 TON R22	1/4 X 1/2 SAE - 30°	HF 1/2 HC	009812	SAME	MEDIUM TEMP
BFV-B - C	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30°	HF21/2 HC	054947	21/2 TON R22	MEDIUM TEMP
BFV-C - C	TXV	51/4 TON R22	3/8 X 1/2 SAE - 30°	HF 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
BFVE-A - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30°	HFE 11/2 HC	054936	SAME	MEDIUM TEMP
BFVE-A - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30°	HFE 11/2 HZ	054937	SAME	MEDIUM TEMP
BFVE-A - ZP40	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30°	HFE 11/2 HW35	054938	SAME	MEDIUM TEMP
BFVE-AA - C	TXV	3/4 TON R22	1/4 X 1/2 SAE - 30°	HFE 1 HC	054930	1 TON R22	MEDIUM TEMP
BFVE-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 30°	HFE 1/2 HC	054361	3/8 X 1/2 SAE	MEDIUM TEMP
BFVE-B - C	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30°	HFE 21/2 HC	054950	21/2 TON R22	MEDIUM TEMP
BFVE-B - Z	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30°	HFE 21/2 HZ	NONE	21/2 TON R22	LOW TEMP - USE HFK KIT
BFVE-C - C	TXV	51/4 TON R22	3/8 X 1/2 SAE - 30°	HFE 51/2 HC	054140	51/2 TON R22	MEDIUM TEMP
BR183P1	SOLENOID	3/8 FPT		231WB 08P04	030051	SAME	
BR184P1	SOLENOID	1/2 FPT		231WB 08P04	030051	SAME	
BR246P1	SOLENOID	3/4 FPT		231WB 12P06	039987	SAME	
C-032	DRIER	1/4 SAE		EK 032	060009	SAME	LIQUID LINE SERVICE
C-032-FM	DRIER	1/4 F X 1/4 M		EK 032 FM	060011	SAME	LIQUID LINE SERVICE
C-032-S	DRIER	1/4 ODF		EK 032 S	060012	SAME	LIQUID LINE SERVICE
C-032-SA CAP	DRIER	1/4 X CAP W/ACC		EK 032SV CAP	063208	SAME	LIQUID LINE SERVICE
C-033	DRIER	3/8 SAE		EK 033	060013	SAME	LIQUID LINE SERVICE
C-033-S	DRIER	3/8 ODF		EK 033S	060014	SAME	LIQUID LINE SERVICE
C-052	DRIER	1/4 SAE		EK 052	047601	SAME	LIQUID LINE SERVICE
C-0525-S	DRIER	5/16 ODF		EK 0525S	063978	SAME	LIQUID LINE SERVICE
C-052-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 052MF	057013	SAME	LIQUID LINE SERVICE
C-052-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 052 HH	060222	SAME	BURN OUT - LIQUID LINE
C-052-FM	DRIER	1/4 SAE X FLARE NUT X SAE		EK 052FM	057033	SAME	LIQUID LINE SERVICE
C-052-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 052 HH	060222	MALE X MALE	BURN OUT - LIQUID LINE
C-052-HH	DRIER	1/4 SAE		BOK 052 HH	060222	SAME	BURN OUT - LIQUID LINE
C-052-S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
C-052-S-HH	DRIER	1/4 ODF		BOK 052S HH	064571	SAME	BURN OUT - LIQUID LINE
C-053	DRIER	3/8 SAE		EK 053	047603	SAME	LIQUID LINE SERVICE
C-053-F	DRIER	3/8 SAE X SAE FLARE NUT		EK 053MF	062481	SAME	LIQUID LINE SERVICE
C-053-S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
C-053-S-T-HH	DRIER	1/4 ODF		BOK 053S HH	062892	SAME	BURN OUT - LIQUID LINE
C-082	DRIER	1/4 SAE		EK 082	047605	SAME	LIQUID LINE SERVICE
C-0825-S	DRIER	5/16 ODF		EK 0825S	049551	SAME	LIQUID LINE SERVICE
C-082-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 082 MF	056884	SAME	LIQUID LINE SERVICE
C-082-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 082 HH	060223	MALE X MALE	BURN OUT - LIQUID LINE
C-082-FM	DRIER	1/4 SAE FLARE NUT X SAE		EK 082FM	057034	SAME	LIQUID LINE SERVICE
C-082-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 082 HH	060223	MALE X MALE	BURN OUT - LIQUID LINE
C-082-HH	DRIER	1/4 SAE		BOK 082 HH	060223	SAME	BURN OUT - LIQUID LINE
C-082-S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
C-082-S-HH	DRIER	1/4 ODF		BOK 082S HH	064591	SAME	BURN OUT - LIQUID LINE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
C-083	DRIER	3/8 SAE		EK 083	047607	SAME	LIQUID LINE SERVICE
C-083-F	DRIER	3/8 SAE X SAE FLARE NUT		EK 083MF	056609	SAME	LIQUID LINE SERVICE
C-083-HH	DRIER	3/8 SAE		BOK 083 HH	060224	SAME	BURN OUT - LIQUID LINE
C-083-S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
C-083-S-HH	DRIER	3/8 ODF		BOK 083S	064572	SAME	BURN OUT - LIQUID LINE
C-083-S-T-HH	DRIER	3/8 ODF		NONE	NONE	NONE	BURN OUT - LIQUID LINE
C-084	DRIER	1/2 SAE		EK 084	047609	SAME	LIQUID LINE SERVICE
C-084-S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE
C-084-S-T-HH	DRIER	1/2 ODF		SFD 08S4VV	064045	SAME	SUCTION FILTER DRIER
C-14411	DRIER	13/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14411-G	DRIER	1 3/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14411-T	DRIER	1 3/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14413	DRIER	1 5/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-14413-G	DRIER	15/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-14413-T	DRIER	1 5/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-1448-P	DRIER	1 NPT		NONE	NONE	SAME	TAKE APART SHELL
C-1449	DRIER	11/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-1449-G	DRIER	1 1/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-1449-T	DRIER	1 1/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-144-S-TT-HH	DRIER	1/2 ODF		CSFD 14S4VV	062231	SAME	SUCTION FILTER DRIER
C-145-S-TT-HH	DRIER	5/8 ODF		CSFD 14S5VV	062232	SAME	SUCTION FILTER DRIER
C-146-S-TT-HH	DRIER	3/4 ODF		CSFD 14S6VV	062233	SAME	SUCTION FILTER DRIER
C-147-S-TT-HH	DRIER	7/8 ODF		CSFD 14S7VV	062234	SAME	SUCTION FILTER DRIER
C-149-S-TT-HH	DRIER	11/8 ODF		CSFD 14S9VV	062235	SAME	SUCTION FILTER DRIER
C-162	DRIER	1/4 SAE		EK 162	047611	SAME	LIQUID LINE SERVICE
C-1625-S	DRIER	5/16 ODF		EK 1625S	056045	SAME	LIQUID LINE SERVICE
C-162-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 162MF	057014	SAME	LIQUID LINE SERVICE
C-162-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 162 HH	060240	MALE X MALE	BURN OUT - LIQUID LINE
C-162-FM	DRIER	1/4 SAE FLARE NUT X SAE		EK 162 FM	057014	SAME	LIQUID LINE SERVICE
C-162-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 162 HH	060240	MALE X MALE	BURN OUT - LIQUID LINE
C-162-HH	DRIER	1/4 SAE		BOK 162	060240	SAME	BURN OUT - LIQUID LINE
C-162-S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
C-162-S-HH	DRIER	1/4 ODF		BOK 162S HH	064592	SAME	BURN OUT - LIQUID LINE
C-163	DRIER	3/8 SAE		EK 163	047613	SAME	LIQUID LINE SERVICE
C-163-HH	DRIER	3/8 SAE		BOK 163 HH	060241	SAME	BURN OUT - LIQUID LINE
C-163-S	DRIER	3/8 ODF		EK 163S	047614	SAME	LIQUID LINE SERVICE
C-163-S-HH	DRIER	3/8 ODF		BOK 163S HH	060242	SAME	BURN OUT - LIQUID LINE
C-164	DRIER	1/2 SAE		EK 164	047615	SAME	LIQUID LINE SERVICE
C-164-HH	DRIER	1/2 SAE		BOK 164 HH	060228	SAME	BURN OUT - LIQUID LINE
C-164-S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
C-164-S-HH	DRIER	1/2 ODF		BOK 164S HH	060229	SAME	BURN OUT - LIQUID LINE
C-164-S-T-HH	DRIER	1/2 ODF		ASK 165S-VV-HH	056508	5/8 ODF	SUCTION FILTER DRIER
C-165	DRIER	5/8 SAE		EK 165	047617	SAME	LIQUID LINE SERVICE
C-165-HH	DRIER	5/8 SAE		BOK 165 HH	060230	SAME	BURN OUT - LIQUID LINE
C-165-S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
C-165-S-HH	DRIER	5/8 ODF		BOK 165S HH	060231	SAME	BURN OUT - LIQUID LINE
C-165-S-T-HH	DRIER	5/8 ODF		ASK 165S-VV-HH	056508	SAME	SUCTION FILTER DRIER
C-166-S-T-HH	DRIER	3/4 ODF		ASK 166S-VV-HH	056509	SAME	SUCTION FILTER DRIER
C-167-S	DRIER	7/8 ODF		EK 167S	047619	SAME	LIQUID LINE SERVICE
C-167-S-T-HH	DRIER	7/8 ODF		ASK 167S-VV-HH	056510	SAME	SUCTION FILTER DRIER
C-19211	DRIER	13/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19211-G	DRIER	1 3/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19211-T	DRIER	1 3/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19212-O	DRIER	1 1/2 NPT		NONE	NONE	NONE	NO CROSS
C-19213	DRIER	15/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19213-G	DRIER	1 5/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19213-T	DRIER	1 5/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19217-G	DRIER	21/8 ODF		STAS 19217T	053031	SAME	TAKE APART SHELL
C-19217-T	DRIER	2 1/8 ODF		NONE	NONE	NONE	NO CROSS
C-30013	DRIER	15/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30013-G	DRIER	1 5/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30013-T	DRIER	1 5/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30017-G	DRIER	21/8 ODF		ADKS 30017T	037978	SAME	TAKE APART SHELL
C-30017-T	DRIER	2 1/8 ODF		ADKS 30017T	037978	SAME	TAKE APART SHELL
C-303	DRIER	3/8 SAE		EK 303	048210	SAME	LIQUID LINE SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
C-303-HH	DRIER	3/8 SAE		BOK 303 HH	060232	SAME	BURN OUT - LIQUID LINE
C-303-S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
C-303-S-HH	DRIER	3/8 ODF		BOK 303 HH	060232	3/8 SAE	BURN OUT - LIQUID LINE
C-304	DRIER	1/2 SAE		EK 304	048212	SAME	LIQUID LINE SERVICE
C-304-HH	DRIER	1/2 SAE		BOK 304	060233	SAME	BURN OUT - LIQUID LINE
C-304-S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
C-304-S-HH	DRIER	1/2 ODF		BOK 304S	060234	SAME	BURN OUT - LIQUID LINE
C-305	DRIER	5/8 SAE		EK 305	048214	SAME	LIQUID LINE SERVICE
C-305-HH	DRIER	5/8 SAE		BOK 305	060235	SAME	BURN OUT - LIQUID LINE
C-305-S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
C-305-S-HH	DRIER	5/8 ODF		BOK 305S	060236	SAME	BURN OUT - LIQUID LINE
C-305-S-T-HH	DRIER	5/8 ODF		ASD 35S5VV	049171	SAME	SUCTION FILTER DRIER
C-306-S	DRIER	3/4 ODF		EK 306S	048216	SAME	LIQUID LINE SERVICE
C-306-S-T-HH	DRIER	3/4 ODF		ASK 306S-WV-HH	056511	SAME	SUCTION FILTER DRIER
C-307-S	DRIER	7 8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
C-307-S-T-HH	DRIER	7/8 ODF		ASK 307S-WV-HH	056512	SAME	SUCTION FILTER DRIER
C-309-S	DRIER	11/8 ODF		EK 309S	048218	SAME	LIQUID LINE SERVICE
C-309-S-T-HH	DRIER	11/8 ODF		ASK 309S-WV-HH	056513	SAME	SUCTION FILTER DRIER
C-40016-P	DRIER	2 NPT		NONE	NONE	NONE	NO CROSS
C-40017	DRIER	21/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
C-40017-G	DRIER	2 1/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
C-40017-T	DRIER	2 1/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
C-40021-G	DRIER	25/8 ODF		ADKS 40021T	037570	SAME	TAKE APART SHELL
C-40021-T	DRIER	2 5/8 ODF		ADKS 40021T	037570	SAME	TAKE APART SHELL
C-40025-G	DRIER	31/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-40025-T	DRIER	3 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-40029-G	DRIER	35/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-40029-T	DRIER	3 5/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-40033-G	DRIER	41/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-40033-T	DRIER	4 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
C-413	DRIER	3/8 SAE		EK 413	048219	SAME	LIQUID LINE SERVICE
C-413-P	DRIER	3/8 FPT		NONE	NONE	NONE	NO PIPE THREAD
C-414	DRIER	1/2 SAE		EK 414	048220	SAME	LIQUID LINE SERVICE
C-414-HH	DRIER	1/2 SAE		BOK 414	060237	SAME	BURN OUT - LIQUID LINE
C-414-S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
C-414-S-HH	DRIER	1/2 ODF		BOK 414 HH	060237	1/2 SAE	BURN OUT - LIQUID LINE
C-415	DRIER	5/8 SAE		EK 415	048222	SAME	LIQUID LINE SERVICE
C-415-HH	DRIER	5/8 SAE		BOK 415 HH	060238	SAME	BURN OUT - LIQUID LINE
C-415-S	DRIER	ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
C-417-S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
C-417-S-HH	DRIER	7/8 ODF		BOK 417S	060239	SAME	BURN OUT - LIQUID LINE
C-417-S-T-HH	DRIER	7/8 ODF		ASD 45S7VV	049173	SAME	SUCTION FILTER DRIER
C-419-S	DRIER	11/8 ODF		EK 419S	048225	SAME	LIQUID LINE SERVICE
C-419-S-T-HH	DRIER	11/8 ODF		ASD 50S9VV	049174	SAME	SUCTION FILTER DRIER
C-4311-S-T-HH	DRIER	13/8 ODF		SFD 54S11V	060253	SAME	SUCTION FILTER DRIER
C-4313-S-T-HH	DRIER	15/8 ODF		SFD 54S13V	060254	SAME	SUCTION FILTER DRIER
C-437-S-T-HH	DRIER	7/8 ODF		ASD 45S7VV	049173	SAME	SUCTION FILTER DRIER
C-439-S-T-HH	DRIER	11/8 ODF		ASD 50S9VV	049174	SAME	SUCTION FILTER DRIER
C-4811-G	DRIER	13/8 ODF		STAS 4811T	053007	SAME	TAKE APART SHELL
C-4811-T	DRIER	1 3/8 ODF		STAS 4811T	053007	SAME	TAKE APART SHELL
C-4813-G	DRIER	15/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
C-4813-G	DRIER	1 5/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
C-4813-T	DRIER	1 5/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
C-484-P	DRIER	1/2 NPT		NONE	NONE	NONE	TAKE APART SHELL
C-485	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
C-485-C	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
C-485-T	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
C-487	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
C-487-C	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
C-487-T	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
C-489	DRIER	1 1/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
C-489-G	DRIER	11/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
C-489-T	DRIER	1 1/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
C-607-S	DRIER	7/8 ODF		EK 757S	048228	75 CU. IN.	LIQUID LINE SERVICE
C-607-S-T-HH	DRIER	7/8 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
C-609-S	DRIER	11/8 ODF		EK 759S	048229	75 CU. IN.	LIQUID LINE SERVICE
C-609-S-T-HH	DRIER	11/8 ODF		ASD 75S13W	049176	SAME	SUCTION FILTER DRIER
C-9611	DRIER	1 3/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9611-G	DRIER	13/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9611-T	DRIER	1 3/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9613-G	DRIER	15/8 ODF		STAS 9613T	053017	SAME	TAKE APART SHELL
C-9613-T	DRIER	1 5/8 ODF		STAS 9613T	053017	SAME	TAKE APART SHELL
C-966-P	DRIER	3/4 NPT		NONE	NONE	NONE	TAKE APART SHELL
C-967	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-967	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-967-T	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-969	DRIER	11/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
C-969	DRIER	1 1/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
C-969-T	DRIER	1 1/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
CB10S2	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
CB14S2	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
CB19S2	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
CB9S2	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
CCF-1	REGULATORS	R12	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO. EXPANSION VALVE
CCF-1-1/2	REGULATORS	R-12	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO. EXPANSION VALVE
CCF-2	REGULATORS	R-12	1/4 X 3/8 ODF	ACP 6	047653	SAME	AUTO. EXPANSION VALVE
CCF-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 7	047285	SAME	AUTO. EXPANSION VALVE
CCF-3	REGULATORS	R-12	3/8 X 1/2 ODF	ACP 8	047655	SAME	AUTO. EXPANSION VALVE
CCFE-1	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCFE-1-1/2	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCFE-2	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCFE-2-1/2	REGULATORS	R-12	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CCFE-3	REGULATORS	R-12		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCR-1	REGULATORS	R-502	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO. EXPANSION VALVE
CCR-1-1/2	REGULATORS	R-502	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO. EXPANSION VALVE
CCR-2	REGULATORS	R-502	3/8 X 1/2 SAE	ACP 7	047285	SAME	AUTO. EXPANSION VALVE
CCR-3	REGULATORS	R-502	3/8 X 1/2 SAE	ACP 9	047658	SAME	AUTO. EXPANSION VALVE
CCR-4	REGULATORS	R-502		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCRE-1	REGULATORS	R-502		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCRE-1-1/2	REGULATORS	R-502		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCRE-2	REGULATORS	R-502	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CCRE-3	REGULATORS	R-502		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCRE-4	REGULATORS	R-502		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCV-1-1/2	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO. EXPANSION VALVE
CCV-2	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO. EXPANSION VALVE
CCV-3	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 7	047285	SAME	AUTO. EXPANSION VALVE
CCV-4	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 8	047655	SAME	AUTO. EXPANSION VALVE
CCV-5	REGULATORS	R-22	1/2 X 5/8 ODF	ACP 9	057771	SAME	AUTO. EXPANSION VALVE
CCVE-1-1/2	REGULATORS	R-22		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCVE-2	REGULATORS	R-22		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCVE-3	REGULATORS	R-22		ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CCVE-4	REGULATORS	R-22		NONE	NONE	NONE	AUTO. EXPANSION VALVE
CCVE-5	REGULATORS	R-22		ACPE 9	048657	SAME	AUTO. EXPANSION VALVE
CE10S250	SOLENOID	5/8 ODF EXTENDED		200RB GS1930	009694	SAME	BI - FLOW
CE14S250	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CE9S230	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CE9S240	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CF 2 - C	TXV	2 TON R12	3/8 X 1/2 SAE	HF 2 FC	053060	SAME	MEDIUM TEMP
CF 3 - C	TXV	3 TON R12	3/8 X 1/2 SAE	HF 31/2 FC	NONE	31/2 TON R12	MEDIUM TEMP - USE HFK KIT
CFE 3 - C	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFE 31/2 FC	054138	31/2 TON R12	MEDIUM TEMP
CFE 3 - Z	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFE 31/2 F Z	NONE	31/2 TON R12	LOW TEMP - USE HFK KIT
CFE 5 - C	TXV	5 TON R12	1/2 X 5/8 SAE - 5'	NONE	NONE	NONE	NO CROSS
CG-032	DRIER	1/4 SAE FLARE		EK 032	060009	SAME	LIQUID LINE SERVICE
CG-032-S	DRIER	1/4 ODF SOLDER		EK 032S	060012	SAME	LIQUID LINE SERVICE
CG-033-S	DRIER	3/8 ODF SOLDER		EK 033S	060014	SAME	LIQUID LINE SERVICE
CG-052	DRIER	1/4 SAE FLARE		EK 052	047601	SAME	LIQUID LINE SERVICE
CG-052-S	DRIER	1/4 ODF SOLDER		EK 052S	047602	SAME	LIQUID LINE SERVICE
CG-053	DRIER	3/8 SAE FLARE		EK 053	047603	SAME	LIQUID LINE SERVICE
CG-053-S	DRIER	3/8 ODF SOLDER		EK 053S	047604	SAME	LIQUID LINE SERVICE
CG-082	DRIER	1/4 SAE FLARE		EK 082	047605	SAME	LIQUID LINE SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrp.	Comment
CG-082-S	DRIER	1/4 ODF SOLDER		EK 082S	047606	SAME	LIQUID LINE SERVICE
CG-083	DRIER	3/8 SAE FLARE		EK 083	047607	SAME	LIQUID LINE SERVICE
CG-083-S	DRIER	3/8 ODF SOLDER		EK 083S	047608	SAME	LIQUID LINE SERVICE
CG-163-S	DRIER	3/8 ODF SOLDER		EK 163S	047614	SAME	LIQUID LINE SERVICE
CG-164	DRIER	1/2 SAE FLARE		EK 164	047615	SAME	LIQUID LINE SERVICE
CG-164-S	DRIER	1/2 ODF SOLDER		EK 164S	047616	SAME	LIQUID LINE SERVICE
CG-165	DRIER	5/8 SAE FLARE		EK 165	047617	SAME	LIQUID LINE SERVICE
CG-165-S	DRIER	5/8 ODF SOLDER		EK 165S	047618	SAME	LIQUID LINE SERVICE
CG-193	DRIER	3/8 SAE FLARE		EK 303	048210	SAME	LIQUID LINE SERVICE
CG-304	DRIER	1/2 SAE FLARE		EK 304	048212	SAME	LIQUID LINE SERVICE
CG-304-S	DRIER	1/2 ODF SOLDER		EK 304S	048213	SAME	LIQUID LINE SERVICE
CG-305	DRIER	5/8 SAE FLARE		EK 305	048214	SAME	LIQUID LINE SERVICE
CG-305-S	DRIER	5/8 ODF SOLDER		EK 305S	048215	SAME	LIQUID LINE SERVICE
CG-307-S	DRIER	7/8 ODF SOLDER		EK 307S	048217	SAME	LIQUID LINE SERVICE
CJ 21/2 - C	TXV	21/2 TON R134	3/8 X 1/2 SAE	HF 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
CJE 21/2 - C	TXV	21/2 TON R134	3/8 X 1/2 SAE	HFE 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
CJE 3 - C	TXV	3 TON R134	3/8 X 1/2 SAE	HFE 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
CJE 5 - C	TXV	5 TON R134	1/2 X 5/8 SAE - 5'	NONE	NONE	NONE	NO CROSS
CMB10S2	SOLENOID	5/8 ODF		200RB GS1930	009694	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
CMB19S2	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
CME10S240	SOLENOID	1/2 ODF EXTENDED		200RB GS1930	009694	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
CME10S250	SOLENOID	5/8 ODF EXTENDED		200RB GS1930	009694	5/8 ODF	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
CME14S250	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CME19S270	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CME9S230	SOLENOID	3/8 ODF EXTENDED		200RB GS1928	009692	1/2 ODF	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
CME9S240	SOLENOID	1/2 ODF EXTENDED		200RB GS1928	009692	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
CPF-12	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
CPF-8	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
CPFE-12	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
CPFE-8	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
CPR-12	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
CPR-4 (non-adj.)	REGULATORS		5/8 SAE Strainer not available	NONE	NONE	NONE	NO CROSS
CPR-4 (non-adj.)	REGULATORS		5/8 ODF Strainer not available	NONE	NONE	NONE	NO CROSS
CPR-9	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
CPRE-12	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
CPRE-9	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
CPV-11	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CPV-16	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CPV-20	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CPVE-11	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CPVE-16	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CPVE-20	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
CR 2 - C	TXV	2 TON R502	3/8 x 1/2 SAE	HF 2 R C	053061	SAME	MEDIUM TEMP
CR 4 - C	TXV	4 TON R502	3/8 x 1/2 SAE	HF 31/2 RC	055936	31/2 TON R502	MEDIUM TEMP
C-R424	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
C-R424-C	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
C-R424-T	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
C-R425	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
C-R425-C	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
C-R425-T	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
C-R427	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
C-R427-C	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
C-R427-T	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
CRE 2 - C	TXV	2 TON R502	3/8 x 1/2 SAE	HFE 2 RC	053070	SAME	MEDIUM TEMP
CRE 4 - C	TXV	4 TON R502	3/8 x 1/2 SAE	HFE 31/2 RC	054142	31/2 TON R502	MEDIUM TEMP
CRO-10-0/60	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-10	047315	Same	W/ Pressure Tap
CRO-10-0/60	REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-10	047316	Same	W/ Pressure Tap
CRO-10-0/60	REGULATORS	1-3/8 ODF	W/O Pressure Tap	OPR-10	047318	Same	W/ Pressure Tap
CRO-10-30/110	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-10	061786	Same	20 / 90 psi Adjustment Range
CRO-10-30/110	REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-10	059223	Same	20 / 90 psi Adjustment Range
CRO-10-30/110	REGULATORS	1-3/8 ODF	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
CRO-6-0-60	REGULATORS	1/2 SAE	W/O Pressure Tap	OPR-6	0547907	Same	W/ Pressure Tap
CRO-6-0-60	REGULATORS	5/8 SAE	W/O Pressure Tap	OPR-6	047908	Same	W/ Pressure Tap
CRO-6-0-60	REGULATORS	1/2 ODF	W/O Pressure Tap	OPR-6	049241	Same	W/ Pressure Tap
CRO-6-0-60	REGULATORS	5/8 ODF	W/O Pressure Tap	OPR-6	047312	Same	W/ Pressure Tap

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
CRO-6-0-60	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-6	047313	Same	W/ Pressure Tap
CRO-6-0-60	REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-6	047314	Same	W/ Pressure Tap
CRO-6-30/110	REGULATORS	1/2 SAE	W/O Pressure Tap	OPR-6	054871	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	5/8 ODF	W/O Pressure Tap	OPR-6	054406	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-6	058172	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	5/8 SAE	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
CRO-6-30/110	REGULATORS	1-1/8 ODF	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
CROT-10-0/60	REGULATORS	7/8 ODF	w/pressure tap	OPR-10	047315	Same	
CROT-10-0/60	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-10	047316	Same	
CROT-10-0/60	REGULATORS	1-3/8 ODF	w/pressure tap	OPR-10	047318	Same	
CROT-10-30/110	REGULATORS	7/8 ODF	w/pressure tap	OPR-10	061786	Same	20 / 90 psi Adjustment Range
CROT-10-30/110	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-10	059223	Same	20 / 90 psi Adjustment Range
CROT-10-30/110	REGULATORS	1-3/8 ODF	w/pressure tap	NONE	NONE	NONE	NO CROSS
CROT-6-0/60	REGULATORS	1/2 SAE	w/pressure tap	OPR-6	0547907	Same	
CROT-6-0/60	REGULATORS	5/8 SAE	w/pressure tap	OPR-6	047908	Same	
CROT-6-0/60	REGULATORS	5/8 ODF	w/pressure tap	OPR-6	047312	Same	
CROT-6-0/60	REGULATORS	7/8 ODF	w/pressure tap	OPR-6	047313	Same	
CROT-6-0/60	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-6	047314	Same	
CROT-6-30/110	REGULATORS	1/2 SAE	w/pressure tap	OPR-6	054871	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	5/8 ODF	w/pressure tap	OPR-6	054406	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	7/8 ODF	w/pressure tap	OPR-6	058172	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	5/8 SAE	w/pressure tap	NONE	NONE	NONE	NO CROSS
CROT-6-30/110	REGULATORS	1-1/8 ODF	w/pressure tap	NONE	NONE	NONE	NO CROSS
CRP-4	REGULATORS	5/8 SAE		NONE	NONE	NONE	NO CROSS
CRP-4	REGULATORS	5/8 ODF		NONE	NONE	NONE	NO CROSS
CS 2 - C	TXV	2 TON R404	3/8 x 1/2 SAE	HF 2 SC	053061	SAME	MEDIUM TEMP - USE R502 VALVE
CS 4 - C	TXV	4 TON R404	3/8 x 1/2 SAE	HF 31/2 SC	055936	31/2 TON R404	MEDIUM TEMP - USE R502 VALVE
CSE 3 - Z	TXV	3 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RZ	054145	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSE 3 - ZP	TXV	3 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RW45	054993	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSE 4 - ZP	TXV	4 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RW45	054993	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSF-1	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 4	047105	SAME	AUTO. EXPANSION VALVE
CSF-1-1/2	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 5	047284	SAME	AUTO. EXPANSION VALVE
CSF-2	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 6	047653	SAME	AUTO. EXPANSION VALVE
CSF-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 7	047654	SAME	AUTO. EXPANSION VALVE
CSF-3	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 8	047655	SAME	AUTO. EXPANSION VALVE
CSF-5	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-1	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-1-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-2	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CSFE-3	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	AUTO. EXPANSION VALVE
CSFE-5	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSR-1	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 4	047105	SAME	AUTO. EXPANSION VALVE
CSR-1-1/2	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 5	047284	SAME	AUTO. EXPANSION VALVE
CSR-2	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 6	047653	SAME	AUTO. EXPANSION VALVE
CSR-3	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSR-4	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSR-6	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-1	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-1-1/2	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-2	REGULATORS	R-502	3/8 X 1/2 SAE	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CSRE-3	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSRE-4	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSRE-6	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-1-1/2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-3	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CSV-4	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-5	REGULATORS	R-22	1/2 X 5/8 ODF	ACPE 9	058674	SAME	AUTO. EXPANSION VALVE
CSV-8	REGULATORS	R-22	1/2 X 5/8 ODF	NONE	NONE	NONE	NO CROSS
CSVE-1-1/2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSVE-2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSVE-3	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO. EXPANSION VALVE
CSVE-4	REGULATORS	R-22	3/8 X 1/2 ODF	NONE	NONE	NONE	NO CROSS
CSVE-5	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 9	048657	SAME	AUTO. EXPANSION VALVE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
CSVE-8	REGULATORS	R-22	3/8 X 1/2 ODF	NONE	NONE	NONE	NO CROSS
CV 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE	HF 3 HC	053316	SAME	MEDIUM TEMP
CV 5 - C	TXV	5 TON R22	3/8 X 1/2 SAE	HF 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
CVE 4 - CP100	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLE 3 HW100	NONE	4 TON R22	ORDER SEPARATE TCLE PARTS
CVE 4 - GA	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLE 3 HCA	NONE	4 TON R22	ORDER SEPARATE TCLE PARTS
CVE 4 C	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLE 3 HC	NONE	4 TON R22	ORDER SEPARATE TCLE PARTS
CVE 5 - C	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HC	054140	51/2 TON R22	MEDIUM TEMP
CVE 5 - CP100	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HW100	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
CVE 5 GA	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HCA	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
CVE 8 - C	TXV	8 TON R22	1/2 X 5/8 ODF - 5'	HFES 8 HC	057313	SAME	MEDIUM TEMP
CVE 8 - CP100	TXV	8 TON R22	5/8 X 7/8 ODF - 5'	HFES 8 HW100	057354	SAME	MEDIUM TEMP
CVE 8 - GA	TXV	8 TON R22	5/8 X 7/8 ODF - 5'	HFES 8 HCA	056819	SAME	MEDIUM TEMP
D260	KITS		1/2" ODM	NONE	NONE	NONE	NO CROSS
D262	KITS		1/2" ODM	NONE	NONE	NONE	NO CROSS
D-3H-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
D-3H-*	KITS			NONE	NONE	NONE	NO CROSS
D-3P-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
D-3P-	KITS	ELEMENT		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
D-3P-*	KITS			NONE	NONE	NONE	NO CROSS
D-8-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
D-8-*	KITS			NONE	NONE	NONE	NO CROSS
DA 1	TXV	1 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DA 10	TXV	10 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DA 15	TXV	15 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DA 2	TXV	2 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DA 5	TXV	5 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DA-1, DAE-1	TXV			NONE	NONE	NONE	NO CROSS
DA-10, DAE-10	TXV			NONE	NONE	NONE	NO CROSS
DA-15, DAE-15	TXV			NONE	NONE	NONE	NO CROSS
DA-2, DAE-2	TXV			NONE	NONE	NONE	NO CROSS
DA-5, DAE-5	TXV			NONE	NONE	NONE	NO CROSS
DAE 1	TXV	1 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DAE 10	TXV	10 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DAE 15	TXV	15 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DAE 2	TXV	2 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DAE 5	TXV	5 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
DK-12	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
DK-13	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
DK-8	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
DMA17A3	SOLENOID			NONE	NONE	NONE	NO CROSS
DMA32P3	SOLENOID			NONE	NONE	NONE	NO CROSS
DRHE-6	REGULATORS	5/8, 7/8 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRHE-6-25/35AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRHE-6-55/70AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRHE-6-65/80AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRP	REGULATORS		HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRP-3-*	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRP-3-* R	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRP-3-55/70AR	REGULATORS	5/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRPE-3-*	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRPE-3-*R	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRPE-3-55/70AR	REGULATORS	5/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRS-2-*	REGULATORS	3/8, 1/2, 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
DRS-2-* R	REGULATORS	3/8, 1/2, 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
E10S240	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 554	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
E10S250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 555	049201	SAME	REFRIGERATION SERVICE - VLC
E14S250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 755	064037	5/8 ODF x 7/8 ODM	REFRIGERATION SERVICE - VLC
E14S270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 717	064282	SAME	REFRIGERATION SERVICE - VLC
E19S250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 915	064762	SAME	REFRIGERATION SERVICE - VLC
E19S270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 917	064645	SAME	REFRIGERATION SERVICE - VLC
E25S270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 1217	064818	SAME	REFRIGERATION SERVICE - VLC
E25S290	SOLENOID	1-1/8 ODF	NORMALLY CLOSED	200RB 1219	064821	SAME	REFRIGERATION SERVICE - VLC
E34S2110	SOLENOID	1-3/8 ODF	NORMALLY CLOSED	240RA 1611	060382	SAME	REFRIGERATION SERVICE - VLC
E34S290	SOLENOID	1-1/8 ODF	NORMALLY CLOSED	240RA 1619	060381	SAME	REFRIGERATION SERVICE - VLC
E3S120	SOLENOID	1/4 ODF	NORMALLY CLOSED	100RB 252	047503	SAME	REFRIGERATION SERVICE - VLC

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
E3S130	SOLENOID	3/8 ODF	NORMALLY CLOSED	100RB 253	047504	SAME	REFRIGERATION SERVICE - VLC
E42S2130	SOLENOID	1-5/8 ODF	NORMALLY CLOSED	240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC
E42S2170	SOLENOID	2-1/8 ODF	NORMALLY CLOSED	240RA 20T17	060385	SAME	REFRIGERATION SERVICE - VLC
E5S120	SOLENOID	1/4 ODF	NORMALLY CLOSED	200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC
E5S130	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
E6S130	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC
E6S140	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
E9S230	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 5T3	061227	SAME	REFRIGERATION SERVICE - VLC
E9S240	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 554	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
EBFF-A - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HFS 1 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFF-AA - C	TXV	1/2 TON R12	3/8 X 1/2 ODF - 30"	HFS 1/2 FC	056063	SAME	MEDIUM TEMP
EBFF-AAA - C	TXV	1/4 TON R12	3/8 X 1/2 ODF - 30"	HFS 1/4 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFF-B - C	TXV	13/4 TON R12	3/8 X 1/2 ODF - 30"	HFS 11/2 FC	NONE	11/2 TON R12	MEDIUM TEMP - USE HFK KIT
EBFF-C - C	TXV	3 TON R12	3/8 X 1/2 ODF - 30"	HFS 31/2 FC	NONE	31/2 TON R12	MEDIUM TEMP - USE HFK KIT
EBFFE-A - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HFES 1 F C	055993	SAME	MEDIUM TEMP
EBFFE-AA - C	TXV	1/2 TON R12	3/8 X 1/2 ODF - 30"	HFES 1/2 F C	055827	SAME	MEDIUM TEMP
EBFFE-AAA - *	TXV	1/4 TON R12	3/8 X 1/2 ODF - 30"	HFES 1/4 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFFE-B - C	TXV	13/4 TON R12	3/8 X 1/2 ODF - 30"	HFES 11/2 F C	055994	11/2 TON R12	MEDIUM TEMP
EBFFE-C - C	TXV	3 TON R12	3/8 X 1/2 ODF - 30"	HFES 31/2 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJ-A - C	TXV	11/4 TON R134	3/8 X 1/2 ODF - 30"	HFS 1 MC	NONE	1 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJ-AA - C	TXV	1/2 TON R134	3/8 X 1/2 ODF - 30"	HFS 1/2 MC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJ-AAA - C	TXV	1/4 TON R134	3/8 X 1/2 ODF - 30"	HFS 1/4 MC	058545	SAME	MEDIUM TEMP
EBFJ-B - C	TXV	2 TON R134	3/8 X 1/2 ODF - 30"	HFS 13/4 MC	NONE	13/4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJ-C - C	TXV	31/2 TON R134	3/8 X 1/2 ODF - 30"	HFS 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJE-A - C	TXV	11/4 TON R134	3/8 X 1/2 ODF - 30"	HFES 1 M C	058546	1 TON R134	MEDIUM TEMP
EBFJE-AA - C	TXV	1/2 TON R134	3/8 X 1/2 ODF - 30"	HFES 1/2 M C	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJE-AAA - C	TXV	1/4 TON R134	3/8 X 1/2 ODF - 30"	HFES 1/4 MC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJE-B - C	TXV	2 TON R134	3/8 X 1/2 ODF - 30"	HFES 13/4 M C	058152	13/4 TON R134	MEDIUM TEMP
EBFJE-C - C	TXV	31/2 TON R134	3/8 X 1/2 ODF - 30"	HFES 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFR-A - C	TXV	1 TON R502	3/8 X 1/2 ODF - 30"	HFS 1 RC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFR-AA - C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 30"	HFS 1/2 RC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFR-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 30"	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
EBFR-B - C	TXV	2 TON R502	3/8 X 1/2 ODF - 30"	HFS 2 RC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFR-C - C	TXV	3 TON R502	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R502	MEDIUM TEMP
EBFRE-A - C	TXV	1 TON R502	3/8 X 1/2 ODF - 30"	HFS 1 RC	056029	SAME	MEDIUM TEMP
EBFRE-AA - C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 30"	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EBFRE-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 30"	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
EBFRE-B - C	TXV	2 TON R502	3/8 X 1/2 ODF - 30"	HFES 2 RC	053270	SAME	MEDIUM TEMP
EBFRE-C - C	TXV	3 TON R502	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R502	MEDIUM TEMP
EBFS-A - C	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFS 1 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-AA - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 30"	HFS 1/2 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-AAA - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 30"	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
EBFS-B - C	TXV	2 TON R404	3/8 X 1/2 ODF - 30"	HFS 2 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-C - C	TXV	3 TON R404	3/8 X 1/2 ODF - 30"	HFS 31/2 SC	NONE	31/2 TON R404	MEDIUM TEMP - USE HFK KIT
EBFSE-A - C	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RC	056029	SAME	MEDIUM TEMP
EBFSE-A - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RZ	056225	SAME	MEDIUM TEMP
EBFSE-A - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RW45	055948	SAME	MEDIUM TEMP
EBFSE-AA - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 30"	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EBFSE-AAA - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 30"	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
EBFSE-B - C	TXV	2 TON R404	3/8 X 1/2 ODF - 30"	HFES 2 RC	053270	SAME	MEDIUM TEMP
EBFSE-C - C	TXV	3 TON R404	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R404	MEDIUM TEMP
EBFV-A - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 11/2 HC	056018	SAME	MEDIUM TEMP
EBFV-AA - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 30"	HFS 1 HC	055702	1 TON R22	MEDIUM TEMP
EBFV-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 1/2 HC	054136	SAME	MEDIUM TEMP
EBFV-B - C	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFS 21/2 HC	NONE	21/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFV-C - C	TXV	51/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFVE-A - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 11/2 H C	055863	SAME	MEDIUM TEMP
EBFVE-A - Z	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 11/2 H Z	NONE	SAME	LOW - TEMP
EBFVE-AA - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 1 H C	055708	1 TON R22	MEDIUM TEMP
EBFVE-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 1/2 HC	055827	SAME	MEDIUM TEMP
EBFVE-B - C	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 21/2 H C	055931	21/2 TON R22	MEDIUM TEMP
EBFVE-B - GA	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 21/2 HCA	NONE	21/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFVE-C - C	TXV	51/4 TON R22	1/2 X 5/8 ODF	HFES 51/2 H C	054778	51/2 TON R22	MEDIUM TEMP
EBFVE-C - GA	TXV	51/4 TON R22	1/2 X 5/8 ODF	HFES 51/2 HCA	057378	51/2 TON R22	MEDIUM TEMP
EBSJE 5 - C	TXV	5 TON R134	1/2 X 5/8 ODF	HFES 6 MC	057903	6 TON R134	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EBSJE 7 - C	TXV	7 TON R134	5/8 X 7/8 ODF	HFES 71/2 MC	057904	71/2 TON R134	MEDIUM TEMP
EBSRE 71/2 - C	TXV	71/2 TON R502	5/8 X 7/8 ODF	HFES 7 RC	058607	7 TON R502	MEDIUM TEMP
EBSSE 71/2 - C	TXV	71/2 TON R404	5/8 X 7/8 ODF	HFES 7 RC	058607	7 TON R404	MEDIUM TEMP
EBSVE 11 - CP100	TXV	11 TON R22	5/8 X 7/8 ODF 5'	HFES 10 HW100	058159	10 TON R22	MEDIUM TEMP
EBSVE 11 - GA	TXV	11 TON R22	5/8 X 7/8 ODF 5'	HFES 10 HCA	056821	10 TON R22	MEDIUM TEMP
EBSVE 15 - C	TXV	15 TON R22	5/8 X 7/8 ODF 5'	HFES 15 HC	057317	15 TON R22	MEDIUM TEMP
EBSVE 15 - CP100	TXV	15 TON R22	5/8 X 7/8 ODF 5'	HFES 15 HW100	062396	15 TON R22	MEDIUM TEMP
EBSVE 15 - GA	TXV	15 TON R22	7/8 X 1 1/8 ODF 5'	HFES 15 HCA	056825	15 TON R22	MEDIUM TEMP
EBSVE 20 - C	TXV	20 TON R22	7/8 X 1 1/8 ODF 5'	HFES 20 HC	062055	20 TON R22	MEDIUM TEMP
EBSVE 20 - CP100	TXV	20 TON R22	7/8 X 1 1/8 ODF 5'	HFES 20 HW100	062229	20 TON R22	MEDIUM TEMP
EBSVE 20 - GA	TXV	20 TON R22	7/8 X 1 1/8 ODF 5'	HFES 20 HCA	058490	20 TON R22	MEDIUM TEMP
EBSVE 8 - C	TXV	8 TON R22	5/8 X 7/8 ODF 5'	HFES 8 HC	057313	SAME	MEDIUM TEMP
EBSVE 8 - CP100	TXV	8 TON R22	5/8 X 7/8 ODF 5'	HFES 8 HW100	057354	SAME	MEDIUM TEMP
EBSVE 8 - GA	TXV	8 TON R22	5/8 X 7/8 ODF 5'	HFES 8 HCA	056819	SAME	MEDIUM TEMP
EFF 1 C	TXV	1 TON R12	1/4 X 1/2 ODF - 30°	AA 1 FC	NONE	SAME	MEDIUM TEMP
EFF 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 ODF - 30°	AA 1/2 FC	NONE	SAME	MEDIUM TEMP
EFF 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 ODF - 30°	AA 1/4 FC	048986	1/4 X 3/8 ODF	MEDIUM TEMP
EFF 11/2 C	TXV	11/2 TON R12	1/4 X 1/2 ODF - 30°	AA 11/2 FC	NONE	SAME	MEDIUM TEMP
EFFE 1 - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30°	AAE 1 FC	NONE	SAME	MEDIUM TEMP
EFFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 ODF - 30°	AAE 1/2 FC	NONE	SAME	MEDIUM TEMP
EFFE 1/4 C	TXV	1/4 TON R12	1/4 X 1/2 ODF - 30°	AAE 1/4 FC	048986	1/4 X 3/8 ODF	MEDIUM TEMP
EFFE 11/2 C	TXV	11/2 TON R12	1/4 X 1/2 ODF - 30°	AAE 11/2 FC	NONE	SAME	MEDIUM TEMP
EFFE 2C	TXV	2 TON R12	3/8 X 1/2 ODF - 30°	AAE 2 FC	NONE	SAME	MEDIUM TEMP
EFJ 1/2 - C	TXV	1/2 TON R134	1/4 X 1/2 ODF - 30°	AA 1/2 MC	NONE	SAME	MEDIUM TEMP
EFJ 1/4 - C	TXV	1/4 TON R134	1/4 X 1/2 ODF - 30°	AA 1/4 MC	NONE	SAME	MEDIUM TEMP
EFJ 11/2 C	TXV	11/2 TON R134	1/4 X 1/2 ODF - 30°	AA 11/2 MC	NONE	SAME	MEDIUM TEMP
EFJ 1C	TXV	1 TON R134	1/4 X 1/2 ODF - 30°	AA 1 MC	NONE	SAME	MEDIUM TEMP
EFJE 1 - C	TXV	1 TON R134	3/8 X 1/2 ODF - 30°	AAE 1 MC 3/8 X 1/2 ODFS/T-5FT	065631	SAME	MEDIUM TEMP
EFJE 1/2 - C	TXV	1/2 TON R134	1/4 X 1/2 ODF - 30°	AAE 1/2 MC 1/4 X 1/2 ODFS/T-5FT	065630	SAME	MEDIUM TEMP
EFJE 1/4 C	TXV	1/4 TON R134	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFJE 11/2 C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFJE 2C	TXV	2 TON R134	3/8 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFR 1/2C	TXV	1/2 TON R502	1/4 X 1/2 ODF - 30°	AA 1/2 SC 1/4 X 1/2 ODFS/T-5FT	063504	SAME	MEDIUM TEMP
EFR 1/4 C	TXV	1/4 TON R502	1/4 X 1/2 ODF - 30°	AA 1/4 SC 1/4 X 1/2 ODFS/T	063503	SAME	MEDIUM TEMP
EFR 11/2C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFRE 1 C	TXV	1 TON R502	1/4 X 1/2 ODF - 30°	HF 1 SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
EFRE 1/2 C	TXV	1/2 TON R502	1/4 X 1/2 ODF - 30°	HFES 1/2 3/8 X 1/2 ODFS/T	056022	SAME	MEDIUM TEMP
EFRE 1/4 C	TXV	1/4 TON R502	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFRE 11/2 C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30°	AAE 11/2 RC 3/8 X 1/2 ODFS/T	056031	SAME	MEDIUM TEMP
EFRE 2C	TXV	2 TON R502	3/8 X 1/2 ODF - 30°	AAE 2 SC 3/8 X 1/2 ODFS/T	065330	SAME	MEDIUM TEMP
EFS 1 C	TXV	1 TON R404	1/4 X 1/2 ODF - 30°	HF 1 SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
EFS 1/2 C	TXV	1/2 TON R404	1/4 X 1/2 ODF - 30°	AA 1/2 SC 1/4 X 1/2 ODFS/T	063504	SAME	MEDIUM TEMP
EFS 1/4 C	TXV	1/4 TON R404	1/4 X 1/2 ODF - 30°	AA 1/4 SC 1/4 X 1/2 ODFS/T	063503	SAME	MEDIUM TEMP
EFS 11/2 C	TXV	11/2 TON R404	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 30°	AAE 1 SZ 3/8 X 1/2 ODFS/T-5FT	065183	SAME	LOW - TEMP
EFSE 1/2 - ZP	TXV	1/2 TON R404	1/4 X 1/2 ODF - 30°	AAE 1/2 SZ 3/8 X 1/2 ODFS/T-5FT	065687	SAME	LOW - TEMP
EFSE 1/4 C	TXV	1/4 TON R404	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFSE 11/2 C	TXV	11/2 TON R404	1/4 X 1/2 ODF - 30°	AAE 11/2 SC 3/8 X 1/2 ODFS/T	057974	SAME	MEDIUM TEMP
EFSE 2C	TXV	2 TON R404	3/8 X 1/2 ODF - 30°	AAE 2 SC 3/8 X 1/2 ODFS/T	065330	SAME	MEDIUM TEMP
EFV 1/2 - C	TXV	1/2 TON R22	1/4 X 1/2 ODF - 30°	AA 1/2 HC 1/4 X 1/2 ODFS/T-5FT	065626	SAME	MEDIUM TEMP
EFV 1/3 - C	TXV	1/3 TON R22	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFV 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 ODF - 30°	AA 1/4 HC	056315	1/4 X 3/8 ODF	MEDIUM TEMP
EFV 1/4 - C	TXV	1/4 TON R22	1/4 X 3/8 ODF - 30°	AA 1/4 HC	056315	SAME	MEDIUM TEMP
EFV 11/2C	TXV	11/2 TON HC	1/4 X 1/2 ODF - 30°	AA 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	MEDIUM TEMP
EFV 1C	TXV	1 TON R22	1/4 X 1/2 ODF - 30°	AA 1 HC 3/8 X 1/2 ODFS/T	055928	SAME	MEDIUM TEMP
EFV 21/2C	TXV	21/2 TON HC	3/8 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EFVE 1 - C	TXV	1 TON R22	1/4 X 1/2 ODF - 30°	AAE 1 HC 1/4 X 1/2 ODFS/T-5FT	065634	SAME	MEDIUM TEMP
EFVE 1 - C	TXV	1 TON R22	3/8 X 1/2 ODF - 30°	AAE 1 HC 3/8 X 1/2 ODFS/T-5FT	065635	SAME	MEDIUM TEMP
EFVE 1/2 - C	TXV	1/2 TON R22	1/4 X 1/2 ODF - 30°	AAE 1/2 HC 1/4 X 1/2 ODFS/T-5FT	065632	SAME	MEDIUM TEMP
EFVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 30°	AAE 1/2 HC 3/8 X 1/2 ODFS/T-5FT	065633	SAME	MEDIUM TEMP
EFVE 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30°	AAE 11/2 HC 3/8 X 1/2 ODFS/T-5FT	064424	SAME	MEDIUM TEMP
EFVE 2 - C	TXV	2 TON R22	3/8 X 1/2 ODF - 30°	AAE 2 HC 3/8 X 1/2 ODFS/T-5FT	064425	SAME	MEDIUM TEMP
EFVE 3 - C	TXV	3 TON R22	3/8 X 1/2 ODF - 30°	AAE 3 HC 3/8 X 1/2 ODFS/T-5FT	062376	SAME	MEDIUM TEMP
EGF 1/2C	TXV	11/2 TON R134	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP
EGF 1/4C	TXV	1 TON R134	1/4 X 1/2 ODF - 30°	NONE	NONE	NONE	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EGF 1/8 C	TXV	1/8 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGF 1/2 C	TXV	1/2 TON R12	3/8 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGF 1C	TXV	1 TON R12	1/4 X 3/8 ODF - 30"	HFS 1 FC 3/8 X 1/2 ODFS/T	056119	SAME	MEDIUM TEMP
EGFE 1 C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HFS 1 FC 3/8 X 1/2 ODFS/T	056119	SAME	MEDIUM TEMP
EGFE 1/2 C	TXV	1/2 TON R12	1/4 X 3/8 ODF - 30"	HFES 1/2 FC 3/8 X 1/2 ODFS/T	056331	SAME	MEDIUM TEMP
EGFE 1/4 C	TXV	1/4 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGFR 1/8 C	TXV	1/8 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGFE 11/2 C	TXV	11/2 TON R12	3/8 X 1/2 ODF - 30"	HFES 11/2 FC 3/8 X 1/2 ODFANG	05594	SAME	MEDIUM TEMP
EGFE 2 C	TXV	2 TON R12	3/8 X 1/2 ODF - 30"	HFES 2 FC 3/8 X 1/2 ODFS/T	053266	SAME	MEDIUM TEMP
EGJ 1 C	TXV	1 TON R134	3/8 X 1/2 ODF - 30"	HFS 1 MC 3/8 X 1/2 ODFS/T	065641	SAME	MEDIUM TEMP
EGJ 1/2 C	TXV	1/2 TON R134	1/4 X 3/8 ODF - 30"	HFS 1/2 MC 3/8 X 1/2 ODFS/T	058100	SAME	MEDIUM TEMP
EGJ 1/4 C	TXV	1/4 TON R134	1/4 X 3/8 ODF - 30"	HFS 1/4 MC	058545	SAME	MEDIUM TEMP
EGJ 11/2 C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 30"	HFES 11/2 MC	NONE	SAME	MEDIUM TEMP
EGJE 1 - C	TXV	1 TON R134	3/8 X 1/2 ODF - 5"	HFES 1 MC	058546	SAME	MEDIUM TEMP
EGJE 1/2 C	TXV	1/2 TON R134	1/4 X 3/8 ODF - 30"	HFES 1/2 MC 3/8 X 1/2 ODFS/T	065645	SAME	MEDIUM TEMP
EGJE 1/4 C	TXV	1/4 TON R134	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGJE 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGJE 2 C	TXV	2 TON R134	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGR 1 C	TXV	1 TON R502	3/8 X 1/2 ODF - 5"	HFS 1SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
EGR 1/2 C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGR 1/4 C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5"	HFS 1/4 RC 3/8 X 1/2 ODFANG	055490	SAME	MEDIUM TEMP
EGR 11/2 C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGRE 1 C	TXV	1 TON R502	3/8 X 1/2 ODF - 5"	HFES 1 RC	056029	SAME	MEDIUM TEMP
EGRE 1/2C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5"	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EGRE 1/4 C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5"	HFES 1/4 RC	NONE	SAME	MEDIUM TEMP
EGRE 11/2 C	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5"	HFES 11/2 RC	056031	SAME	MEDIUM TEMP
EGRE 2 C	TXV	2 TON R502	3/8 X 1/2 ODF - 5"	HFES 2 RC	053270	SAME	MEDIUM TEMP
EGS 1 C	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HFS 1SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
EGS 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGS 1/4 - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGS 1/4 - Z	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	LOW - TEMP
EGS 11/2 C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGSE 1 - C	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HFES 1 SC 3/8 X 1/2 ODFS/T	065650	SAME	MEDIUM TEMP
EGSE 1 - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HFES 1 SZ 3/8 X 1/2 ODFS/T	064289	SAME	LOW - TEMP
EGSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HFES 1 SW45	059086	SAME	LOW - TEMP
EGSE 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 1/2 SC 3/8 X 1/2 ODFANG	058976	SAME	MEDIUM TEMP
EGSE 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 1/2 SZ 3/8 X 1/2 ODFS/T	065735	SAME	LOW - TEMP
EGSE 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 1/2 SW45 3/8 X 1/2 ODFS/T	065736	SAME	LOW - TEMP
EGSE 1/4 - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGSE 1/4 - Z	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	HFES 1/4 SZ 3/8 X 1/2 ODFS/T	065733	SAME	LOW - TEMP
EGSE 11/2 - C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 11/2 SC 3/8 X 1/2 ODFS/T	057974	SAME	MEDIUM TEMP
EGSE 11/2 - Z	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 11/2 SZ 3/8 X 1/2 ODFS/T	064290	SAME	LOW - TEMP
EGSE 11/2 - ZP	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HFES 11/2 SW45 3/8 X 1/2 ODFS/T	065738	SAME	LOW - TEMP
EGSE 2 - C	TXV	2 TON R404	3/8 X 1/2 ODF - 5"	HFES 2 SC 3/8 X 1/2 ODFS/T	057958	SAME	MEDIUM TEMP
EGSE 2 - ZP	TXV	2 TON R404	3/8 X 1/2 ODF - 5"	HFES 2 SW45 3/8 X 1/2 ODFS/T	065740	SAME	LOW - TEMP
EGV 1/2 -C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HFS 1/2 H C	054136	SAME	MEDIUM TEMP
EGV 1/3 - C	TXV	1/3 TON R22	3/8 X 1/2 ODF - 5"	HFS 1/3 HC	055633	1/4 TON R22	MEDIUM TEMP
EGV 1/5 - C	TXV	1/5 TON R22	3/8 X 1/2 ODF - 5"	HFS 1/4 H C	055633	1/4 TON R22	MEDIUM TEMP
EGV 11/2 C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HFS 11/2 HC	056018	SAME	MEDIUM TEMP
EGV 1C	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HFS 1 HC	055702	SAME	MEDIUM TEMP
EGV 21/2C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5"	HFS 3 HC	053915	3 TON R22	MEDIUM TEMP
EGVE - 3/4 - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HFES 1 HC	055708	1 TON R22	MEDIUM TEMP
EGVE - 3/4 - Z	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HFES 3/4 HZ	NONE	SAME	LOW TEMP
EGVE - 3/4 - ZP40	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HFES 3/4 HW35	NONE	SAME	LOW TEMP
EGVE 1 - C	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HFES 1 H C	055708	SAME	MEDIUM TEMP
EGVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HFES 1 H Z	NONE	SAME	LOW TEMP
EGVE 1 - ZP	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HFES 1 HW35	NONE	SAME	LOW TEMP
EGVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HFES 1/2 H C	055827	SAME	MEDIUM TEMP
EGVE 1/2 - Z	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HFES 1/2 H Z	055889	SAME	LOW TEMP
EGVE 1/3 C	TXV	1/3 TON R22	3/8 X 1/2 ODF - 5"	HFES 3/4 HC	NONE	SAME	MEDIUM TEMP
EGVE 1/5 - C	TXV	1/5 TON R22	3/8 X 1/2 ODF - 5"	HFES 1/4 H C	055927	1/4 TON R22	MEDIUM TEMP
EGVE 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HFES 11/2 H C	055863	SAME	MEDIUM TEMP
EGVE 11/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HFES 11/2 H Z	NONE	SAME	LOW TEMP
EGVE 11/2 - ZP40	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HFES 11/2 HW35	NONE	SAME	MEDIUM TEMP
EGVE 2 - C	TXV	2 TON R22	3/8 X 1/2 ODF - 5"	HFES 2 HC	055706	SAME	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EGVE 2 - Z	TXV	2 TON R22	3/8 X 1/2 ODF - 5'	HFES 2 HZ	NONE	SAME	LOW TEMP
EGVE 21/2 C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 21/2 HC	055931	SAME	MEDIUM TEMP
EGVE 3 - C	TXV	3 TON R22	3/8 X 1/2 ODF - 5'	HFES 3 HC	053916	SAME	MEDIUM TEMP
EMC 10 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
EMC 10 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/4 MC	058545	SAME	MEDIUM TEMP
EMC 10 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
EMC 10 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFS 1/4 SC	NONE	SAME	MEDIUM TEMP
EMC 10 V - C	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1/4 HC	055633	SAME	MEDIUM TEMP
EMC 11 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056063	SAME	MEDIUM TEMP
EMC 11 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/2 MC	NONE	SAME	MEDIUM TEMP
EMC 11 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	NONE	SAME	MEDIUM TEMP
EMC 11 S - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFS 1/2 SZ	NONE	SAME	MEDIUM TEMP
EMC 11 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055702	SAME	MEDIUM TEMP
EMC 12 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	NONE	1 TON R12	MEDIUM TEMP
EMC 12 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFS 1 MC	NONE	SAME	MEDIUM TEMP
EMC 12 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFS 1 RC	NONE	SAME	MEDIUM TEMP
EMC 12 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFS 1 SC	NONE	SAME	MEDIUM TEMP
EMC 12 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 11/2 HC	056018	11/2 TON R22	MEDIUM TEMP
EMC 13 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	NONE	SAME	MEDIUM TEMP
EMC 13 JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 11/2 MC	NONE	11/2 TON R134	MEDIUM TEMP
EMC 13 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFS 11/4 RC	NONE	SAME	MEDIUM TEMP
EMC 13 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFS 11/4 SC	NONE	SAME	MEDIUM TEMP
EMC 13 VC	TXV	13/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 2 HC	NONE	2 TON R22	MEDIUM TEMP
EMC 20 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
EMC 20 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1/4 MC	NONE	SAME	MEDIUM TEMP
EMC 20 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1/4 RC	NONE	SAME	MEDIUM TEMP
EMC 20 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1/4 SC	NONE	SAME	MEDIUM TEMP
EMC 20 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFSB 1/4 HC	NONE	SAME	MEDIUM TEMP
EMC 21 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/2 FC	NONE	SAME	MEDIUM TEMP
EMC 21 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1/2 MC	NONE	SAME	MEDIUM TEMP
EMC 21 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1/2 RC	NONE	SAME	MEDIUM TEMP
EMC 21 SC	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1/2 SC	NONE	SAME	MEDIUM TEMP
EMC 21 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFSB 1 HC	NONE	SAME	MEDIUM TEMP
EMC 22 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/2 FC	NONE	1/2 TON R12	MEDIUM TEMP
EMC 22 JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFSB 3/4 MC	NONE	SAME	MEDIUM TEMP
EMC 22 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1 RC	NONE	SAME	MEDIUM TEMP
EMC 22 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1 SC	NONE	SAME	MEDIUM TEMP
EMC 22 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFSB 11/2 HC	NONE	11/2 TON R22	MEDIUM TEMP
EMC 23 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1 FC	NONE	SAME	MEDIUM TEMP
EMC 23 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1 MC	NONE	SAME	MEDIUM TEMP
EMC 23 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFSB 11/4 RC	NONE	SAME	MEDIUM TEMP
EMC 23 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFSB 11/4 SC	NONE	SAME	MEDIUM TEMP
EMC 23 VC	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5'	HFSB 11/2 HC	NONE	SAME	MEDIUM TEMP
EMCE 10 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
EMCE 10 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/4 MC	NONE	SAME	MEDIUM TEMP
EMCE 10 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
EMCE 10 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFES 1/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 10 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1/4 H C	055927	SAME	MEDIUM TEMP
EMCE 11 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056021	SAME	MEDIUM TEMP
EMCE 11 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/2 MC	NONE	SAME	MEDIUM TEMP
EMCE 11 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EMCE 11 S - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFES 1/2 SZ	NONE	SAME	MEDIUM TEMP
EMCE 11 V - Z	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HZ	NONE	SAME	MEDIUM TEMP
EMCE 12 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	055993	1 TON R12	MEDIUM TEMP
EMCE 12 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFES 1 MC	058546	SAME	MEDIUM TEMP
EMCE 12 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFES 1 RC	056029	SAME	MEDIUM TEMP
EMCE 12 S - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFES 1 SZ	NONE	SAME	MEDIUM TEMP
EMCE 12 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 11/2 HC	055994	11/2 TON R22	MEDIUM TEMP
EMCE 13 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	055993	SAME	MEDIUM TEMP
EMCE 13 JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 11/2 MC	NONE	11/2 TON R134	MEDIUM TEMP
EMCE 13 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFES 11/4 RC	NONE	SAME	MEDIUM TEMP
EMCE 13 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFES 11/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 13 VC	TXV	13/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 2 HC	055706	2 TON R22	MEDIUM TEMP
EMCE 20 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFESB 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
EMCE 20 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFESB 1/4 MC	NONE	SAME	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EMCE 20 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1/4 RC	NONE	SAME	MEDIUM TEMP
EMCE 20 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 20 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1/4 HC	NONE	SAME	MEDIUM TEMP
EMCE 21 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1/2 FC	NONE	SAME	MEDIUM TEMP
EMCE 21 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFESB 1/2 MC	NONE	SAME	MEDIUM TEMP
EMCE 21 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1/2 RC	NONE	SAME	MEDIUM TEMP
EMCE 21 SC	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1/2 SC	NONE	SAME	MEDIUM TEMP
EMCE 21 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1 HC	NONE	SAME	MEDIUM TEMP
EMCE 22 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1/2 FC	NONE	1/2 TON R12	MEDIUM TEMP
EMCE 22 JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFESB 3/4 MC	NONE	SAME	MEDIUM TEMP
EMCE 22 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1 RC	NONE	SAME	MEDIUM TEMP
EMCE 22 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1 SC	NONE	SAME	MEDIUM TEMP
EMCE 22 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFESB 11/2 HC	NONE	11/2 TON R22	MEDIUM TEMP
EMCE 23 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1 FC	NONE	SAME	MEDIUM TEMP
EMCE 23 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFESB 1 MC	NONE	SAME	MEDIUM TEMP
EMCE 23 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFESB 11/4 RC	NONE	SAME	MEDIUM TEMP
EMCE 23 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFESB 11/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 23 VC	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5'	HFESB 11/2 HC	NONE	SAME	MEDIUM TEMP
EQ-0-FC	TXV	1/5 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/8 FC	056471	1/8 TON R12	HF IS BALANCED PORT
EQ-0-JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/4 MC	058545	SAME	HF IS BALANCED PORT
EQ-0-RC	TXV	1/5 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/4 RC	056010	1/4 TON R502	HF IS BALANCED PORT
EQ-0-VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1/4 HC	055633	SAME	HF IS BALANCED PORT
EQ-1-FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056013	SAME	HF IS BALANCED PORT
EQ-1-JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/2 MC	057946	SAME	HF IS BALANCED PORT
EQ-1-RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	055701	SAME	HF IS BALANCED PORT
EQ-1-VC	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055928	1 TON R22	HF IS BALANCED PORT
EQ-2-FC	TXV	5/8 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056013	1/2 TON R12	HF IS BALANCED PORT
EQ-2-JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 3/4 MC	058151	SAME	HF IS BALANCED PORT
EQ-2-RC	TXV	5/8 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	055701	1/2 TON R502	HF IS BALANCED PORT
EQ-2-VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055928	SAME	HF IS BALANCED PORT
EQ-3-FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	056119	SAME	HF IS BALANCED PORT
EQ-3-JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 11/2 MC	NONE	11/2 TON R134	HF IS BALANCED PORT
EQ-3-RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFS 1 RC	056016	SAME	HF IS BALANCED PORT
EQ-3-VC	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 11/2 HC	056018	SAME	HF IS BALANCED PORT
EQ-4-FC	TXV	11/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 11/2 FC	NONE	SAME	HF IS BALANCED PORT
EQ-4-JC	TXV	11/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 11/2 MC	NONE	SAME	HF IS BALANCED PORT
EQ-4-RC	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 11/2 RC	055985	SAME	HF IS BALANCED PORT
EQ-4-VC	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 21/2 HC	056147	SAME	HF IS BALANCED PORT
EQ-5-FC	TXV	2 TON R12	3/8 X 1/2 ODF - 5'	HFS 2 FC	NONE	SAME	HF IS BALANCED PORT
EQ-5-JC	TXV	21/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 21/2 MC	NONE	SAME	HF IS BALANCED PORT
EQ-5-RC	TXV	2 TON R502	3/8 X 1/2 ODF - 5'	HFS 2 RC	054837	SAME	HF IS BALANCED PORT
EQ-5-VC	TXV	31/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 3 HC	053915	3 TON R22	HF IS BALANCED PORT
EQ-6-RC	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFS 3 RC	053915	SAME	HF IS BALANCED PORT
EQ-6-VC	TXV	5 TON R22	3/8 X 1/2 ODF - 5'	HFS 51/2 HC	055840	51/2 TON R22	HF IS BALANCED PORT
EQE-0-FC	TXV	1/5 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/8 FC	057237	1/8 TON R12	HF IS BALANCED PORT
EQE-0-JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/4 MC	058544	SAME	HF IS BALANCED PORT
EQE-0-RC	TXV	1/5 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/4 RC	055092	1/4 TON R502	HF IS BALANCED PORT
EQE-0-VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1/4 HC	055927	SAME	HF IS BALANCED PORT
EQE-1-FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056331	SAME	HF IS BALANCED PORT
EQE-1-JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/2 MC	057945	SAME	HF IS BALANCED PORT
EQE-1-RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	SAME	HF IS BALANCED PORT
EQE-1-VC	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HC	055708	1 TON R22	HF IS BALANCED PORT
EQE-2-FC	TXV	5/8 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056331	1/2 TON R12	HF IS BALANCED PORT
EQE-2-JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 3/4 MC	059422	SAME	HF IS BALANCED PORT
EQE-2-RC	TXV	5/8 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	1/2 TON R502	HF IS BALANCED PORT
EQE-2-VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HC	055708	SAME	HF IS BALANCED PORT
EQE-3-FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	056151	SAME	HF IS BALANCED PORT
EQE-3-JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 11/2 MC	058543	11/2 TON R134	HF IS BALANCED PORT
EQE-3-RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFES 1 RC	056029	SAME	HF IS BALANCED PORT
EQE-3-VC	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 11/2 HC	055863	SAME	HF IS BALANCED PORT
EQE-4-FC	TXV	11/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 11/2 FC	056030	SAME	HF IS BALANCED PORT
EQE-4-JC	TXV	11/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 11/2 MC	058543	SAME	HF IS BALANCED PORT
EQE-4-RC	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 11/2 RC	056170	SAME	HF IS BALANCED PORT
EQE-4-VC	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 21/2 HC	055931	SAME	HF IS BALANCED PORT
EQE-5-FC	TXV	2 TON R12	3/8 X 1/2 ODF - 5'	HFES 2 FC	053266	SAME	HF IS BALANCED PORT

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EQE-5-JC	TXV	21/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 21/2 MC	064542	SAME	HF IS BALANCED PORT
EQE-5-RC	TXV	2 TON R502	3/8 X 1/2 ODF - 5'	HFES 2 RC	053270	SAME	HF IS BALANCED PORT
EQE-5-VC	TXV	31/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 3 HC	058280	3 TON R22	HF IS BALANCED PORT
EQE-6-RC	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFES 3 RC	053916	SAME	HF IS BALANCED PORT
EQE-6-VC	TXV	5 TON R22	5/8 X 7/8 ODF - 5'	HFES 51/2 HC	054779	51/2 TON R22	HF IS BALANCED PORT
FF 1 - C	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 F C	047758	SAME	
FF 1 - Z	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 F Z	NONE	SAME	
FF 1/2 - C	TXV	1/2 TON R12	1/4 X 3/8 SAE 30"	AFA 1/2 FC	057028	3/8 X 3/8 SAE - 5'	
FF 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FC	047752	1/4 X 3/8 SAE	
FF 1/2 - C	TXV	1/2 TON R12	3/8 X 1/2 SAE - 30"	AFA 1/2 FC	057027	SAME	
FF 1/2 Z	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FZ	048685	1/4 X 3/8 SAE	
FF 1/2 ZP	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FW 15	NONE	SAME	
FF 1/4 - C	TXV	1/4 TON R12	1/4 X 3/8 SAE 30"	AFA 1/4 FC	047753	SAME	
FF 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FC	057047	1/4 X 3/8 SAE	
FF 1/4 - C	TXV	1/4 TON R12	3/8 X 1/2 SAE - 30"	AFA 1/4 FC	054258	3/8 X 3/8 SAE - 5'	
FF 1/4 - Z	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FZ	NONE	SAME	
FF 1/4 - ZP	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FW 15	NONE	SAME	
FF 1/8C	TXV	1/8 TON R12	1/4 X 1/2 SAE 30"	AFA 1/8 FC	NONE	SAME	
FF 11/2C	TXV	11/2 TON R12	3/8 X 1/2 SAE 30"	AFA 11/2 FC	NONE	SAME	
FFE 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FC	057048	3/8 X 3/8 SAE 30"	
FFE 1 - Z	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FZ	NONE	SAME	
FFE 1 - ZP	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FW 15	NONE	SAME	
FFE 1 1/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 30"	AFAE 11/2 FC	NONE	SAME	
FFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FC	057023	1/4 X 3/8 SAE 30"	
FFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FC	057023	1/4 X 3/8 SAE 30"	
FFE 1/2 - Z	TXV	1/2 TON R12	3/8 X 1/2 SAE 30"	AFAE 1/2 FZ	NONE	SAME	
FFE 1/2 - ZP	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FW 15	NONE	SAME	
FFE 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/4 FC	054240	1/4 X 3/8 SAE 5'	
FFE 2 - C	TXV	2 TON R12	3/8 X 1/2 SAE 30"	AFAE 2 FC	NONE	SAME	
FJ 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 30"	AFA 1 MC	NONE	SAME	
FJ 1/2 - C	TXV	1/2 TON R134	1/4 X 3/8 SAE 30"	AFA 1/2 MC	057606	SAME	
FJ 1/2 - C	TXV	1/2 TON R134	1/4 X 1/2 SAE 30"	AFA 1/2 MC	057606	1/4 X 3/8 SAE 30"	
FJ 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE - 30"	AFA 1/2 MC	059625	3/8 X 3/8 SAE 30"	
FJ 1/4 - C	TXV	1/4 TON R134	1/4 X 3/8 SAE 30"	AFA 1/4 MC	057607	SAME	
FJ 1/4 - C	TXV	1/4 TON R134	1/4 X 1/2 SAE 30"	AFA 1/4 MC	057607	1/4 X 1/2 SAE 30"	
FJ 1/4 - C	TXV	1/4 TON R134	3/8 X 1/2 SAE - 30"	AFA 1/4 MC	057607	1/4 X 1/2 SAE 30"	
FJ 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 30"	AFA 11/2 MC	NONE	SAME	
FJE 1/2C	TXV	1/2 TON R134	1/4 X 1/2 SAE 30"	AFAE 1/2 MC	NONE	SAME	
FJE 1/4C	TXV	1/4 TON R134	1/4 X 1/2 SAE 30"	AFAE 1/4 MC	NONE	SAME	
FJE 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 30"	AFAE 11/2 MC	NONE	SAME	
FJE 1C	TXV	1 TON R134	3/8 X 1/2 SAE - 30"	AFAE 1 MC	057613	3/8 X 1/2 SAE 30"	
FJE 2C	TXV	2 TON R134	3/8 X 1/2 SAE - 30"	AFAE 2 MC	NONE	SAME	
FR 1/2C	TXV	1/2 TON R502	1/4 X 3/8 SAE 5'	AFA 1/2 RC	048431	SAME	
FR 1/4C	TXV	FR 1/4C	1/4 TON R502	1/4 X 3/8 SAE 5'	AFA 1/4 RC 1/4 X 3/8 SAE	049871	SAME
FR 11/2C	TXV	FR 11/2C	11/2 TON R502	3/8 X 1/2 SAE - 30"	HF 1-1/2 RC 3/8 X 1/2 SAE	054984	SAME
FR 1C	TXV	FR 1C	1 TON R502	3/8 X 1/2 SAE - 30"	HF 1 RC 3/8 X 1/2 SAE	NONE	SAME
FRE 1/2C	TXV	FRE 1/2C	1/2 TON R502	1/4 X 3/8 SAE 30"	HFE 1/2 RC 3/8 X 1/2 SAE	054967	SAME
FRE 1/4C	TXV	FRE 1/4C	1/4 TON R502	1/4 X 3/8 SAE 30"	HFE 1/4 RC 3/8 X 1/2 SAE	054366	SAME
FRE 11/2C	TXV	FRE 11/2C	11/2 TON R502	3/8 X 1/2 SAE - 30"	HFE 1-1/2 RC 3/8 X 1/2 SAE	054988	SAME
FRE 1C	TXV	FRE 1C	1 TON R502	3/8 X 1/2 SAE - 30"	HFE 1 RC 3/8 X 1/2 SAE	054979	SAME
FRE 2C	TXV	FRE 2C	2 TON R502	3/8 X 1/2 SAE - 30"	HFE 2 RC 3/8 X 1/2 SAE	053070	SAME
FS 1/2 - C	TXV	FS 1/2 - C	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 1/2 - Z	TXV	FS 1/2 - Z	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 1/2 - ZP	TXV	FS 1/2 - ZP	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 1/4 - C	TXV	FS 1/4 - C	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 1/4 - Z	TXV	FS 1/4 - Z	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 1/4 - ZP	TXV	FS 1/4 - ZP	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
FS 11/2C	TXV	FS 11/2C	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FS1 - ZP	TXV	FS1 - ZP	1 TON R404	3/8 X 2/1 SAE 30"	NONE	NONE	NONE
FSE 1 - C	TXV	FSE 1 - C	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FSE 1 - Z	TXV	FSE 1 - Z	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FSE 1 - ZP	TXV	FSE 1 - ZP	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FSE 1 1/2 - Z	TXV	FSE 1 1/2 - Z	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FSE 1 1/2 - ZP	TXV	FSE 1 1/2 - ZP	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
FSE 1/2 - C	TXV	FSE 1/2 - C	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
FSE 1/2 - Z	TXV	FSE 1/2 - Z	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 1/2 - ZP	TXV	FSE 1/2 - ZP	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 1/4 - ZP	TXV	FSE 1/4 - ZP	1/4 R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 2 - Z	TXV	FSE 2 - Z	2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	
FSE 2 - ZP	TXV	FSE 2 - ZP	1/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	
FV 1 - C	TXV	1 TON R22	1/4 X 1/2 SAE 30"	AFA 1 HC	054231	3/8 X 3/8 SAE 5'	
FV 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFA 1 HC	054231	3/8 X 3/8 SAE 5'	
FV 1/2 - C	TXV	1/2 TON R22	1/4 X 1/2 SAE 30"	AFA 1/2 HC	057260	1/4 X 3/8 SAE 30"	
FV 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE 30"	AFA 1/2 HC	057260	1/4 X 3/8 SAE 30"	
FV 1/3 - C	TXV	1/3 TON R22	1/4 X 1/2 SAE 30"	AFA 1/3 HC	NONE	SAME	
FV 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 SAE 30"	AFA 1/4 HC	057261	1/4 X 3/8 SAE 30"	
FV 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFA 11/2 HC	054232	3/8 X 3/8 SAE 5'	
FV 2C	TXV	2 TON R22	3/8 X 1/2 SAE 30"	AFA 2 HC	054233	3/8 X 3/8 SAE 5'	
FVE 1 - C	TXV	1 TON R22	1/4 X 1/2 SAE 30"	AFAE 1 HC	054246	3/8 X 3/8 SAE 5'	
FVE 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFAE 1 HC	054246	3/8 X 3/8 SAE 5'	
FVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFAE 1 HZ	NONE	SAME	
FVE 1 1/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 11/2 HC	054232	3/8 X 3/8 SAE 5'	
FVE 1 1/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 11/2 HZ	NONE	SAME	
FVE 1/2 - C	TXV	1/2 TON R22	1/4 X 3/8 SAE 5'	AFAE 1/2 HC	054243	SAME	
FVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 1/2 HC	054243	1/4 X 3/8 SAE 5'	
FVE 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 SAE 30"	AFAE 1/4 HC	NONE	SAME	
FVE 2 - C	TXV	2 TON R22	3/8 X 1/2 SAE 30"	AFAE 2 HC	054248	3/8 X 3/8 SAE 5'	
FVE 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE 30"	AFAE 3 HC	054249	3/8 X 3/8 SAE 5'	
GF 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HF 1 F C	054905	SAME	
GF 1/2 - C	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HF 1/2 F C	054892	SAME	
GF 1/4C	TXV	1/4 TON R12	1/4 X 1/2 SAE 5'	HF 1/4 FC	009811	SAME	
GF 1/8C	TXV	1/8 TON R12	3/8 X 1/2 SAE 5'	HF 1/8 FC	NONE	SAME	
GF 11/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HF 11/2 F C	054914	SAME	
GFE 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 F C	054909	SAME	
GFE 1 - Z	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 F Z	NONE	SAME	
GFE 1 - ZP	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 FW15	NONE	SAME	
GFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 5'	HFE 1/2 F C	009955	SAME	
GFE 1/2 - Z	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HFE 1/2 F Z	NONE	SAME	
GFE 1/2 - ZP	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HFE 1/2 FW15	NONE	SAME	
GFE 1/4C	TXV	1/4 TON R12	3/8 X 1/2 SAE 5'	HFE 1/4 HC	054924	SAME	
GFE 1/8C	TXV	1/8 TON R12	3/8 X 1/2 SAE 5'	HFE 1/8 FC	NONE	SAME	
GFE 11/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FC	054917	SAME	
GFE 11/2 - Z	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FZ	NONE	SAME	
GFE 11/2 - ZP	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FW15	NONE	SAME	
GFE 2C	TXV	2 TON R12	3/8 X 1/2 SAE 5'	HFE 2 FC	053069	SAME	
GJ 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 5'	HF 1 M C	057619	SAME	
GJ 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE 5'	HF 1/2 M C	057620	SAME	
GJ 1/4C	TXV	1/4 TON R134	3/8 X 1/2 SAE 5'	HF 1/4 MC	057618	SAME	
GJ 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 SAE 5'	HF11/2 M C	NONE	SAME	
GJE 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 5'	HFE 1 M C	065108	SAME	
GJE 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE 5'	HFE 1/2 M C	057616	SAME	
GJE 1/4C	TXV	1/4 TON R134	3/8 X 1/2 SAE 5'	HFE 1/4 MC	NONE	SAME	
GJE 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 SAE 5'	HFE 11/2 M C	057895	SAME	
GJE 2 - C	TXV	2 TON R134	3/8 X 1/2 SAE 5'	HFE 2 M C	NONE	SAME	
GR 1/2C	TXV	1/2 TON R502	3/8 X 1/2 SAE 5'	HF 1/2 RC	054964	SAME	
GR 1/4C	TXV	1/4 TON R502	3/8 X 1/2 SAE 5'	HF 1/4 RC	054137	SAME	
GR 1/8C	TXV	1/8 TON R502	3/8 X 1/2 SAE 5'	HF 1/8 RC	NONE	SAME	
GR 11/2C	TXV	11/2 TON R502	3/8 X 1/2 SAE 5'	HF 11/2 RC	054984	SAME	
GR 1C	TXV	1 TON R502	3/8 X 1/2 SAE 5'	HF 1 RC	054976	SAME	
GRE 1/2C	TXV	1/2 TON R502	3/8 X 1/2 SAE 5'	HFE 1/2 RC	054967	SAME	
GRE 1/4C	TXV	1/4 TON R502	3/8 X 1/2 SAE 5'	HFE 1/4 RC	054366	SAME	
GRE 11/2C	TXV	11/2 TON R502	3/8 X 1/2 SAE 5'	HFE 11/2 RC	054988	SAME	
GRE 1C	TXV	1 TON R502	3/8 X 1/2 SAE 5'	HFE 1 RC	054979	SAME	
GRE 2C	TXV	2 TON R502	3/8 X 1/2 SAE 5'	HFE 2 RC	053070	SAME	
GS 1 - Z	TXV	1 TON R404	3/8 X 1/2 SAE 5'	HF 1 SZ	NONE	SAME	
GS 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 SAE 5'	HF 1/2 SZ	NONE	SAME	
GS 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 SAE 5'	HF 1/2 SW35	NONE	SAME	
GS 1/4C	TXV	1/4 TON R404	3/8 X 1/2 SAE 5'	HF 1/4 SC	NONE	SAME	
GS 1/8C	TXV	1/8 TON R404	3/8 X 1/2 SAE 5'	HF 1/8 SC	NONE	SAME	
GS 11/2C	TXV	11/2 TON R404	3/8 X 1/2 SAE 5'	HF 11/2 SC	NONE	SAME	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
GS 2 - ZP	TXV	2 TON R404	3/8 X 1/2 SAE 5'	HF 1 SW35	NONE	SAME	
GSE 1 - C	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SC	NONE	SAME	
GSE 1 - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SZ	NONE	SAME	
GSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SW35	NONE	SAME	
GSE 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SC	NONE	SAME	
GSE 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SZ	NONE	SAME	
GSE 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SW35	NONE	SAME	
GSE 1/4C	TXV	1/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/4 SC	NONE	SAME	
GSE 11/2 - C	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SC	NONE	SAME	
GSE 11/2 - Z	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SZ	NONE	SAME	
GSE 11/2 - ZP	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SW35	NONE	SAME	
GSE 2 - C	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SC	NONE	SAME	
GSE 2 - Z	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SZ	NONE	SAME	
GSE 2 - ZP	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SW35	NONE	SAME	
GV 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 2 HC	054939	SAME	
GV 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 1 HZ	054928	SAME	
GV 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HF 1/2 H C	054135	SAME	
GV 1/2 - Z	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HF 1/2 H Z	054364	SAME	
GV 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HF 11/2 H C	054933	SAME	
GV 21/2C	TXV	21/2 TON R22	3/8 X 1/2 SAE - 5'	HF 21/2 HC	054947	SAME	
GVE 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 H C	054930	SAME	
GVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 H Z	054931	SAME	
GVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 1/2 H C	054361	SAME	
GVE 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 H C	054936	SAME	
GVE 11/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 H Z	054937	SAME	
GVE 2 - C	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HC	054942	SAME	
GVE 2 - CP100	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HW100	NONE	SAME	
GVE 2 - GA	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HW100	NONE	SAME	
GVE 2 - Z	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HZ	054943	SAME	
GVE 21/2C	TXV	21/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 1/2 HC	054940	SAME	
GVE 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 H C	053317	SAME	
GVE 3 - CP100	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 HW100	NONE	SAME	
GVE 3 - GA	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 HW100	NONE	SAME	
HFE 11/2C	TXV	11/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 11/2 FC	055994	SAME	
HFE 12C	TXV	12 TON R12		HFES 12 FC	NONE	12 TON R12	
HFE 3C	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFES 31/2 FC	NONE	31/2 TON R12	
HFE 4C	TXV	4 TON R12	3/8 X 1/2 SAE - 5'	HFES 31/2 FC	NONE	31/2 TON R12	
HFE 5C	TXV	5 TON R12	3/8 X 1/2 SAE - 5'	HFES 5 FC	NONE	SAME	
HFE 8C	TXV	8 TON R12		HFES 9 FC	NONE	9 TON R12	
HJE 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 5'	HFES 11/2 MC	NONE	SAME	
HJE 12C	TXV	12 TON R134	7/8 X 1-1/8 ODF-5'	HFES 11 MC	058681	11 TON R134	
HJE 4C	TXV	4 TON R134	3/8 X 1/2 SAE - 5'	HFES 4 MC	NONE	SAME	
HJE 5C	TXV	5 TON R134	5/8 X 7/8 ODF - 5'	HFES 6 MC	057903	6 TON R134	
HJE 8C	TXV	8 TON R134	5/8 X 7/8 ODF - 5'	HFES 71/2 MC	057904	71/2 TON R134	
HPC-103	DRIER	3/8 SAE		BFK 083	043324	SAME	BI - FLOW
HPC-103-S	DRIER	3/8 ODF		BFK 083S	043323	SAME	BI - FLOW
HPC-104	DRIER	1/2 SAE		BFK 084	043325	SAME	BI - FLOW
HPC-104-S	DRIER	1/2 ODF		BFK 084S	043327	SAME	BI - FLOW
HPC-163-HH	DRIER	3/8 SAE		BFK 163	043330	SAME	BI - FLOW
HPC-163-S-HH	DRIER	3/8 ODF		BFK 163S	043333	SAME	BI - FLOW
HPC-164-HH	DRIER	1/2 SAE		BFK 164	043335	SAME	BI - FLOW
HPC-164-S-HH	DRIER	1/2 ODF		BFK 164S	043337	SAME	BI - FLOW
HPC-165-HH	DRIER	5/8 SAE		BFK 165	043732	SAME	BI - FLOW
HPC-165-S-HH	DRIER	5/8 ODF		BFK 165S	043734	SAME	BI - FLOW
HRE 11/2C	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 11/2 RC	056031	11/2 TON R502	
HRE 12C	TXV	12 TON R502	3/8 X 1/2 ODF - 5'	HFES 13 RC	NONE	13 TON R502	
HRE 3C	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFES 31/2 RC	054143	31/2 TON R502	
HRE 4C	TXV	4 TON R502	3/8 X 1/2 ODF - 5'	HFES 31/2 RC	054143	31/2 TON R502	
HRE 61/2C	TXV	61/2 TON R502	5/8 X 7/8 ODF - 5'	HFES 7 RC	058607	7 TON R502	
HRE 9C	TXV	9 TON R502	5/8 X 7/8 ODF - 5'	HFES 10 RC	058808	10 TON R502	
HSE 11/2C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5'	HFES 11/2 SC	NONE	SAME	
HSE 12C	TXV	12 TON R404	5/8 X 7/8 ODF - 5'	HFES 13 SC	NONE	13 TON R404	
HSE 3C	TXV	3 TON R404	3/8 X 1/2 ODF - 5'	HFES 31/2 SC	NONE	31/2 TON R404	
HSE 4C	TXV	4 TON R404	3/8 X 1/2 ODF - 5'	HFES 31/2 SC	NONE	31/2 TON R404	
HSE 61/2C	TXV	61/2 TON R404	5/8 X 7/8 ODF - 5'	HFES 7 SC	NONE	7 TON R404	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
HSE 9C	TXV	9 TON R404	5/8 X 7/8 ODF - 5'	HFES 10 SC	NONE	10 TON R404	
HVE 11C	TXV	11 TON R22	5/8 X 7/8 ODF - 5'	HFES 10 HC	057256	10 TON R22	
HVE 16C	TXV	16 TON R22	5/8 X 7/8 ODF - 5'	HFES 15 HC	057317	15 TON R22	
HVE 20C	TXV	20 TON R22	7/8 X 1-1/8 ODF-5'	HFES 20 HC	062055	SAME	
HVE 21/2C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 21/2 HC	055931	SAME	
HVE 51/2C	TXV	51/2 TON R22	1/2 X 5/8 ODF - 5'	HFES 51/2 HC	054778	SAME	
HVE 7C	TXV	7 TON R22	5/8 X 7/8 ODF - 5'	HFES 8 HC	057313	8 TON R22	
K-1178	KITS	ADAPTOR-FLANGE		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
K-1800E-1	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-1800E-1	KITS			NONE	NONE	NONE	NO CROSS
K-1800E-2	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-1800E-2	KITS			NONE	NONE	NONE	NO CROSS
KA-1	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-2	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-3	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-4	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-5X	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-6	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-7	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-8	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KBR183P1	SOLENOID	3/8 FPT		NONE	NONE	NONE	NO CROSS
KBR184P1	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
KBR246P1	SOLENOID	3/4 FPT		NONE	NONE	NONE	NO CROSS
KC-3	SOLENOID	DUAL VOLTAGE COIL		NONE	NONE	NONE	NO CROSS
KE-10	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-10/14	KITS			NONE	NONE	NONE	NO CROSS
KE-18	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-18/24	KITS			NONE	NONE	NONE	NO CROSS
KE-19	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-19	KITS			NONE	NONE	NONE	NO CROSS
KE-25	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-25	KITS			NONE	NONE	NONE	NO CROSS
KE-3	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-3	KITS			NONE	NONE	NONE	NO CROSS
KE-33	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-33	KITS			NONE	NONE	NONE	NO CROSS
KE-6	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-6	KITS			NONE	NONE	NONE	NO CROSS
KE-8D	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-8D/12D	KITS			NONE	NONE	NONE	NO CROSS
KE-9	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-9	KITS			NONE	NONE	NONE	NO CROSS
KE-MA32	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA32	KITS			NONE	NONE	NONE	NO CROSS
KE-MA42	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA42	KITS			NONE	NONE	NONE	NO CROSS
KE-MA5	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA5/MA17	KITS			NONE	NONE	NONE	NO CROSS
KE-MA50	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA50	KITS			NONE	NONE	NONE	NO CROSS
KG-(S)ORIT-PI	KITS			NONE	NONE	NONE	NO CROSS
KG-SORIT-P1	KITS	GASKETS		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KM-1	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-1	KITS			NONE	NONE	NONE	NO CROSS
KM-2	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-2	KITS			NONE	NONE	NONE	NO CROSS
KM-3	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-3	KITS			NONE	NONE	NONE	NO CROSS
KM-4	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-4	KITS			NONE	NONE	NONE	NO CROSS
KM-5	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-5	KITS			NONE	NONE	NONE	NO CROSS
KM-6	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-6	KITS			NONE	NONE	NONE	NO CROSS
KMC-1 12 DC JAK	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KO-10	KITS	SPRING		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
KO-8	KITS	SPRING		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-ORIT-P1	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
K-ORIT-PI	KITS			NONE	NONE	NONE	NO CROSS
KP01	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP01-0002	KITS			NONE	NONE	NONE	NO CROSS
KP01-0005	KITS			NONE	NONE	NONE	NO CROSS
KP01-0010	KITS			NONE	NONE	NONE	NO CROSS
KP01-0015	KITS			NONE	NONE	NONE	NO CROSS
KP02	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP02-0005	KITS			NONE	NONE	NONE	NO CROSS
KP02-0010	KITS			NONE	NONE	NONE	NO CROSS
KP02-0015	KITS			NONE	NONE	NONE	NO CROSS
KP02-0020	KITS			NONE	NONE	NONE	NO CROSS
KP02-0025	KITS			NONE	NONE	NONE	NO CROSS
KP02-0030	KITS			NONE	NONE	NONE	NO CROSS
KP02-0050	KITS			NONE	NONE	NONE	NO CROSS
KP02-0060	KITS			NONE	NONE	NONE	NO CROSS
KP03	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP03-0002	KITS			NONE	NONE	NONE	NO CROSS
KP03-0002	KITS			NONE	NONE	NONE	NO CROSS
KP03-0005	KITS			NONE	NONE	NONE	NO CROSS
KP03-0010	KITS			NONE	NONE	NONE	NO CROSS
KP03-0015	KITS			NONE	NONE	NONE	NO CROSS
KP03-0020	KITS			NONE	NONE	NONE	NO CROSS
KP03-0025	KITS			NONE	NONE	NONE	NO CROSS
KP03-0030	KITS			NONE	NONE	NONE	NO CROSS
KP08	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP08-0050	KITS			NONE	NONE	NONE	NO CROSS
KP08-0075	KITS			NONE	NONE	NONE	NO CROSS
KP08-0110	KITS			NONE	NONE	NONE	NO CROSS
KP08-0130	KITS			NONE	NONE	NONE	NO CROSS
KP08-0150	KITS			NONE	NONE	NONE	NO CROSS
KP08-0200	KITS			NONE	NONE	NONE	NO CROSS
KP08-0250	KITS			NONE	NONE	NONE	NO CROSS
KP09	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP10	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP12	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP12-0015	KITS			NONE	NONE	NONE	NO CROSS
KP12-0030	KITS			NONE	NONE	NONE	NO CROSS
KP12-0040	KITS			NONE	NONE	NONE	NO CROSS
KP12-0050	KITS			NONE	NONE	NONE	NO CROSS
KP12-0080	KITS			NONE	NONE	NONE	NO CROSS
KP12-0120	KITS			NONE	NONE	NONE	NO CROSS
KP13	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP13-0015	KITS			NONE	NONE	NONE	NO CROSS
KP13-0030	KITS			NONE	NONE	NONE	NO CROSS
KP13-0040	KITS			NONE	NONE	NONE	NO CROSS
KP13-0050	KITS			NONE	NONE	NONE	NO CROSS
KP13-0080	KITS			NONE	NONE	NONE	NO CROSS
KP13-0120	KITS			NONE	NONE	NONE	NO CROSS
KP16	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP17	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP19	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP19-0060	KITS			NONE	NONE	NONE	NO CROSS
KP19-0090	KITS			NONE	NONE	NONE	NO CROSS
KP19-0120	KITS			NONE	NONE	NONE	NO CROSS
KP19-0160	KITS			NONE	NONE	NONE	NO CROSS
K-P1-E	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KP20	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KP20-0230	KITS			NONE	NONE	NONE	NO CROSS
KP20-0320	KITS			NONE	NONE	NONE	NO CROSS
KP20-0400	KITS			NONE	NONE	NONE	NO CROSS
K-PI-E	KITS			NONE	NONE	NONE	NO CROSS
KR183P1	SOLENOID	3/8 FPT		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KR184P1	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
KR246P1	SOLENOID	3/4 FPT		NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-2	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-3	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-4	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-5	KITS			NONE	NONE	NONE	NO CROSS
KS-10G	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10G	KITS			NONE	NONE	NONE	NO CROSS
KS-10GP-B	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10GP-B	KITS			NONE	NONE	NONE	NO CROSS
KS-10GP-C	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10GP-C	KITS			NONE	NONE	NONE	NO CROSS
KS-12DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DB	KITS			NONE	NONE	NONE	NO CROSS
KS-12DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-12DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DC	KITS			NONE	NONE	NONE	NO CROSS
KS-12DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-12D-CV	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12D-CV	KITS			NONE	NONE	NONE	NO CROSS
KS-12DP	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB	KITS			NONE	NONE	NONE	NO CROSS
KS-16DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-16DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DC	KITS			NONE	NONE	NONE	NO CROSS
KS-16DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-16D-CV	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16D-CV	KITS			NONE	NONE	NONE	NO CROSS
KS-16DP	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DP	KITS			NONE	NONE	NONE	NO CROSS
KS-16DP-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DP-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-73	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8D	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8D/12DP	KITS			NONE	NONE	NONE	NO CROSS
KS-8D/12DP-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DB	KITS			NONE	NONE	NONE	NO CROSS
KS-8DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-A10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
K-SA-4	SIGHT GLASS	KIT		NONE	NONE	NONE	REFRIGERANT SERVICE
KS-B10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B10/E10	KITS			NONE	NONE	NONE	NO CROSS
KS-B10/E10-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B14/E14	KITS			NONE	NONE	NONE	NO CROSS
KS-B14/E14-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B14/E14-HP	KITS			NONE	NONE	NONE	NO CROSS
KS-B19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B19/E19	KITS			NONE	NONE	NONE	NO CROSS
KS-B19/E19-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B19/E19-HP	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrp.	Comment
KS-B25	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B25	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B25/E25	KITS			NONE	NONE	NONE	NO CROSS
KS-B25/E25-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B33	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B33/E33	KITS			NONE	NONE	NONE	NO CROSS
KS-B6	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B6	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B6/E6	KITS			NONE	NONE	NONE	NO CROSS
KS-B6/E6-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B6/E6-HP	KITS			NONE	NONE	NONE	NO CROSS
KS-B9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B9/E9	KITS			NONE	NONE	NONE	NO CROSS
KS-B9/E9-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B9/E9-HP	KITS			NONE	NONE	NONE	NO CROSS
KS-BR18	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-BR18	KITS			NONE	NONE	NONE	NO CROSS
KS-BR24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-BR24	KITS			NONE	NONE	NONE	NO CROSS
KS-CB10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-CB10/CE10	KITS			NONE	NONE	NONE	NO CROSS
KS-CB14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-CB14/CE14	KITS			NONE	NONE	NONE	NO CROSS
KS-CB19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-CB19/CE19	KITS			NONE	NONE	NONE	NO CROSS
KS-CB9/CE9	KITS			NONE	NONE	NONE	NO CROSS
KS-CDA-12P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-CDA-12S	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-CDA-15P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-CDA-20P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-DB14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-DB14	KITS			NONE	NONE	NONE	NO CROSS
KS-DB19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-DB19	KITS			NONE	NONE	NONE	NO CROSS
KS-DMA17	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-DMA17	KITS			NONE	NONE	NONE	NO CROSS
KS-DMA24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-DMA32	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-DMA32	KITS			NONE	NONE	NONE	NO CROSS
KS-E34	KITS	COIL HOUSING		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-E34	KITS			NONE	NONE	NONE	NO CROSS
KS-E34-20	KITS			NONE	NONE	NONE	NO CROSS
KS-E42	KITS	COIL HOUSING		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-E42	KITS			NONE	NONE	NONE	NO CROSS
KS-E42-20	KITS			NONE	NONE	NONE	NO CROSS
K-SHGB-8	KITS			NONE	NONE	NONE	NO CROSS
KS-MA17A	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-MA17A	KITS			NONE	NONE	NONE	NO CROSS
KS-MA32	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-MA32	KITS			NONE	NONE	NONE	NO CROSS
KS-MA42	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-MA42	KITS			NONE	NONE	NONE	NO CROSS
KS-MA50	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-MA50	KITS			NONE	NONE	NONE	NO CROSS
KS-MA5A	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-MA5A	KITS			NONE	NONE	NONE	NO CROSS
KS-OB10	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB10-OE10	KITS			NONE	NONE	NONE	NO CROSS
KS-OB14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB14/OE14	KITS			NONE	NONE	NONE	NO CROSS
KS-OB19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB19/OE19	KITS			NONE	NONE	NONE	NO CROSS
KS-OB25	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB25/OE25	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KS-OB33	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB33/OE33	KITS			NONE	NONE	NONE	NO CROSS
KS-OB9	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB9/OE9	KITS			NONE	NONE	NONE	NO CROSS
KS-OE33	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE34	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE34	KITS			NONE	NONE	NONE	NO CROSS
KS-OE42	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE42	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI/CDA-15	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI/CDA-20	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI-12	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-12*	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-20	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-20	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
K-SORIT-P1	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
K-SORIT-PI	KITS			NONE	NONE	NONE	NO CROSS
KS-R18	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-R18	KITS			NONE	NONE	NONE	NO CROSS
KS-R24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-R24	KITS			NONE	NONE	NONE	NO CROSS
KS-RW3	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-RW3	KITS			NONE	NONE	NONE	NO CROSS
KS-SHGB-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
KS-SHGB-15	KITS			NONE	NONE	NONE	NO CROSS
KS-SHGB-8	KITS			NONE	NONE	NONE	NO CROSS
KS-SORIT-P12	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-SORIT-P13	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-SORIT-P14	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-W14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W14	KITS			NONE	NONE	NONE	NO CROSS
KS-W19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W19	KITS			NONE	NONE	NONE	NO CROSS
KS-W25	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W25	KITS			NONE	NONE	NONE	NO CROSS
KS-W3	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W3	KITS			NONE	NONE	NONE	NO CROSS
KS-W6	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W6	KITS			NONE	NONE	NONE	NO CROSS
KS-XJH	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XJH/XOF	KITS			NONE	NONE	NONE	NO CROSS
KS-XP0	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XP0	KITS			NONE	NONE	NONE	NO CROSS
KS-XRM	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XRM	KITS			NONE	NONE	NONE	NO CROSS
KS-XRN	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XRN	KITS			NONE	NONE	NONE	NO CROSS
KS-XUP	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XUP/XXF	KITS			NONE	NONE	NONE	NO CROSS
KS-Y1228-SORIT-PI-2	KITS			NONE	NONE	NONE	NO CROSS
KT-12-AL	KITS			NONE	NONE	NONE	NO CROSS
KT-23	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TVX ONLY
KT-23-AC	KITS			NONE	NONE	NONE	NO CROSS
KT-23-AL	KITS			NONE	NONE	NONE	NO CROSS
KT-23-AZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TVX ONLY
KT-33-FC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FCP60	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FZP	KITS			NONE	NONE	NONE	NO CROSS
KT-33-JC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-PC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-PZ	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KT-33-RC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-RX	KITS			NONE	NONE	NONE	NO CROSS
KT-33-RZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33-RZP	KITS			NONE	NONE	NONE	NO CROSS
KT-33-SC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-SZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33-SZP	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VCP100	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VGA	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VN	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VX	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33-VZP40	KITS			NONE	NONE	NONE	NO CROSS
KT-43	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KT-63	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KT-63-FC	KITS			NONE	NONE	NONE	NO CROSS
KT-63-FCP60	KITS			NONE	NONE	NONE	NO CROSS
KT-63-FZ	KITS			NONE	NONE	NONE	NO CROSS
KT-63-FZP	KITS			NONE	NONE	NONE	NO CROSS
KT-63-PC	KITS			NONE	NONE	NONE	NO CROSS
KT-63-PZ	KITS			NONE	NONE	NONE	NO CROSS
KT-63-RC	KITS			NONE	NONE	NONE	NO CROSS
KT-63-RX	KITS			NONE	NONE	NONE	NO CROSS
KT-63-RZ	KITS			NONE	NONE	NONE	NO CROSS
KT-63-RZP	KITS			NONE	NONE	NONE	NO CROSS
KT-63-SC	KITS			NONE	NONE	NONE	NO CROSS
KT-63-SZ	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VC	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VCP100	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VGA	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VN	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VX	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VZ	KITS			NONE	NONE	NONE	NO CROSS
KT-63-VZP	KITS			NONE	NONE	NONE	NO CROSS
KT-7-FG	KITS			NONE	NONE	NONE	NO CROSS
KT-7-VG	KITS			NONE	NONE	NONE	NO CROSS
K-Y1005-0/100	KITS			NONE	NONE	NONE	NO CROSS
K-Y1010-0/100	KITS			NONE	NONE	NONE	NO CROSS
KY-12	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
K-Y1228-SORIT-PI	KITS			NONE	NONE	NONE	NO CROSS
KY-53	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KY-83	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
K-Y917	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-Y917	KITS			NONE	NONE	NONE	NO CROSS
LAC-10-100	REGULATORS	1-3/8X7/8X7/8		HP14T7-120	032210	SAME	120 PSIG SETTING
LAC-10-100	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-120	024405	SAME	120 PSIG SETTING
LAC-10-180	REGULATORS	1-3/8X7/8X7/8		HP14T7-175	024935	SAME	175 PSIG SETTING
LAC-10-180	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-175	029805	SAME	175 PSIG SETTING
LAC-10-200	REGULATORS	1-3/8X7/8X7/8		HP14T7-215	043405	SAME	215 PSIG SETTING
LAC-10-200	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-215	043406	SAME	215 PSIG SETTING
LAC-4	REGULATORS	HEAD PRES.		HPC5		SAME	SELECT PRES. AN CONN.
LAC-4-100	REGULATORS	3/8X3/8X3/8		HPC5T3-100	064177	SAME	
LAC-4-100	REGULATORS	1/2X1/2X1/2		HPC5T4-100	064180	SAME	
LAC-4-180	REGULATORS	3/8X3/8X3/8		HPC5T3-180	065174	SAME	
LAC-4-180	REGULATORS	1/2X1/2X1/2		HPC5T4-180	064183	SAME	
LAC-4-210	REGULATORS	3/8X3/8X3/8		HPC5T3-225	064175	SAME	225 PSIG SETTING
LAC-4-210	REGULATORS	1/2X1/2X1/2		HPC5T4-225	065228	SAME	
LAC-5-100	REGULATORS	1/2X1/2X1/2		HP8T4-110	046209	SAME	110 PSIG SETTING
LAC-5-100	REGULATORS	5/8X5/8X5/8		HP8T5-110	033862	SAME	110 PSIG SETTING
LAC-5-100	REGULATORS	7/8X7/8X7/8		HP8T7-110	046207	SAME	110 PSIG SETTING
LAC-5-100	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
LAC-5-180	REGULATORS	1/2X1/2X1/2		HP8T4-185	046208	SAME	185 PSIG SETTING
LAC-5-180	REGULATORS	5/8X5/8X5/8		HP8T5-185	032407	SAME	185 PSIG SETTING
LAC-5-180	REGULATORS	7/8X7/8X7/8		HP8T7-185	046206	SAME	185 PSIG SETTING

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
LAC-5-180	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
LAC-5-210	REGULATORS	1/2X1/2X1/2		HP8T4-215	062243	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	5/8X5/8X5/8		HP8T5-215	046535	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	7/8X7/8X7/8		HP8T7-215	046498	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
MA17A3	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
MA32P3	SOLENOID	1-1/4 FPT		NONE	NONE	NONE	NO CROSS
MA42P3	SOLENOID	1-1/2 FPT		NONE	NONE	NONE	NO CROSS
MA50P3	SOLENOID	2 FPT		NONE	NONE	NONE	NO CROSS
MA50P3	SOLENOID	2 FPT		NONE	NONE	NONE	NO CROSS
MA50S3	SOLENOID	2-1/8 OR 2-5/8 ODF		NONE	NONE	NONE	NO CROSS
MA52S3	SOLENOID	1-5/8 OR 2-1/8 ODF		NONE	NONE	NONE	NO CROSS
MA5A3	SOLENOID	1/4 FPT		NONE	NONE	NONE	AMMONIA SERVICE
MB10F2	SOLENOID	1/2 FLARE		200RB 5F4M	047520	SAME	REFRIGERATION SERVICE - VLC
MB10S2	SOLENOID	5/8 ODF, 3/4 ODM		NONE	NONE	NONE	NO CROSS
MB10S2	SOLENOID	5/8 ODF		200RB 5S5M	047527	SAME	REFRIGERATION SERVICE - VLC
MB10S2-20	SOLENOID	5/8 ODF, 3/4 ODM EXTENDED		NONE	NONE	NONE	NO CROSS
MB10S2-40	SOLENOID	5/8 ODF		200RB 5T5M	049189	SAME	REFRIGERATION SERVICE - VLC
MB14S2	SOLENOID	5/8 ODF, 7/8 ODM		200RB 7T5M	064267	5/8 ODF	REFRIGERATION SERVICE - VLC
MB14S2	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
MB15P2	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
MB19P2	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
MB19S2	SOLENOID	5/8 ODF		200RB 9T5M	064763	SAME	REFRIGERATION SERVICE - VLC
MB19S2	SOLENOID	7/8 ODF		200RB 9T7M	064765	SAME	REFRIGERATION SERVICE - VLC
MB19S2-20	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB25P2	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
MB25P2-20	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
MB25S2	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAME	REFRIGERATION SERVICE - VLC
MB25S2	SOLENOID	1-1/8 ODF		200RB 12T9M	064822	SAME	REFRIGERATION SERVICE - VLC
MB25S2-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB33S2	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
MB33S2	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
MB33S2	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC
MB6F1	SOLENOID	3/8 FLARE		200RB 3T3M	065620	3/8 ODF	REFRIGERATION SERVICE - VLC
MB6P1	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
MB6S1	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAME	REFRIGERATION SERVICE - VLC
MB6S1	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
MB6S1-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB9F2	SOLENOID	3/8 FLARE		200RB 4F3M	047507	SAME	REFRIGERATION SERVICE - VLC
MB9F2-20	SOLENOID	3/8 FLARE EXTENDED		NONE	NONE	NONE	NO CROSS
MB9P2	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
MB9S2	SOLENOID	1/2 ODF, 5/8 ODM		200RB 5T4M	049188	SAME	REFRIGERATION SERVICE - VLC
MB9S2-20	SOLENOID	1/2 ODF, 5/8 ODM EXTENDED		NONE	NONE	NONE	NO CROSS
MC 10 FC	TXV	3/16 TON R12	3/8 X 1/2 SAE - 5'	HF 1/4 FC	054134	1/4 TON R12	
MC 10 JC	TXV	1/4 TON R134	3/8 X 1/2 SAE - 5'	HF 1/4 MC	057618	SAME	
MC 10 RC	TXV	1/4 TON R502	3/8 X 1/2 SAE - 5'	HF 1/4 RC	054137	SAME	
MC 10 SC	TXV	1/4 TON 404	3/8 X 1/2 SAE - 5'	HF 1/4 SC	NONE	SAME	
MC 10 VC	TXV	1/4 TON R22	3/8 X 1/2 SAE - 5'	HF 1/4 HC	054921	SAME	
MC 11 FC	TXV	1/2 TON R12	3/8 X 1/2 SAE - 5'	HF 1/2 FC	054892	SAME	
MC 11 JC	TXV	1/2 TON R134	3/8 X 1/2 SAE - 5'	HF 1/2 MC	057620	SAME	
MC 11 RC	TXV	1/2 TON R502	3/8 X 1/2 SAE - 5'	HF 1/2 RC	054964	SAME	
MC 11 SC	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HF 1/2 SC	NONE	SAME	
MC 11 VC	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 1 HC	054927	SAME	
MC 12 FC	TXV	3/4 TON R12	3/8 X 1/2 SAE - 5'	HF 1 FC	054905	1 TON R12	
MC 12 JC	TXV	1 TON R134	3/8 X 1/2 SAE - 5'	HF 1 MC	057619	SAME	
MC 12 RC	TXV	1 TON R502	3/8 X 1/2 SAE - 5'	HF 1 RC	054976	SAME	
MC 12 SC	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HF 1 SC	NONE	SAME	
MC 12 VC	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HF 11/2 HC	054933	SAME	
MC 13 FC	TXV	1 TON R12	3/8 X 1/2 SAE - 5'	HF 1 FC	054905	SAME	
MC 13 JC	TXV	11/4 TON R134	3/8 X 1/2 SAE - 5'	HF 11/2 MC	NONE	11/2 TON R134	
MC 13 RC	TXV	11/4 TON R502	3/8 X 1/2 SAE - 5'	HF 11/4 RC	NONE	SAME	
MC 13 SC	TXV	11/4 TON R404	3/8 X 1/2 SAE - 5'	HF 11/4 SC	NONE	SAME	
MC 13 VC	TXV	13/4 TON R22	3/8 X 1/2 SAE - 5'	HF 2 HC	054939	2 TON R22	
MC 20 FC	TXV	3/16 TON R12		HFB 1/4 FC	NONE	1/4 TON R12	
MC 20 JC	TXV	1/4 TON R134		HFB 1/4 MC	NONE	SAME	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
MC 20 RC	TXV	1/4 TON R502		HFB 1/4 RC	NONE	SAME	
MC 20 SC	TXV	1/4 TON R404		HFB 1/4 SC	NONE	SAME	
MC 20 VC	TXV	1/4 TON R22		HFB 1/4 HC	NONE	SAME	
MC 21 FC	TXV	1/2 TON R12		HFB 1/2 FC	NONE	SAME	
MC 21 JC	TXV	1/2 TON R134		HFB 1/2 MC	NONE	SAME	
MC 21 RC	TXV	1/2 TON R502		HFB 1/2 RC	NONE	SAME	
MC 21 SC	TXV	1/2 TON R404		HFB 1/2 SC	NONE	SAME	
MC 21 VC	TXV	1/2 TON R22		HFB 1/2 HC	NONE	SAME	
MC 22 FC	TXV	3/4 TON R12		HFB 1/2 FC	NONE	1/2 TON R12	
MC 22 JC	TXV	1 TON R134		HFB 1 MC	NONE	SAME	
MC 22 RC	TXV	1 TON R502		HFB 1 RC	NONE	SAME	
MC 22 SC	TXV	1 TON R404		HFB 1 SC	NONE	SAME	
MC 22 VC	TXV	1 TON R22		HFB 1 HC	NONE	SAME	
MC 23 FC	TXV	1 TON R12		HFB 1 FC	NONE	SAME	
MC 23 JC	TXV	11/4 TON R134		HFB 1 MC	NONE	1 TON R134	
MC 23 RC	TXV	11/4 TON R502		HFB 1 RC	NONE	1 TON R502	
MC 23 SC	TXV	11/4 TON R404		HFB 1 SC	NONE	1 TON R404	
MC 23 VC	TXV	11/4 TON R22		HFB 1 HC	NONE	1 TON R22	
MCE 10 FC	TXV	3/16 TON R12	3/8 X 1/2 SAE - 5'	HFE 1/4 FC	054360	1/4 TON R12	
MCE 10 JC	TXV	1/4 TON R134	3/8 X 1/2 SAE - 5'	HFE 1/4 MC	NONE	SAME	
MCE 10 RC	TXV	1/4 TON R502	3/8 X 1/2 SAE - 5'	HFE 1/4 RC	054366	SAME	
MCE 10 SC	TXV	1/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/4 SC	NONE	SAME	
MCE 10 VC	TXV	1/4 TON R22	3/8 X 1/2 SAE - 5'	HFE 1/4 HC	054924	SAME	
MCE 11 FC	TXV	1/2 TON R12	3/8 X 1/2 SAE - 5'	HFE 1/2 FC	054895	SAME	
MCE 11 JC	TXV	1/2 TON R134	3/8 X 1/2 SAE - 5'	HFE 1/2 MC	057616	SAME	
MCE 11 RC	TXV	1/2 TON R502	3/8 X 1/2 SAE - 5'	HFE 1/2 RC	054967	SAME	
MCE 11 SC	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SC	NONE	SAME	
MCE 11VC	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 HC	054930	SAME	
MCE 12 FC	TXV	3/4 TON R12	3/8 X 1/2 SAE - 5'	HFE 1 FC	054909	1 TON R12	
MCE 12 JC	TXV	1 TON R134	3/8 X 1/2 SAE - 5'	HFE 1 MC	057617	SAME	
MCE 12 RC	TXV	1 TON R502	3/8 X 1/2 SAE - 5'	HFE 1 RC	054979	SAME	
MCE 12 SC	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SC	NONE	SAME	
MCE 12 VC	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 HC	054936	SAME	
MCE 13 FC	TXV	1 TON R12	3/8 X 1/2 SAE - 5'	HFE 1 FC	054909	SAME	
MCE 13 JC	TXV	11/4 TON R134	3/8 X 1/2 SAE - 5'	HFE 11/2 MC	057895	11/2 TON R134	
MCE 13 RC	TXV	11/4 TON R502	3/8 X 1/2 SAE - 5'	HFE 11/4 RC	NONE	SAME	
MCE 13 SC	TXV	11/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/4 SC	NONE	SAME	
MCE 13 VC	TXV	13/4 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HC	054942	2 TON R22	
MCE 20 FC	TXV	3/16 TON R12		HFE 1/4 FC	NONE	1/4 TON R12	
MCE 20 JC	TXV	1/4 TON R134		HFE 1/4 MC	NONE	SAME	
MCE 20 RC	TXV	1/4 TON R502		HFE 1/4 RC	NONE	SAME	
MCE 20 SC	TXV	1/4 TON R404		HFE 1/4 SC	NONE	SAME	
MCE 20 VC	TXV	1/4 TON R22		HFE 1/4 HC	NONE	SAME	
MCE 21 FC	TXV	1/2 TON R12		HFE 1/2 FC	NONE	SAME	
MCE 21 JC	TXV	1/2 TON R134		HFE 1/2 MC	NONE	SAME	
MCE 21 RC	TXV	1/2 TON R502		HFE 1/2 RC	NONE	SAME	
MCE 21 SC	TXV	1/2 TON R404		HFE 1/2 SC	NONE	SAME	
MCE 21 VC	TXV	1/2 TON R22		HFE 1/2 HC	NONE	SAME	
MCE 22 FC	TXV	3/4 TON R12		HFE 1/2 FC	NONE	1/2 TON R12	
MCE 22 JC	TXV	1 TON R134		HFE 1 MC	NONE	SAME	
MCE 22 RC	TXV	1 TON R502		HFE 1 RC	NONE	SAME	
MCE 22 SC	TXV	1 TON R404		HFE 1 SC	NONE	SAME	
MCE 22 VC	TXV	1 TON R22		HFE 1 HC	NONE	SAME	
MCE 23 FC	TXV	1 TON R12		HFE 1 FC	NONE	SAME	
MCE 23 JC	TXV	11/4 TON R134		HFE 1 MC	NONE	1 TON R134	
MCE 23 RC	TXV	11/4 TON R502		HFE 1 RC	NONE	1 TON R502	
MCE 23 SC	TXV	11/4 TON R404		HFE 1 SC	NONE	1 TON R404	
MCE 23 VC	TXV	11/4 TON R22		HFE 1 HC	NONE	1 TON R22	
ME10S240	SOLENOID	1/2 ODF		200RB 5S4M	047525	1/2 ODF X 5/8 ODM	REFRIGERATION SERVICE - VLC
ME10S250	SOLENOID	5/8 ODF		200RB 5SSM	047527	SAME	REFRIGERATION SERVICE - VLC
ME14S250	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
ME14S250-HP	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
ME14S270	SOLENOID	7/8 ODF		200RB 7T7M	064283	SAME	REFRIGERATION SERVICE - VLC
ME19S250	SOLENOID	5/8 ODF		200RB 9T5M	064763	SAME	REFRIGERATION SERVICE - VLC
ME19S270	SOLENOID	7/8 ODF		200RB 9T7M	064765	SAME	REFRIGERATION SERVICE - VLC

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ME19S270-HP	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
ME19S290	SOLENOID	1-1/8 ODF		200RB 9T9M	064768	SAME	REFRIGERATION SERVICE - VLC
ME25S270	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAME	REFRIGERATION SERVICE - VLC
ME25S290	SOLENOID	1-1/8 ODF		200RB 12T9M	064822	SAME	REFRIGERATION SERVICE - VLC
ME34S2110	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC
ME34S2110-20	SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME34S290	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
ME34S290-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2110	SOLENOID	1-3/8 ODF		240RA 20T11M	046636	SAME	REFRIGERATION SERVICE - VLC
ME42S2110-20	SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2130	SOLENOID	1-5/8 ODF		240RA 20T13M	046637	SAME	REFRIGERATION SERVICE - VLC
ME42S2130-20	SOLENOID	1-5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2170	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
ME-42S2170-20	SOLENOID	2-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME6S130	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
ME6S130-HP	SOLENOID	3/8 ODF		NONE	NONE	NONE	NO CROSS
ME6S140	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAME	REFRIGERATION SERVICE - VLC
ME6S140-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME9S230	SOLENOID	3/8 ODF		200RB 4S3M	047512	3/8 ODF X 1/2 ODM	REFRIGERATION SERVICE - VLC
ME9S240	SOLENOID	1/2 ODF		200RB 4S4M	047514	1/2 ODF X 5/8 ODM	REFRIGERATION SERVICE - VLC
ME9S240-HP	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
ME9S250	SOLENOID	5/8 ODF		200RB 4T5M	056518	SAME	REFRIGERATION SERVICE - VLC
MFE 15C	TXV	15 TON R12		TER 15 FC	NONE	SAME	
MFE 20C	TXV	20 TON R12		TER 20 FC	055109	SAME	
MFE 25C	TXV	25 TON R12		TER 25 FC	055111	25 TON R12	
MJE 13C	TXV	13 TON R134		TJRE 13 MC	NONE	SAME	
MJE 15C	TXV	15 TON R134		TER 16 MC	NONE	16 TON R134	
MJE 20C	TXV	20 TON R134		TER 19 MC	NONE	19 TON R134	
MJE 25C	TXV	25 TON R134		TER 25 MC	NONE	SAME	
MKC-1	SOLENOID	COIL DUAL VOLTAGE		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	COIL STANDARD SINGLE AC VOLTAGE		AMG	VARIOUS	SAME	NOT INTERCHANGEABLE
MKC-1	SOLENOID	COIL		AMG	VARIOUS	SAME	NOT INTERCHANGEABLE
MKC-1 115 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 120/50-60 CAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 208-240/50-60 CAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24/50-60 CAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 480/50-60 JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 DUAL CAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-119	SOLENOID	120/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-121	SOLENOID	240/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-124	SOLENOID	240/50 JAK		NONE	NONE	NONE	NO CROSS
MKC-129	SOLENOID	120/50 JAK		NONE	NONE	NONE	NO CROSS
MKC-1E 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
MKC-1S 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
MKC-2	SOLENOID	COIL DUAL VOLTAGE		NONE	NONE	NONE	NO CROSS
MKC-2	SOLENOID	COIL STANDARD SINGLE AC VOLTAGE		AMG	VARIOUS	SAME	NOT INTERCHANGEABLE
MKC-2	SOLENOID	COIL		AMG	VARIOUS	SAME	NOT INTERCHANGEABLE
MKC-2 115 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 12 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 120/50-60 CAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 208-240/50-60 CAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24/50-60 CAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 32 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 480/50-60 JAK	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
MKC-2 64 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 DUAL CAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-2/OMKC-2	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NO CROSS
MKC-2/OMKC-2	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NO CROSS
MKC-219	SOLENOID	120/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-221	SOLENOID	240/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-2E 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
MRE 15C	TXV	15 TON R502		TER 16 RC	NONE	16 TON R502	
MRE 20C	TXV	20 TON R502		TER 21 RC	NONE	21 TON R502	
MRE 25C	TXV	25 TON R502		TER 27 RC	NONE	27 TON R502	
MSE 15C	TXV	15 TON R404		TER 16 SC	NONE	16 TON R404	
MSE 20C	TXV	20 TON R404		TER 21 SC	NONE	21 TON R404	
MSE 25C	TXV	25 TON R404		TER 27 SC	NONE	27 TON R404	
MVE 21C	TXV	21 TON R22		TER 22 HC	061673	22 TON R22	
MVE 26C	TXV	26 TON R22		TER 26 HC	061674	SAME	
MVE 34C	TXV	34 TON R22		TER 35 HC	061675	35 TON R22	
MVE 42C	TXV	42 TON R22		TER 45 HC	061676	45 TON R22	
NIF 1/2C	TXV	1/2 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/2 FC	054226	SAME	
NIF 1/4C	TXV	1/4 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/4 FC	054258	SAME	
NIF 1/8C	TXV	1/8 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/8 FC	NONE	SAME	
NIF 1C	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 FC	047758	SAME	
NIJ 1/2C	TXV	1/2 TON R134	3/8 X 3/8 SAE - 5'	AFA 1/2 MC	059625	SAME	
NIJ 1/4C	TXV	1/4 TON R134	1/4 X 3/8 SAE - 30°	AFA 1/4 MC	057607	SAME	
NIJ 1C	TXV	1 TON R134	3/8 X 3/8 SAE - 5'	AFA 1 MC	NONE	SAME	
NIR 1/2C	TXV	1/2 TON R502	1/4 X 3/8 SAE - 5'	AFA 1/2 RC	048431	SAME	
NIR 1/4C	TXV	1/4 TON R502	1/4 X 3/8 SAE - 5'	AFA 1/4 RC	049871	SAME	
NIR 1C	TXV	1 TON R502	3/8 X 3/8 SAE - 5'	AFA 1 RC	NONE	SAME	
NIS 1/2C	TXV	1/2 TON R404	3/8 X 3/8 SAE - 5'	AFA 1/2 SC	NONE	SAME	
NIS 1/4C	TXV	1/4 TON R404	3/8 X 3/8 SAE - 5'	AFA 1/4 SC	NONE	SAME	
NIS 1/8C	TXV	1/8 TON R404		HF 1/8 SC	NONE	SAME	
NIS 1C	TXV	1 TON R404	3/8 X 3/8 SAE - 5'	AFA 1 SC	NONE	SAME	
NIV 1/2C	TXV	1/2 TON R22	1/4 X 3/8 SAE - 30°	AFA 1/2 HC	057260	SAME	
NIV 1/4C	TXV	1/4 TON R22	1/4 X 3/8 SAE - 30°	AFA 1/4 HC	057261	SAME	
NIV 1C	TXV	1 TON R22	3/8 X 3/8 SAE - 5'	AFA 1 HC	054231	SAME	
OB10F2	SOLENOID	1/2 SAE		500RB 6F4	063327	SAME	2 WAY - NORMALLY OPEN
OB10S2	SOLENOID	5/8 ODF		500RB 6S5	063335	SAME	2 WAY - NORMALLY OPEN
OB14P2	SOLENOID	1/2 FPT		500RB 7T4	064064	1/2 ODF	2 WAY - NORMALLY OPEN
OB14S2	SOLENOID	5/8 ODF		500RB 7S5	064038	5/8 ODF x 7/8 ODM	REFRIGERATION SERVICE - VLC
OB19P2	SOLENOID	3/4 FPT		540RA 9T7	060395	7/8 ODF	2 WAY - NORMALLY OPEN
OB19S2	SOLENOID	5/8 ODF		540RA 9T5	060394	SAME	2 WAY - NORMALLY OPEN
OB19S2	SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	2 WAY - NORMALLY OPEN
OB25P2	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
OB25S2	SOLENOID	7/8 ODF		540RA 12T7	060397	SAME	2 WAY - NORMALLY OPEN
OB25S2	SOLENOID	1-1/8 ODF		540RA 12T9	060398	SAME	2 WAY - NORMALLY OPEN
OB33S2	SOLENOID	1-3/8 ODF		540RA 16T11	047214	SAME	2 WAY - NORMALLY OPEN
OB33S2	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME	2 WAY - NORMALLY OPEN
OB33S2	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
OB9F2	SOLENOID	3/8 SAE		500RB 5F4	063312	1/2 SAE	2 WAY - NORMALLY OPEN
OB9P2	SOLENOID	3/8 FPT		500RB 5P3	063316	SAME	2 WAY - NORMALLY OPEN
OB9S2	SOLENOID	1/2 ODF		500RB 5S4	063318	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
OCV-10	SOLENOID	10 PSI		NONE	NONE	NONE	NO CROSS
OCV-20	SOLENOID	20 PSI		NONE	NONE	NONE	NO CROSS
OCV-5	SOLENOID	5 PSI		NONE	NONE	NONE	NO CROSS
OE10S240	SOLENOID	1/2 ODF		500RB 5T4	063323	SAME	2 WAY - NORMALLY OPEN
OE10S250	SOLENOID	5/8 ODF		500RB 5T5	063325	SAME	2 WAY - NORMALLY OPEN
OE14S250	SOLENOID	5/8 ODF		500RB 7T5	064065	SAME	2 WAY - NORMALLY OPEN
OE14S250-20	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE19S250	SOLENOID	5/8 ODF		540RA 9T5	060394	SAME	2 WAY - NORMALLY OPEN
OE19S270	SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	2 WAY - NORMALLY OPEN
OE19S270-20	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE25S270	SOLENOID	7/8 ODF		540RA 12T7	046269	SAME	2 WAY - NORMALLY OPEN
OE25S290	SOLENOID	1-1/8 ODF		540RA 12T9	060398	SAME	2 WAY - NORMALLY OPEN
OE34S2110	SOLENOID	1-3/8 ODF		540RA 16T11	047214	SAME	2 WAY - NORMALLY OPEN
OE34S2110-20	SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
OE34S290	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME	2 WAY - NORMALLY OPEN
OE34S290-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE42S2130	SOLENOID	1-5/8 ODF		540RA 20T13	060402	SAME	2 WAY - NORMALLY OPEN
OE42S2130-20	SOLENOID	1-5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE42S2170	SOLENOID	2-1/8 ODF		540RA 20T17	060403	SAME	2 WAY - NORMALLY OPEN
OE9S230	SOLENOID	3/8 ODF		500RB 5T3	063322	SAME	2 WAY - NORMALLY OPEN
OE9S240	SOLENOID	1/2 ODF		500RB 5T4	063323	SAME	2 WAY - NORMALLY OPEN
OE9S240-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OF-303	OIL CONTROL	SEALED MODEL		ADF 303	064952	SAME	
OF-303-BP	OIL CONTROL	SEALED MODEL W/BYP		NONE	NONE	NONE	NO CROSS
OFE 12C	TXV	12 TON R12		TER 13 FC		13 TON R12	
OFE 16C	TXV	16 TON R12		TER 15 FC		15 TON R12	
OFE 23C	TXV	23 TON R12		TER 25 FC		25 TON R12	
OFE 32C	TXV	32 TON R12		TIR 35 FC		35 TON R12	
OFE 40C	TXV	40 TON R12		THR 45 FC		45 TON R12	
OFE 9C	TXV	9 TON R12		HFES 9 FC		SAME	
OFE-1	OIL CONTROL	ELEMENT W/GASKET		NONE	NONE	NONE	NO CROSS
OJE 12C	TXV	12 TON R134		TJRE 13 MC		13 TON R134	
OJE 16C	TXV	16 TON R134		TER 16 MC		16 TON R134	
OJE 23C	TXV	23 TON R134		TER 25 MC		25 TON R134	
OJE 32C	TXV	32 TON R134		TER 31 MC		31 TON R134	
OJE 40C	TXV	40 TON R134		TIR 45 MC		45 TON R134	
OJE 9C	TXV	9 TON R134		TJRE 11 MC		11 TON R134	
OL-1CH	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-1FH	OIL CONTROL	MAX rP 30		W-OLC-2-4	065170	SAME	
OL-1HH-6	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-1NH-2	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-2CH	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2FH	OIL CONTROL	MAX rP 90		W-OLC-2-4	065170	SAME	
OL-2HH-6	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2NH-2	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2TH-1	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2TH-2	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-60XH	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-60XH-1	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OMKC-1	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-1	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-1 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 COIL	SOLENOID	STANDARD SINGLE AC VOLTAGE		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 COIL	SOLENOID	DUAL VOLTAGE		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
ORD-4-20	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-25	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-30	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-35	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORE 12C	TXV	12 TON R502		TRAE + 12 RC		SAME	
ORE 21C	TXV	21 TON R502		TRAE + 20 RC		20 TON R502	
ORE 30C	TXV	30 TON R502		TER 27 RC		27 TON R502	
ORE 35C	TXV	35 TON R502		TIR 37 RC		37 TON R502	
ORE 45C	TXV	45 TON R502		THR 48 RC		48 TON R502	
ORE 9C	TXV	9 TON R502		TRAE + 8 RC		8 TON R502	
ORI-10-65/225H	REGULATORS		1 1/8 ODF	IPR-10	047310	SAME	30/100 adjustment range
ORI-10-65/225H	REGULATORS		1 3/8 ODF	IPR-10	047311	SAME	30/100 adjustment range
ORI-6-65/225H	REGULATORS		5/8 ODF	IPR-6	047303	SAME	30/100 adjustment range
ORI-6-65/225H	REGULATORS		7/8 ODF	IPR-6	047301	SAME	30/100 adjustment range

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ORI-6-65/225H	REGULATORS		1 1/8 ODF	IPR-6	047305	SAME	30/100 adjustment range
ORIL-PL-27E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
ORIT-10-0/50	REGULATORS		7/8 ODF	IPR-10	047306	SAME	W/ Pressure Tap
ORIT-10-0/50	REGULATORS		1 1/8 ODF	IPR-10	047307	SAME	W/ Pressure Tap
ORIT-10-0/50	REGULATORS		1 3/8 ODF	IPR-10	047308	SAME	W/ Pressure Tap
ORIT-10-30/100	REGULATORS		7/8 ODF	IPR-10	047309	SAME	W/ Pressure Tap
ORIT-10-30/100	REGULATORS		1 1/8 ODF	IPR-10	047310	SAME	W/ Pressure Tap
ORIT-10-30/100	REGULATORS		1 3/8 ODF	IPR-10	047311	SAME	W/ Pressure Tap
ORIT-12-0/100	REGULATORS		1 1/8 ODF	EPRB-12 T 9	057242	SAME	BRASS BODY
ORIT-15-0/100	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
ORIT-20-0/100	REGULATORS		1 5/8 ODF	EPRB-20 T 13	057247	SAME	BRASS BODY, 0/110
ORIT-20-0/100	REGULATORS		2 1/8 ODF	NONE	NONE	NONE	NO CROSS
ORIT-6-0/50	REGULATORS		1/2 SAE STRAINER N/A	IPR-6	047901	SAME	W/ Pressure Tap
ORIT-6-0/50	REGULATORS		5/8 SAE STRAINER N/A	IPR-6	047904	SAME	W/ Pressure Tap
ORIT-6-0/50	REGULATORS		5/8 ODF	IPR-6	047300	SAME	W/ Pressure Tap
ORIT-6-0/50	REGULATORS		7/8 ODF	IPR-6	047301	SAME	W/ Pressure Tap
ORIT-6-0/50	REGULATORS		1 1/8 ODF	IPR-6	047302	SAME	W/ Pressure Tap
ORIT-6-30/100	REGULATORS		1/2 SAE STRAINER N/A	IPR-6	047902	SAME	W/ Pressure Tap
ORIT-6-30/100	REGULATORS		5/8 SAE STRAINER N/A	IPR-6	047903	SAME	W/ Pressure Tap
ORIT-6-30/100	REGULATORS		5/8 ODF	IPR-6	047303	SAME	W/ Pressure Tap
ORIT-6-30/100	REGULATORS		7/8 ODF	IPR-6	047304	SAME	W/ Pressure Tap
ORIT-6-30/100	REGULATORS		1 1/8 ODF	IPR-6	0473605	SAME	W/ Pressure Tap
ORIT-PL-211-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-211E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-25-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-25E-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-27-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-29-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-29E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-311-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-311E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-313-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-313E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-37-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-37E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-39-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-39E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-411-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-411E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-413-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-413E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-417-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-417E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-49-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-49E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-511-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-511E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-513-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-513E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-517-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
ORIT-PL-517E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
OROA-5-100	REGULATORS	100 psi setting	5/8 ODF	HP8 T 5-110	033862	SAME	110 psi setting, others available
OROA-5-180	REGULATORS	180 psi setting	5/8 ODF	HP8 T 5-185	032407	SAME	185 psi setting, others available
OSE 12 - ZP	TXV	12 TON R404	7/8 X 1 3/8 ODF - 5'	TRAE + 12 SW35		SAME	
OSE 21C	TXV	21 TON R404		TRAE + 20 SC		20 TON R404	
OSE 30C	TXV	30 TON R404		TER 27 SC		27 TON R404	
OSE 35C	TXV	35 TON R404		TIR 37 SC		37 TON R404	
OSE 45C	TXV	45 TON R404		THR 48 SC		48 TON R404	
OSE 9	TXV	R-404A		NONE	NONE	NONE	
OSE 9C	TXV	9 TON R404		NONE	NONE	NONE	
OVE 15	TXV	R-22		TRAE + 15 HC 7/8 X 1-1/8 ODF S/T	062721	NONE	
OVE 15 - C	TXV	15 TON R22	7/8 X 1 1/8 ODF - 5'	NONE	NONE	NONE	
OVE 20	TXV	R-22		TRAE + 20 H*	NONE	NONE	
OVE 20 - C	TXV	20 TON R22	7/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
OVE 30	TXV	R-22		TRAE + 30 H*	NONE	NONE	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
OVE 30 - C	TXV	30 TON R22	1 1/8 X 1 3/8 ODF - 5'	TRAE+ 30 HC 1-1/8 X 1-3/8 ODFS/T	062728	SAME	
OVE 40	TXV	R-22		TRAE+ 40 HC 1-1/8 X 1-3/8 ODFS/T	062733	SAME	
OVE 40 - C	TXV	40 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
OVE 55	TXV	R-22		TIR 55 HC VLF	061677	SAME	
OVE 55 - CP-100	TXV	55 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
OVE 70	TXV	R-22		THR 75 HC VLF	064961	SAME	
OVE 70 - CP-100	TXV	70 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
PFE 12C	TXV	12 TON R12		NONE	NONE	NONE	
PFE 8C	TXV	8 TON R12		NONE	NONE	NONE	
PJE 12C	TXV	12 TON R134		NONE	NONE	NONE	
PJE 8C	TXV	8 TON R134		NONE	NONE	NONE	
PRE 12C	TXV	12 TON R502		NONE	NONE	NONE	
PRE 9C	TXV	9 TON R502		HFES 10 RC 5/8 X 7/8 ODFS/T	058808	10 TON R502	
PSE 12C	TXV	12 TON R404		NONE	NONE	NONE	
PSE 9C	TXV	9 TON R404		NONE	NONE	NONE	
PVE 10C	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	10 TON R22	
PVE 11	TXV	R-22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	NONE	
PVE 11 - CP100	TXV	11 TON R22	5/8 X 7/8 ODF - 5'	NONE	NONE	NONE	
PVE 16	TXV	R-22		HFES 15 HC 5/8 X 7/8 ODF S/T	056823	SAME	
PVE 16 - CP100	TXV	16 TON R22	7/8 X 1 1/8 ODF - 5'	NONE	NONE	NONE	
PVE 20	TXV	R-22		HFES 20 HC 7/8 X 1-1/8 ODFS/T	062055	SAME	
PVE 20 - CP100	TXV	20 TON R22	7/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
Q-0-JC	TXV	1/4 TON R134		HF 1/4 MC	058905	SAME	HF IS BALANCED PORT
Q-0-RC	TXV	1/5 TON R502		HF 1/4 RC	059304	1/4 TON R502	HF IS BALANCED PORT
Q-0-VC	TXV	1/4 TON R22		HF 1/4 HC	058430	SAME	HF IS BALANCED PORT
Q-1-FC	TXV	1/2 TON R12		HF 1/2 FC	054892	SAME	HF IS BALANCED PORT
Q-1-JC	TXV	1/2 TON R134		HF 1/2 MC	057620	SAME	HF IS BALANCED PORT
Q-1-RC	TXV	1/2 TON R502		HF 1/2 RC	054965	SAME	HF IS BALANCED PORT
Q-1-VC	TXV	3/4 TON R22		HF 1 HC	054927	1 TON R22	HF IS BALANCED PORT
Q-2-FC	TXV	5/8 TON R12		HF 1/2 FC	054892	1/2 TON R12	HF IS BALANCED PORT
Q-2-JC	TXV	3/4 TON R134		HF 3/4 MC	057879	SAME	HF IS BALANCED PORT
Q-2-RC	TXV	5/8 TON R502		HF 1/2 RC	054965	1/2 TON R502	HF IS BALANCED PORT
Q-2-VC	TXV	1 TON R22		HF 1 HC	054927	SAME	HF IS BALANCED PORT
Q-3-FC	TXV	1 TON R12		HF 1 FC	054905	SAME	HF IS BALANCED PORT
Q-3-JC	TXV	11/4 TON R134		HF 11/2 MC	054914	11/2 TON R134	HF IS BALANCED PORT
Q-3-RC	TXV	1 TON R502		HF 1 RC	054976	SAME	HF IS BALANCED PORT
Q-3-VC	TXV	11/2 TON R22		HF 11/2 HC	054933	SAME	HF IS BALANCED PORT
Q-4-FC	TXV	11/2 TON R12		HF 11/2 FC	054914	SAME	HF IS BALANCED PORT
Q-4-JC	TXV	11/2 TON R134		HF 11/2 MC	054914	SAME	HF IS BALANCED PORT
Q-4-RC	TXV	11/2 TON R502		HF 11/2 RC	054984	SAME	HF IS BALANCED PORT
Q-4-VC	TXV	21/2 TON R22		HF 21/2 HC	054947	SAME	HF IS BALANCED PORT
Q-5-FC	TXV	2 TON R12		HF 2 FC	053060	SAME	HF IS BALANCED PORT
Q-5-JC	TXV	21/2 TON R134		HF 21/2 MC		SAME	HF IS BALANCED PORT
Q-5-RC	TXV	2 TON R502		HF 2 RC	053061	SAME	HF IS BALANCED PORT
Q-5-VC	TXV	31/2 TON R22		HF 3 HC	053316	3 TON R22	HF IS BALANCED PORT
Q-6-RC	TXV	3 TON R502		HF 31/2 RC	055936	31/2 TON R502	HF IS BALANCED PORT
Q-6-VC	TXV	5 TON R22		HF 51/2 HC	055920	51/2 TON R22	HF IS BALANCED PORT
QE-0-FC	TXV	1/5 TON R12		HFE 1/8 FC	054883	1/8 TON R12	HF IS BALANCED PORT
QE-0-JC	TXV	1/4 TON R134		HFE 1/4 MC	057860	SAME	HF IS BALANCED PORT
QE-0-RC	TXV	1/5 TON R502		HFE 1/4 RC	059066	1/4 TON R502	HF IS BALANCED PORT
QE-0-VC	TXV	1/4 TON R22		HFE 1/4 HC	057381	SAME	HF IS BALANCED PORT
QE-1-FC	TXV	1/2 TON R12		HFE 1/2 FC	054895	SAME	HF IS BALANCED PORT
QE-1-JC	TXV	1/2 TON R134		HFE 1/2 MC	057616	SAME	HF IS BALANCED PORT
QE-1-RC	TXV	1/2 TON R502		HFE 1/2 RC	054967	SAME	HF IS BALANCED PORT
QE-1-VC	TXV	3/4 TON R22		HFE 1 HC	054930	1 TON R22	HF IS BALANCED PORT
QE-2-FC	TXV	5/8 TON R12		HFE 1/2 FC	054895	1/2 TON R12	HF IS BALANCED PORT
QE-2-JC	TXV	3/4 TON R134		HFE 3/4 MC	057861	SAME	HF IS BALANCED PORT
QE-2-RC	TXV	5/8 TON R502		HFE 1/2 RC	054967	1/2 TON R502	HF IS BALANCED PORT
QE-2-VC	TXV	1 TON R22		HFE 1 HC	054930	2 TON R22	HF IS BALANCED PORT
QE-3-FC	TXV	1 TON R12		HFE 1 FC	054909	SAME	HF IS BALANCED PORT
QE-3-JC	TXV	11/4 TON R134		HFE 11/2 MC	057895	11/2 TON R134	HF IS BALANCED PORT
QE-3-RC	TXV	1 TON R502		HFE 1 RC	054979	SAME	HF IS BALANCED PORT
QE-3-VC	TXV	11/2 TON R22		HFE 11/2 HC	054936	SAME	HF IS BALANCED PORT
QE-4-FC	TXV	11/2 TON R12		HFE 11/2 FC	054917	SAME	HF IS BALANCED PORT
QE-4-JC	TXV	11/2 TON R134		HFE 11/2 MC	057895	SAME	HF IS BALANCED PORT

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrp.	Comment
QE-4-RC	TXV	11/2 TON R502		HFE 11/2 RC	054988	SAME	HF IS BALANCED PORT
QE-4-VC	TXV	21/2 TON T22		HFE 21/2 HC	054950	SAME	HF IS BALANCED PORT
QE-5-FC	TXV	2 TON R12		HFE 2 FC	053069	SAME	HF IS BALANCED PORT
QE-5-JC	TXV	21/2 TON R134		HFE 21/2 MC	057622	SAME	HF IS BALANCED PORT
QE-5-RC	TXV	2 TON R502		HFE 2 RC	053070	SAME	HF IS BALANCED PORT
QE-5-VC	TXV	31/2 TON R22		HFE 3 HC	053317	3 TON R22	HF IS BALANCED PORT
QE-6-RC	TXV	3 TON R502		HFE 31/2 RC	054142	31/2 TON R502	HF IS BALANCED PORT
QE-6-VC	TXV	5 TON R22		HFE 51/2 HC	054140	51/2 TON R22	HF IS BALANCED PORT
Q-O-FC	TXV	1/5 TON R12		HF 1/8 FC	054880	1/8 TON R12	HF IS BALANCED PORT
R183P1	SOLENOID	3/8 ODF		231SB 08P04	034171	1/2 FPT	STEAM SERVICE
R184P1	SOLENOID	1/2 FPT		231SB 08P04	034171	SAME	STEAM SERVICE
R246P1	SOLENOID	3/4 FPT		231SB 12P06	040069	SAME	STEAM SERVICE
R-3H-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
R-3H-	KITS			NONE	NONE	NONE	NO CROSS
R-3L-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
R-3P-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
R-3P	KITS			NONE	NONE	NONE	NO CROSS
R-8-	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
R-8	KITS			NONE	NONE	NONE	NO CROSS
RC-10098	DRIER	100 CU. IN.		H100	089338	SAME	DRIER BLOCK
RC-10098-HH	DRIER	100 CU. IN.		W100	043582	SAME	DRIER BLOCK
RC-4267	DRIER	42 CU. IN.		D42	056662	SAME	DRIER BLOCK
RC-4864	DRIER	48 CU. IN.		D48	059541	SAME	DRIER BLOCK
RC-4864-HH	DRIER	48 CU. IN.		W48	061235	SAME	DRIER BLOCK
RCVE 2 GA	TXV	2 TON R22	SAE or ODF 30"	HFES 2 HCA	059670	SAME	ODF CONNECTIONS
RCVE 3 GA	TXV	3 TON R22	SAE or ODF 30"	HFES 3 HCA	058648	SAME	ODF CONNECTIONS
RCVE 4 GA	TXV	4 TON R22	SAE or ODF 30"	TCLE 3 HCA		3 TON R22	ODF CONNECTIONS
RCVE 5 GA	TXV	5 TON R22	SAE or ODF 30"	HFES 51/2 HCA	057378	51/2 TON R22	ODF CONNECTIONS
RCW-100	DRIER	100 CU. IN.		W100	043582	SAME	DRIER BLOCK
RCW-42	DRIER	42 CU. IN.		D42	056662	STD	DRIER BLOCK
RCW-48	DRIER	48 CU. IN.		H48	059542	SAME	DRIER BLOCK
RIVE 2-GA-RPB	TXV	2 TON R22	SAE or ODF 30"	AAE 2 HCA	059579	SAME	ODF CONNECTIONS
RIVE 3-GA-RPB	TXV	31/2 TON R22	SAE or ODF 30"	AAE 3 HCA	064275	31/2 TON R22	ODF CONNECTIONS
RIVE 4-GA-RPB	TXV	4 TON R22	SAE or ODF 30"	AAE 4 HCA	064276	SAME	ODF CONNECTIONS
RIVE 5-GA-RPB	TXV	41/2 TON R22	SAE or ODF 30"	AAE 4 HCA	064276	4 TON R22	ODF CONNECTIONS
ROF-413	OIL CONTROL	REPLACEABLE OIL FILT.		NONE	NONE	NONE	NO CROSS
RPE-100	DRIER	100 CU. IN.		F100	095762	SAME	FILTER ELEMENT
RPE-48-BD	DRIER	48 CU. IN.		F48R	047664	SAME	FILTER ELEMENT
RSF-4811-T	DRIER	13/8 ODF		STAS 4811SV	053938	SAME	TAKE APART SHELL - SUCTION
RSF-4813-T	DRIER	15/8 ODF		STAS 4813SV	053043	SAME	TAKE APART SHELL - SUCTION
RSF-4817-T	DRIER	21/8 ODF		STAS 4817SV	053044	SAME	TAKE APART SHELL - SUCTION
RSF-4821-T	DRIER	25/8 ODF		STAS 4821SV	053045	SAME	TAKE APART SHELL - SUCTION
RSF-487-T	DRIER	7/8 ODF		STAS 487SV	058161	SAME	TAKE APART SHELL - SUCTION
RSF-489-T	DRIER	11/8 ODF		STAS 489SV	053937	SAME	TAKE APART SHELL - SUCTION
RSF-9611-T	DRIER	1 3/8 ODF		STAS 9611-T	053014	SAME	TAKE APART SHELL - SUCTION
RSF-9613-T	DRIER	1 5/8 ODF		STAS 9613-T	053017	SAME	TAKE APART SHELL - SUCTION
RSF-9617-T	DRIER	21/8 ODF		STAS 9617SV	053047	SAME	TAKE APART SHELL - SUCTION
RSF-9621-T	DRIER	25/8 ODF		STAS 9621SV	053048	SAME	TAKE APART SHELL - SUCTION
RSF-9625-T	DRIER	31/8 ODF		ATD 9625SV	059739	SAME	TAKE APART SHELL - SUCTION
STA1	OIL CONTROL	OIL LEVEL		OMA-JB1	063519	SAME	TRAX OIL - STANDARD
STA1U-1	OIL CONTROL	OIL LEVEL		OMA-MO1	063518	SAME	TRAX OIL - HUSSMANN
SA-12	SIGHT GLASS	1/4 SAE	1/4 FLARE	HMI-1MM2	065391	SAME	MOISTURE INDICATOR
SA-12FM	SIGHT GLASS	1/4 M X F SAE	1/4 M FLARE X 1/4 F FLARE	HMI-1FM2	065396	SAME	MOISTURE INDICATOR
SA-12S	SIGHT GLASS	1/4 ODF	1/4 ODF	HMI-1TT2	065405	SAME	MOISTURE INDICATOR
SA-13	SIGHT GLASS	3/8 SAE	3/8 FLARE	HMI-1MM3	065392	SAME	MOISTURE INDICATOR
SA-13FM	SIGHT GLASS	3/8 M X F SAE	3/8 M FLARE X 3/8 F FLARE	HMI-1FM3	065397	SAME	MOISTURE INDICATOR
SA-13FU	SIGHT GLASS	3/8 F SAE X SWIV		HMI-1FU3	065403	SAME	MOISTURE INDICATOR
SA-13S	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
SA-13SU	SIGHT GLASS	3/8 ODF X SWIV		AMI-1SU3	048820	SAME	MOISTURE INDICATOR
SA-13U	SIGHT GLASS	3/8 M SAE X SWIV		HMI-1MU3	065400	SAME	MOISTURE INDICATOR
SA-13UU	SIGHT GLASS	3/8 SWIV X SWIV		HMI-1UU3	065412	SAME	MOISTURE INDICATOR
SA-14	SIGHT GLASS	1/2 SAE		HMI-1MM4	065393	SAME	MOISTURE INDICATOR
SA-14FM	SIGHT GLASS	1/2 M X F SAE		HMI-1FM4	065398	SAME	MOISTURE INDICATOR
SA-14FU	SIGHT GLASS	1/2 F SAE X SWIV		HMI-1FU4	065404	SAME	MOISTURE INDICATOR
SA-14S	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SA-14SU	SIGHT GLASS	1/2 ODF X SWIV		AMI-1SU4	048821	SAME	MOISTURE INDICATOR
SA-14U	SIGHT GLASS	1/2 M SAE X SWIV		HMI-1MU4	065401	SAME	MOISTURE INDICATOR
SA-14UU	SIGHT GLASS	1/2 SWIV X SWIV		HMI-1UU4	065413	SAME	MOISTURE INDICATOR
SA-15	SIGHT GLASS	5/8 SAE		HMI-1MM5	065394	SAME	MOISTURE INDICATOR
SA-15S	SIGHT GLASS	5/8 ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
SA-15SU	SIGHT GLASS	5/8 ODF X SWIV		AMI-1SU5	048822	SAME	MOISTURE INDICATOR
SA-15U	SIGHT GLASS	5/8 M SAE X SWIV		HMI-1MU5	065402	SAME	MOISTURE INDICATOR
SA-15UU	SIGHT GLASS	5/8 SWIV X SWIV		HMI-1UU5	065414	SAME	MOISTURE INDICATOR
SA-17S	SIGHT GLASS	7/8 ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
SA-19S	SIGHT GLASS	11/8 ODF		HMI-1TT9	065411	SAME	MOISTURE INDICATOR
SA-211	SIGHT GLASS	13/8 ODF		AMI-2S11	022303	SAME	MOISTURE INDICATOR
SA-213	SIGHT GLASS	15/8 ODF		AMI-2S13	028388	SAME	MOISTURE INDICATOR
SA-217	SIGHT GLASS	21/8 ODF		AMI-2S17	031219	SAME	MOISTURE INDICATOR
SA-K140	SIGHT GLASS	1 1/8 ODF		HMI-1TT9	065411	SAME	MOISTURE INDICATOR
SA-K142	SIGHT GLASS	1/4 ODF		HMI-1TT2	065405	SAME	MOISTURE INDICATOR
SA-K143	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
SA-K144	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
SA-K145	SIGHT GLASS	5/8 ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
SA-K147	SIGHT GLASS	7/8 ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
SA-K87	SIGHT GLASS	LESS CONNECTIONS		NONE	NONE	NONE	
SA-K87	SIGHT GLASS	4X4 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	LESS CONNECTIONS		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	4X4 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	6X6 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	8X8 FPT		NONE	NONE	NONE	
SBFF-A - C	TXV	1 TON R12		HFSC 1 F C		SAME	
SBFF-AA - C	TXV	1/2 TON R12		HFSC 1/2 F C		SAME	
SBFF-AAA-C	TXV	1/4 TON R12		NONE	NONE	NONE	
SBFF-B-C	TXV	13/4 TON R12		NONE	NONE	NONE	
SBFF-C-C	TXV	3 TON R12		NONE	NONE	NONE	
SBFFE-A - C	TXV	1 TON R12		NONE	NONE	NONE	
SBFFE-AAA-C	TXV	1/4 TON R12		NONE	NONE	NONE	
SBFFE-AA-C	TXV	1/2 TON R12		HFESC 1/2 FC 3/8 X 1/2 ODFANG	057397	SAME	
SBFFE-B-C	TXV	13/4 TON R12		HFESC 11/2 FC 3/8 X 1/2 ODFANG	057399	11/2 TON R12	
SBFFE-C-C	TXV	3 TON R12		NONE	NONE	NONE	
SBFJ-AAA-C	TXV	1/4 TON R134		NONE	NONE	NONE	
SBFJ-AA-C	TXV	1/2 TON R134		NONE	NONE	NONE	
SBFJ-A-C	TXV	11/4 TON R134		NONE	NONE	NONE	
SBFJ-B-C	TXV	2 TON R134		NONE	NONE	NONE	
SBFJ-C-C	TXV	31/2 TON R134		NONE	NONE	NONE	
SBFJE-AAA-C	TXV	1/4 TON R134		HFESC 1/4 MC 3/8 X 1/2 ODFANG	057572	SAME	
SBFJE-AA-C	TXV	1/2 TON R134		HFESC 1/2 MC 3/8 X 1/2 ODFANG	058069	SAME	
SBFJE-A-C	TXV	11/4 TON R134		HFESC 1 MC 3/8 X 1/2 ODFANG	057570	1 TON R134	
SBFJE-B-C	TXV	2 TON R134		NONE	NONE	NONE	
SBFJE-C-C	TXV	31/2 TON R134		NONE	NONE	NONE	
SBFR-AAA-C	TXV	1/4 TON R502		HFSC 1/4 RC 3/8 X 1/2 ODFANG	057487	SAME	
SBFR-AA-C	TXV	1/2 TON R502		HFSC 1/2 RC 3/8 X 1/2 ODFANG	057488	SAME	
SBFR-A-C	TXV	1 TON R502		NONE	NONE	NONE	
SBFR-B-C	TXV	2 TON R502		NONE	NONE	NONE	
SBFR-C-C	TXV	3 TON R502		NONE	NONE	NONE	
SBFRE-AAA-C	TXV	1/4 TON R502		NONE	NONE	NONE	
SBFRE-AA-C	TXV	1/2 TON R502		HFESC 1/2 RC 3/8 X 1/2 ODFANG	057437	SAME	
SBFRE-A-C	TXV	1 TON R502		HFESC 1 RC 3/8 X 1/2 ODFANG	057438	SAME	
SBFRE-B-C	TXV	2 TON R502		HFESC 2 RC 3/8 X 1/2 ODFANG	057440	SAME	
SBFRE-C-C	TXV	3 TON R502		NONE	NONE	NONE	
SBFS-A - ZP	TXV			NONE	NONE	NONE	
SBFS-AA - ZP	TXV			NONE	NONE	NONE	
SBFS-AAA-C	TXV	1/4 TON R404		HFSC 1/4 SC 3/8 X 1/2 ODFANG	058249	SAME	
SBFS-AA-C	TXV	1/2 TON R404		HFSC 1/2 SC 3/8 X 1/2 ODFANG	058250	SAME	
SBFS-A-C	TXV	1 TON R404		NONE	NONE	NONE	
SBFS-B-C	TXV	2 TON R404		NONE	NONE	NONE	
SBFS-C-C	TXV	3 TON R404		NONE	NONE	NONE	
SBFSE-A - C	TXV	1 TON R404		NONE	NONE	NONE	
SBFSE-AAA-C	TXV	1/4 TON R404		NONE	NONE	NONE	
SBFSE-AA-C	TXV	1/2 TON R404		NONE	NONE	NONE	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SBFSE-AA-Z	TXV			NONE	NONE	NONE	
SBFSE-AA-ZP	TXV			NONE	NONE	NONE	
SBFSE-A-Z	TXV			NONE	NONE	NONE	
SBFSE-A-ZP	TXV			NONE	NONE	NONE	
SBFSE-B-C	TXV	2 TON R404		NONE	NONE	NONE	
SBFSE-B-Z	TXV			NONE	NONE	NONE	
SBFSE-B-ZP	TXV			NONE	NONE	NONE	
SBFSE-C - Z	TXV			NONE	NONE	NONE	
SBFSE-C - ZP	TXV			NONE	NONE	NONE	
SBFSE-C-C	TXV	3 TON R404		NONE	NONE	NONE	
SBFV-AA - Z	TXV			NONE	NONE	NONE	
SBFV-AAA-C	TXV	1/2 TON R22		HFSC 1/2 HC 3/8 X 1/2 ODFANG	057293	SAME	
SBFV-AA-C	TXV	3/4 TON R22		HFSC 1 HC 3/8 X 1/2 ODFANG	057468	1 TON R22	
SBFV-A-C	TXV	11/2 TON R22		NONE	NONE	NONE	
SBFV-B-C	TXV	23/4 TON R22		NONE	NONE	NONE	
SBFV-C-C	TXV	51/4 TON R22		NONE	NONE	NONE	
SBFVE-A - Z	TXV			HFESC 11/2 HZ 3/8 X 1/2 ODFANG	057321		
SBFVE-A - ZP40	TXV			HFESC 11/2 HW35 3/8 X 1/2 ODFANG	057419		
SBFVE-AA - Z	TXV			HFESC 1 HZ 3/8 X 1/2 ODFANG	057430		
SBFVE-AA - ZP40	TXV			HFESC 1 HW35 3/8 X 1/2 ODFANG	057416		
SBFVE-AAA-C	TXV	1/2 TON R22		HFESC 1/2 HC 3/8 X 1/2 ODFANG	057291	SAME	
SBFVE-AA-C	TXV	3/4 TON R22		HFESC 1 HC 3/8 X 1/2 ODFANG	057410	1 TON R22	
SBFVE-A-C	TXV	11/2 TON R22		HFESC 11/2 HC 3/8 X 1/2 ODFANG	057292	SAME	
SBFVE-B - Z	TXV			HFESC 21/2 HZ 3/8 X 1/2 ODFANG	057434		
SBFVE-B - ZP40	TXV			NONE	NONE	NONE	
SBFVE-B-C	TXV	23/4 TON R22		HFESC 21/2 HC 3/8X1/2 ODFANG	057411	21/2 TON R22	
SBFVE-C-C	TXV	51/4 TON R22		HFESC 51/2 HC 3/8 X 1/2 ODFANG	057781	51/2 TON R22	
S-CB9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
SF 2-C	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAE	053060	SAME	
SF 3-C	TXV	3 TON R12		NONE	NONE	NONE	
SF-112-FM	DRIER	1/4 SAE FLARE NUT X SAE		NONE	NONE	NONE	NO CROSS
SF-112-MF	DRIER	1/4 SAE X SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
SF-114	DRIER	1/2 ODF		ASF 28S4-VV	049178	SAME	SUCTION FILTER
SF-114F	DRIER	1/2 SAE		ASF 28S4-VV	049178	1/2 ODF	SUCTION FILTER
SF-115	DRIER	5/8 ODF		ASF 35S5-VV	049180	SAME	SUCTION FILTER
SF-115F	DRIER	5/8 SAE		ASF 35F5-VV	049179	SAME	SUCTION FILTER
SF-283F	DRIER	3/8 SAE		ASF 35F3-VV	065509	SAME	SUCTION FILTER
SF-285F	DRIER	5/8 SAE		NONE	NONE	NONE	NO CROSS
SF285F-T	DRIER	5/8 SAE		ASF 35F5-VV	049179	SAME	SUCTION FILTER
SF-285-T	DRIER	5/8 ODF		ASF 35S5-VV	049180	SAME	SUCTION FILTER
SF-286-T	DRIER	3/4 ODF		ASF 45S6-VV	049181	SAME	SUCTION FILTER
SF-287-T	DRIER	7/8 ODF		ASF 45S7-VV	049182	SAME	SUCTION FILTER
SF-289-T	DRIER	11/8 ODF		ASF 50S9-VV	049183	SAME	SUCTION FILTER
SF-4811-T	DRIER	13/8 ODF		ASF 75S11-VV	049184	SAME	SUCTION FILTER
SF-4813-T	DRIER	15/8 ODF		ASF 75S13-VV	049185	SAME	SUCTION FILTER
SF-489-T	DRIER	11/8 ODF		ASF 50S9-VV	049183	SAME	SUCTION FILTER
SF-64170T	DRIER	2 1/8 ODF		ASF 64S17-V	063113	SAME	SUCTION FILTER
SF-6421-T	DRIER	2 5/8 ODF		ASF 64S21-V	063115	SAME	SUCTION FILTER
SFE 2-C	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAE ANG	053069	SAME	
SFE 3-C	TXV	3 TON R12	1/2 X 7/8 ODF - 5'	HFE 3-1/2 FC 3/8 X 1/2 SAE ANG	054138	31/2 TON R12	
SFE 5	TXV	R-12		NONE	NONE	NONE	
SFE 5-C	TXV	5 TON R12	5/8 X 7/8 ODF - 5'	NONE	NONE	NONE	
SFE 6-C	TXV	6 TON R12		NONE	NONE	NONE	
SHGB-15	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
SHGB-15	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
SHGB-8	REGULATORS		7/8 ODF	NONE	NONE	NONE	NO CROSS
SHGB-8	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
SHGBE-15	REGULATORS	HOT GAS	1 1/8 ODF	NONE	NONE	NONE	NO CROSS
SHGBE-15	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
SHGBE-8	REGULATORS		7/8 ODF	NONE	NONE	NONE	NO CROSS
SHGBE-8	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
SJ 21/2-C	TXV	21/2 TON R134		HF 21/2 M *		SAME	
SJ 2-C	TXV	2 TON R134		HF 21/2 M *		21/2 TON R134	
SJE 2-C	TXV	2 TON R134		HFE 21/2 M *		21/2 TON R134	
SJE 3	TXV	R-134A		HFES 4 M*	NONE	NONE	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SJE 5	TXV	R-134A		HFES 6 M*	NONE	NONE	
SJE 6-C	TXV	6 TON R134		HFE 6 M *		SAME	
SORIT-12-0/100	REGULATORS	EVAPORATOR	1 1/8 ODF	EPRBS-12 T 9	057243	SAME	W/ Coil
SORIT-15-0/100	REGULATORS		1 3/8 ODF	EPRBS-16 T 11	057246	SAME	W/ Coil
SORIT-20-0/100	REGULATORS		2 1/8 ODF	NONE	NONE	NONE	NO CROSS
SORIT-20-0/100	REGULATORS		1 5/8 ODF	EPRBS -20 T 13	057249	SAME	W/ Coil
SORIT-PL-211S-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-211SE-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-25S-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-25SE-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-27S-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-27SE-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-29S-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-29SE-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-311S-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-311SE-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-313S-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-313SE-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-37S-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-37SE-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-39S-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-39SE-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-411S-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-411SE-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-413S-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-413SE-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-417S-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-417SE-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-49S-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-49SE-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-511S-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-511SE-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-513S-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-513SE-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-517S-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-517SE-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SQ-0-FC	TXV	1/5 TON R12		HFSC 1/8 FC	057460	1/8 TON R12	HF IS BALANCED PORT
SQ-0-JC	TXV	1/4 TON R134		HFSC 1/4 MC	057573	SAME	HF IS BALANCED PORT
SQ-0-RC	TXV	1/5 TON R502		HFSC 1/4 RC	061756	1/4 TON R502	HF IS BALANCED PORT
SQ-0-VC	TXV	1/4 TON R22		HFSC 1/4 HC	057467	SAME	HF IS BALANCED PORT
SQ-1-FC	TXV	1/2 TON R12		HFSC 1/2 FC	057462	SAME	HF IS BALANCED PORT
SQ-1-JC	TXV	1/2 TON R134		HFSC 1/2 MC	058067	SAME	HF IS BALANCED PORT
SQ-1-RC	TXV	1/2 TON R502		HFSC 1/2 RC	057488	SAME	HF IS BALANCED PORT
SQ-1-VC	TXV	3/4 TON R22		HFSC 1 HC	057468	1 TON R22	HF IS BALANCED PORT
SQ-2-FC	TXV	5/8 TON R12		HFSC 1/2 FC	057462	1/2 TON R12	HF IS BALANCED PORT
SQ-2-JC	TXV	3/4 TON R134		HFSC 3/4 MC	058301	SAME	HF IS BALANCED PORT
SQ-2-RC	TXV	5/8 TON R502		HFSC 1/2 RC	057488	1/2 TON R502	HF IS BALANCED PORT
SQ-2-VC	TXV	1 TON R22		HFSC 1 HC	057468	SAME	HF IS BALANCED PORT
SQ-3-FC	TXV	1 TON R12		HFSC 1 FC	057463	SAME	HF IS BALANCED PORT
SQ-3-JC	TXV	11/4 TON R134		HFSC 11/2 MC	057569	11/2 TON R134	HF IS BALANCED PORT
SQ-3-RC	TXV	1 TON R502		HFSC 1 RC	057489	SAME	HF IS BALANCED PORT
SQ-3-VC	TXV	11/2 TON R22		HFSC 11/2 HC	057469	SAME	HF IS BALANCED PORT
SQ-4-FC	TXV	11/2 TON R12		HFSC 11/2 FC	057464	SAME	HF IS BALANCED PORT
SQ-4-JC	TXV	11/2 TON R134		HFSC 11/2 MC	057569	SAME	HF IS BALANCED PORT
SQ-4-RC	TXV	11/2 TON R502		HFSC 11/2 RC	057490	SAME	HF IS BALANCED PORT
SQ-4-VC	TXV	21/2 TON R22		HFSC 21/2 HC	057471	SAME	HF IS BALANCED PORT
SQ-5-FC	TXV	2 TON R12		HFSC 2 FC	057465	SAME	HF IS BALANCED PORT
SQ-5-JC	TXV	21/2 TON R134		HFSC 21/2 MC		SAME	HF IS BALANCED PORT
SQ-5-RC	TXV	2 TON R502		HFSC 2 RC	057491	SAME	HF IS BALANCED PORT
SQ-5-VC	TXV	31/2 TON R22		HFSC 3 HC		3 TON R22	HF IS BALANCED PORT
SQ-6-RC	TXV	3 TON R502		HFSC 3 RC		SAME	HF IS BALANCED PORT
SQ-6-VC	TXV	5 TON R22		HFSC 51/2 HC		51/2 TON R22	HF IS BALANCED PORT
SQE-0-FC	TXV	1/5 TON R12		HFESC 1/8 FC	057395	1/8 TON R12	HF IS BALANCED PORT
SQE-0-JC	TXV	1/4 TON R134		HFESC 1/4 MC	057572	SAME	HF IS BALANCED PORT
SQE-0-RC	TXV	1/5 TON R502		HFESC 1/4 RC	058491	1/4 TON R502	HF IS BALANCED PORT

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SOE-0-VC	TXV	1/4 TON R22		HFESC 1/4 HC	057795	SAME	HF IS BALANCED PORT
SOE-1-FC	TXV	1/2 TON R12		HFESC 1/2 FC	057397	SAME	HF IS BALANCED PORT
SOE-1-JC	TXV	1/2 TON R134		HFESC 1/2 MC	058069	SAME	HF IS BALANCED PORT
SOE-1-RC	TXV	1/2 TON R502		HFESC 1/2 RC	057437	SAME	HF IS BALANCED PORT
SOE-1-VC	TXV	3/4 TON R22		HFESC 1 HC	057410	1 TON R22	HF IS BALANCED PORT
SOE-2-FC	TXV	5/8 TON R12		HFESC 1/2 FC	057397	1/2 TON R12	HF IS BALANCED PORT
SOE-2-JC	TXV	3/4 TON R134		HFESC 3/4 MC	058070	SAME	HF IS BALANCED PORT
SOE-2-RC	TXV	5/8 TON R502		HFESC 1/2 RC	057437	1/2 TON R502	HF IS BALANCED PORT
SOE-2-VC	TXV	1 TON R22		HFESC 1 HC	057410	SAME	HF IS BALANCED PORT
SOE-3-FC	TXV	1 TON R12		HFESC 1 FC	057398	SAME	HF IS BALANCED PORT
SOE-3-JC	TXV	1 1/4 TON R134		HFESC 1 1/2 MC	057840	1 1/2 TON R134	HF IS BALANCED PORT
SOE-3-RC	TXV	1 TON R502		HFESC 1 RC	057438	SAME	HF IS BALANCED PORT
SOE-3-VC	TXV	1 1/2 TON R22		HFESC 1 1/2 HC	057292	SAME	HF IS BALANCED PORT
SOE-4-FC	TXV	1 1/2 TON R12		HFESC 1 1/2 FC	057399	SAME	HF IS BALANCED PORT
SOE-4-JC	TXV	1 1/2 TON R134		HFESC 1 1/2 MC	057840	SAME	HF IS BALANCED PORT
SOE-4-RC	TXV	1 1/2 TON R502		HFESC 1 1/2 RC	057439	SAME	HF IS BALANCED PORT
SOE-4-VC	TXV	2 1/2 TON R22		HFESC 2 1/2 HC	059233	SAME	HF IS BALANCED PORT
SOE-5-FC	TXV	2 TON R12		HFESC 2 FC	057400	SAME	HF IS BALANCED PORT
SOE-5-JC	TXV	2 1/2 TON R134		HFESC 2 1/2 MC	058421	SAME	HF IS BALANCED PORT
SOE-5-RC	TXV	2 TON R502		HFESC 2 RC	057440	SAME	HF IS BALANCED PORT
SOE-5-VC	TXV	3 1/2 TON R22		HFESC 3 HC	057412	3 TON R22	HF IS BALANCED PORT
SOE-6-RC	TXV	3 TON R502		HFESC 3 RC	057412	SAME	HF IS BALANCED PORT
SOE-6-VC	TXV	5 TON R22		HFESC 5 1/2 HC	057781	5 1/2 TON R22	HF IS BALANCED PORT
SR 2-C	TXV	2 TON R502		NONE	NONE	NONE	
SR 3-C	TXV	3 TON R502		NONE	NONE	NONE	
SRE 2-C	TXV	2 TON R502		HFES 2 RC 3/8 X 1/2 ODFS/T	053270	SAME	
SRE 3-C	TXV	3 TON R502		HFES 3 1/2 RC 3/8 X 1/2 ODFS/T	054143	3 1/2 TON R502	
SRE 7-C	TXV	7 TON R502		HFES 7 RC 5/8 7/8 ODFS/T	058607	7 TON R502	
SS 2-C	TXV	2 TON R404		NONE	NONE	NONE	
SS 3-C	TXV	3 TON R404		NONE	NONE	NONE	
SSE 2-C	TXV	2 TON R404		HFES 2 SC 3/8 X 1/2 ODFS/T	057958	SAME	
SSE 3 - ZP	TXV		1/2 X 7/8 ODF - 5'	NONE	NONE	NONE	
SSE 3-C	TXV	3 TON R404	1/2 X 7/8 ODF - 5'	HFES 3 1/2 SC 3/8 X 1/2 ODFS/T	065652	3 1/2 TON R404	
SSE 4 - Z	TXV	R-404A		NONE	NONE	NONE	
SSE 6	TXV	R-404A		NONE	NONE	NONE	
SSE 7 - ZP	TXV	7 TON R404	5/8 X 7/8 ODF - 5'	NONE	NONE	NONE	
SV 2-C	TXV	2 TON R22		NONE	NONE	NONE	
SV 3-C	TXV	3 TON R22		NONE	NONE	NONE	
SV 5-C	TXV	5 TON R22		NONE	NONE	NONE	
SVE 10	TXV	R-22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	NONE	
SVE 10-C	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
SVE 2	TXV	R-22		HFES 2 HC 3/8 X 1/2 ODFS/T	055706	NONE	
SVE 2 - C	TXV	2 TON R22	1/2 X 5/8 ODF - 5'	HFES 2 HC 3/8 X 1/2 ODFS/T	055706	SAME	
SVE 3	TXV	R-22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	NONE	
SVE 3-C	TXV	3 TON R22	1/2 X 5/8 ODF - 5'	HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
SVE 4	TXV	R-22		HFES 5 1/2 HC 3/8 X 1/2 ODFS/T	054141	NONE	
SVE 5	TXV	R-22		HFES 5 1/2 HC 3/8 X 1/2 ODFS/T	054141	NONE	
SVE 5 - C	TXV	5 TON R22	1/2 X 7/8 ODF - 5'	HFES 5 1/2 HC 1/2 X 7/8 ODFS/T	055187	SAME	
SVE 8	TXV	R-22		HFES 8 HC 1/2 X 5/8 ODFS/T	57312	SAME	
SVE 8 - C	TXV	8 TON R22	5/8 X 7/8 ODF - 5'	HFES 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
TA-1	SIGHT GLASS						
VFE 35-C	TXV	35 TON R12		NONE	NONE	NONE	
VFE 45-C	TXV	45 TON R12		NONE	NONE	NONE	
VFE 55-C	TXV	55 TON R12		NONE	NONE	NONE	
VJE 45-C	TXV	45 TON R134		NONE	NONE	NONE	
VJE 55-C	TXV	55 TON R134		NONE	NONE	NONE	
VRE 38-C	TXV	38 TON R502		NONE	NONE	NONE	
VRE 50-C	TXV	50 TON R502		NONE	NONE	NONE	
VSE 38-C	TXV	38 TON R404		NONE	NONE	NONE	
VSE 50-C	TXV	50 TON R404		NONE	NONE	NONE	
VVE 100-C	TXV	100 TON R22		THR 100 HC VLF	062036	SAME	
VVE 52-C	TXV	52 TON R22		TIR 55 HC VLF	06167	55 TON R22	
VVE 70-C	TXV	70 TON R22		THR 75 HC VLF	064961	75 TON R22	
W14P2	SOLENOID	1/2 FPT		231WB 08P04	030051	SAME	WATER SERVICE
W19P2	SOLENOID	3/4 FPT		231WB 12P06	039987	SAME	WATER SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
W25P2	SOLENOID	1-1/8 FPT		231WB 16P08	034211	SAME	WATER SERVICE
W3P1	SOLENOID	1/4 FPT		204CD 1/4 B 1/8 B	056110	SAME	WATER SERVICE
W6P1	SOLENOID	3/8 FPT		203CA 3/8 B 1/4 B	030603	SAME	WATER SERVICE
WFE 110	TXV	110 TON R12		NONE	NONE	100 TON R12	NO REPLACEMENT
WFE 80	TXV	80 TON R12		NONE	098246	75 TON R 12	NO REPLACEMENT
WJE 110	TXV	110 TON R134		NONE	NONE	NONE	NO REPLACEMENT
WJE 80	TXV	80 TON R134		NONE	058752	90 TON R134	NO REPLACEMENT
WRE 100	TXV	100 TON R502		NONE	NONE	NONE	NO REPLACEMENT
WRE 70	TXV	70 TON R502		NONE	NONE	NONE	NO REPLACEMENT
WSE 100	TXV	100 TON R404		NONE	NONE	NONE	NO REPLACEMENT
WSE 70	TXV	70 TON R404		NONE	NONE	NONE	NO REPLACEMENT
WVE 135	TXV	135 TON R22		NONE	032718	125 TON R22	NO REPLACEMENT
WVE 180	TXV	180 TON R22		NONE	NONE	NONE	NO REPLACEMENT
XPO	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XPO-1	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
XPO-3	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XPO-5	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRM	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XRM	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
XRM-1	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRM-4	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XRN	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
XRN-1	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-2	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-3	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-4	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XUP	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP-1	SOLENOID	1/4 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP-3	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XXF	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
Y1037 FV 1 1/2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-190	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 5-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 5-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1228-SORIT-PI-25S-0/100	REGULATORS	5/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-25SE-0/100	REGULATORS	5/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-27S-0/101	REGULATORS	7/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-27SE-0/101	REGULATORS	7/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-29S-0/102	REGULATORS	1-1/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-29SE-0/102	REGULATORS	1-1/8	OEM special	NONE	NONE	NONE	NO CROSS
Y362	TXV	VARIOUS		NONE	NONE	NONE	NO REPLACEMENT
Y362-CF-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CF-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CF-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Y362-CFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CFE-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CFE-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CR-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CR-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CR-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CRE-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CRE-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-CV-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CV-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CV-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y-362-CVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CVE-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-CVE-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-EGF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-EGF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-EGF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-EGF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-EGR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-EGR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-EGR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-EGR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-EGV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-EGV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-EGV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-EGV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-GF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-GF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-GF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-GF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-GR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-GR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-GR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-GR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y362-GV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362GV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-GV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y362-GV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y735	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
Y750	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
Y755	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
Y781	TXV	VARIOUS		NONE		NONE	OEM SPECIAL - DEFROST PORT
Y781-CF-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CF-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CF-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CFE-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CFE-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-CR-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CR-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CR-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CRE-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-CRE-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Y781-CV-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CV-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CV-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
LDE-2	SIGHT GLASS	1/4 SAE		AMI-1MM2	048803	SAME	MOISTURE INDICATOR
LDE-2MF	SIGHT GLASS	1/4 SAE MXF		AMI-1MU2	048807	SAME	MOISTURE INDICATOR
LDE-2S	SIGHT GLASS	1/4 ODF		HMI-1TT2	065405	SAME	MOISTURE INDICATOR
LDE-3	SIGHT GLASS	3/8 SAE		AMI-1MM3	048804	SAME	MOISTURE INDICATOR
LDE-3MF	SIGHT GLASS	3/8 SAE MXF		AMI-1MU3	048808	SAME	MOISTURE INDICATOR
LDE-3S	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
LDE-4	SIGHT GLASS	1/2 SAE		AMI-1MM4	048805	SAME	MOISTURE INDICATOR
LDE-4MF	SIGHT GLASS	1/2 SAE MXF		AMI-1MU4	048809	SAME	MOISTURE INDICATOR
LDE-4S	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
LDE-5	SIGHT GLASS	5/8 SAE		AMI-1MM5	048806	SAME	MOISTURE INDICATOR
LDE-5MF	SIGHT GLASS	5/8 SAE MXF		AMI-1MU5	048810	SAME	MOISTURE INDICATOR
LDE-5S	SIGHT GLASS	5/8 ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
LDE-7S	SIGHT GLASS	7/8 ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
LDE-9S	SIGHT GLASS	11/8 ODF		AMI-1TT9	031578	SAME	MOISTURE INDICATOR
RB11S	BALL VALVE	13/8 ODF		ABV11	062109	SAME	FULL PORT
RB11SP	BALL VALVE	13/8 ODF		ABV11A	062119	SAME	WITH ACCESS VALVE
RB13S	BALL VALVE	15/8 ODF		ABV13	062110	SAME	FULL PORT
RB13SP	BALL VALVE	15/8 ODF		ABV13A	062120	SAME	WITH ACCESS VALVE
RB17S	BALL VALVE	21/8 ODF		ABV17	062111	SAME	FULL PORT
RB17SP	BALL VALVE	21/8 ODF		ABV17A	062121	SAME	WITH ACCESS VALVE
RB21S	BALL VALVE	25/8 ODF		ABV21	062112	SAME	FULL PORT
RB21SP	BALL VALVE	25/8 ODF		ABV21A	062122	SAME	WITH ACCESS VALVE
RB25S	BALL VALVE	31/8 ODF		ABV25	062113	SAME	FULL PORT
RB25SP	BALL VALVE	31/8 ODF		ABV25A	062123	SAME	WITH ACCESS VALVE
RB2S	BALL VALVE	1/4 ODF		ABV2	064383	SAME	FULL PORT
RB2SP	BALL VALVE	1/4 ODF		ABV2A	064384	SAME	WITH ACCESS VALVE
RB3S	BALL VALVE	3/8 ODF		ABV3	062104	SAME	FULL PORT
RB3SP	BALL VALVE	3/8 ODF		ABV3A	062114	SAME	WITH ACCESS VALVE
RB4S	BALL VALVE	1/2 ODF		ABV4	062105	SAME	FULL PORT
RB4SP	BALL VALVE	1/2 ODF		ABV4A	062115	SAME	WITH ACCESS VALVE
RB5S	BALL VALVE	5/8 ODF		ABV5	062106	SAME	FULL PORT
RB5SP	BALL VALVE	5/8 ODF		ABV5A	062116	SAME	WITH ACCESS VALVE
RB7S	BALL VALVE	7/8 ODF		ABV7	062107	SAME	FULL PORT
RB7SP	BALL VALVE	7/8 ODF		ABV7A	062117	SAME	WITH ACCESS VALVE
RB9S	BALL VALVE	11/8 ODF		ABV9	062108	SAME	FULL PORT
RB9SP	BALL VALVE	11/8 ODF		ABV9A	062118	SAME	WITH ACCESS VALVE
TDE-2	SIGHT GLASS	1/4 SAE		A-IHN2	062772	SAME	MOISTURE INDICATOR
TDE-3	SIGHT GLASS	3/8 SAE		A-IHN3	062773	SAME	MOISTURE INDICATOR
TDE-3S	SIGHT GLASS	3/8 ODF		A-IHN3S	062776	SAME	MOISTURE INDICATOR
TDE-4	SIGHT GLASS	1/2 SAE		A-IHN4	062774	SAME	MOISTURE INDICATOR
TDE-4S	SIGHT GLASS	1/2 ODF		A-IHN4S	062777	SAME	MOISTURE INDICATOR
TDE-5	SIGHT GLASS	5/8 SAE		A-IHN5	062775	SAME	MOISTURE INDICATOR
TDE-5S	SIGHT GLASS	5/8 ODF		A-IHN5S	062778	SAME	MOISTURE INDICATOR
VA-30-4S	ACCUMULATOR	1/2 ODF		A-AS-384	060819	SAME	SUCTION SERVICE
VA-31-5S	ACCUMULATOR	5/8 ODF		A-AS-3105	060963	SAME	SUCTION SERVICE
VA-32-5S	ACCUMULATOR	5/8 ODF		A-AS-3125	060812	SAME	SUCTION SERVICE
VA-32-6S	ACCUMULATOR	3/4 ODF		A-AS-3126	060813	SAME	SUCTION SERVICE
VA-35-5S	ACCUMULATOR	5/8 ODF		A-AS-3145	060964	SAME	SUCTION SERVICE
VA-35-6S	ACCUMULATOR	3/4 ODF		A-AS-3146	060965	SAME	SUCTION SERVICE
VA-44-6SRD	ACCUMULATOR	3/4 ODF		A-AS-4106	060820	SAME	SUCTION SERVICE
VA-54-6SRD	ACCUMULATOR	3/4 ODF		A-AS-4105	060966	SAME	SUCTION SERVICE
VA-54-6SRD	ACCUMULATOR	3/4 ODF		A-AS-596	060824	SAME	SUCTION SERVICE
VA-54-7SRD	ACCUMULATOR	7/8 ODF		A-AS-597	060818	SAME	SUCTION SERVICE
VA-56-6SRD	ACCUMULATOR	3/4 ODF		A-AS-5126	060822	SAME	SUCTION SERVICE
VA-56-7SRD	ACCUMULATOR	7/8 ODF		A-AS-5127	060823	SAME	SUCTION SERVICE
VA-57-7SRD	ACCUMULATOR	7/8 ODF		A-AS-5137	060814	SAME	SUCTION SERVICE
VA-57-9SRD	ACCUMULATOR	11/8 ODF		A-AS-5139	060815	SAME	SUCTION SERVICE
VA-59-11SRD	ACCUMULATOR	13/8 ODF		A-AS-51711	060816	SAME	SUCTION SERVICE
VA-59-9SRD	ACCUMULATOR	11/8 ODF		A-AS-5179	060817	SAME	SUCTION SERVICE
VA-610-7SRD	ACCUMULATOR	7/8 ODF		A-AS-6137	060826	SAME	SUCTION SERVICE
VA-610-9SRD	ACCUMULATOR	11/8 ODF		A-AS-6139	060968	SAME	SUCTION SERVICE
VA-611-11SRD	ACCUMULATOR	13/8 ODF		A-AS-61411	060827	SAME	SUCTION SERVICE
VA-616-13SRD	ACCUMULATOR	15/8 ODF		A-AS-62013	060828	SAME	SUCTION SERVICE
VOF-410-4	OIL SEPARATOR	1/2 ODF		A-F58824	060877	SAME	FLANGED
VOF-414-5	OIL SEPARATOR	5/8 ODF		A-F58855	060878	SAME	FLANGED

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
VOF-417-7	OIL SEPARATOR	7/8 ODF		A-F58877	060879	SAME	FLANGED
VOF-421-11	OIL SEPARATOR		13/8 ODF	A-F589011	060760	SAME	FLANGED
VOF-421-9	OIL SEPARATOR		11/8 ODF	A-F58889	060759	SAME	FLANGED
VOF-620-13	OIL SEPARATOR		15/8 ODF	A-F579213	060761	SAME	FLANGED
VOF-620-17	OIL SEPARATOR		21/8 ODF	A-F57917	060876	SAME	FLANGED
VOS-414-5	OIL SEPARATOR		5/8 ODF	A-W55855	060934	SAME	SEALED
VOS-417-7	OIL SEPARATOR		7/8 ODF	A-W55877	060931	SAME	SEALED
VOS-421-11	OIL SEPARATOR		13/8 ODF	A-W559011	060930	SAME	SEALED
VOS-421-9	OIL SEPARATOR		11/8 ODF	A-W55889	060974	SAME	SEALED
VOS-619-13	OIL SEPARATOR		15/8 ODF	A-W559213	060975	SAME	SEALED
VOS-619-17	OIL SEPARATOR		21/8 ODF	A-W569417	060980	SAME	SEALED
VS-100H	DRIER		100 CU. IN.	H100	089338	SAME	BLOCK
VS-42R	DRIER		42 CU. IN.	W42	056835	SAME	BLOCK
VS-48F	DRIER		48 CU. IN.	F48R	047664	SAME	FILTER
WAH 032	DRIER		1/4 SAE	EK 032	060009	SAME	STANDARD OPERATION
WAH 032S	DRIER		1/4 ODF	EK 032S	060012	SAME	STANDARD OPERATION
WAH 033	DRIER		3/8 SAE	EK 033	060013	SAME	STANDARD OPERATION
WAH 033S	DRIER		3/8 ODF	EK 033S	060014	SAME	STANDARD OPERATION
WAH 052	DRIER		1/4 SAE	EK 052	047601	SAME	STANDARD OPERATION
WAH 0525S	DRIER		5/16 ODF	EK 0525S	063978	SAME	STANDARD OPERATION
WAH 052S	DRIER		1/4 ODF	EK 052S	047602	SAME	STANDARD OPERATION
WAH 053	DRIER		3/8 SAE	EK 053	047603	SAME	STANDARD OPERATION
WAH 053S	DRIER		3/8 ODF	EK 053S	047604	SAME	STANDARD OPERATION
WAH 082	DRIER		1/4 SAE	EK 082	047605	SAME	STANDARD OPERATION
WAH 0825S	DRIER		5/16 ODF	EK 0825S	049551	SAME	STANDARD OPERATION
WAH 082S	DRIER		1/4 ODF	EK 082S	047606	SAME	STANDARD OPERATION
WAH 083	DRIER		3/8 SAE	EK 083	047607	SAME	STANDARD OPERATION
WAH 083S	DRIER		3/8 ODF	EK 083S	047608	SAME	STANDARD OPERATION
WAH 084	DRIER		1/2 SAE	EK 084	047609	SAME	STANDARD OPERATION
WAH 084S	DRIER		1/2 ODF	EK 084S	047610	SAME	STANDARD OPERATION
WAH 162	DRIER		1/4 SAE	EK 162	047611	SAME	STANDARD OPERATION
WAH 1625S	DRIER		5/16 ODF	EK 1625S	056045	SAME	STANDARD OPERATION
WAH 162S	DRIER		1/4 ODF	EK 162S	047612	SAME	STANDARD OPERATION
WAH 164	DRIER		1/2 SAE	EK 164	047615	SAME	STANDARD OPERATION
WAH 164S	DRIER		1/2 ODF	EK 164S	047616	SAME	STANDARD OPERATION
WAH 165	DRIER		5/8 SAE	EK 165	047617	SAME	STANDARD OPERATION
WAH 165S	DRIER		5/8 ODF	EK 165S	047618	SAME	STANDARD OPERATION
WAH 303	DRIER		3/8 SAE	EK 303	048210	SAME	STANDARD OPERATION
WAH 303S	DRIER		3/8 ODF	EK 303S	048211	SAME	STANDARD OPERATION
WAH 304	DRIER		1/2 SAE	EK 304	048212	SAME	STANDARD OPERATION
WAH 304S	DRIER		1/2 ODF	EK304S	048213	SAME	STANDARD OPERATION
WAH 305	DRIER		5/8 SAE	EK 305	048214	SAME	STANDARD OPERATION
WAH 305S	DRIER		5/8 ODF	EK 305S	048215	SAME	STANDARD OPERATION
WAH 307S	DRIER		7/8 ODF	EK 307S	048217	SAME	STANDARD OPERATION
WAH 413	DRIER		3/8 SAE	EK 413	048219	SAME	STANDARD OPERATION
WAH 414	DRIER		1/2 SAE	EK 414	048220	SAME	STANDARD OPERATION
WAH 414S	DRIER		1/2 ODF	EK 414S	048221	SAME	STANDARD OPERATION
WAH 415	DRIER		5/8 SAE	EK 415	048222	SAME	STANDARD OPERATION
WAH 415S	DRIER		5/8 ODF	EK 415S	048223	SAME	STANDARD OPERATION
WAH 417S	DRIER		7/8 ODF	EK 417S	048224	SAME	STANDARD OPERATION
WAH 757S	DRIER		7/8 ODF	EK 757S	048228	SAME	STANDARD OPERATION
WAH 759S	DRIER		11/8 ODF	EK 759S	048229	SAME	STANDARD OPERATION
WC-48H	DRIER		48 CU. IN.	H48	059542	SAME	BLOCK
WC-48S	DRIER		48 CU. IN.	W48	061235	SAME	BLOCK
WHP-083	DRIER		3/8 SAE	BFK 083	043321	SAME	BI - FLOW
WHP-083S	DRIER		3/8 ODF	BFK 083S	043324	SAME	BI - FLOW
WHP-084	DRIER		1/2 SAE	BFK 084	043325	SAME	BI - FLOW
WHP-084S	DRIER		1/2 ODF	BFK 084S	043327	SAME	BI - FLOW
WHP-163	DRIER		3/8 SAE	BFK 163	043330	SAME	BI - FLOW
WHP-163S	DRIER		3/8 ODF	BFK 163S	043333	SAME	BI - FLOW
WHP-164	DRIER		1/2 SAE	BFK 164	043335	SAME	BI - FLOW
WHP-164S	DRIER		1/2 ODF	BFK 164S	043337	SAME	BI - FLOW
WHP-165	DRIER		5/8 SAE	BFK 165	043732	SAME	BI - FLOW
WHP-165S	DRIER		5/8 ODF	BFK 165S	043734	SAME	BI - FLOW
WRK 19211	DRIER SHELL		13/8 ODF	STAS 19211T	053028	SAME	4 REPLACABLE CORE

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
WRK 19213	DRIER SHELL		15/8 ODF	STAS 19213T	053030	SAME	4 REPLACABLE CORE
WRK 19217	DRIER SHELL		21/8 ODF	STAS 19217T	053031	SAME	4 REPLACABLE CORE
WRK 4811	DRIER SHELL		13/8 ODF	STAS 4811T	053007	SAME	1 REPLACABLE CORE
WRK 4813	DRIER SHELL		15/8 ODF	STAS 4813T	053375	SAME	1 REPLACABLE CORE
WRK 4817	DRIER SHELL		21/8 ODF	STAS 4817T	058621	SAME	1 REPLACABLE CORE
WRK 4821	DRIER SHELL		25/8 ODF	STAS 4821SV	053045	SAME	1 REPLACABLE CORE
WRK 485	DRIER SHELL		5/8 ODF	STAS 485T	053001	SAME	1 REPLACABLE CORE
WRK 487	DRIER SHELL		7/8 ODF	STAS 487T	053003	SAME	1 REPLACABLE CORE
WRK 489	DRIER SHELL		11/8 ODF	STAS 489T	053005	SAME	1 REPLACABLE CORE
WRK 9611	DRIER SHELL		13/8 ODF	STAS 9611T	053014	SAME	2 REPLACABLE CORE
WRK 9613	DRIER SHELL		15/8 ODF	STAS 9613T	053017	SAME	2 REPLACABLE CORE
WRK 9617	DRIER SHELL		21/8 ODF	STAS 9617T	053018	SAME	2 REPLACABLE CORE
WRK 9621	DRIER SHELL		25/8 ODF	STAS 9621SV	053048	SAME	2 REPLACABLE CORE
WRK 967	DRIER SHELL		7/8 ODF	STAS 967T	053010	SAME	2 REPLACABLE CORE
WRK 969	DRIER SHELL		11/8 ODF	STAS 969T	053012	SAME	2 REPLACABLE CORE
WSC 032	DRIER		1/4 SAE	EK 032	06009	SAME	EXTRA WATER REMOVAL
WSC 032S	DRIER		1/4 ODF	EK 032S	060012	SAME	EXTRA WATER REMOVAL
WSC 033	DRIER		3/8 SAE	EK 033	060013	SAME	EXTRA WATER REMOVAL
WSC 033S	DRIER		3/8 ODF	EK 033S	060014	SAME	EXTRA WATER REMOVAL
WSC 052	DRIER		1/4 SAE	EK 052	047601	SAME	EXTRA WATER REMOVAL
WSC 052S	DRIER		1/4 ODF	EK 052S	047602	SAME	EXTRA WATER REMOVAL
WSC 053	DRIER		3/8 SAE	EK 053	047603	SAME	EXTRA WATER REMOVAL
WSC 053S	DRIER		3/8 ODF	EK 053S	047604	SAME	EXTRA WATER REMOVAL
WSC 082	DRIER		1/4 SAE	EK 082	047605	SAME	EXTRA WATER REMOVAL
WSC 082S	DRIER		1/4 ODF	EK 082S	047606	SAME	EXTRA WATER REMOVAL
WSC 083	DRIER		3/8 SAE	EK 083	047607	SAME	EXTRA WATER REMOVAL
WSC 083S	DRIER		3/8 ODF	EK 083S	047608	SAME	EXTRA WATER REMOVAL
WSC 084	DRIER		1/2 SAE	EK 084	047609	SAME	EXTRA WATER REMOVAL
WSC 084S	DRIER		1/2 ODF	EK 084S	047610	SAME	EXTRA WATER REMOVAL
WSC 162	DRIER		1/4 SAE	EK 162	047611	SAME	EXTRA WATER REMOVAL
WSC 162S	DRIER		1/4 ODF	EK 162S	047612	SAME	EXTRA WATER REMOVAL
WSC 163	DRIER		3/8 SAE	EK 163	047613	SAME	EXTRA WATER REMOVAL
WSC 163S	DRIER		3/8 ODF	EK 163S	047614	SAME	EXTRA WATER REMOVAL
WSC 164	DRIER		1/2 SAE	EK 164	047615	SAME	EXTRA WATER REMOVAL
WSC 164S	DRIER		1/2 ODF	EK 164S	047616	SAME	EXTRA WATER REMOVAL
WSC 165	DRIER		5/8 SAE	EK 165	047617	SAME	EXTRA WATER REMOVAL
WSC 165S	DRIER		5/8 ODF	EK 165S	047618	SAME	EXTRA WATER REMOVAL
WSC 303	DRIER		3/8 SAE	EK 303	048210	SAME	EXTRA WATER REMOVAL
WSC 303S	DRIER		3/8 ODF	EK 303S	048211	SAME	EXTRA WATER REMOVAL
WSC 304	DRIER		1/2 SAE	EK 304	048212	SAME	EXTRA WATER REMOVAL
WSC 304S	DRIER		1/2 ODF	EK 304S	048213	SAME	EXTRA WATER REMOVAL
WSC 305	DRIER		5/8 SAE	EK 305	048214	SAME	EXTRA WATER REMOVAL
WSC 305S	DRIER		5/8 ODF	EK 305S	048215	SAME	EXTRA WATER REMOVAL
WSC 307S	DRIER		7/8 ODF	EK 307S	048217	SAME	EXTRA WATER REMOVAL
WSC 413S	DRIER		3/8 ODF	EK 413S	048219	SAME	EXTRA WATER REMOVAL
WSC 414	DRIER		1/2 SAE	EK 414	048220	SAME	EXTRA WATER REMOVAL
WSC 414S	DRIER		1/2 ODF	EK 414S	048221	SAME	EXTRA WATER REMOVAL
WSC 415	DRIER		5/8 SAE	EK 415	048222	SAME	EXTRA WATER REMOVAL
WSC 415S	DRIER		5/8 ODF	EK 415S	048223	SAME	EXTRA WATER REMOVAL
WSC 417S	DRIER		7/8 ODF	EK 417S	048224	SAME	EXTRA WATER REMOVAL
WSD-4S	DRIER		1/2 ODF	CSFD 14S4W	062231	SAME	SUCTION SERVICE
WSD-5S	DRIER		5/8 ODF	CSFD 14S5W	062232	SAME	SUCTION SERVICE
WSD-6S	DRIER		3/4 ODF	CSFD 14S6W	062233	SAME	SUCTION SERVICE
WSD-7S	DRIER		7/8 ODF	CSFD 14S7W	062234	SAME	SUCTION SERVICE
WSD-9S	DRIER		11/8 ODF	CSFD 14S9W	062235	SAME	SUCTION SERVICE
WSF-11S	DRIER		13/8 ODF	ASF 75S11V	049184	SAME	SUCTION SERVICE
WSF-13S	DRIER		15/8 ODF	ASF 75S13V	049185	SAME	SUCTION SERVICE
WSF-5S	DRIER		5/8 ODF	ASF 35S5V	049180	SAME	SUCTION SERVICE
WSF-6S	DRIER		3/4 ODF	ASF 45S6V	049181	SAME	SUCTION SERVICE
WSF-7S	DRIER		7/8 ODF	ASF 45S7V	049182	SAME	SUCTION SERVICE
WSF-9S	DRIER		11/8 ODF	ASF 50S9V	049183	SAME	SUCTION SERVICE
WSL 163S	DRIER		3/8 ODF	ASD 28S3V	049168	SAME	SUCTION SERVICE
WSL 164S	DRIER		1/2 ODF	ASD 28S4V	049169	SAME	SUCTION SERVICE
WSL 165S	DRIER		5/8 ODF	ASD 35S5V	049170	SAME	SUCTION SERVICE
WSL 166S	DRIER		3/4 ODF	ASD 45S6V	049172	SAME	SUCTION SERVICE

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
WSL 167S	DRIER		7/8 ODF	ASD 45S7VW	049173	SAME	SUCTION SERVICE
WSL 419S	DRIER		11/8 ODF	ASD 50S9VW	049174	SAME	SUCTION SERVICE
WSL 75S11	DRIER		13/8 ODF	ASD 75S11VW	049175	SAME	SUCTION SERVICE
WSL 75S13	DRIER		15/8 ODF	ASD 75S13VW	049176	SAME	SUCTION SERVICE
WTD-12	DRIER		12 CU. IN.	A-TFD-12	062764	SAME	USE WITH A-IHN SIGHT GLASS
WTD-20	DRIER		20 CU. IN.	A-TFD-20	062765	SAME	USE WITH A-IHN SIGHT GLASS
WTD-30	DRIER		30 CU. IN.	A-TFD-30	062766	SAME	USE WITH A-IHN SIGHT GLASS
WTD-8	DRIER		8 CU. IN.	A-TFD-08	062756	SAME	USE WITH A-IHN SIGHT GLASS

TERMS AND CONDITIONS OF SALE



EMERSON CLIMATE TECHNOLOGIES FLOW CONTROLS, A DIVISION EMERSON ELECTRIC CO., is herein referred to as the "Seller" and the customer or person or entity purchasing goods or services (hereinafter collectively referred to as "Goods") and/or licensing software and/or firmware which are preloaded, or to be loaded into Goods ("Software") from Seller hereunder is referred to as the "Buyer". These Terms and Conditions, any price list or schedule, quotation, acknowledgment or invoice from Seller relevant to the sale of the Goods and all documents incorporated by specific reference therein, constitute the complete and exclusive statement of the terms of the agreement governing the sale of Goods by Seller to Buyer. Buyer's acceptance of the Goods will manifest Buyer's assent to these terms and conditions without variation or addition. Any different or additional terms in Buyer's purchase order or other Buyer documents are hereby objected to. Seller reserves the right in its sole discretion to refuse orders.

1. **PRICES:** Unless a fixed price is quoted, the price at which this order is accepted is subject to adjustment to the Seller's price in effect at the time of shipment.
2. **TAXES:** Any current or future tax or government charge (or increase in same) affecting Seller's costs of production, sale or delivery or which Seller is otherwise required to pay or collect in connection with the sale, purchase, delivery, storage, processing, use or consumption of Goods (but excluding any tax on Seller's net income or profit) shall be for Buyer's account and shall be added to the price.
3. **TERMS OF PAYMENT:** Unless otherwise specified by Seller, terms are net thirty (30) days from the date of Seller's invoice in U.S. currency. Seller shall have the right, among other remedies, either to terminate this agreement or to suspend further performance under this and/or other agreements with the Buyer in the event Buyer fails to make any payment when due, which other agreements Buyer and Seller hereby amend accordingly, or Seller otherwise deems itself insecure. Buyer shall be liable for all expenses, including attorney's fees, relating to the collection of past due amounts. If any amount owed to Seller is not paid when due, it shall bear interest at the rate of 1.5% per month from the date on which it is due until it is paid. Should Buyer's financial responsibility become impaired or unsatisfactory to Seller, cash payments or security satisfactory to Seller may be required by Seller for future deliveries and for the Goods theretofore delivered. If such cash payment or security is not provided, in addition to Seller's other right and remedies, Seller may discontinue deliveries and/or terminate this order, all without liability or prejudice to Seller. Buyer hereby grants Seller a security interest in all Goods sold to Buyer by Seller, which security interest shall continue until such Goods are fully paid for in cash, and Buyer, upon Seller's demand, will execute and deliver to Seller such instruments as Seller requests to protect and perfect such security interest.
4. **SHIPMENT AND DELIVERY:** Unless otherwise expressly provided, shipments are made F.O.B. Seller's shipping point. Risk of loss or damage and responsibility shall pass from Seller to Buyer upon delivery to and receipt by common carrier. Any claims for shortages or damages suffered in transit are the responsibility of the Buyer and shall be submitted by the Buyer directly to the carrier. Shortages or damages must be acknowledged and signed for at the time of delivery. While Seller will use all reasonable commercial efforts to maintain the delivery date(s) acknowledged or quoted by Seller, all shipping dates are approximate and not guaranteed. Seller reserves the right to make partial shipments. Seller, at its option, shall not be bound to tender delivery of any Goods for which Buyer has not provided shipping instructions. If the shipment of the Goods is postponed or delayed by Buyer for any reason, Buyer agrees to reimburse Seller for any and all handling and storage costs and other additional expenses resulting therefrom. All claims for shipping errors, lost shipments or any other discrepancies must be made within ten (10) days or they will be disallowed and deemed waived.
5. **LIMITED WARRANTY:** Subject to the limitations of Section 6, Seller warrants that the Software will execute the programming instructions provided by Seller and that the Goods purchased for resale hereunder will be free from defects in material and workmanship under normal use and regular service and maintenance for a period of 12 months from date of installation and no more than 18 months from the date of manufacture. This warranty shall not apply to any Goods which:
 - a. Have been repaired or altered outside Seller's factory by other than Seller in any manner so as, in Seller's judgment, to affect its serviceability or proper operation.
 - b. Have been subjected by persons other than Seller to improper handling, operation, maintenance, repair or alteration.
 - c. Have been subjected to misuse, negligence, improper installation or accident. Seller's obligation under this warranty, and the Buyer's exclusive remedy for the breach thereof, shall be limited to, at Seller's option, replacement of any allegedly defective Goods or issues of credit, excluding the cost of labor and any other expenses incurred in servicing the unit on which the Goods are installed. Seller requires the return of any allegedly defective Goods, transportation prepaid, before honoring any claim. All returned Goods are subject to inspection, and if examination does not disclose any defect covered by this warranty, replacement of such Goods or issuance of credit for same will not be approved. **THE FOREGOING CONSTITUTES SELLER'S SOLE WARRANTY RESPONSIBILITY AND BUYER'S EXCLUSIVE REMEDY WHETHER SOUNDING IN TORT, CONTRACT, STRICT LIABILITY OR OTHERWISE, EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. SELLER SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER IN CONNECTION WITH THE SALE, RESALE OR USE OF THE GOODS.**Products purchased by Seller from a third party for resale to Buyer ("Resale Products") shall carry only the warranty extended by the original manufacturer. This warranty extends only to persons or organizations who purchase the Goods from Seller for resale.
6. **LIMITATION OF REMEDY AND LIABILITY:** THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER (OTHER THAN THE WARRANTY PROVIDED UNDER SECTION 7) SHALL BE LIMITED TO REPAIR, CORRECTION, REPLACEMENT OR CREDIT UNDER SECTION 5. SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), AND IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC GOODS PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION, AND BUYER SHALL INDEMNIFY SELLER FOR ANY DAMAGES IN EXCESS THEREOF. BUYER AGREES THAT IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, WHICH ARE WAIVED BY BUYER AND AS TO WHICH BUYER SHALL INDEMNIFY SELLER. The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use of revenue, cost of capital or loss or damage to property or equipment, or loss of reputation. Further, Buyer shall indemnify and hold Seller harmless from any liability to Buyer, Buyer's employees, workers, contractors or any other persons arising out of Buyer's, or any other persons' use of the Goods. It is further expected that all instructions and warnings supplied by Seller will be passed on to those persons who use the Goods. Seller's Goods are to be used in their recommended applications and all warning labels adhered to the Goods by Seller are to be left intact. It is expressly understood that any technical advice furnished by Seller with respect to the use of the Goods is given without charge, and Seller assumes no obligation or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.
7. **PATENTS AND COPYRIGHTS:** Subject to the limitations of the second paragraph of Section 6, Seller warrants that the Goods sold, except those goods made pursuant to Buyer's drawings or specifications or otherwise at Buyer's direction ("Custom Goods"), do not infringe any valid U.S. patent or copyright, as the case may be, in existence as of the date of shipment. This warranty is given upon the condition that Buyer promptly notify Seller of any claim or suit involving Buyer in which such infringement is alleged, and that Buyer cooperate fully with Seller and permit Seller to control completely the defense, settlement or compromise of any allegation or infringement. Seller's warranty only applies to infringements arising solely out of the inherent operation, according to Seller's specifications and instructions, of such Goods or of any combination of Goods acquired by Seller in a system designed by Seller. In the event such Goods are found to infringe such a U.S. patent or copyright in such suit, and the use of such Goods is enjoined, or in the case of a compromise or settlement by Seller, Seller shall have the right, at its option and expense, to procure for Buyer the right to continue using such Goods, or replace them with non-infringing Goods, or modify same to become non-infringing, or grant Buyer a credit for the depreciated value of such Goods upon their return. In the event of the foregoing, Seller may also, at its option, cancel the agreement as to future deliveries of such Goods, without liability.
8. **FORCE MAJEURE:** Seller shall not be liable for delays in performance or non-performance due to acts of God; acts of Buyer; war; fire, flood; weather; sabotage; strikes; labor disputes, civil disturbances or riots; governmental restrictions, allocations, laws, regulations, orders or actions; unavailability of or delays in transportation; default of suppliers; or unforeseen circumstances or events beyond Seller's reasonable control. Deliveries or other performance may be suspended for an appropriate period of time or canceled by Seller upon notice to Buyer in the event of any of the foregoing, but the balance of the agreement shall otherwise remain unaffected. If Seller determines that it is unable to supply the total demand for the Goods, or to obtain material used directly or indirectly in the manufacture of the Goods, is hindered, limited or made impracticable due to causes set forth herein, Seller may allocate its available supply of the Goods or such material (without obligation to acquire other supplies of any such Goods or materials) among itself and its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom.
9. **CANCELLATION:** Orders may not be canceled, except upon Seller's written approval which shall be subject to the Buyer's payment of Seller's reasonable cancellation charges. Such charges shall include all reasonable costs incurred by Seller in preparing to meet the Buyer's anticipated delivery schedule including, without limitation, commitments by Seller to its suppliers, and the cost of inventory (raw materials, work in process, and finished goods) allocated in the Buyer's order together with a reasonable allowance for prorated expenses and anticipated profits.
10. **CHANGES:** Buyer may request changes or additions to the Goods and/or Software consistent with Seller's specifications and criteria. In the event such changes or additions are accepted by Seller, Seller may revise the price(s), license fee(s) and date(s) of delivery. Seller reserves the right to change designs and specifications for standard Goods and/or Software without prior notice to Buyer, but not with respect to custom Goods being made for Buyer. Seller shall have no obligation to install or make such change in any Goods manufactured prior to the date of such change.
11. **ASSIGNMENT:** Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of the Seller, and any such assignment, without such consent, shall be void.
12. **INSTALLATION:** Buyer shall be responsible for receiving, inspecting, testing, storing, installing, starting up and maintaining all Goods.
13. **INSPECTION/TESTING:** Buyer, at its expense, agrees that it will promptly inspect the Goods upon receipt thereof, and in no event later than thirty (30) days from the date of receipt of the Goods. Buyer shall deliver to Seller within fifteen (15) days of inspection, but in no event later than forty-five (45) days from the date of receipt of the Goods, written notice of any and all deficiencies, defects, variations from specifications or complaints of any kind with respect to the quantity, quality, condition, shipment, performance, price or appearance of the Goods so received by Buyer. In the event no such written notice is received by Seller, Buyer shall be deemed conclusively to have inspected and accepted all such Goods unconditionally and to have waived any and all rights and claims, including without limitation any right to reject the Goods or to claim damages in respect thereof. Buyer may not return Goods without first advising Seller of the reasons therefor, obtaining from Seller a material authorization number and observing such instructions as Seller may give in authorizing such return. Buyer, at its option, may inspect and observe the testing by Seller of the Goods for compliance with Seller's standard test procedures prior to shipment, which inspection and testing shall be conducted at Seller's plant at such reasonable time as is specified by Seller. Any alleged rejection of the Goods at Seller's plant must be made promptly by Buyer before shipment. Tests shall be deemed to be satisfactorily completed and the test fully met when the Goods meet Seller's criteria for such procedures.
14. **DRAWINGS:** Seller's prints and drawings (including without limitation, the underlying technology) furnished by Seller to Buyer in connection with this agreement are the property of Seller and Seller retains all rights, including without limitation, exclusive rights of use, licensing and sale of same. Possession of such prints or drawings does not convey to Buyer any rights therein or license thereto. Upon termination of this agreement, or at any time upon Seller's request, all such prints and drawings, and any copies or duplications of same, shall be immediately returned to Seller.
15. **QUANTITY:** Buyer agrees to accept overruns of up to ten percent (10%) of the order on Custom Goods, including parts. Any such additional items shall be priced at the price per item charged for the specific quantity ordered.
16. **TOOLING:** Tool, die and pattern changes, if any, are in addition to the price of the Goods and are due and payable upon completion of the tooling. All such tools, dies and patterns shall be and remain the property of Seller. Charges for tools, dies and patterns do not convey to Buyer, title, ownership interests in, or rights to possession or removal, or prevent their use by Seller for other purchasers, except as otherwise expressly provided by Seller and Buyer in writing with reference to this provision.
17. **SOFTWARE:** It is recognized and agreed that title to any Software provided to Buyer shall remain with Seller and that such Software shall be furnished to, and used by, Buyer only after execution of Seller's standard license agreement, the terms of which are incorporated herein by reference. Buyer is granted a non-exclusive, royalty free license only for Buyer's use of the Software. Under this limited license, Buyer may: (a) use the Software with the Goods provided; and (b) adapt the Software for Buyer's use with the Goods.
18. **DOCUMENTATION:** Seller shall provide Buyer with that data/documentation which is specifically identified in Seller's quotation. If additional copies of data/documentation are to be provided by Seller, it shall be provided to Buyer at Seller's applicable prices then in effect.
19. **SERVICES:** If this agreement requires Seller to perform or provide any service hereunder, Seller (including without limitation its successors, assigns, agents or any person or entity acting at Seller's direction) shall not be responsible for any damages, claims, liabilities or expenses of any nature arising out of such services.
20. **CONFIDENTIALITY:** Seller (including without limitation its successors, assigns, agents or any person or entity acting at Seller's direction) shall not be responsible for keeping confidential any specifications, drawings, designs, manufacturing data or other information of any nature provided by Buyer hereunder; and further, Seller shall not be liable for any damages, costs or expenses of any nature arising out of any dissemination of such documents or information.
21. **U.S. EXPORT CONTROL REGULATIONS:** All Goods sold to Buyer by Seller hereunder are subject to U.S. Export Control Laws. Buyer hereby agrees not to resell or divert any Goods contrary to such laws.
22. **MISCELLANEOUS:** These terms and conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions shall be binding upon the Seller unless made in writing and signed on its behalf by its duly authorized representative. No conditions, usage or trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by Seller. No modification shall be effected by the Seller's receipt or acceptance of Buyer's purchase orders, shipping instruction forms, or other documentation containing terms at variance with or in addition to those set forth herein, all of which are objected to by the Seller. No waiver by Seller with respect to any breach or default of any right or remedy and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default of any other right or remedy, unless such waiver be expressed in writing and signed by Seller. All typographical or clerical errors made by Seller in any quotation, acknowledgment or publication are subject to correction.

The validity, performance, and all other matters relating to the interpretation and effect of this agreement shall be governed by the laws of the state of Missouri without regard to its conflict of law principles. Buyer and Seller agree that the proper venue for all actions arising in connection herewith shall be only in state and federal courts located in Missouri and the parties agree to submit to such jurisdiction. No action, regardless of form, arising out of transactions relating to this contract, may be brought by either party more than two (2) years after the cause of action has accrued. Further, the United Nations Convention on the International Sale of Goods (1980) (as amended from time to time) shall not apply to this Purchase Order or any transactions relating thereto.

23. **CODES:** Product Code Number - PCN (also A.C.R.I. Code Number). Example: PCN 020599 or 120568. First digit , 0 standards for ACRI Supplier Code number 681344. First digit, 1 stands for ACRI Supplier Code number 681345. Next five digits (20599 or 20568) is ACRI Product Code. Therefore, PCN 020599 = ACRI Number 681344-20599 and PCN 120568 = ACRI NUMBER 681345-20568.