Catalog

Sanhua are proud to be a major supplier to the leading original equipment manufacturers of HVACR equipment and domestic appliances throughout the world. We conduct our business in over 30 countries throughout Europe, Asia and the Americas and we have received many business awards and acknowledgements of our success. Our mission is to provide competitive, intelligent climate control solutions for our world class customers. Our vision is to develop a low-carbon economy and preserve a high quality, green environment.

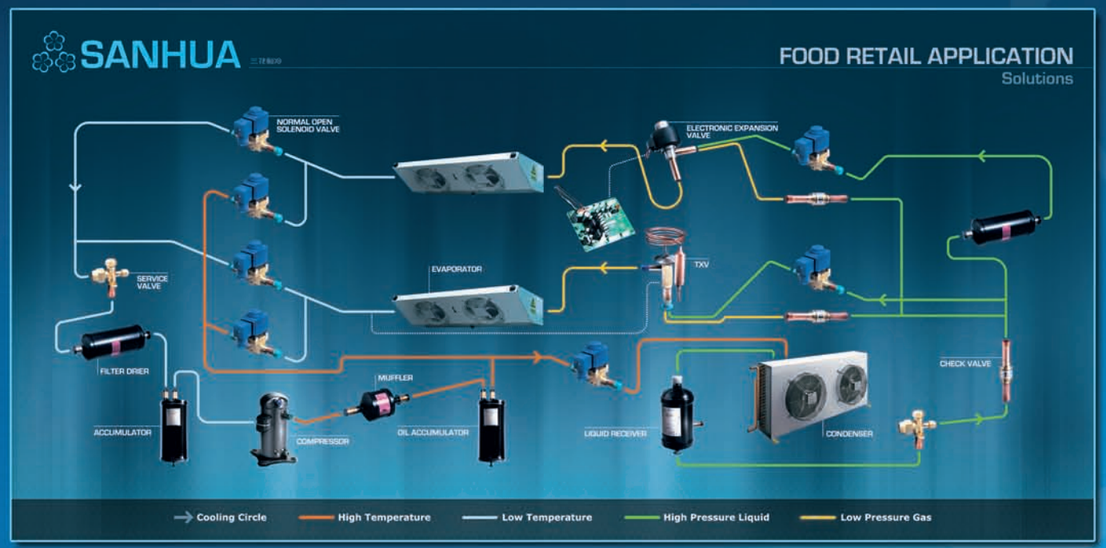
We are the global leader in the design, manufacture and distribution of 4-way heat pump reversing valves and we also command industry leading positions for a wide variety of other system components including ball valves, solenoid valves, electronic expansion valves, service valves, filter dryers, mufflers, accumulators and receivers. We have extensive capabilities in the design and manufacture of electronic controllers and we work with our customers to integrate all these capabilities to provide comprehensive system solutions.

Sanhua are a key member of the Sanhua Holding Group. We are a public company, Zhejiang Sanhua Co., Ltd., and have been traded on the Shenzhen stock exchange since 2005. We have achieved business success through a strategy of specialized production, world recognized brands and global marketing. We relentlessly pursue continuous improvement in all facets of our business and we aspire to achieve world class quality in our operations and products. We have attained ISO9001, ISO10012, ISO14001 and QC080000 certification and use these management systems to guide our overall business.

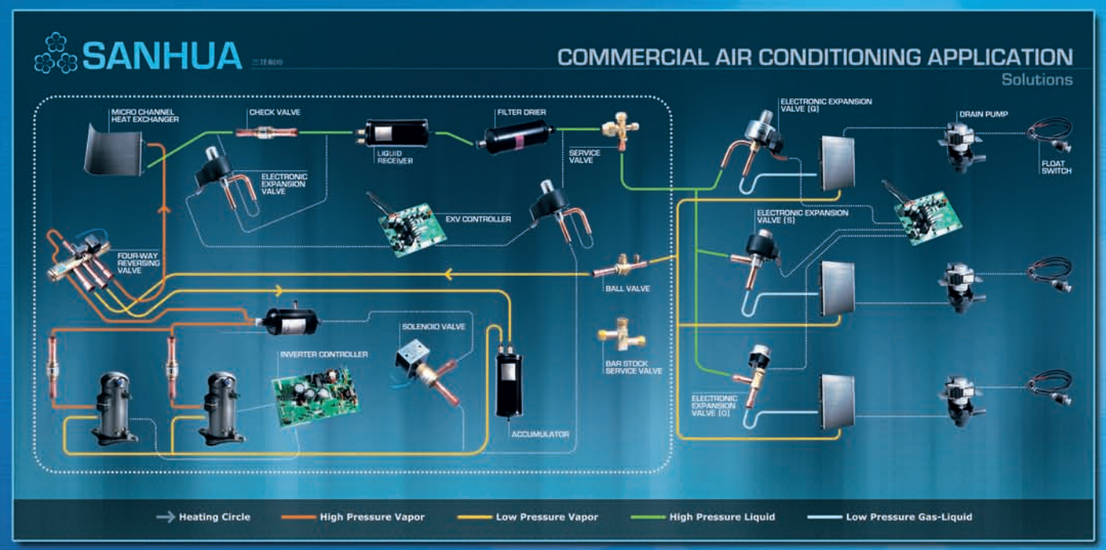
We work diligently to satisfy the needs of our employees, suppliers, customers and society. Our company culture views Sanhua symbolically as an "Evergreen Tree". The health of the tree, our company, depends to a great extent on the breadth and depth of the root, the talent. To keep the tree healthy and growing, we emphasize excellence in three key areas; technology, management and talent. We strive to be a world class company with world class manufacturing and world class R&D and our 7,000+ highly talented employees are committed to provide technically superior system solutions for our customers.

Solution of Sanhua Productions

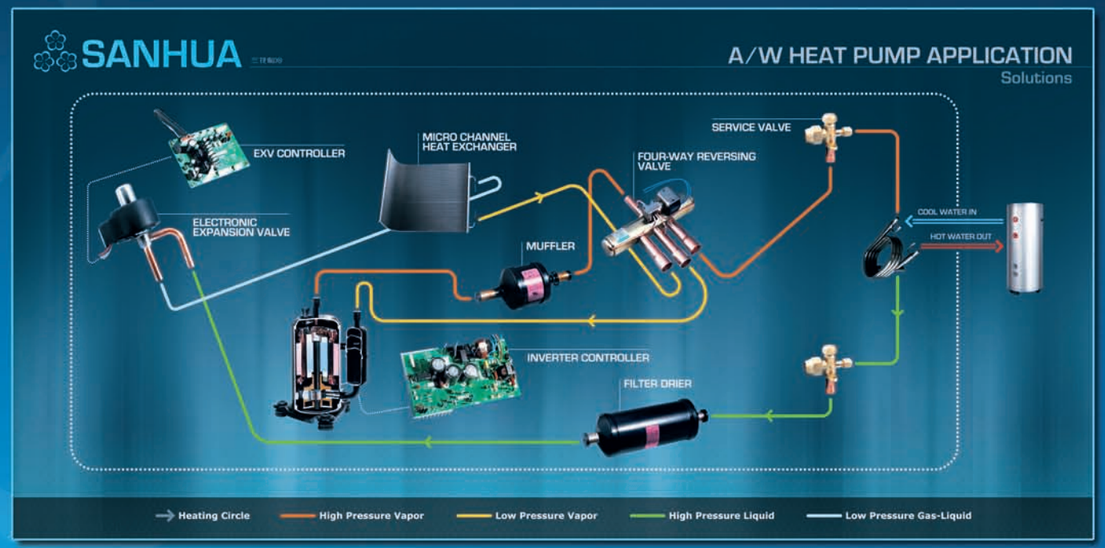
NATIONAL QUALITY AWARD
CHINA TOP BRAND
CHINA WELL KNOWN TRADEMARK



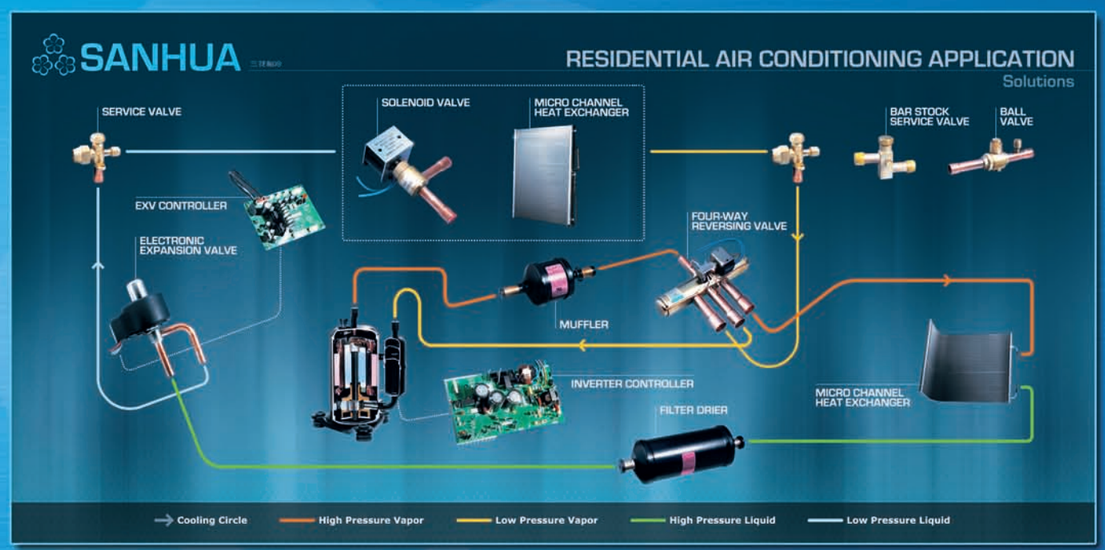
Sanhua keeps your food fresh through the precise control of temperature.



Sanhua focuses on gaining precise temperature control, improving energy efficiency and achieving energy saving.



Sanhua improves the efficiency in the use of energy, to adjust the system to variable situations.



Sanhua creates an efficient, comfortable and customized residential system.

Outline

Q series electronic expansion valves are mainly used in air conditioning systems with variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and energy saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

Features

◆Compact design, light weight
◆High reliability
◆Energy saving
◆Applicable for heat pumps: bidirectional flow available

General spec.

◆Applicable refrigerant：R22、R134a、R404A、R407C、R410A
◆Capacity：1US.T~8US.T(R22 Nominal Capacity)
◆Applicable medium temperature：-30℃～+70℃(electrified rate below 50%)
◆Applicable ambient temperature：-30℃～+60℃(electrified rate below 50%)
◆Relative humidity：below 95% RH
◆Installation mode：Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface

Electrical Parameters

◆Rated voltage：DC12V±10%
◆Actuating mode：4-phase 8-step permanent magnet stepping motor of direct-operated type
◆Excitation mode：1-2 phase excitation, monopole actuation
◆Excitation rate: Q01 and Q02 series: 30~90PPS (the ending excitation mode maintains 0.1~1.0s)
Q03 series: 30~40PPS (the ending excitation mode maintains 0.1~1.0s)
◆Current of coil:260mA/phase(20℃)
◆Resistance of coil：46±3.7Ω/phase(20℃)
◆Insulation grade of coil: E

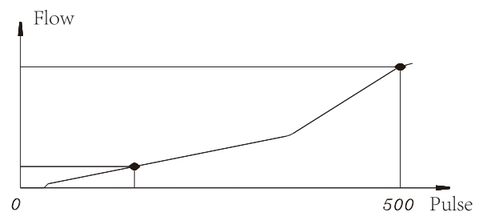
Electronic Expansion Valve
Q Series

Technical Parameters

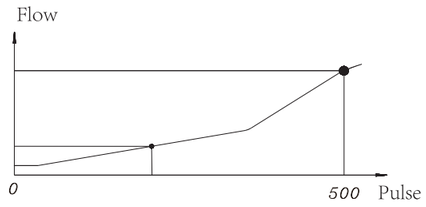
Model	Port mm	R22 Nominal Capacity kW	R22 Nominal Capacity US.T	Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa R22	Max. Operation Pressure Difference MPa R407C	Max. Operation Pressure Difference MPa R410A	Internal Leakage ml/min	Max. Working Pressure MPa R22	Max. Working Pressure MPa R407C	Max. Working Pressure MPa R410A	Reverse Open Valve Pressure Difference MPa R22	Reverse Open Valve Pressure Difference MPa R407C	Reverse Open Valve Pressure Difference MPa R410A
DPF(Q01)1.3	1.3	3.5	1	500	32±20	2.26	2.48	3.43	≤600	3.0	3.3	4.2	≥1.47	≥1.47	≥2.1
DPF(Q01)1.65	1.65	5.3	1.5												
DPF(Q01)1.8	1.8	7.0	2												
DPF(Q01)2.0	2.0	8.8	2.5												
DPF(Q02)2.2	2.2	10.6	3												
DPF(Q02)2.4	2.4	17.6	5												
DPF(Q03)3.0	3.0	21.1	6			2.26	2.26	2.26	≤1000						≥1.47
DPF(Q03)3.2	3.2	28.2	8												

Note:
1) Nominal working conditions: Condensing temperature: 38℃, vaporing temperature 5℃,Supercooling temperature 0℃,superheat temperature 0℃.
2) When using other refrigerants, it needs a factor to adjust to the nominal capacity of R22.(R134a --0.75, R407C--1, R410A--1.2).
3) The leakage is based on valve without flow after being fully closed.
4) The nominal capacity is calculated as per 2/3 openness of valve of straight flow curve.

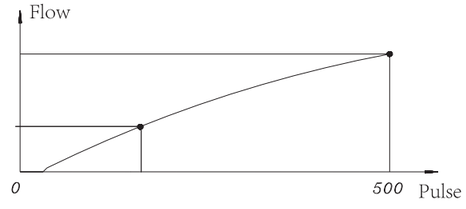
Standard Flow Curve



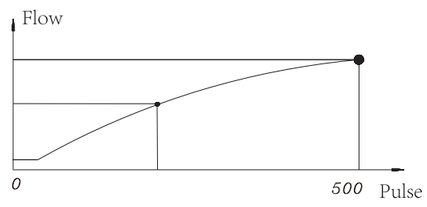
Broken Line Graph of Full Closed Valve without Flow



Broken Line Graph of Full Closed Valve with Flow

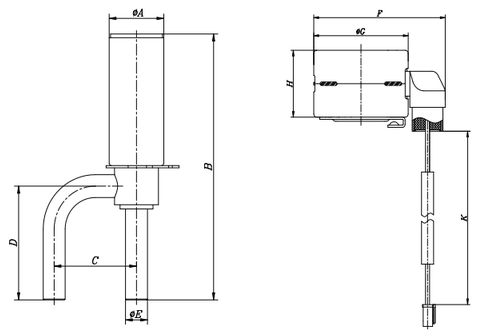


Straight Line Graph of Full Closed Valve without Flow



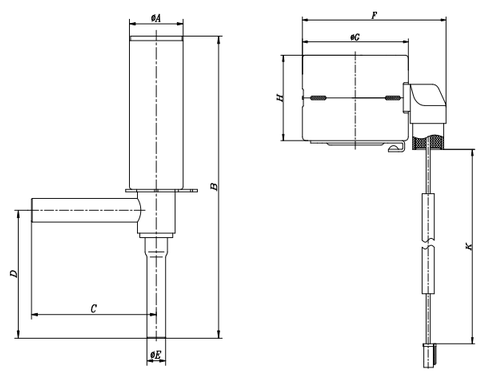
Straight Line Graph of Full Closed Valve with Flow

Dimensions



Code of the Valve Series	Port mm	Code of the Coil Series	Dimensions mm								
			A	B	C	D	E	F	G	H	K
Q01	1.3~2.0	M01	15.4	88.5	30	40	6.35	52	36	22.2	700
Q02	2.2~2.4	M02	18.9	93	30	40	7.94	56	40	24.2	700

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

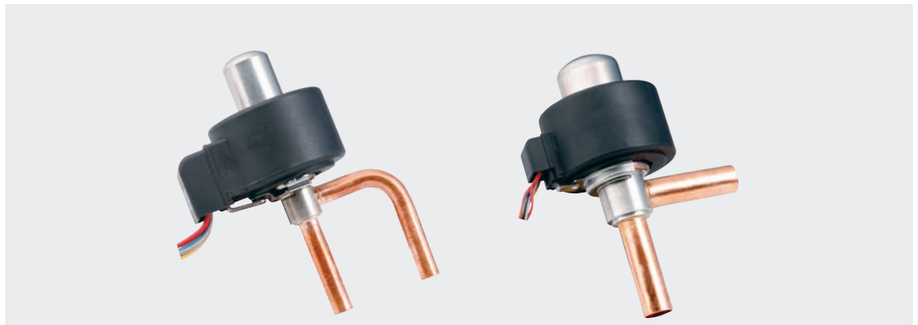


Code of the Valve Series	Port mm	Code of the Coil Series	Dimensions mm								
			A	B	C	D	E	F	G	H	K
Q03	3.0~3.2	M05	21.8	101.5	53	43	7.94	60	44.5	28.5	700

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) A 100 mesh screen is required before and after the electronic expansion valve.
3) The valve body shall be kept cool no more than 120℃ in brazing process.
4) The inside of valve shall stay dry and clean during the installation.

Outline



S series electronic expansion valves are mainly used in non-VRV commercial Inverter systems, as well as in residential units, to realize automatic adjustment of refrigerant flow rate to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and energy saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

Features

◆Compact design, light weight
◆High reliability
◆Energy saving
◆Applicable for heat pumps: bidirectional flow available

General spec.

◆Applicable refrigerant: R22, R134a,R404A, R407C, R410A
◆Capacity: 1US.T~30US.T (R22 Nominal Capacity)
◆Applicable medium temperature: -30℃ ~ +70℃ (electrified rate below 50%)
◆Applicable ambient temperature: -30℃ ~ +60℃ (electrified rate below 50%)
◆Relative humidity: below 95% RH
◆Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface.

Electrical Parameters

◆Rated Voltage: DC12V±10%
◆Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-acting type
◆Excitation mode: 1 ~ 2 phase excitation, monopole actuation
◆Excitation rate: S01, S02 series: 30～90pps (the ending excitation mode maintains more than 0.1~1.0S)
S03 series: 30～40pps (the ending excitation mode maintains more than 0.1~1.0S)
◆Current of coil: Coil for S01 and S02 series: 260mA/phase(20℃)
Coil for S03 series: 375mA/phase(20℃)
◆Resistance of coil: Coil for S01 and S02 series: 46±3.7Ω/phase(20℃)
Coil for S03 series: 32±3.7Ω/phase(20℃)
◆Insulation grade of coil: E

Technical Parameters

Model	Port mm	R22 Nominal Capacity		Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa			Internal Leakage ml/min	Max. Working Pressure MPa			Reverse Open Valve Pressure Difference MPa		
		kW	US.T			R22	R407C	R410A		R22	R407C	R410A	R22	R407C	R410A
DPF(S01)1.3	1.3	3.5	1	500	32 ±20	2.26	2.48	3.43	≤600	3.0	3.3	4.2	≥1.47	≥1.47	≥2.1
DPF(S01)1.65	1.65	5.3	1.5												
DPF(S01)1.8	1.8	7.0	2												
DPF(S01)2.0	2.0	8.8	2.5												
DPF(S02)2.2	2.2	10.6	3												
DPF(S02)2.4	2.4	17.6	5												
DPF(S03)4.0	4.0	38.7	11						≤1500				≥0.7	≥0.7	≥0.7
DPF(S03)4.5	4.5	49.3	14												
DPF(S03)5.5	5.5	70.4	20					3.0							
DPF(S03)6.5	6.5	105.6	30												

Note:

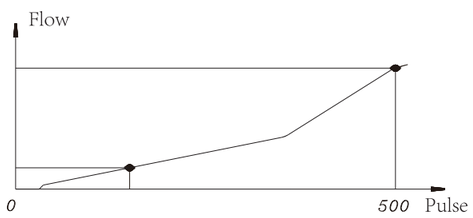
1) Nominal working conditions: Condensing temperature: 38℃, vaporing temperature 5℃,Supercooling temperature 0℃,superheat temperature 0℃.

2) When using other refrigerants, it needs a factor to adjust to the nominal capacity of R22.(R134a --0.75, R407C--1, R410A--1.2).

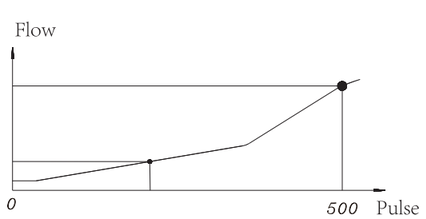
3) The leakage is based on valve without flow after being fully closed.

4) The nominal capacity is calculated as per 2/3 openness of valve of straight flow curve.

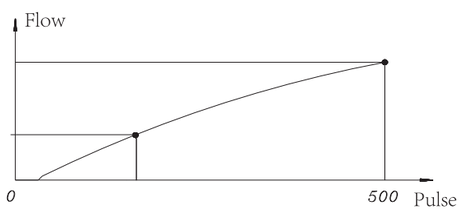
Standard Flow Curve



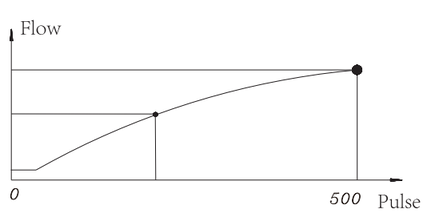
Broken Line Graph of Full Closed Valve without Flow



Broken Line Graph of Full Closed Valve with Flow

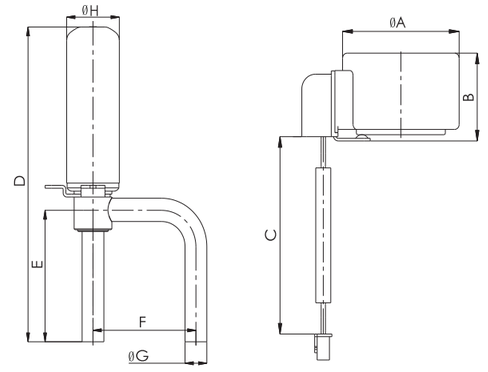


Straight Line Graph of Full Closed Valve without Flow



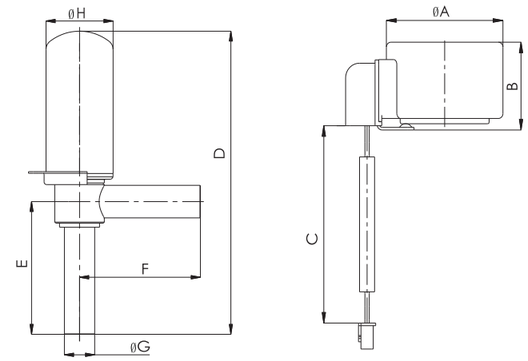
Straight Line Graph of Full Closed Valve with Flow

Dimensions



Code of the Valve Series	Port mm	Code of the Coil Series	Dimensions mm							
			A	B	C	D	E	F	G	H
S01	1.3～2.0	M04	38	26.7	700	86	36	30	6.35	15.4
S02	2.2～2.4	M07	42.8	29.5	700	94.8	40	30	7.94	18.9

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.



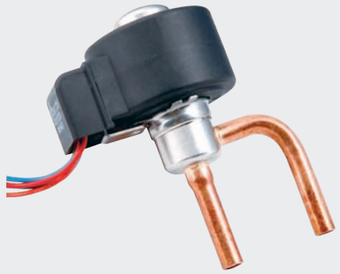
Code of the Valve Series	Port mm	Code of the Coil Series	Dimensions mm							
			A	B	C	D	E	F	G	H
S03	4.0～6.5	M03	67.5	42.4	700	148	64.7	63.4	15.88	35.3

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

Installation:

1) All the valves shall be tested by equipment makers to fit into the system.
2) A 100 mesh screen is required before and after the electronic expansion valve.
3) The valve body shall be kept cool no more than 120℃ in brazing process.
4) The inside of valve shall stay dry and clean during the installation.

Outline



T series electronic expansion valves are mainly used in air conditioning systems with variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and energy saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

Features

- ◆Smaller installation space: low height, compact design and light weight
- ◆Wider applicability for eliminating system refrigerant noise: with optimized flow path design
- ◆Outer Encapsulation coil structure: better corrosion resistance
- ◆Flow direction of medium: bi-flow
- ◆T series EEVs are the updated version of Q series and S series

General spec.

- ◆Applicable refrigerant: R22, R407C, R410A etc.
- ◆Capacity: 1US.T~25US.T (R22 Nominal Capacity)
- ◆Applicable medium temperature: -30℃ ~ +70℃ (electrified rate below 50%)
- ◆Applicable ambient temperature: -30℃ ~ +60℃ (electrified rate below 50%)
- ◆Relative humidity: below 95% RH
- ◆Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface

Electrical Parameters

- ◆Rated voltage: DC12V ±10%
- ◆Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-operated type
- ◆Excitation mode: 1-2 phase excitation, monopole actuation
- ◆Excitation rate:30~90PPS (the ending excitation mode maintains 0.1~1.0s)
- ◆Current of coil:260mA/phase(20℃)
- ◆Resistance of coil:46±3.7Ω/phase(20℃)
- ◆Insulation grade of coil: E

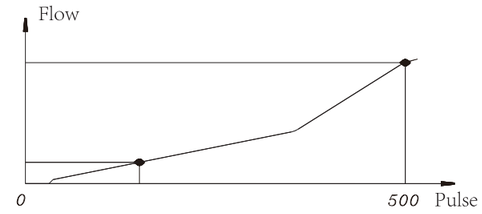
Technical Parameters

Model	Port mm	R22 Nominal Capacity		Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa			Internal Leakage ml/min	Max. Working Pressure MPa			Reverse Open Valve Pressure Difference MPa		
		kW	US.T			R22	R407C	R410A		R22	R407C	R410A	R22	R407C	R410A
DPF(T01)1.3	1.3	3.5	1	500	32±20	2.26	2.48	3.43	≤600	3.0	3.3	4.2	≥1.47	≥1.47	≥2.1
DPF(T01)1.65	1.65	5.3	1.5												
DPF(T01)1.8	1.8	7.0	2												
DPF(T01)2.0	2.0	8.8	2.5												

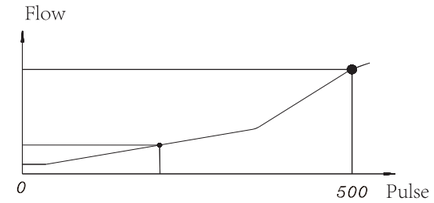
Note:
1) Nominal working conditions: Condensing temperature: 38℃, vaporing temperature 5℃,Supercooling temperature 0℃,superheat temperature 0℃.
2) When using other refrigerants, it needs a factor to adjust to the nominal capacity of R22.(R407C--1, R410A--1.2).
3) The leakage is based on valve without flow after being fully closed.
4) The nominal capacity is calculated as per 2/3 openness of valve of straight flow curve.

Technical Parameters

Standard Flow Curve

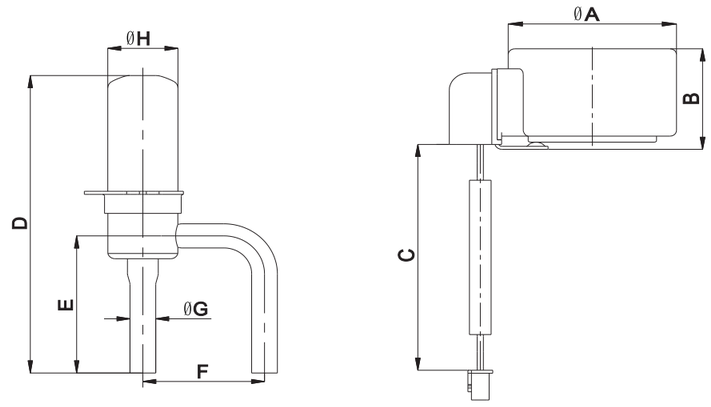


Broken Line Graph of Full Closed Valve without Flow



Broken Line Graph of Full Closed Valve with Flow

Dimensions

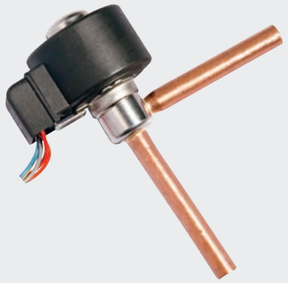


Port mm	Code of the Coil Series	Dimensions mm							
		A	B	C	D	E	F	G	H
1.3~2.0	M10	38.5	26.4	700	78	36	30	6.35	17.3

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) A 100 mesh screen is required before and after the electronic expansion valve.
3) The valve body shall be kept cool no more than 120℃ in brazing process.
4) The inside of valve shall stay dry and clean during the installation.

Outline



T(S) series electronic expansion valves are mainly used in multiple-indoor air conditioning systems with variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and power saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

Features

◆Can be functioned without oil
◆Smaller installation space: low height, compact design and light weight
◆Wider applicability for eliminating system refrigerant noise
◆External Encapsulation coil structure: better corrosion resistance
◆Flow direction of medium: bi-flow ◆Long life-span

General spec.

◆Applicable refrigerant: R22, R134a, R404a, R407C, R410A
◆Capacity:1US.T~8US.T(R22 nominal capacity)
◆Applicable medium temperature: -30℃ ~ 70℃ (electrified rate below 50%)
◆Applicable ambient temperature: -30℃ ~ 60℃ (electrified rate below 50%)
◆Relative humidity: below 95% RH
◆Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface.

Electrical Parameters

◆Rated voltage: DC12V±10%
◆Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-operated type
◆Excitation mode: 1-2 phase excitation, monopole actuation
◆Excitation rate:30PPS~90PPS (the ending excitation mode maintains 0.1~1.0s)
◆Current of coil:260mA/phase(20℃) ◆Resistance of coil:46+3.7Ω/phase(20℃)
◆Insulation grade of coil: E

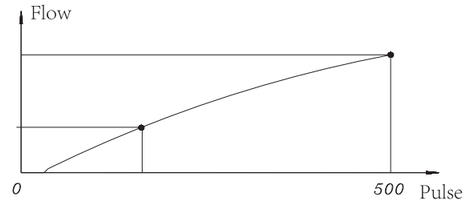
Technical Parameters

Model	Port mm	R22 Nominal Capacity kW	R22 Nominal Capacity US.T	Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa R410A	Internal Leakage ml/min	Max. Working Pressure MPa R410A	Reverse Open Valve Pressure Difference MPa R410A
DPF(TS)1.3	1.3	4.2	1.2	500	32±20	3.43	⩽300	4.2	2.5
DPF(TS)1.65	1.65	6.3	1.8						
DPF(TS)1.8	1.8	8.4	2.4						
DPF(TS)2.0	2.0	10.5	3						
DPF(TS)2.2	2.2	12.7	3.6						
DPF(TS)2.4	2.4	21.1	6						
DPF(TS)3.0	3.0	25.3	7.2				⩽500		⩾1.47
DPF(TS)3.2	3.2	33.8	9.6						

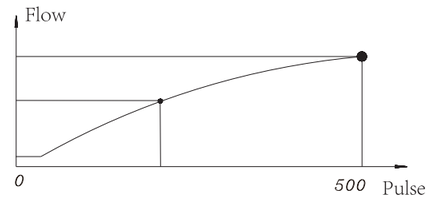
Note:
1) Nominal working conditions: Condensing temperature: 38℃, vaporing temperature 5℃,Supercooling temperature 0℃,superheat temperature 0℃.
2) When using other refrigerants, it needs a factor to adjust to the nominal capacity of R410A.(R134a --0.62, R22--0.83).
3) The leakage is based on valve without flow after being fully closed.
4) The nominal capacity is calculated as per 2/3 openness of valve of straight flow curve.

Technical Parameters

Standard Flow Curve

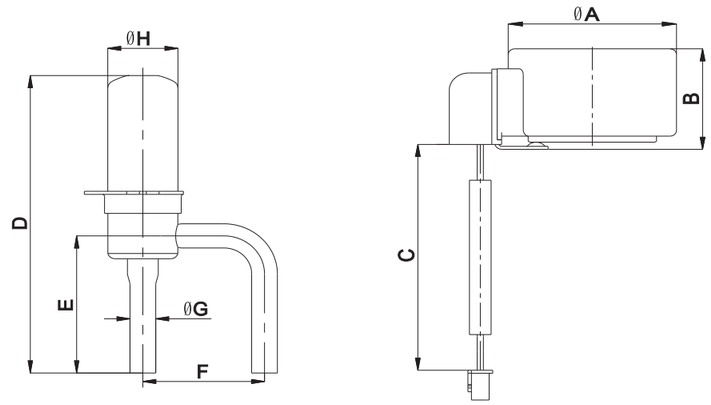


Straight Line Graph of Full Closed Valve without Flow



Straight Line Graph of Full Closed Valve with Flow

Dimensions

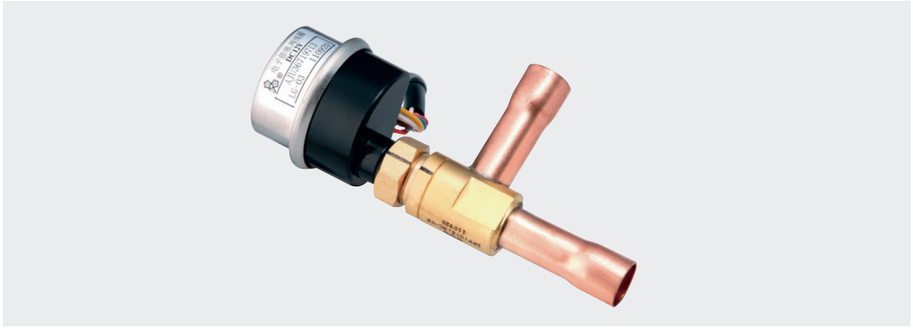


Port mm	Code of the Coil Series	Dimensions mm A	B	C	D	E	F	G	H
1.3~2.4	M10	38.5	26.4	700	78	36	30	6.35	17.3
3.0~3.2					82	40		7.94	

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) A 100 mesh screen is required before and after the electronic expansion valve.
3) The valve body shall be kept cool no more than 120℃ in brazing process.
4) The inside of valve shall stay dry and clean during the installation.

Outline



O series electronic expansion valves are mainly used in multiple-indoor air conditioning systems variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and energy saving. These valves can also be used for other controls. These valves are reversible which can automatically control the flow of refrigerant in either heating or cooling mode.

Features

◆High precision: full open pulse 2000
◆Low noise
◆Long life
◆Energy saving

General spec.

◆Applicable refrigerant: R22, R134a, R404A, R407C, R410A
◆Capacity: 1US.T~13.3US.T (R22 Nominal Capacity)
◆Applicable medium temperature: -30℃ ~ +70℃ (electrified rate below 50%)
◆Applicable ambient temperature: -30℃ ~ +60℃ (electrified rate below 50%)
◆Relative humidity: below 95% RH
◆Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface

Electrical Parameters

◆Rated voltage: DC12V±10%
◆Actuating mode: 4-phase 4-step permanent magnet stepping motor of speed reduction type
◆Excitation mode: 2-2 phase excitation, monopole actuation
◆Excitation rate: 100PPS~250PPS (opening excitation speed ⩽ closing excitation speed, the ending excitation mode maintains more than 0.1S)
◆Current of coil:80mA/phase(20℃)
◆Resistance of coil:150±15Ω/phase(20℃)
◆Insulation grade of coil: E

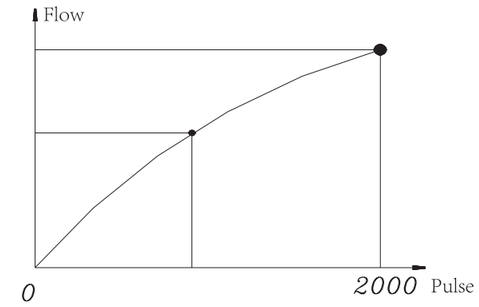
Technical Parameters

Model	Port mm	R22 Nominal Capacity		Max. Operation Pressure Difference MPa			Internal Leakage ml/min	Reverse Open Valve Pressure Difference MPa		
		kW	US.T	R22	R407C	R410A		R22	R407C	R410A
DPF(O)1.3	1.3	5.3	1.5	2.26	2.48	3.43	⩽600	3.0	3.3	4.2
DPF(O)2.0	2.0	8.8	2.5							
DPF(O)2.4	2.4	10.6	3.0							
DPF(O)3.2	3.2	14.1	4.0				⩽1000			
DPF(O)3.2	3.2	17.6	5.0							
DPF(O)4.0	4.0	21.1	6.0							
DPF(O)5.2	5.2	28.2	8.0							
DPF(O)6.4	6.4	35.2	10.0							
DPF(O)8.0	8.0	46.8	13.3							

Note:
1) Nominal working conditions: Condensing temperature: 38℃, vaporing temperature 5℃,Supercooling temperature 0℃,superheat temperature 0℃.
2) When using other refrigerants, it needs a factor to adjust to the nominal capacity of R22.(R134a --0.75, R407C--1, R410A--1.2).
3) The nominal capacity is calculated as per 2/3 openness of valve of straight flow curve.

Technical Parameters

Standard Flow Curve



Dimensions

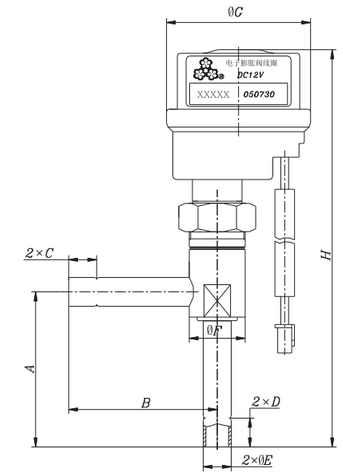


Fig.1

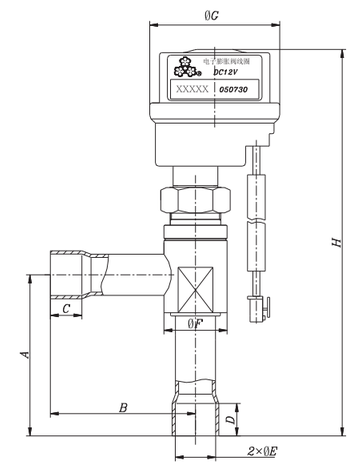


Fig.2

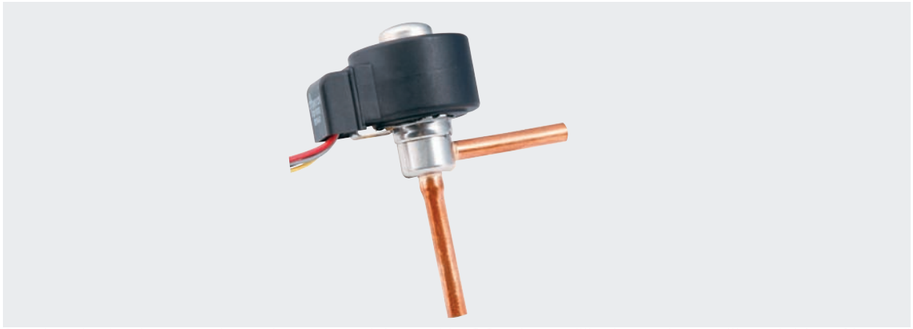
Model	Dimensions mm								Note
	A	B	C	D	E	F	G	H	
DPF(O)1.3	43	42.5	8	8	7.94	16	41.2	110	Fig.1
DPF(O)2.0	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)2.4	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)3.2	43	42.5	8	8	7.94	16	41.2	110	
DPF(O)3.2	50	46	10	10	12.8	20	41.2	119	Fig.2
DPF(O)4.0	50	46	10	10	12.8	20	41.2	119	
DPF(O)5.2	50	46	10	10	12.8	20	41.2	119	
DPF(O)6.4	50	46	10	10	12.8	20	41.2	119	
DPF(O)8.0	50	46	10	10	12.8	20	41.2	119	

Note: Recommended length of lead wires includes: 500mm, 1000mm, 1500mm.

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) A 100 mesh screen is required before and after the electronic expansion valve.
3) The valve body shall be kept cool no more than 120℃ in brazing process.
4) The inside of valve shall stay dry and clean during the installation.

Electronic Expansion Valve
R Series

Outline



R series electronic expansion valves are mainly used in CO_2 air conditioning systems with variable refrigerant flow to realize automatic adjustment of refrigerant flow rate and make the air conditioning system work under the best working condition for the purpose of fast cooling, precise temperature control and energy saving. These valves can also be used for other controls.

Features

◆Smaller installation space: low height, compact design and light weight
◆Wider applicability for eliminating system refrigerant noise: with optimized flow path design
◆Outer Encapsulation coil structure: better corrosion resistance

General spec.

◆Applicable refrigerant: R744(CO_2)
◆Applicable medium temperature: -30℃ ~ 80℃ (electrified rate below 40%)
◆Applicable ambient temperature: -30℃ ~ 60℃ (electrified rate below 40%)
◆Relative humidity: below 95% RH
◆Installation mode: Coil upwards, central axis of valve rotor within ±15° vertical to horizontal surface.
◆Direction of Medium: one direction from horizontal tube to Vertical tube

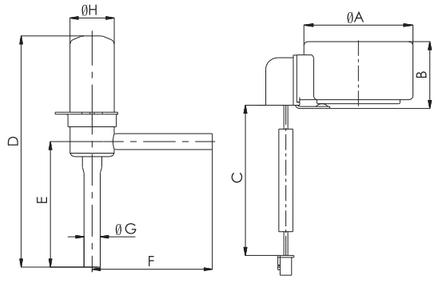
Electrical Parameters

◆Rated voltage: DC12V±10%
◆Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-operated type
◆Excitation mode: 1-2 phase excitation, monopole actuation
◆Excitation rate:30~90PPS (the ending excitation mode maintains 0.1~1.0s)
◆Current of coil:260mA/phase(20℃)
◆Resistance of coil:46±3.7Ω/phase(20℃)
◆Insulation grade of coil: E

Technical Parameters

Model	Port mm	R744 Nominal Capacity		Full Open Pulse	Opening Pulse	Max. Operation Pressure Difference MPa	Internal Leakage ml/min	Max. Working Pressure MPa
		kW	US.T					
DPF(R04)1.5D	1.5	4.6	1.3	500	32±20	10	≤600	14

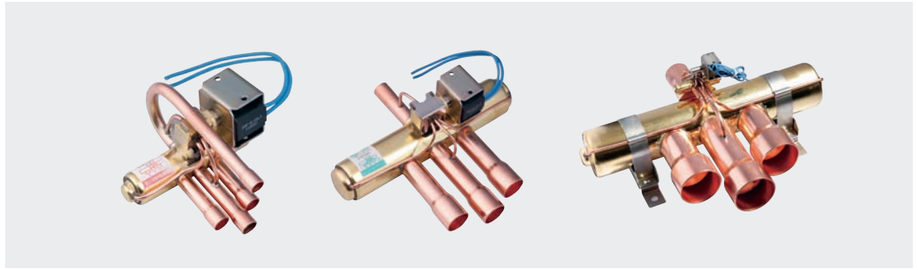
Dimensions



Port mm	Code of the Coil Series	Dimensions mm							
		A	B	C	D	E	F	G	H
1.5	M10	38.5	26.4	700	93.5	50	47	6.35	17.3

Four-way Reversing Valve
SHF Series

Outline



SHF series four-way reversing valves are applicable for heat pump systems such as central, unitary and room air conditioners to realize switching between cooling mode and heating mode by changing the flow path of refrigerant.

Features

◆Wide application range with products available with 1-120 US.T

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃～+120℃
◆Applicable ambient temperature: -30℃～+50℃
◆Relative humidity: below 95% RH
◆Certification: UL, VDE, CQC

Technical Parameters

Series	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Operation Pressure Difference MPa		Connection Size (Outside Diameter) in	
		kW	US.T		Max	Min	D Tube	E/S/C Tube
SHF-4	8.0	4.5	1.25	4.2	3.1	0.25	5/16	3/8
SHF-7	11.1	7	2				3/8	1/2
SHF-9	11.5	9	2.5			0.34	3/8	1/2
SHF-11	11.5	11	3.1				1/2	3/4
SHF-14	13.5	14	4				1/2	3/4
SHF-20	17.2	23	6.5				1/2	3/4
SHF-35	20.9	38	10.5				3/4	7/8
SHF-50	22.8	50	15				7/8	9/8
SHF-70	28.6	70	20				8/8	10/8
SHF-100	34.8	100	30				10/8	12/8
SHF-140	41	140	40				12/8	14/8
SHF-175	46.4	175	50				12/8	17/8
SHF-210	50	210	60				13/8	21/8
SHF-280	60	280	80				17/8	21/8
SHF-420	69	420	120				21/8	25/8

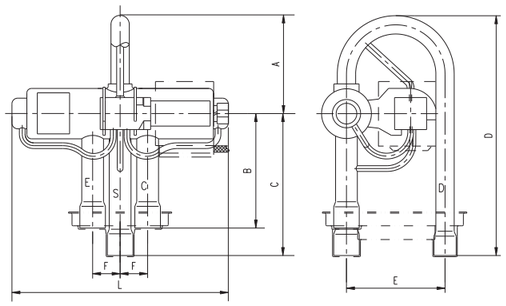
Technical Parameters

Electrical Parameters of Coil

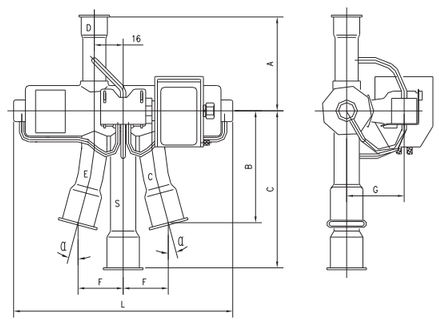
Type	Classification	Rated Voltage V	Frequency Hz	Power W
Coils with Lead Wires	SHF-4-10L Series	AC220~240、AC200、AC100、AC110~120、AC24、AC265~277	50/60	4.5/3.5
Coil with Spade Connection	SHF-4-10FA Series	AC220~240、AC220、AC115~120、AC100-110、AC24、AC265~277、AC200	50/60	6/5
		DC12	/	10
		DC24	/	11

Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

Dimensions

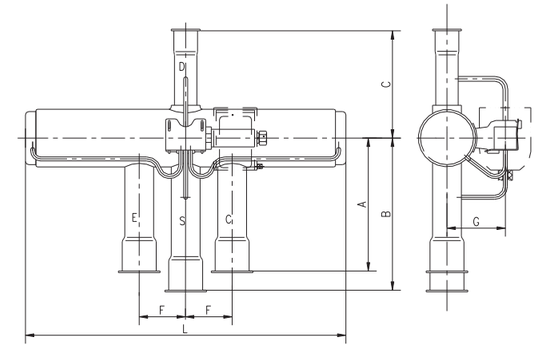


Model	Dimensions mm						
	L	A	B	C	D	E	F
SHF-4H-23U-P	94.4	43	50	62	105	43	12
SHF-7H-34U-P	113	51	59	71	119	52	16
SHF-9H-34U-P	115.5	51	59	71	119	52	16

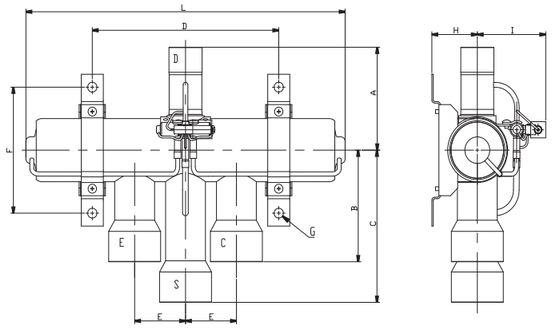


Model	Domensions (size unit: mm; angle unit: °)						
	L	A	B	C	F	G	a
SHF-11H-45D1	121.5	52	62	87	25	31.5	15

Dimensions

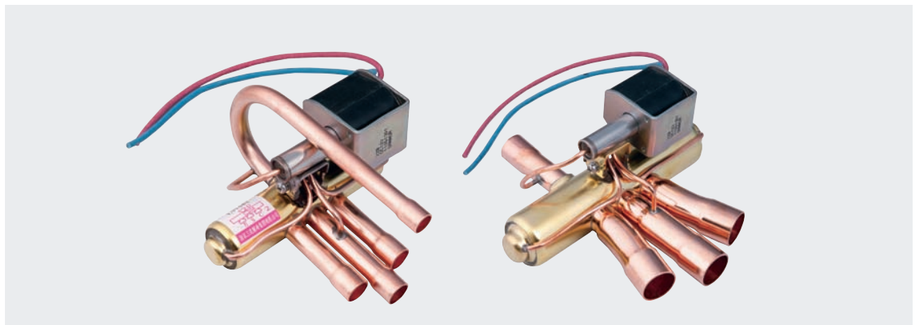


Model	Dimensions mm					
	L	A	B	C	F	G
SHF-14-46	184.2	67	83	95	28.6	35.5
SHF-20D-46	183.6	67	83	95	28.6	35.5
SHF-35B-67	213	82	87	100	33	40
SHF-50A-79	213	91	96	109	33	40



Model	Dimensions mm									
	L	A	B	C	D	E	F	G	H	I
SHF-70-810	303Max	111.8	117	131	/	46	/	/	/	86
SHF-100-1012	321Max	111.8	117	131	/	49	/	/	/	86
SHF-140-1214	390Max	135.6	148.7	168.7	226	58	166	Φ13	63	97
SHF-175-1217	390Max	135.6	148.7	168.7	226	58	166	Φ13	63	97
SHF-210-1321	452Max	135.6	148.7	168.7	262	71.5	166	Φ13	63	97
SHF-280-1721	533Max	176.5	180	235	340	75	220	Φ13	83	112
SHF-420-2125	613Max	176.5	180	235	380	93	220	Φ13	83	112

Outline



SHF (L) series four-way reversing valves are applicable for heat pump systems such as central, unitary and room air conditioners to realize switching between cooling mode and heating mode by changing the flow path of refrigerant.

Features

◆Energy saving
◆Excellent anti-system abnormal recoil ability and operation performance
◆Good anti-vibration performance

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃～+120℃
◆Applicable ambient temperature: -30℃～+50℃
◆Relative humidity: below 95% RH
◆Certification: UL, VDE, CQC

Technical Parameters

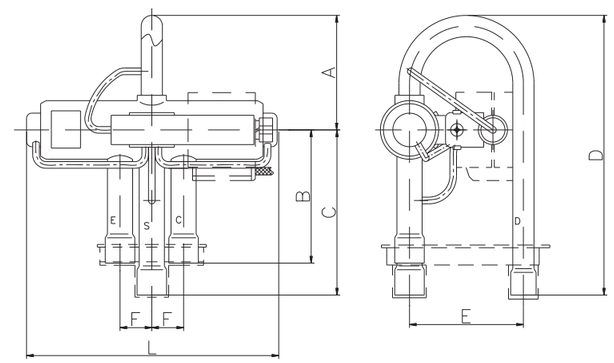
Series	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Operation Pressure Difference MPa		Connection Size (Outside Diameter) in	
		kW	US.T		Max	Min	D Tube	E/S/C Tube
SHF-3	7.4	3.5	1.0	4.2	3.1	0.25	1/4	5/16
SHF-4	8.0	4.5	1.25				5/16	3/8
SHF-7	11.1	7	2.0				3/8	1/2
SHF-9	11.5	9	2.5			0.34	3/8	1/2
SHF-11	11.5	11	3.1				1/2	5/8

Electrical Parameters of Coil

Type	Classification	Rated Voltage V	Frequency Hz	Power W
Coils with Lead Wires	SHF-4-10L Series	AC220～240、AC200、AC100、AC110～120、AC24、AC265～277	50/60	4.5/3.5
Coil with Spade Connection	SHF-4-10FA Series	AC220～240、AC220、AC115～120、AC100-110、AC24、AC265～277、AC200	50/60	6/5
		DC12	/	10
		DC24	/	11
Bistable Coils	XZB Series	AC100、AC200	50/60	/
		DC12	/	/

Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

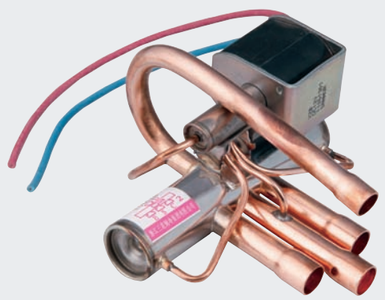
Dimensions



Model	Dimensions mm						
	L	A	B	C	D	E	F
SHF(L)-3H-12U	88.2	38.5	38	50	88.5	43	11
SHF(L)-4H-23U	94.4	43	50	62	105	43	12
SHF(L)-7H-34U	113	51	59	71	119	52	16
SHF(L)-9H-34U	115.5	51	59	71	119	52	16
SHF(L)-11H-34U	117	51	59	71	119	52	16

Four-way Reversing Valve
SHF (G) Series

Outline



SHF (G) series four-way valves are especially applicable for heat pump systems including high-end and high-efficient unitary and room air conditioners to realize switching between cooling mode and heating mode by changing the flow path of refrigerant.

Features

◆Energy saving
◆Excellent anti-vibration performance

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Applicable ambient temperature: -30℃ ~ +50℃
◆Relative humidity: below 95% RH

Technical Parameters

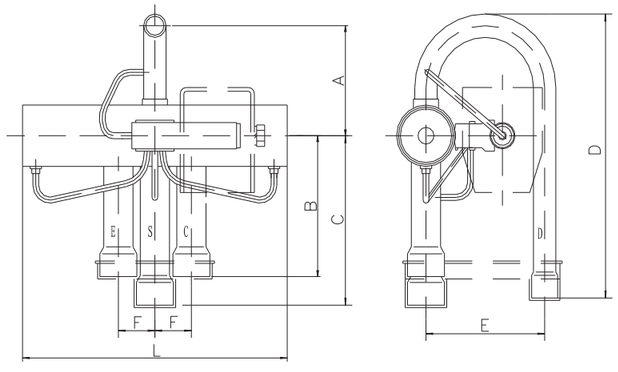
Series	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Operation Pressure Difference MPa		Connection Size (Outside Diameter) in	
		kW	US.T		Max	Min	D Tube	E/S/C Tube
SHF(G)-4	8.0	4.5	1.25	4.2	3.1	0.25	5/16	3/8
SHF(G)-7	11.1	7	2				3/8	1/2
SHF(G)-9	11.5	9	2.5			0.34	3/8	1/2

Electrical Parameters of Coil

Type	Classification	Rated Voltage V	Frequency Hz	Power W
Bistable Coils	XZB Series	AC100、AC200	50/60	/
		DC12	/	/

Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

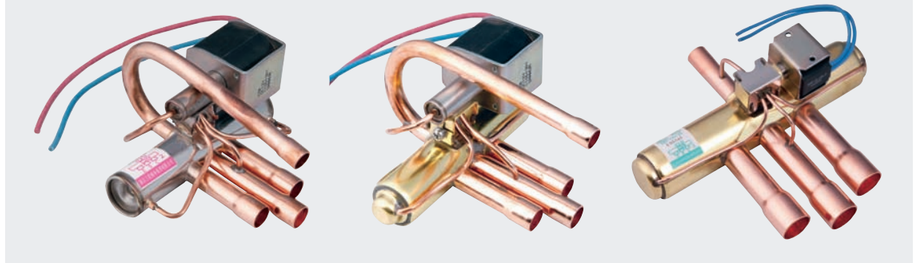
Dimensions



Model	Dimensions mm						
	L	A	B	C	D	E	F
SHF(G)-4H-23U	92	43	50	62	105	43	12
SHF(G)-7H-34U	113.6	51	59	71	119	52	16
SHF(G)-9H-34U	113.6	51	59	71	119	52	16

Four-way Reversing Valve
SHF Heat Pump Series

Outline



SHF heat pump series four-way reversing valves are applicable for heat pump systems such as central, unitary and room air conditioners to realize switching between cooling mode and heating mode by changing the flow path of refrigerant.

Features

◆Specially designed for high temperature

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +135℃
◆Maximum working pressure : 4.5 MPa
◆Applicable ambient temperature: -25℃ ~ +70℃
◆Relative humidity: below 95% RH
◆Product certification: UL, VDE, CQC

Technical Parameters

Series	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Operation Pressure Difference MPa		Connection Size (Outside Diameter) in	
		kW	US.T		Max	Min	D Tube	E/S/C Tube
SHF-4	8.0	4.5	1.25	4.5	4.0	0.25	5/16	3/8
SHF-7	11.1	7	2				3/8	1/2
SHF-20	17.2	23	6.5			0.34	1/2	3/4
SHF-35	20.9	38	10.5				3/4	7/8

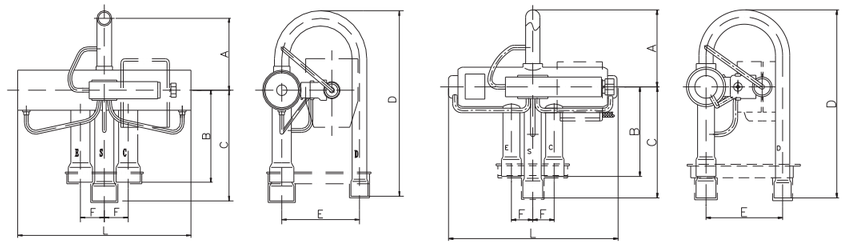
Electrical Parameters of Coil

Type	Classification	Rated Voltage V	Frequency Hz	Power W
Coils with Lead Wires	SHF-4-10L Series	AC220～240、AC200、AC100、AC110～120、AC24、AC265～277	50/60	4.5/3.5
Coil with Spade Connection	SHF-4-10FA Series	AC220～240、AC220、AC115～120、AC100-110、AC24、AC265～277、AC200	50/60	6/5
		DC12	/	10
		DC24	/	11
Bistable Coils	XZB Series	AC100、AC200	50/60	/
		DC12	/	/

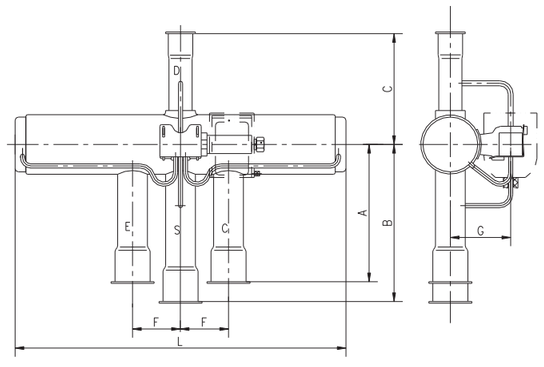
Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

Four-way Reversing Valve
SHF Heat Pump Series

Dimensions



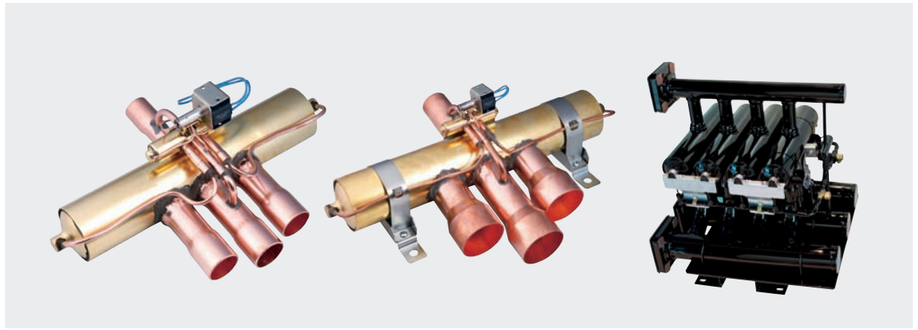
Model	Dimensions mm						
	L	A	B	C	D	E	F
SHF(L)-4H-23U	94.4	43	50	62	105	43	12
SHF(G)-4H-23U	92	43	50	62	105	43	12
SHF(L)-7H-34U	113	51	59	71	119	52	16
SHF(G)-7H-34U	113.6	51	59	71	119	52	16



Model	Dimensions mm					
	L	A	B	C	F	G
SHF-20D-46	183.6	67	83	95	28.6	35.5
SHF-35B-67	213	82	87	100	33	40

Four-way Reversing Valve
RANCO Series

Outline



RANCO series four-way reversing valves are applicable for hot pump systems such as central, unit and room air conditioners. The switch between cooling mode to heating mode can be realized by changing flow path of coolants.

Features

◆Specifications: 3US.T-240US.T (R22 nominal capacity)
◆Energy saving

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -25℃～120℃
◆Applicable ambient temperature: -25℃～50℃
◆Relative humidity: below 95%RH
◆Certification: UL, TUV, CQC

Technical Parameters

Series	Model	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Max. Working Pressure Difference MPa		Min. Working Pres MPa		Connection Size (Outside Diameter) in	
			Kw	US.T		R22/R407C	R410A	R22/R407C	R410A	D Tube	E/S/C Tube
V Series	V3-410080-7XX	11.5	10.5	3	4.5	/	3.04	/	0.1	1/2	5/8
	V6-414080-1XX	15.5	21	6		/	3.04	/	0.1	1/2	7/8
	V10-418100-1XX	19.9	35	10		/	3.04	/	0.1	5/8	9/8
	V12-4220T0-2XX	25.6	42	12		/	3.04	/	0.1	9/8	11/8
LV Series	N20C00G	34.5	70	20		/	3.5	/	0.15	1	5/4
	N20C10G	34.5	70	20		/	3.5	/	0.15	1	5/4
	VH10120	34.5	70	20	3.3	2.25	/	0.15	/	1	5/4
	VH1320A	34.5	70	20		2.25	/	0.15	/	1	5/4
	N30C00G	34.5	105	30	4.5	/	3.5	/	0.15	5/4	3/2
	N30C10G	34.5	105	30		/	3.5	/	0.15	5/4	3/2
	VH15120	34.5	105	30	3.3	2.25	/	0.15	/	5/4	3/2
	N40C10G	41	140	40	4.5	/	3.5	/	0.15	3/2	7/4
	VH20321	41	140	40	3.3	2.25	/	0.15	/	3/2	7/4
	VH90120	46.4	175	50		2.25	/	0.15	/	3/2	17/8
	N50C10G	46.4	175	50	4.5	/	3.5	/	0.15	3/2	17/8
	N60C10G	50	210	60		/	3.5	/	0.15	13/8	21/8
	VH91120	50	210	60	3.3	2.25	/	0.15	/	13/8	21/8

Technical Parameters

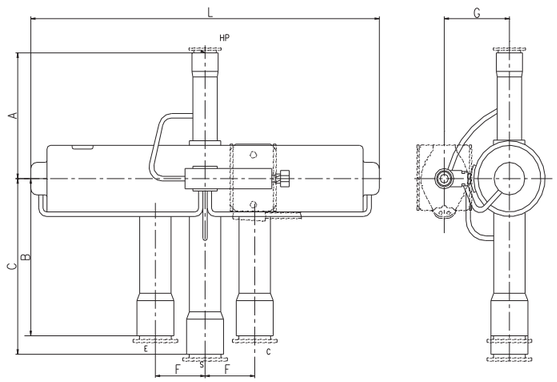
Series	Model	Port mm	R22 Nominal Capacity		Max. Working Pressure MPa	Max. Working Pressure Difference MPa		Min. Working Pres MPa		Connection Tube (OD) In	
			Kw	US.T		R22/R407C	R410A	R22/R407C	R410A	D Tube	E/S/C Tube
VH3 Series	VH32082	41x2	280	80	3.0	2.25	/	0.34	/	FLANGE RBK50A	FLANGE RBK65A
	VH32085	41x2	280	80		2.25	/	0.34	/	FLANGE RBK50A	FLANGE RBK65A
	VH32086B	41x2	280	80		2.25	/	0.34	/	25/8	25/8
	VH32087a	41x2	280	80	4.5	/	3.5	0.34	/	17/8	25/8
	VH32108a	46.4x2	350	100		/	3.5	0.34	/	21/8	25/8
	VH32122	41x3	420	120	3.0	2.25	/	0.34	/	FLANGE RBK50A	FLANGE RBK65A
	VH32123	41x3	420	120		2.25	/	0.34	/	FLANGE RBK50A	FLANGE RBK65A
	VH32163	41x4	560	160		2.25	/	0.34	/	FLANGE RBK50A	FLANGE RBK65A
	VH32126B	41x3	420	120		2.25	/	0.34	/	25/8	25/8
	VH32166B	41x4	560	160		2.25	/	0.34	/	25/8	25/8
	VH32205C	46.4x4	700	200		2.25	/	0.34	/	81mm (Flange)	119mm (Flange)
	VH32245C	50x4	840	240		2.25	/	0.34	/	106.3mm (Flange)	119mm (Flange)

Electrical Parameters of Coil

Type	Classification	Rated Voltage V	Frequency Hz	Power W
Coils with Lead Wires	SHF-4-10W	AC220V~240V、AC208V~230V、AC220V、AC115V~120V、AC100V、AC24V	50/60	4.5/3.5
		AC200V	50/60	6/5
		DC35V	/	7
	SHF-4-10L	AC220V~240V、AC200V、AC100V、AC110V~120V、AC24V、AC265V~277V	50/60	4.5/3.5
Coil with Spade Connection	SHF-4-10EA	AC220V~240V、AC220V、AC115V~120V、AC100V~110V、AC24V、AC265V~277V、AC200V	50/60	6/5
	SHF-4-10FA	AC220V~240V、AC220V、AC115V~120V、AC100V~110V、AC24V	50/60	6/5

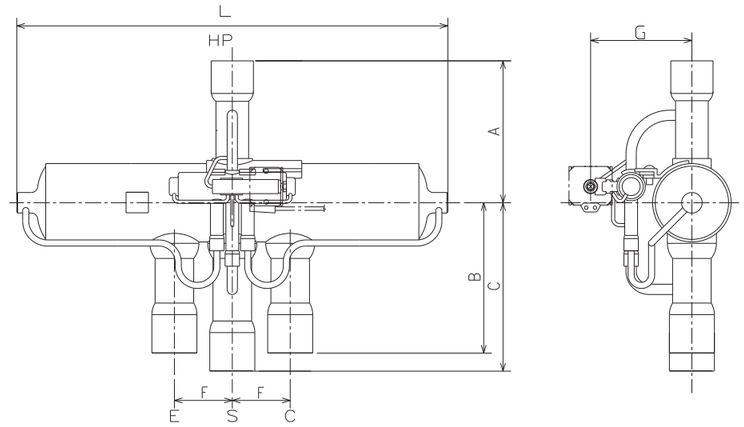
Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

Dimensions

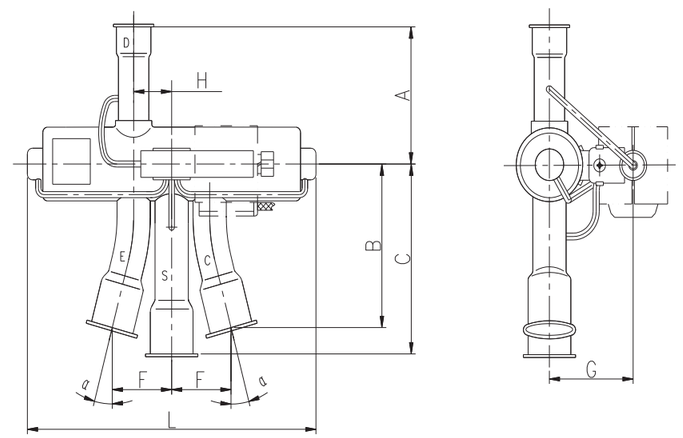


Model	Dimensions mm					
	L	A	B	C	F	G
V6-414080-1XX	199Max	66.7	82.6	95	28.5	41Max
V10-418100-1XX	210.8Max	81.8	85.9	98.6	33.5	46Max

Dimensions

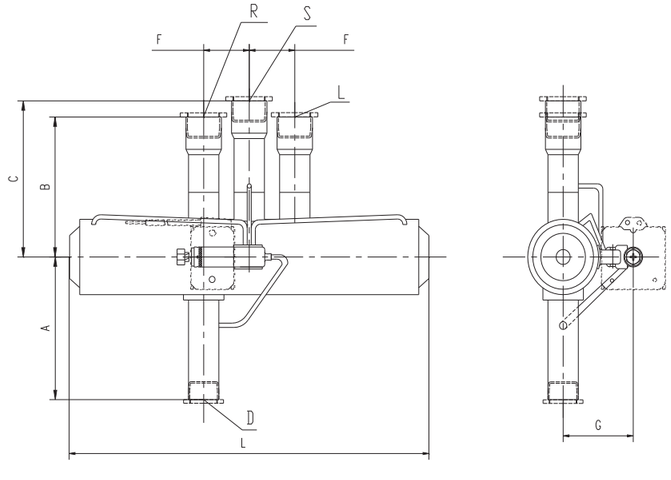


Model	Dimensions mm					
	L	A	B	C	F	G
N20C00G	337Max	111	117	131	45	78.8
N30C00G	337Max	111	117	131	45	78.8
VH1320A	337Max	111	117	131	45	78.8
VH15120	337Max	111	117	131	45	78.8

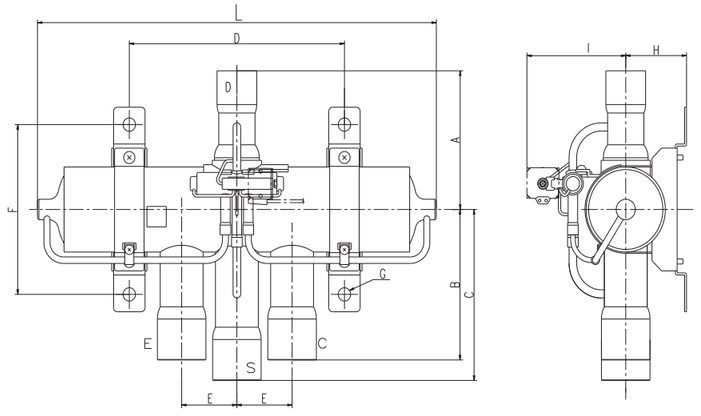


Model	Domensions (size unit: mm; angle unit: °)							
	L	A	B	C	F	G	H	a
V3-410080-7XX	128Max	49.3	60.5	71.6	24.1	37Max	16	15

Dimensions

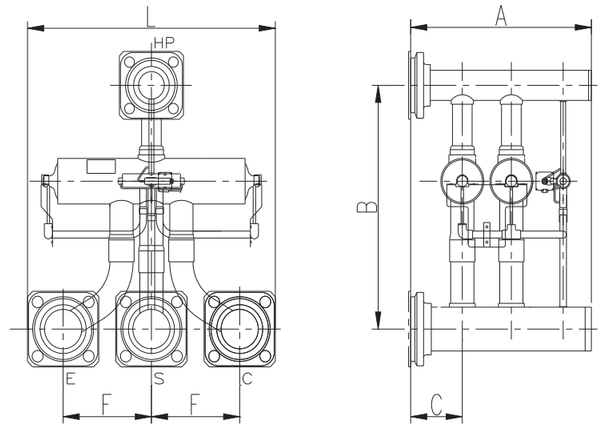


Model	Dimensions mm					
	L	A	B	C	F	G
V12-4220T0-2XX	268Max	96.8	149.9	175.3	41.4	46Max

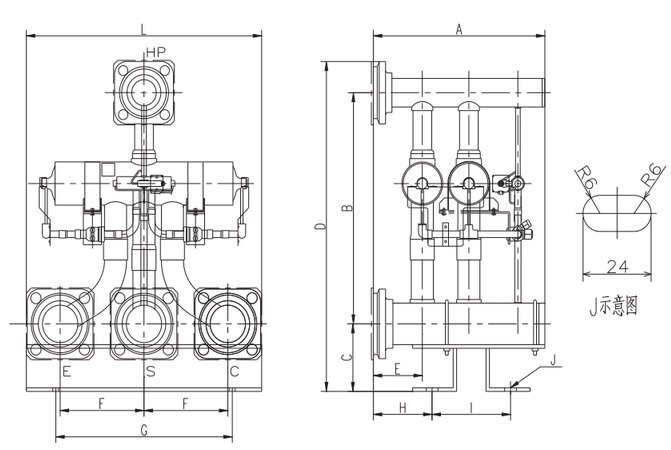


Model	Dimensions mm									
	L	A	B	C	D	E	F	G	H	I
N20C10G	337MAX	111	117	131	188	45	145	Φ13	57	108
N30C10G	337MAX	111	117	131	188	45	145	Φ13	57	108
N40C10G	422MAX	135.6	148.7	168.7	226	58	200	Φ13	63	112
N50C10G	422MAX	135.6	148.7	198	226	58	200	Φ13	63	112
N60C10G	500MAX	135.6	148.7	198	262	71.5	200	Φ13	63	112
VH10120	337MAX	111	117	131	188	45	145	Φ13	57	108
VH20321	422MAX	135.6	148.7	168.7	226	58	200	Φ13	63	112
VH90120	422MAX	135.6	148.7	198	226	58	200	Φ13	63	112
VH91120	500MAX	135.6	148.7	198	262	71.5	200	Φ13	63	112

Dimensions

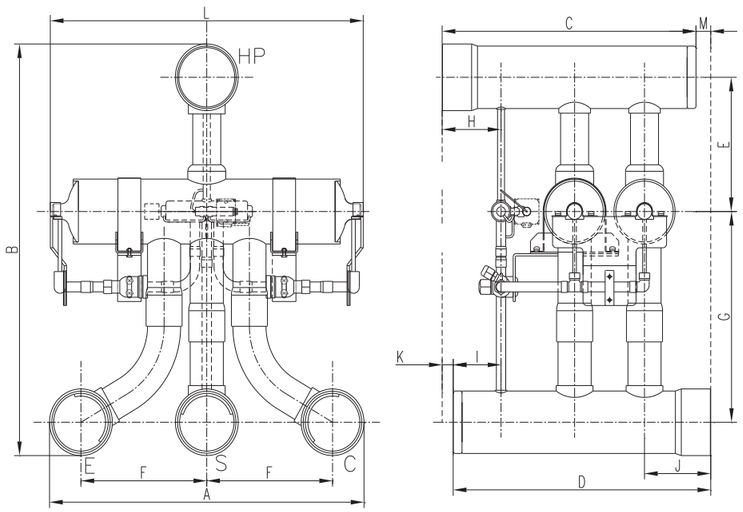


Model	Dimensions mm			
	L	A	B	C
VH32082	480	350	445	100

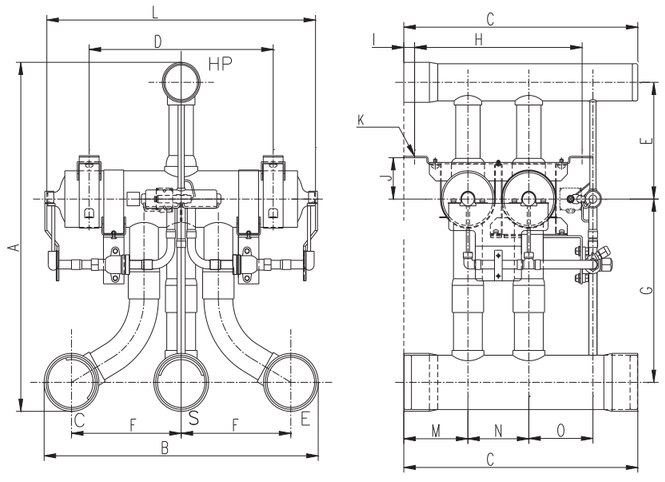


Model	Dimensions mm										
	L	A	B	C	D	E	F	G	H	I	J
VH32085	480	350	445	130	635	100	171	360	120	160	12×24

Dimensions

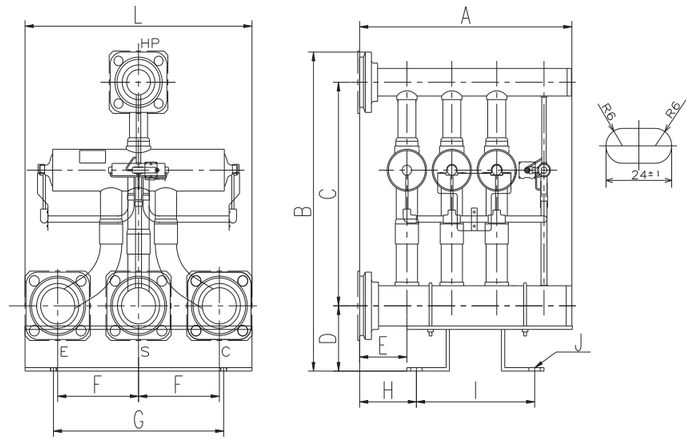


Model	Dimensions mm												
	L	A	B	C	D	E	F	G	H	I	J	K	M
VH32086B	422 Max	428	528	345	350	172	171	270	80	65	90	15	20

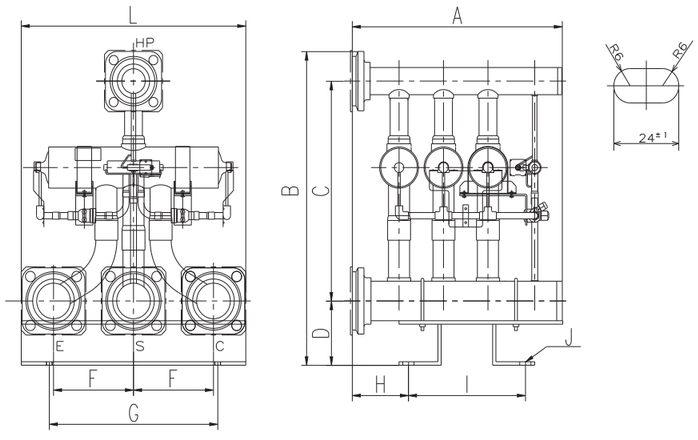


Model	Dimensions mm														
	L	A	B	C	D	E	F	G	H	I	J	K	M	N	O
VH32087a	422Max	514	428	365	295	172	171	270	261	17	62	13	100	95	100
VH32108a	422Max	521	428	365	295	172	171	270	261	17	62	13	100	95	100

Dimensions

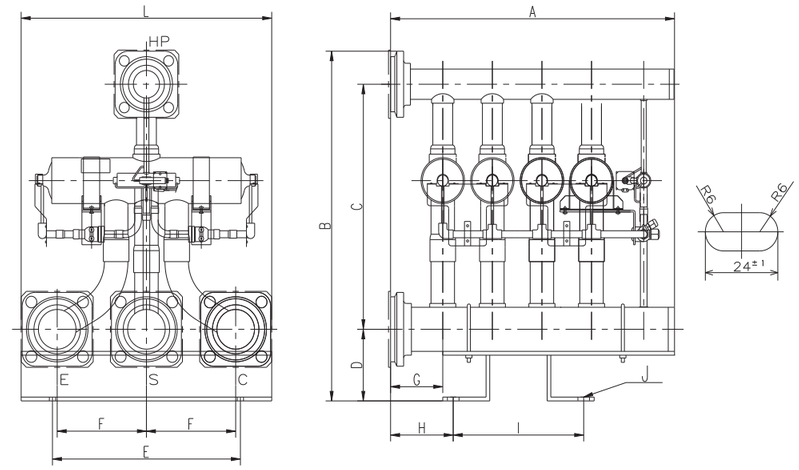


Model	Dimensions mm										
	L	A	B	C	D	E	F	G	H	I	J
VH32122	480	450	635	445	130	100	171	360	120	250	12×24

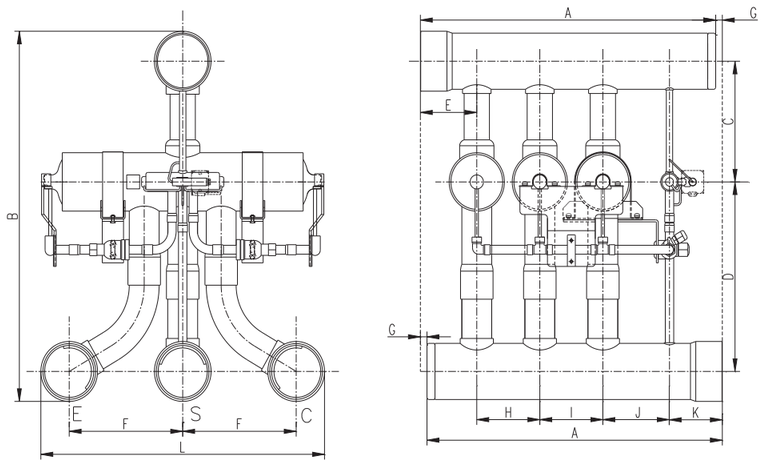


Model	Dimensions mm										
	L	A	B	C	D	E	F	G	H	I	J
VH32123	480	450	635	445	130	100	171	360	120	250	12×24

Dimensions

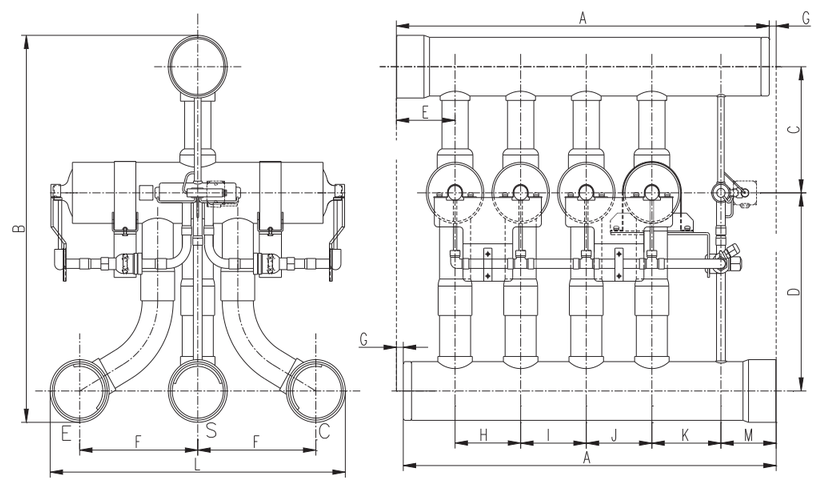


Model	Dimensions mm										
	L	A	B	C	D	E	F	G	H	I	J
VH32163	480	545	635	445	130	360	171	100	120	250	12×24

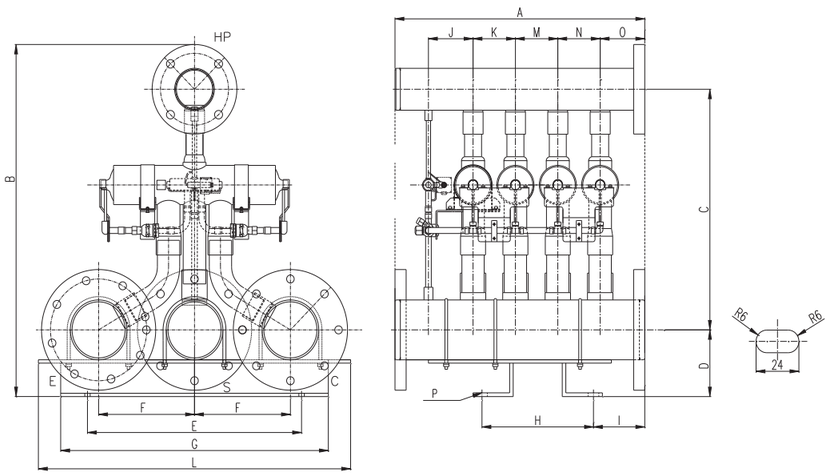


Model	Dimensions mm											
	L	A	B	C	D	E	F	G	H	I	J	K
VH32126B	428	445	528	172	270	85	171	10	95	95	100	80

Dimensions



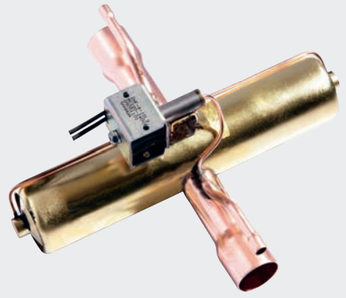
Model	Dimensions mm												
	L	A	B	C	D	E	F	G	H	I	J	K	M
VH32166B	428	540	528	172	270	85	171	10	95	95	95	100	80



Model	Dimensions mm															
	L	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P
VH32205C	700	560	748	511	141.5	480	215	600	250	115	100	95	95	95	100	12x24
VH32245C	700	560	775	515	141.5	480	226.8	600	250	115	100	95	95	95	100	12x24

Reversible Valve
VR Series

Outline



With small pressure loss, Reversible valves are applicable for low pressure circuit of refrigerating systems. Output pressure of the main valve is different from that of the pilot valve. The minimum action differential pressure of the pilot valve is 0.35MPa. The main valve can realize open and shut-off of forward and reverse direction

Features

◆Small pressure loss
◆Reversible in two directions when use

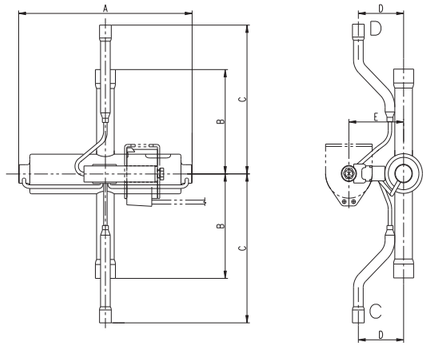
General spec.

◆Applicable refrigerant: R407c, R22, R410A etc.
◆Maximum operating pressure: 4.17Mpa
◆Ambient temperature: -30℃～+55℃

Technical Parameters

Model	Port mm	Main Overall Interface Size mm		Performance		Weight g
				Operation Pressure Difference MPa		
		Main Circuit	Control Circuit	Max.	Min.	
VR4	11	12.8	6.45	1.96	0.34	360
VR6	15.5	19.2	6.45	3.04	0.34	800
VR8	19.9	25.5	6.45	3.04	0.34	1400

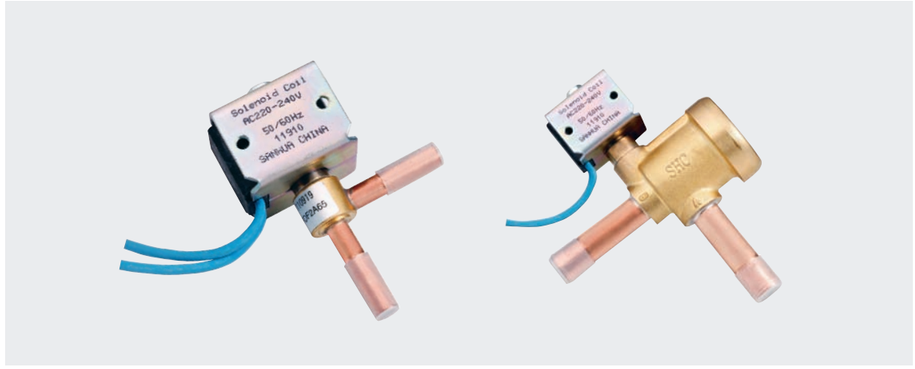
Dimensions



Model	Dimensions mm					Interface Size ID/Interface Depth (mm)	
	A	B	C	D	E	Connection Tube	HP High Pressure Connection Tube
VR43300	125	71.4	102	33	39.5	12.8/9.5	6.45/8
VR63301	Max 200	95.3	95.3	33	43.8	19.2/19	6.45/8
VR83302	Max 221	99	99	35	48.2	25.5/22.3	6.45/8

Solenoid Valve
FDF Normally Close Series

Outline



FDF normally close refrigerant series solenoid valves are direct-operated solenoid valves mainly used in refrigeration systems such as air conditioners, ice makers and freezing and deep-freezing systems which use fluoride as the refrigerant.

Features

◆Excellent operation performance, stable and reliable
◆Compact design
◆Low power consumption

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Applicable ambient temperature: -30℃ ~ +50℃
◆Relative humidity: below 95%
◆Maximum working pressure: 4.2MPa
◆Certification:CQC, UL, TUV

Technical Parameters

Technical Parameters of Valve Body

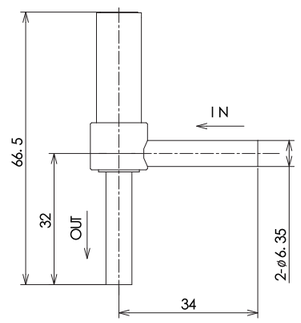
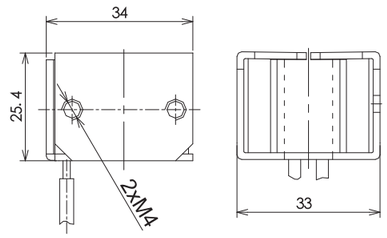
Model	Operation Type	Port mm	Flow Rate Cv	Internal Leakage ml/min (△P=2.1MPa)	Operation Pressure Difference MPa		Outside Diameter of Tube mm
					Max	Min	
FDF2A	Normally Close	1.9	0.09	⩽300	3.4	0	6.35
FDF2.5A		2.5	0.23	⩽300	3.4	0.01	6.35
FDF3A		3.0	0.30	⩽500	3.4	0.01	7.94
FDF4A		4	0.35	⩽500	3.4	0.01	6.35
FDF6A		5.8	0.65	⩽500	3.4	0.01	7.94
FDF8A		8	1.50	⩽1000	2.8	0.02	12.7
FDF11A		11	2.80	⩽1000	2.8	0.02	12.7
FDF13A		13	4.00	⩽1000	2.8	0.02	15.88

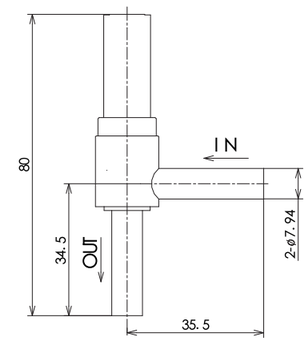
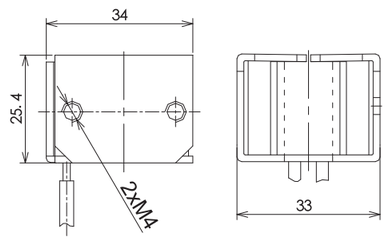
Electrical Parameters of Coil

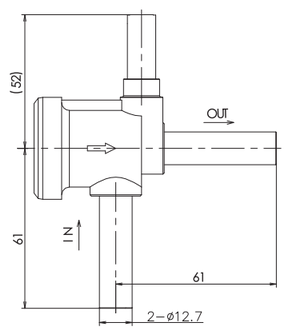
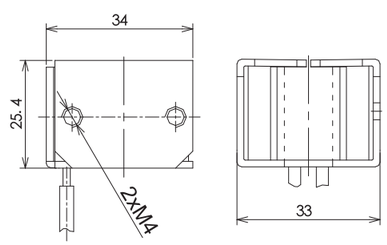
Classification	Rated Voltage V	Voltage Change	Frequency Hz
BMC Plastic Packaging Series (Class B)	AC220~240、AC220、AC200、AC120、AC100~110、AC24	85%～110%	50/60

Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

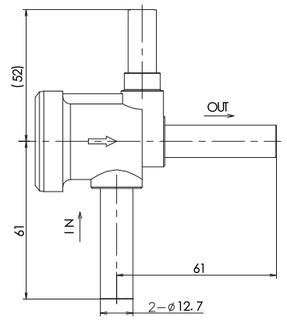
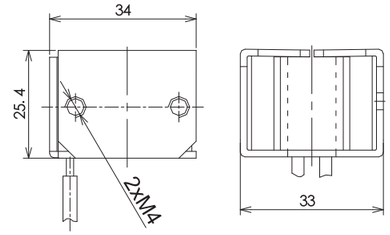
Dimensions

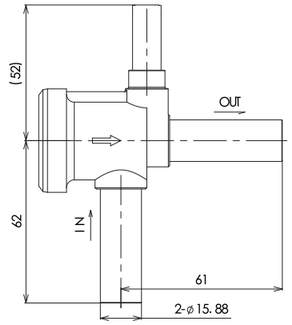
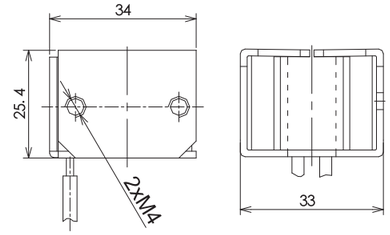
FDF2A standard Product	Equipped with FQ-A05 Series Coil
	

FDF6A standard Product	Equipped with FQ-A05 Series Coil
	

FDF8A standard Product	Equipped with FQ-A05 Series Coil
	

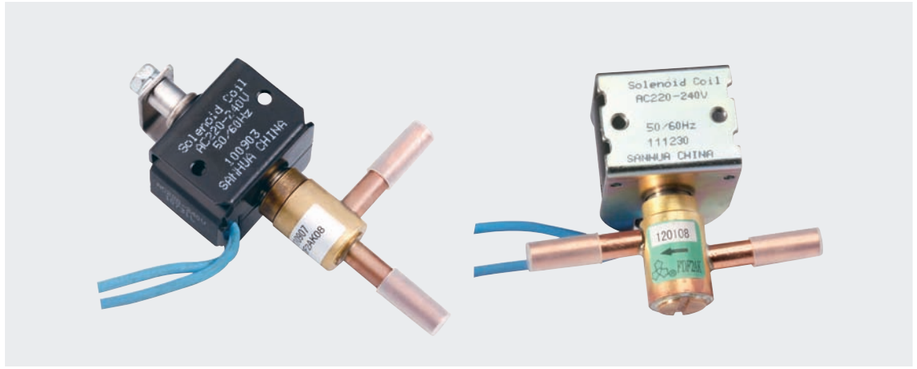
Dimensions

FDF11A standard Product	Equipped with FQ-A05 Series Coil
	

FDF13A standard Product	Equipped with FQ-A05 Series Coil
	

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) The valve body shall be kept cool no more than 200℃ in brazing process.
3) The inside of valve shall stay dry and clean during the installation.

Outline



FDF2AK solenoid valves are normally open type, which are mainly used in refrigeration systems such as air conditioners and freezing and deep-freezing systems for automatically controlling the stop-and-go of refrigerant.

Features

◆Compact design, low power consumption
◆Excellent operation performance, stable and reliable

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Applicable ambient temperature: -30℃ ~ +50℃
◆Relative humidity: below 95%
◆Maximum working pressure: 4.2MPa

Technical Parameters

Technical Parameters of Valve Body

Model	Operation Type	Port mm	Flow Rate Cv	Internal Leakage ml/min (△P=2.1MPa)	Operation Pressure Difference MPa		Outside Diameter of Tube mm
					Max	Min	
FDF2AK01	Normally open	1.8	0.06	⩽300	2.1	0	6.35
FDF2AK08		1.9	0.09		1.5		
FDF2AK09		1.4	0.06		3.0		

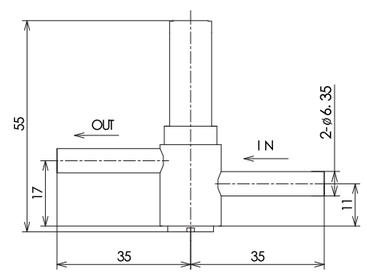
Electrical Parameters of Coil

Classification	Rated Voltage V	Voltage Change	Frequency Hz
BMC Plastic Packaging Series	AC220V~240V、AC220V、AC200V、AC120V、AC100V~110V、AC24V	85%～110%	50/60

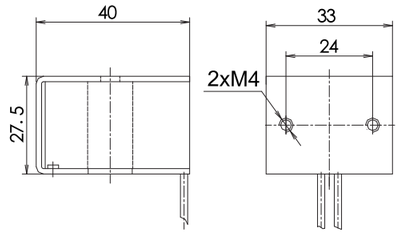
Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

Dimensions

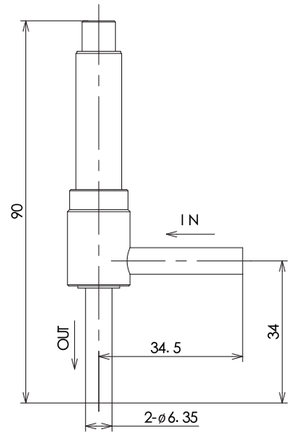
FDF2AK01



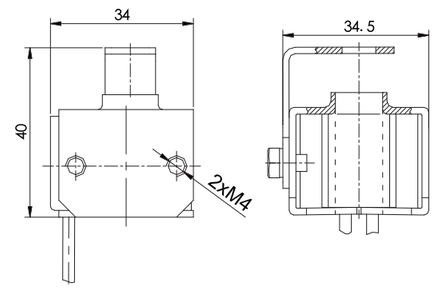
Equipped with FQ-A01 Series Coil



FDF2AK08, FDF2AK09

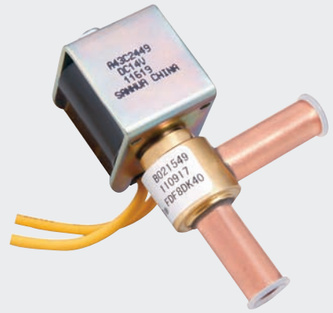


Equipped with FQ-A05 Series Coil



Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) The valve body shall be kept cool no more than 200℃ in brazing process.
3) The inside of valve shall stay dry and clean during the installation.

Outline



FDF6DK/8DK series are direct-operated and mainly used in air-conditioning system with dehumidifying function.

Features

◆with minor flow when fully closed
◆low noise

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Applicable ambient temperature: -30℃ ~ +50℃
◆Relative humidity: below 95%
◆Maximum working pressure: 4.2MPa

Technical Parameters

Technical Parameters of Valve Body

Model(With leakage)	Operation Type	Port mm	Holding Pressure Difference when valve open kPa	Air Flow L/min (△P=19.6kPa)	Flow (valve close) L/min (△P=98kPa)	Outside Diameter of Tube mm
FDF6DK	Normally open	6.8	⩾78	⩾150	11±1.5	7.94
FDF8DK		8	⩾18	⩾190	10.2±1.5	9.52

Note: Valves in the table are with minor flow after fully closed. All valves are customizable.

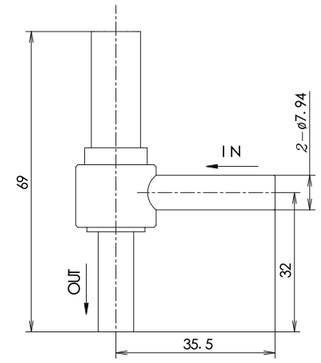
Electrical Parameters of Coil

Classification	Rated Voltage V	Voltage Change
BMC Plastic Packaging Series	DC280V、DC140V、DC14V	90%～110%

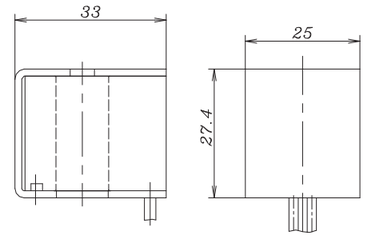
Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

Dimensions

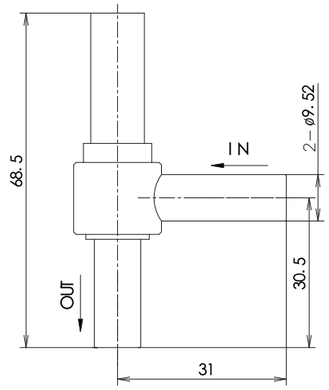
FDF6DK standard Product



Equipped with FQ-D10 Series Coil



FDF8DK standard Product

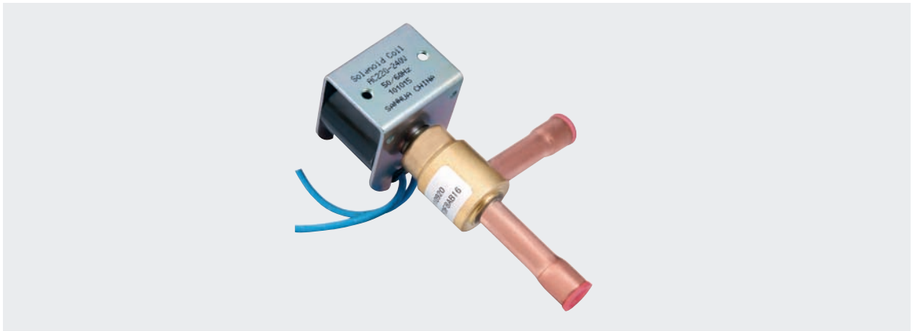


Equipped with FQ-D10 Series Coil

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) The valve body shall be kept cool no more than 200℃ in brazing process.
3) The inside of valve shall stay dry and clean during the installation.

Solenoid Valve
FDF Bi-flow Valve

Outline



FDF Bi-flow solenoid valves are pilot operated solenoid valves, which are mainly used in refrigeration systems such as air conditioners and freezing and deep-freezing systems for automatically controlling the stop-and-go and flow direction of refrigerants to realize Bi-flow opening and closing flow control.

Features

◆Bi-flow
◆Compact Design

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable ambient temperature: -30℃ ~ +50℃
◆Maximum working pressure: 4.2MPa
◆Applicable medium temperature: -30℃ ~ +120℃
◆Relative humidity: below 95%
◆Voltage change: within the range of rated voltage

Technical Parameters

Technical Parameters of Valve Body

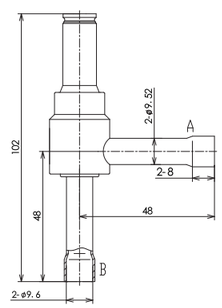
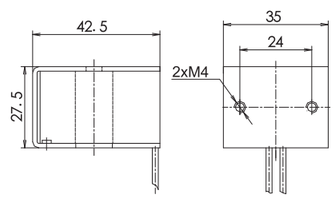
Model	Operation Type	Port mm	Flow Rate Cv		Internal Leakage ml/min (△P=2.1MPa)		Operation Pressure Difference MPa		Outside Diameter of Tube mm
			A→B	B→A	A→B ml/min	B→A Cv	Max	Min	
FDF8AB	Normally close	8	1.5	1.0	⩽1000	0.002~0.01	2.1	0.01	9.52

Electrical Parameters of Coil

Classification	Rated Voltage V	Voltage Change	Frequency Hz
BMC Plastic Packaging Series (Class B)	AC220V~240V、AC220V、AC200V、AC120V、AC100V~110V、AC24V	85%～110%	50/60

Note: Recommended length of lead wires include: 300mm, 500mm, 800mm, 1000mm and 1500mm.

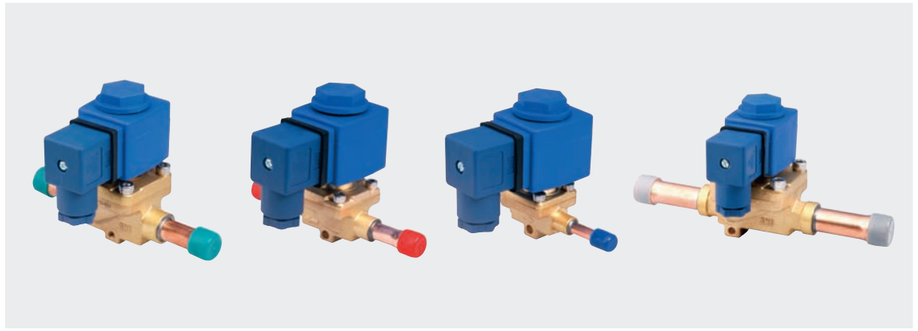
Dimensions

FDF8AB standard Product	Equipped with FQ-A03 Series Coil
	

Installation:
1) All the valves shall be tested by equipment makers to fit into the system.
2) The valve body shall be kept cool no more than 200℃ in brazing process.
3) The inside of valve shall stay dry and clean during the installation

Solenoid Valve
MDF-A Series

Outline



MDF-A series solenoid valves are direct or pilot operated solenoid, mainly used in refrigerant control of various devices such as refrigerating and freezing systems and air conditioners.

Features

◆Coils: low energy consumption, reliable
◆Great valve opening performance
◆Coils are double sealed, water tight and safe

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R404A, R410A etc.
◆Applicable medium temperature: -30℃～+105℃
◆Applicable ambient temperature: -30℃～+55℃
◆Relative humidity: below 95%RH

Technical Parameters

Technical Parameters of Valve Body

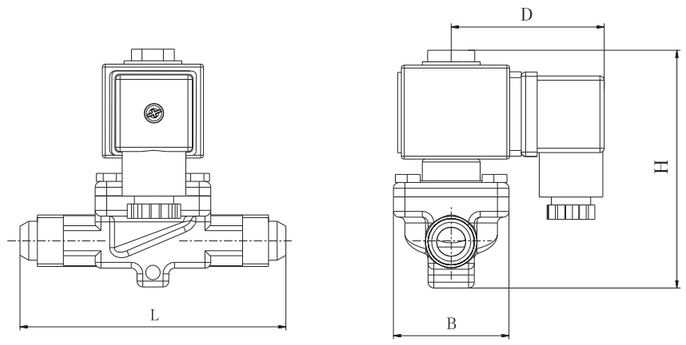
Model		Type	Cv Value	Operation Pressure Difference MPa		Max. Working Pressure MPa
Solder Connection	Thread Connection			Max	Min	
MDF2H	MDF2L	Direct	0.19	2.3	0	3.3
MDF6H	MDF6L	Pilot	0.93	2.3	0.01	3.3
MDF10H	MDF10L		2.2	2.3	0.02	3.3
MDF15H	MDF15L		3.0	2.3	0.02	3.3
MDF20H	MDF20L		5.8	2.3	0.02	3.3
MDF22H	MDF22L		6.9	2.3	0.02	3.3
MDF-A02-6H(NO)	MDF-A02-6L(NO)		2.2	2.3	0.01	3.3
MDF-A02-10H(NO)	MDF-A02-10L(NO)		3.0	2.3	0.02	3.3
MDF-A02-15H(NO)	MDF-A02-15L(NO)		5.8	2.3	0.02	3.3
MDF-A03-2H	MDF-A03-2L	Direct	0.19	3.1	0	4.5
MDF-A03-3H	MDF-A03-3L		0.32	3.1	0	4.5
MDF-A03-6H	MDF-A03-6L	Pilot	0.93	3.1	0.01	4.5
MDF-A03-10H	MDF-A03-10L		2.2	3.1	0.02	4.5
MDF-A03-15H	MDF-A03-15L		3.0	3.1	0.02	4.5
MDF-A03-20H	MDF-A03-20L		5.8	3.1	0.02	4.5
MDF-A03-22H	MDF-A03-22L		6.9	3.1	0.02	4.5

Technical Parameters

Electrical Parameters of Coil

Classification	Insulation Grade	Rated Voltage V	Voltage Change	Frequency Hz	Wiring Type	IP Grade
MQ-A01 MQ-A02 MQ-A03	F	AC24V AC110V~120V AC220V~240V	85%～110%	50/60	DIN Junction Box	IP65

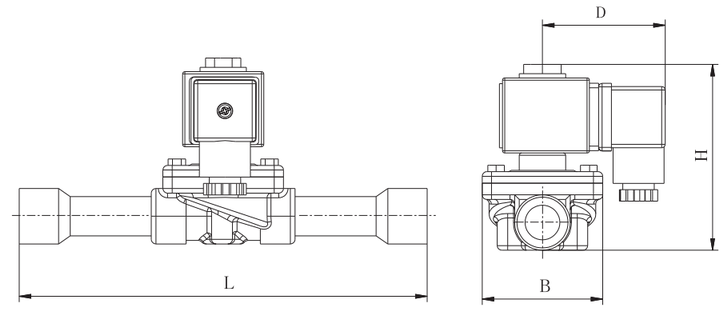
Dimensions



Thread Connection

Model	Connection tube in	Connection Thread Spec	Dimensions mm			
			L	B	D	H
MDF2L	7/16-20UNF	1/4	59	30	53	77
MDF-A03-3L	7/16-20UNF	1/4	59	30	55	82
MDF6L	5/8-18UNF	3/8	69	36	53	83
MDF-A02-6L	5/8-18UNF	3/8	69	36	55	92
MDF-A03-6L	5/8-18UNF	3/8	69	36	55	88
MDF10L	7/8-14UNF	5/8	92	42	53	91
MDF-A02-10L	7/8-14UNF	5/8	92	42	55	100
MDF-A03-10L	7/8-14UNF	5/8	92	42	55	96
MDF15L	7/8-14UNF	5/8	104	52	53	95
MDF-A02-15L	7/8-14UNF	5/8	104	52	55	104
MDF-A02-15L	7/8-14UNF	5/8	104	52	55	100

Dimensions



Solder Connection

Model	Connection tube in	Dimensions mm			
		L	B	D	H
MDF2H	1/4	102	30	53	77
MDF-A03-2H	1/4	102	30	55	82
MDF-A03-3H	1/4	102	30	55	82
MDF6H	3/8	111	36	53	83
MDF-A02-6H	3/8	111	36	55	92
MDF-A03-6H	3/8	111	36	55	88
MDF10H	1/2	127	42	53	91
MDF-A02-10H	1/2	127	42	55	100
MDF-A03-10H	1/2	127	42	55	95
MDF15H	5/8	176	52	53	95
MDF-A02-15H	5/8	176	52	55	104
MDF-A03-15H	5/8	176	52	55	100
MDF20H	7/8	191	52	53	112
MDF-A03-20H	7/8	191	52	55	117
MDF22H	7/8	191	60	53	112
MDF-A03-22H	7/8	191	60	55	117

Note:

1) MDF□□□ ××× are normally close with MOPD of 2.3MPa, using MQ-A01××× coils. E.g. valve body MDF6H002 uses coil MQ-A0122F-010001.

2) MDF-AO2-□□□ ××× are normally open, using MQ-A02××× series coils. E.g. valve body MDF-A02-6H002 uses coil MQ-A0222F-010001.

3) MDF-AO3-□□□ ××× are normally close with MOPD of 3.1MPa, using MQ-A03××× series coils. E.g. valve body MDF-A03-15H002 uses coil MQ-A0322F-010001.

Solenoid Valve
MDF-B Series

Outline

MDF-B series piston solenoid valves are pilot operated, applicable for refrigerant control of devices such as refrigerating, freezing systems and air conditioners.

Features

◆Endurable to high and low temperature
◆double sealed, water tight and safe
◆Sealed by welding, low leakage risk

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R404A, R410A etc.
◆Applicable medium temperature: -40℃～+140℃
◆Applicable ambient temperature: -30℃～+55℃
◆Relative humidity: below 95%RH

Technical Parameters

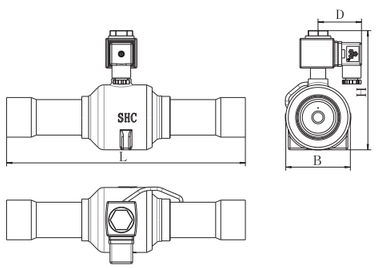
Technical Parameters of Valve Body

Model	Operation Type	Cv Value	Operation Pressure Difference MPa		Outside Diameter of Tube mm
			Max	Min	
MDF-B01-25H	Pilot operated	10	3.1	0.03	4.5
MDF-B01-32H		15	3.1	0.03	4.5
MDF-B01-40H		25	3.1	0.03	4.5

Electrical Parameters of Coil

Classification	Insulation Grade	Rated Voltage V	Voltage Change	Frequency Hz	Wiring Type	IP Grade
MQ-A01 MQ-A03	F	AC24V AC110V~120V AC220V~240V	85%～110%	50/60	DIN Junction Box	IP65

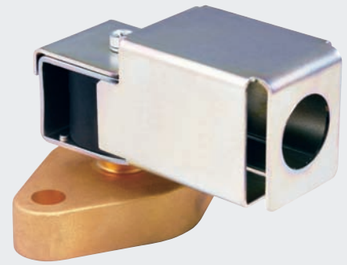
Dimensions



Model	Connection tube in	Dimensions mm			
		L	B	D	H
MDF-B01-25H	1-1/8	256	54	53	116
MDF-B01-32H	1-3/8	281	76	53	140
MDF-B01-40H	1-5/8	281	76	53	140

Solenoid Valve
FDF Flange Series

Outline



FDF series solenoid valves are used as unloading valves for capacity modulation in compressors. They use a flange mount and are available for high and medium ambient temperature as well as high life cycles.

Features

◆Long service life

General spec.

◆Applicable refrigerant: R22, R134a, R404A, R407A, R407C, R507 etc.
◆Applicable medium temperature: +10℃～+146℃ (non-persistent)
◆Applicable ambient temperature: -30℃～+60℃
◆Relative humidity: below 95%RH

Technical Parameters

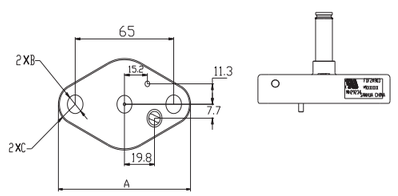
Technical Parameters of Valve Body

Model	Flow L/min (△P=0.345MPa)	Operation Pressure Difference MPa		Max. Working Pressure MPa
		Max	Min	
FDF2A903	42.5	2.8	0	3.5

Electrical Parameters of Coil

Model	Insulation Grade	Rated Voltage V	Voltage Change	Frequency Hz
SHF-4-10FA5	F	AC220V～240V	85%～110%	50/60
SHF-4-10FA2		AC120V		
SHF-4-10FA4		AC24V		

Dimensions



Model	A	B	C
FDF2A903-01	(87)	10.30	R11.1
FDF2A903-02	(90)	13.47	R12.7

Solenoid Valve
FDF2A905 Series

Outline

FDF2A905 flange solenoid valves are used in the oil return line of compressors, applicable for various POE refrigeration oil and general refrigerants such as R22. But applicable maximum differential pressure is different in pure oil and in non-pure oil environments for the oil temperature and viscosity.

Features

◆Applicable for oil return line in compressors
◆Zero Min. Valve Opening Pressure Difference
◆Applicable for POE refrigeration oil and various fluoride refrigerants
◆Flange Connection

General spec.

◆Applicable refrigerant: POE refrigeration oil, R22, R134a, R407C, R404A etc.
◆Applicable medium temperature: 0℃～90℃
◆Applicable ambient temperature: -30℃～+55℃
◆Maximum working pressure: 4.5MPa（655Psig）

Technical Parameters

Technical Parameters of Valve Body

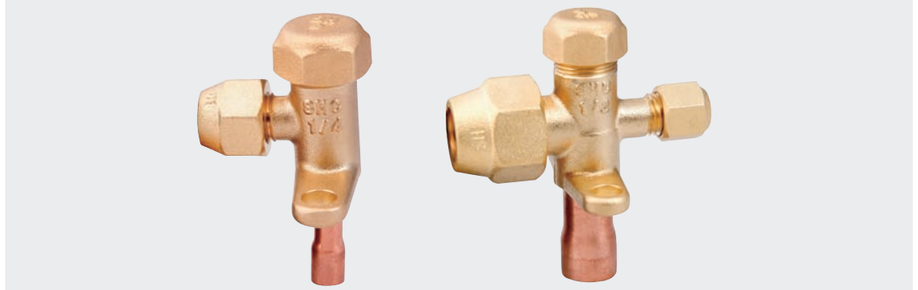
Model	Opera-tion Type	Cv Value	Operation Pressure Difference MPa		
			Max		Min
			Gas and 90℃ pure oil	0℃ pure oil	
FDF2A905	Direct-operated	0.14	2.2	0.8	0

Electrical Parameters of Coil

Series	Insulation Grade	Voltage Change	Frequency Hz	Wiring Type	IP Grade
Matching Coil MQ-A01220	F	AC220V	50	DIN junction box	IP65

Brass Service Valve

Outline



Applicable for split air conditioners to connect indoor unit and outdoor unit; inner path of the valve can be closed by operating the valve stem. It can be used as service valve for vacuum pumping and refrigerant injection. It can also be used in other cooling systems.

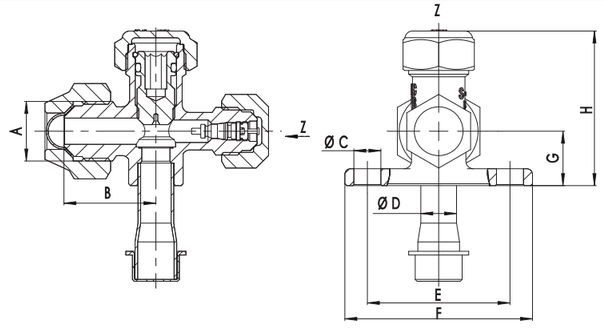
Features

◆Good Rigidity
◆Durability against Corrosion

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Maximum working pressure: 4.2MPa

Dimensions

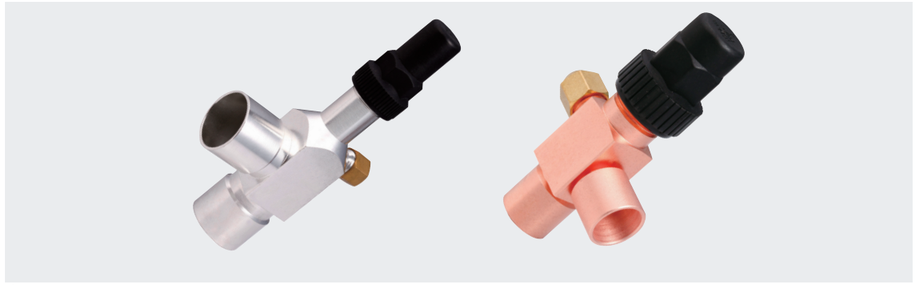


Model	A in	Dimensions mm							Matched Power HP
		B	C	D	E	F	G	H	
FSV/SSV-A2	7/16-20UNF	23	7.2	6.35(1/4)	38	50	14	36	1～2
FSV/SSV-JA3	5/8-18UNF	24.5	7.2	9.52(3/8)	38	50	14.5	41	1～5
FSV/SSV-JA4	3/4-16UNF	28	7.2	12.7(1/2)	38	50	16	44	1.5～10
FSV/SSV-JA5	7/8-14UNF	34	7.2	15.88(5/8)	38	50	17	47	2～12
FSV/SSV-JA6	17/16-14UNS	40	7.2	19.05(3/4)	44	56	23	61	5～8
FSV/SSV-JA7	1 1/4-12UNF	62	7.2	22.2(7/8)	60	76	24	71	6～12
FSV/SSV-JA8	/	/	7.2	25.4(1)	60	76	24	71	6～12

Installation: 1) Valve body shall be cooled no more than 120℃ during brazing process.
2) Proper products shall be selected for different refrigerants.

Steel Service Valve

Outline



Applicable for compressors, reservoirs of commercial air conditioner, freezing or deep-freezing equipment or for pipe connection; it can close inner passage of the valve by operating the valve stem.

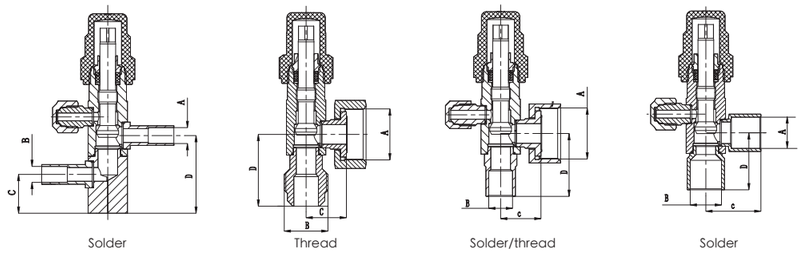
Features

◆Excellent temperature resistance

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R410A etc.
◆Applicable medium temperature: -40℃ ~ +150℃
◆Maximum working pressure: 4.8MPa
◆Certification: UL

Dimensions



Solder　Thread　Solder/thread　Solder

Model	Diagonal Size of Valve Body mm	Dimensions A Thread	A Solder in	B Thread	B Solder in	Structure Size mm C	Structure Size mm D	Connection Type
GZF(20)-ZB033	20	/	3/8	/	3/8	28	29	Solder
GZF(20)-ZB044		/	1/2	/	1/2	28	29	
GZF(20)-ZA042		3/4-16UNF	/	7/16-20UNF	/	19.8	30	Thread
GZF(20)-ZA043			/	5/8-18UNF	/	19.8	30	
GZF(20)-ZC042			/	/	1/4	19	27	Solder/ thread
GZF(20)-ZC043			/	/	3/8	16.5	39.5	
GZF(20)-ZC083		1-14UNS	/	/	3/8	20.5	32	
GZF(20)-ZC084			/	/	1/2	20.5	32	
GZF(20)-ZA082			/	7/16-20UNF	/	20.5	33.5	Thread
GZF(20)-ZA083			/	5/8-18UNF	/	20.5	33.5	
GZF(22)-ZB055	22	/	5/8	/	5/8	33.5	40	Solder
GZF(22)-ZB085		1-14UNS	/	7/8-14UNF	/	36	39.5	Thread
GZF(30)-ZB077	30	/	7/8	/	7/8	40	42	Solder
GZF(30)-ZB099		/	9/8	/	9/8	51	53	
GZF(30)-ZC0A9		5/4-12UNF	/	/	9/8	25	56.5	Solder/ thread
GZF(30)-ZC0B9		7/4-12UN	/	/	9/8	27.5	57	
GZF(35)- ZB0BB	35	/	11/8	/	11/8	52.5	58	Solder
GZF(35)- ZC0EB		7/4-12UN	/	/	11/8	31	62.5	Solder/ thread
GZF(35)- ZC0ED		7/4-12UN	/	/	13/8	31	62.5	
GZF(50)- ZB0DD	50	/	13/8	/	13/8	62.5	69	Solder

Installation: 1) Valve body shall be cooled no more than 120℃ during brazing process.
2) The inside of valve shall stay clean and dry.

Bar-stock Service Valve

Outline

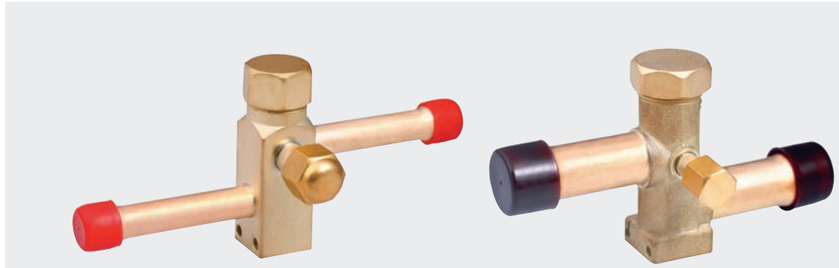


Fig. 1　Fig. 2

Bar-stock service valve can be used in split air conditioners to connect indoor unit and outdoor unit, which can close the inner passage of the valve by operating the valve stem; it can be used as service valve during maintenance for the purpose of vacuum pumping and refrigerant injection. It can also be used in other refrigerating systems.

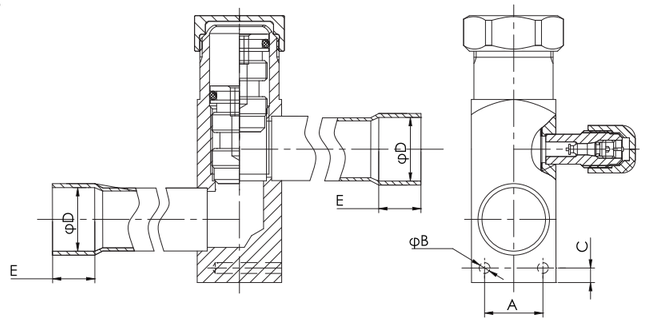
Features

◆High Reliability

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R410A etc.
◆Applicable medium temperature: -30℃~+120℃
◆Maximum working pressure: 4.2MPa
◆Certification: UL

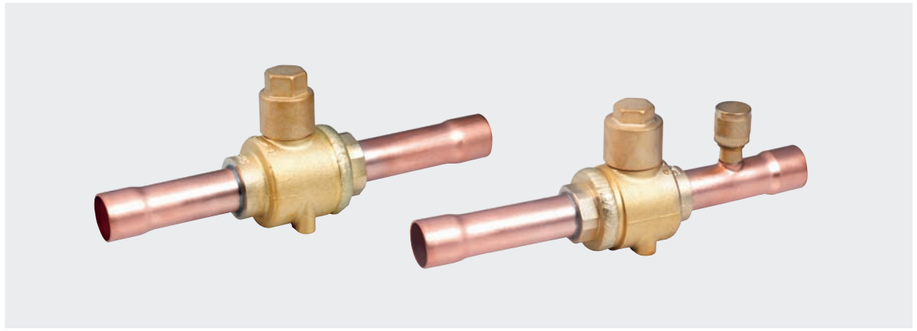
Technical Parameters



Type	Model	Dimensions mm A	B	C	D	E	Nomal
SMV-JA3Y	3/8	10.6±0.5	3.6±0.10	3.6	9.6	8±1.0	Fig. 1
SMV-JA4Y	1/2	17.7±0.5	3.6±0.10	3.6	12.8	9.7±1.0	
SMV-JA5Y	5/8	17.7±0.5	3.6±0.10	3.6	15.95	14.2±1.0	
SMV-JA6Y	3/4	17.7±0.5	3.6±0.10	3.6	19.13	15.7±1.0	
SMV-JA7Y	7/8	17.7±0.5	3.6±0.10	3.6	22.33	19±1.0	
SMV-JA8Y	1	17.7±0.5	3.6±0.10	3.6	25.4	15±1.0	
SMV-JA9Y	9/8	17.7±0.5	3.6±0.10	3.6	28.8	15±1.0	
SMV-8JA3Y	3/8	10.6±0.5	3.6±0.10	3.6	9.6	8±1.0	Fig. 2
SMV-15JA4Y	1/2	17.7±0.5	3.6±0.10	3.6	12.8	9.7±1.0	
SMV-15JA5Y	5/8	17.7±0.5	3.6±0.10	3.6	15.95	14.2±1.0	
SMV-15JA6Y	3/4	17.7±0.5	3.6±0.10	3.6	19.13	15.7±1.0	
SMV-17JA7Y	7/8	17.7±0.5	3.6±0.10	3.6	22.33	19±1.0	

Ball Valve

Outline



Ball valve is applicable for commercial air conditioner, freezing or deep-freezing equipment to open and shut off inner flow path by operating the valve stem. It can also be used as service valve for vacuum pumping and refrigerant injection etc.

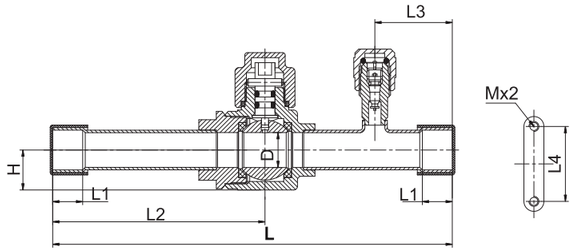
Features

◆High reliability ◆Low pressure drop

General spec.

◆Applicable refrigerant: R22, R407C, R410A ,R134a etc. ◆Applicable medium temperature: -30℃ ~ +120℃
◆Maximum working pressure: 4.8MPa ◆Applicable ambient temperature: -30℃ ~ +55℃
◆Certification: UL

Technical Parameters



Model	Dimensions mm								Tube Size
	L	L1	L2	L3	L4	D	H	M	
3/8	138	8	74	31	22	14	16	M4×0.7	9.52
1/2	160	10	85	31	22	14	16	M4×0.7	12.70
5/8	160	12	85	31	22	14	16	M4×0.7	15.88
3/4	185	14	99	37	30	19	20	M4×0.7	19.05
7/8	185	17	99	37	30	19	20	M4×0.7	22.20
9/8	208	20	112	44	38	25	25	M4×0.7	28.58
11/8	251	25	136	44	48	32	31	M6×1.0	35.00
13/8	281	29	151	56	55	38	35	M6×1.0	41.28
17/8	305	34	167	56	74	50	46	M6×1.0	53.98
21/8	305	37	167	56	74	60	56	M6×1.0	66.68
25/8	378	42	186.2	56	90	70	63	M6×1.0	79.38
29/8	422.7	42	207.5	75	106	80	75	M6×1.0	92.08
33/8	423	42	210	75	148	95	91	M6×1.0	104 .8

Installation:
1) The valve body shall be kept cool no more than 120℃ in brazing process.
2) The valve shall stay full open or close in application.
3) For the ball valves with access port in the tube, valve core shall be removed during brazing.

Check Valve
Float Type Series

Outline

Float type check valves are used in air conditioning system in shunt connection with capillary tubes to control the forward and reverse flow of refrigerant and make refrigerant flow in a specified direction.

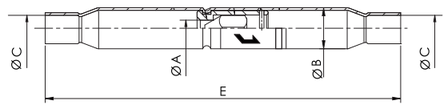
Features

◆Good sealing performance

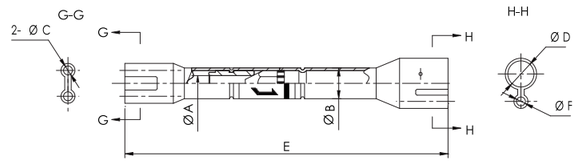
General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃～+80℃ ◆Maximum working pressure: 4.2MPa

Dimensions



Model	Dimensions mm				Applicable Temperature
	A	B	C	E	
YCV3	3	9.52	3.18	100	-30℃～+80℃
			6.35		
YCV5	5	12.7	9.52	110	
			12.7		
YCV8	8	19.05	12.7	150	
			15.88		
YCV11	11	22.2	15.88	160	
			19.05		
YCV14	14	28	19.05		
			22.2		



Model	Dimensions mm					Applicable Temperature
	A	B	C	D/F	E	
CV/CAV	4.8	9.52	2.7	6.0/3.1	100	-30℃～+80℃
			2.9	6.5/2.7		
YCV3	3	9.52	3.1	6.5/2.9		
YCV5	5	12.7	3.3	8.1/2.7		
			3.5	8.1/3.3		

Installation: 1) The valve body shall be kept cool no more than 120℃ in brazing process.
2) The inside of valve shall stay dry and clean during the installation.

Check Valve
Piston Type Series

Outline

Piston type check valves are mainly used in air conditioning system or freezing/deep freezing equipment to control the unidirectional flow of fluid so as to prevent backflow.

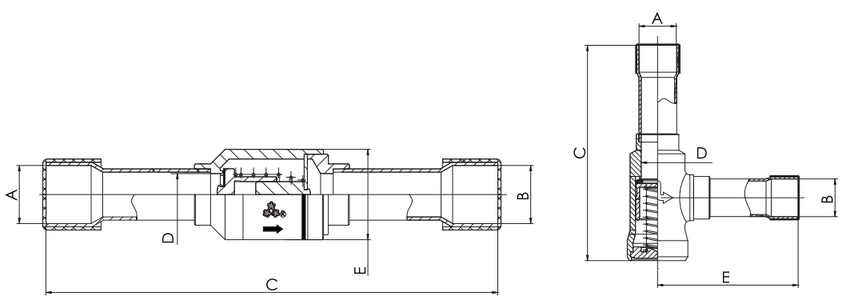
Features

◆Compatible with high temperature

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -50℃~+140℃
◆Maximum working pressure: 4.5MPa

Dimensions



Type	Model	Port D mm	Dimensions mm		Connection Size A/B	Applicable Tempera-ture
			C	E	mm	
Straight-way Type	YCVS5-22GSHC-1	5	90	18	6.35	-50℃～+140℃
	YCVS8-33GSHC-1	8	110	18	9.52	
	YCVSH8-33GSHC-1					
	YCVS10-44GSHC-1	10	130	22	12.7	
	YCVSH10-44GSHC-1					
	YCVS13-55GSHC-1	13	140	28	15.88	
	YCVSH13-55GSHC-1					
	YCVS17-66GSHC-1	17	165	34	19.05	
	YCVSH17-66GSHC-1					
L-shape Type	YCVS20-77GSHC-1	20	132	87	22.2	
	YCVSH20-77GSHC-1					
	YCVS26-99GSHC-1	26	196	123	28.58	
	YCVSH26-99GSHC-1					
	YCVS31-BBGSHC-1	31	196	123	34.93	
	YCVSH31-BBGSHC-1					

Installation: 1) The valve body shall be kept cool no more than 120℃ in brazing process.
2) The inside of valve shall stay dry and clean during the installation.

Angle Valve

Outline

Angle valves are used for tube connection or compressor and reservoirs of commercial air conditioner, freezing or deep-freezing equipment. Inner path of the valve can be closed or opened by operating the valve stem.

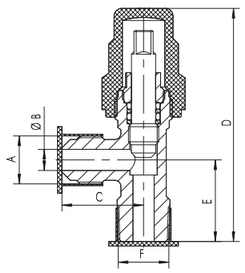
Features

◆High reliabiity

General spec.

◆Applicable refrigerant: R22, R134a, R407C, R410A
◆Applicable medium temperature: -40℃ ~ +120℃
◆Maximum working pressure: 4.8 MPa
◆Certification: UL

Dimensions

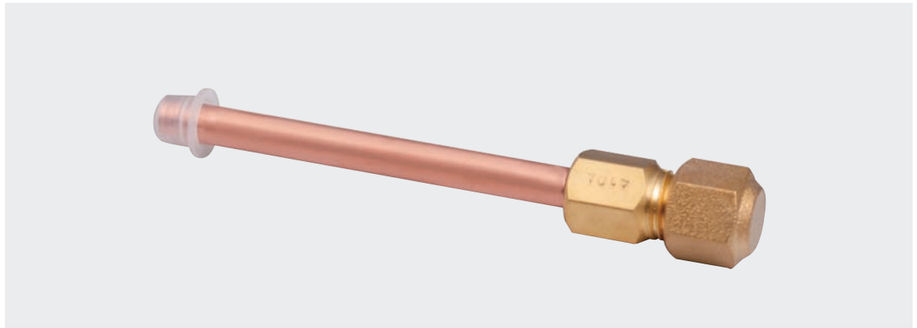


Model	A in	Dimensions mm				F in
		B	C	D	E	
ZJF-A22	7/16-20UNF	4.8	23.5	74	23.5	NPT 1/4
ZJF-A23	7/16-20UNF	4.8	27	77	27	NPT 3/8
ZJF-A33	5/8-18UNF	7	27	77	27	NPT 3/8
ZJF-A32	5/8-18UNF	7	27	77	27	NPT 1/4
ZJF-A34	5/8-18UNF	7	32	114	37	NPT 1/2
ZJF-A44	3/4-16UNF	10	36	114	37	NPT 1/2
ZJF-A43	3/4-16UNF	10	36	114	37	NPT 3/8
ZJF-A54	7/8-14UNF	12.5	36	114	37	NPT 1/2
ZJF-A66	1 1/16-14UNS	16	42	122	43	NPT 3/4
ZJF-A76	1 1/4-12UNF	20	48	122	43	NPT 3/4

Installation: 1) The valve body shall be kept cool no more than 120℃ in brazing process.
2) Proper products shall be selected for different refrigerants.

Charge Valve

Outline

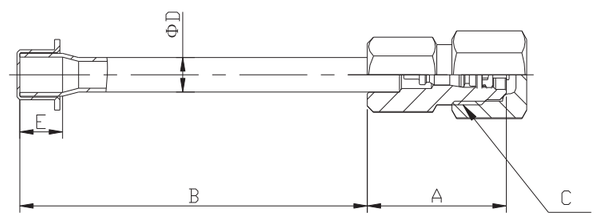


Mainly used in air conditioning systems, and used as service valve for vacuum pumping and refrigerant injection etc.

General spec.

◆Applicable refrigerant: R22, R407C and R410A etc.
◆Applicable medium temperature: -30℃ ~ +120℃
◆Maximum working pressure: 4.2MPa

Dimensions



Model	A mm	B mm	C in	E mm	D		Refrigerant
					mm	in	
TCJ-2	26	65	7/16-20UNF	R22/R407C	6.35	1/4	8
			1/2-20UNF	R410A			

Installation: 1) The valve body shall be kept cool no more than 120℃ in brazing process.
2) Proper products shall be selected for different refrigerants.

Drain Pump
A Series

Outline

Drain pumps are used in packaged air conditioners, indoor units of ceiling air conditioners to drain the condensing water generated by heat exchangers during cooling and dehumidification.

Features

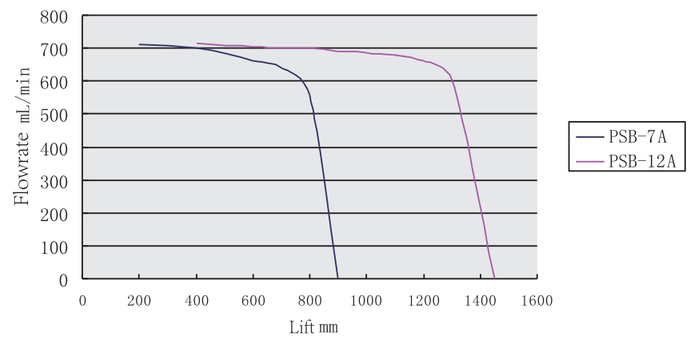
◆Low noise, low vibration and light weight
◆Small scale with enough flow rate, long life

General spec.

◆Applicable fluid temperature: 0℃ ~ +40℃ (but no fluid frozen)
◆Applicable ambient temperature: -10℃ ~ 45℃
◆Relative humidity: below 95% RH
◆Certification: UL, CQC and VDE

Technical Parameters

Model	Rated Lift mm	Rated Flow ml/min	Rated Voltage V	Rated Current Max mA	Input Power Max W
PSB-7A	700	⩾450	AC220V~240V	108/96	10.8/96
		⩾320	AC115V	108/96	10.8/96
PSB-12A	1200	⩾400	AC220V~240V	120/108	12/10.8

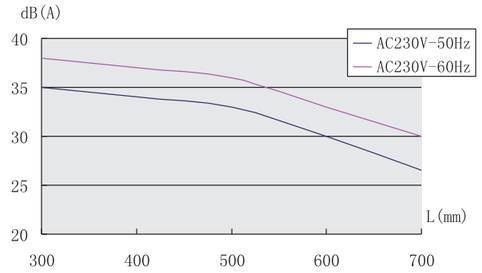


Lift and Flowrate Graph

AC230V 50Hz/60Hz, at a water level of 10mm, testing flow rate in 1min under different lift (at the distance of 1m)

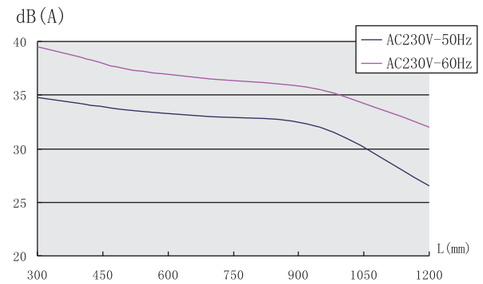
Drain Pump
A Series

Technical Parameters



PSB-7A Model Lift - Noise Graph

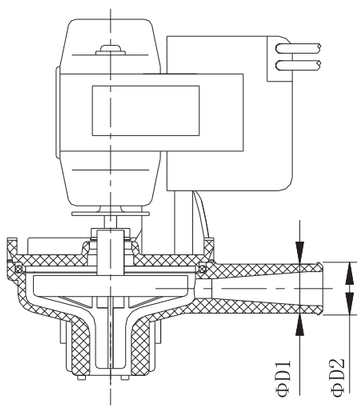
AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)



PSB-12A Model Lift - Noise Graph

AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)

Dimensions



Model	Dimension mm			
	D1		D2	
PSB-7A	13	16	14	17
PSB-12A	13	16	14	17

Notes:
1. Type and length of leads, terminal insulation casing and support will be optional subject to the customers' needs.
2. In addition to the water outlet direction shown in the figure, there are another three optional outlet directions every 90°.

Draining Pump
B Series

Outline

PSB-7B/12B series drain pumps are used in packaged air conditioners and indoor unit of ceiling air conditioners to drain the condensate generated by the heat exchanger during cooling and dehumidification.

Features

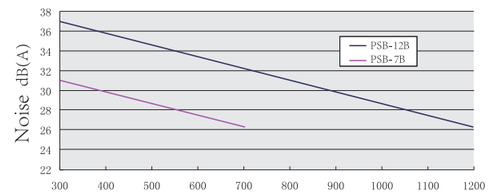
- ◆Low noise, low vibration and light weight
- ◆Low energy consumption
- ◆Compact design, big flow and long service life

General spec.

- ◆Applicable fluid temperature: 0℃~+40℃ (but no fluid frozen)
- ◆Applicable ambient temperature: -10℃~45℃
- ◆Relative humidity: below 95% RH

Technical Parameters

Model	Rated Lift mm	Rated Flow ml/min	Rated Voltage V	Rated Current Max mA	Input Power Max W
PSB-7B	700	⩾450	DC12V	260	3.2
PSB-12B	1200	⩾400	DC12V	370	4.5

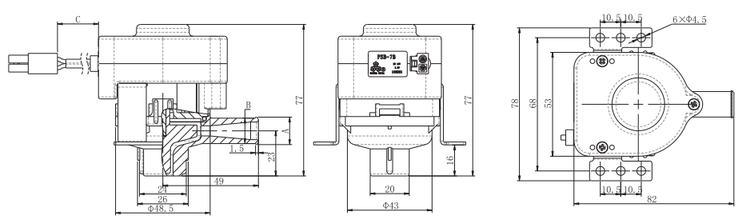


Lift mm

Lift and Noise Graph

AC230V 50Hz/60Hz, at a water level of 10mm, testing draining noise in 1min under different lift (at the distance of 1m)

Dimensions



A	B	C
Φ14	Φ17	620
Φ13	Φ16	850

Float Switch

Outline

Float switches are applicable to many environments, usually connected to actuators such as drain pumps or electromagnetic valves to control the fluid level in the equipment for the purpose of level warning in the system.

Features

◆Reliable action point, and long life

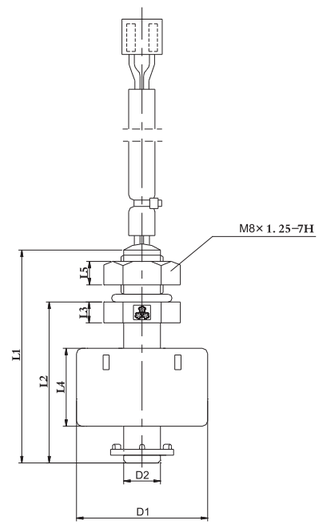
General spec.

◆Applicable fluid temperature: 0℃ ~ +40℃ (but no fluid frozen)
◆Applicable ambient temperature: -10℃ ~ +60℃
◆Relative humidity: below 95% RH

Technical Parameters

Model	Max. Contact Power W	Max. Switching Voltage V	Max. Switching Current A	Action Life 10 thousand times	Contact Resistance between Reed Contacts mΩ
YKG(A)-10	10	DC 100/AC 100	DC 0.5/AC 0.5	100	⩽300
YKG(A)-50	50	DC 300/AC 300	DC 0.7/AC 0.5	100	⩽300

Dimensions



	Dimension	
L1	41±0.5	44±0.5
L2	31±0.5	34±0.5
D1	φ25	
D2	φ7	
L3	15	
L4	4	
L5	4.5	

Notes:
1. Type and length of leads, terminal insulation casing will be optional subject to the customers' needs.
2. See above figure for external dimensions of nuts. Recommended to tighten the nut to 0.25 N.m.

Drain Valve

Outline

Drain valves are used in window air conditioners to control the drainage of condensing water so as to keep the internal humility in a reasonable range.

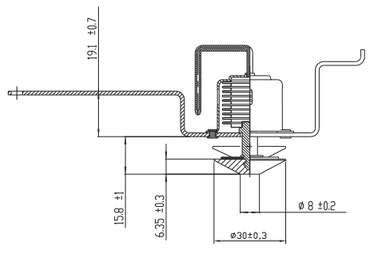
General spec.

◆Applicable medium: water
◆Applicable medium temperature: 0℃ ~ 24℃
◆Applicable ambient temperature: -10℃ ~ 50℃
◆Installation mode: vertically placed with capillary tubes facing up

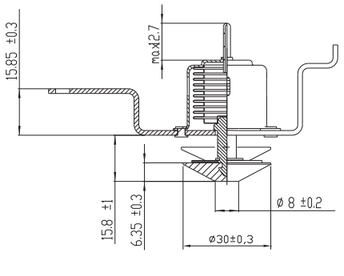
Technical Parameters

◆Bellows displacement: bellows in normal position at 15^{+4}_{-2}℃ and contracting inward at 4^{+4}_{-2}℃ with a stroke of more than 5mm
◆Specific mount dimensions can be designed according to the customers' requirements

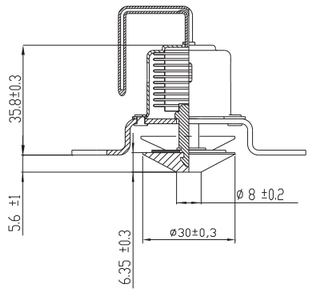
Dimensions



SF10A

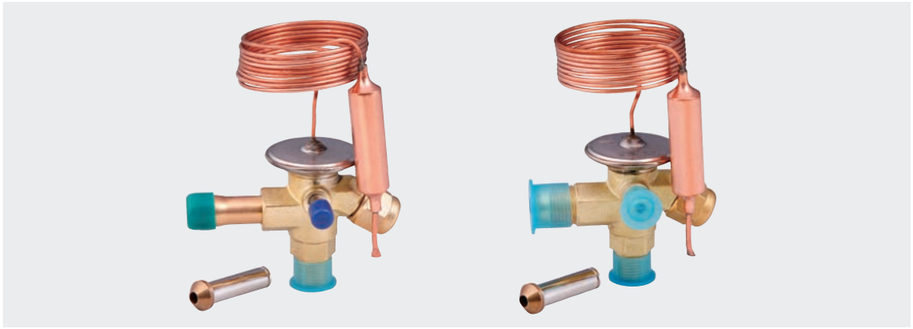


SF10B



SF10D

Outline



RFKA series thermal expansion valves are used to adjust supply volume of refrigerant in the evaporator which can provide injection of various refrigerants under all working conditions. They can also meet the requirements of freezers, ice makers, dehumidifiers as well as refrigerating systems and air conditioners in various vaporizing temperature ranges.

Features

◆Replaceable valve core, easy to store, convenient for capacity match and repair
◆Thermal bulb utilizes cross injection technology, and the whole vaporizing temperature range share the same superheat degree
◆Valves with MOP function can be provided to prevent damages to compressor motor caused by excessive evaporation pressure
◆Stable performance of superheat adjustment
◆Long life

General spec.

◆Applicable refrigerant: R22, R134a, R404A, R507, R407C etc.
◆Applicable medium temperature: -40℃～+70℃ or -60℃～+70℃
◆Applicable ambient temperature: -35℃～+55℃
◆Relative humidity: 0～100%RH
◆Maximum working pressure: 3.5MPa

Technical Parameters

Basic Parameters

Refrig-erant	Model	Pressure Equal-ization	Capillary Tubes Con-nection mm	Connection[b]				Vaporizing Temperature[c]		
				Inlet×Outlet		Equalization		-40℃～ +10℃	-40℃～ -5℃	-60℃～ -25℃
				in	mm	in	mm			
R22	RFKA01	Internal Equalization	1500[a]	3/8×1/2	10×12	1/4	6	Without MOP or With MOP +15℃	MOP 0℃	MOP -20℃
	RFKA01E	External Equalization								
R407C	RFKA02	Internal Equalization								
	RFKA02E	External Equalization								
R404A/ R507	RFKA03	Internal Equalization								
	RFKA03E	External Equalization								
R134a	RFKA04	Internal Equalization								/
	RFKA04E	External Equalization								

Note 1: [a]1500 is the recommended standard, which can be customized according to specific needs.
Note 2: [b]Inlet ends are conneted by solder;outlet and outer equalization ends can be connected by thread or solder.
Note 3: [C]The listed vaporizing temperature is the recommended standard, which can be customized according to specific needs.

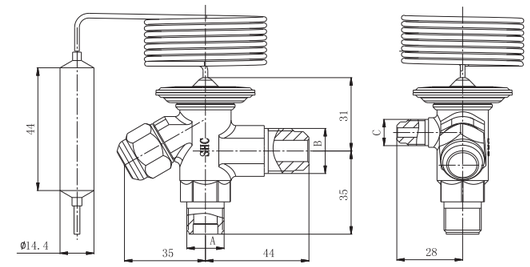
Technical Parameters

Nominal Capacity

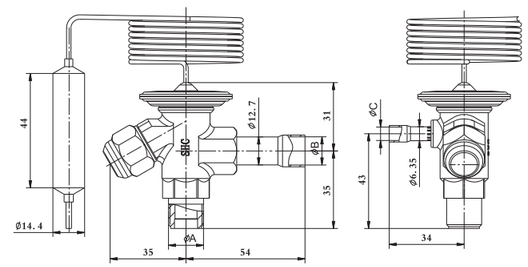
No.	Nominal Capacity US.T				Nominal Capacity kW				Valve Core Part Code
	R22	R407C	R404A/ R507	R134a	R22	R407C	R404A/ R507	R134a	
0X	0.15	0.15	0.1	0.1	0.5	0.5	0.35	0.33	RFKA-023-0X
0	0.3	0.3	0.2	0.19	1.1	1.1	0.7	0.68	RFKA-023-00
1	0.7	0.76	0.48	0.45	2.5	2.7	1.7	1.6	RFKA-023-01
2	1	1.1	0.67	0.63	3.5	3.9	2.4	2.2	RFKA-023-02
3	1.6	1.8	1.1	1	5.6	6.3	3.9	3.5	RFKA-023-03
4	2.3	2.5	1.6	1.4	8.1	8.8	5.6	4.9	RFKA-023-04
5	3	3.2	2.1	1.9	10.6	11.3	7.4	6.7	RFKA-023-05
6	4.8	5.2	3.4	3	16.9	18.3	12	10.6	RFKA-023-06

Note: Nominal capacity is measured under nominal working condition: condensating temperature 38℃, refrigerant temperature before the valve 34℃, vaporizing temperature 5℃, static overheat 3. 5K, operating superheat 4K.

Dimensions



Main body of thermal expansion valve (thread)



Main body of thermal expansion valve (solder)

Inlet A	Outlet B			External Equalization C		
	Thread	mm	Tube in	Thread	mm	Tube in
5/8-18UNF	3/4-16 UNF	/	/	7/16-20 UNF	/	/
	/	12	1/2	/	6	1/4

Outline

RFKB series thermal expansion valves are used to adjust supply volume of refrigerant in the evaporator which can provide injection of various refrigerants under all working conditions. They can also meet the requirements of freezers, ice makers, dehumidifiers as well as refrigerating systems and air conditioners in various vaporizing temperature ranges.

Features

◆Thermal bulb utilizes cross injection technology, and the whole vaporizing temperature range share the same superheat degree
◆Valves with MOP function can be provided to prevent damages to compressor motor caused by excessive evaporation pressure
◆Long life

General spec.

◆Applicable refrigerant: R22, R134a, R404A, R507, R407C etc.
◆Applicable medium temperature: -40℃～70℃
◆Applicable ambient temperature: -35℃～55℃
◆Relative humidity: 0～100%RH
◆Maximum working pressure: 3.5MPa

Technical Parameters

Basic Parameters

Refrig-erant	Model	Pressure Equal-ization	Capillary Tubes Con-nection mm	Connection[b]				Vaporizing Temperature[c]	
				Inlet×Outlet		Equalization		-40℃～+10℃	-40℃～+10℃
				in	mm	in	mm		
R22	RFGB01	Internal Equalization	800[a]	1/4×3/8 or 3/8×1/2	6×10 or 10×12	1/4	6	Without MOP	MOP +15℃
	RFGB01E	External Equalization							
R407C	RFGB02	Internal Equalization							
	RFGB02E	External Equalization							
R404A/ R507	RFGB03	Internal Equalization							
	RFGB03E	External Equalization							
R134a	RFGB04	Internal Equalization							
	RFGB04E	External Equalization							

Note 1: [a]800 is the recommended standard, which can be customized according to specific needs.
Note 2: [b]Inlet ends are conneted by solder;outlet and outer equalization ends can be connected by thread or solder.
Note 3: [C]The listed vaporizing temperature is the recommended standard, which can be customized according to specific needs.

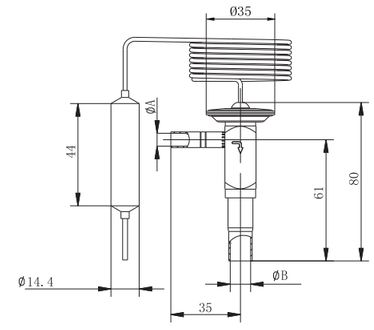
Technical Parameters

Nominal Capacity

No.	Nominal Capacity US.T				Nominal Capacity kW			
	R22	R407C	R404A/ R507	R134a	R22	R407C	R404A/ R507	R134a
1	0.35	0.38	0.25	0.22	1.2	1.3	0.9	0.8
2	0.7	0.76	0.5	0.44	2.5	2.7	1.8	1.5
3	1	1.1	0.7	0.63	3.5	3.9	2.5	2.2
4	1.5	1.6	1	0.94	5.3	5.6	3.5	3.3
5	2	2.2	1.4	1.3	7	7.7	4.9	4.6

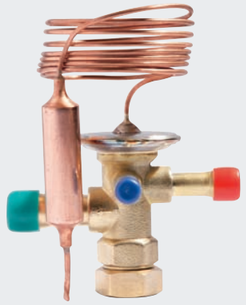
Note: Nominal capacity is measured under nominal working condition: condensating temperature 38℃, refrigerant temperature before the valve 34℃, vaporizing temperature 5℃, static overheat 3. 5K, operating superheat 4K.

Dimensions



Inlet A		Outlet B	
mm	in	mm	in
6	1/4	10	3/8
10	3/8	12	1/2

Outline



RFGC series thermal expansion valves are used to adjust supply volume of refrigerant in the evaporator which can provide injection of various refrigerants under all working conditions. They can also meet the requirements of freezers, ice makers, dehumidifiers as well as refrigerating systems and air conditioners in various vaporizing temperature ranges.

Features

◆Replaceable valve core, easy to store, convenient for capacity match and repair
◆Thermal bulb utilizes cross injection technology, and the whole vaporizing temperature range share the same superheat degree
◆Valves with MOP function can be provided to prevent damages to compressor motor caused by excessive evaporation pressure
◆Stable performance of superheat adjustment
◆Long Life

General spec.

◆Applicable refrigerant: R22、R134a、R404A、R507、R407C、R410A etc.
◆Applicable medium temperature: -40～+70℃ or -60～70℃
◆Applicable ambient temperature: -35℃～55℃
◆Relative humidity: 0～100%RH
◆Maximum working pressure: 4.2MPa

Technical Parameters

Basic Parameters

Refrig-erant	Model	Pressure Equal-ization	Capillary Tubes Con-nection mm	Connection[b]				Vaporizing Temperature[c]		
				Inlet×Outlet		Equalization		-40℃～+10℃	-40℃～-5℃	-60℃～-25℃
				in	mm	in	mm			
R22	RFGC01	Internal	1500[a]	3/8×1/2	10×12	1/4	6	Without MOP or MOP +15℃	MOP 0℃	MOP -20℃
	RFGC01E	External								
R407C	RFGC02	Internal								
	RFGC02E	External								
R404A/ R507	RFGC03	Internal								
	RFGC03E	External								
R134a	RFGC04	Internal								/
	RFGC04E	External								
R410A	RFGC05	Internal								
	RFGC05E	External								

Note 1: [a]1500 is the recommended standard, which can be customized according to specific needs.
Note 2: [b]Inlet ends are conneted by solder;outlet and outer equalization ends can be connected by thread or solder.
Note 3: [C]The listed vaporizing temperature is the recommended standard, which can be customized according to specific needs.

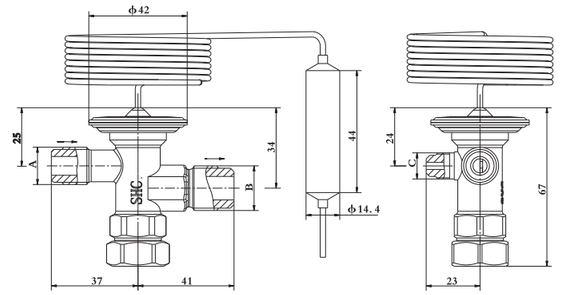
Technical Parameters

Nominal Capacity

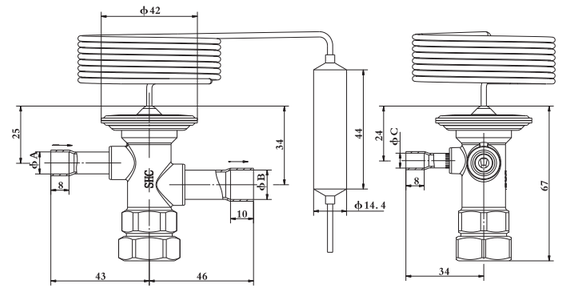
No.	Nominal Capacity US.T					Nominal Capacity kW				
	R22	R407C	R404A/ R507	R134a	R410A	R22	R407C	R404A/ R507	R134a	R410A
1	0.5	0.54	0.36	0.31	0.59	1.8	1.9	1.3	1.1	2.1
2	1.0	1.1	0.71	0.63	1.2	3.5	3.9	2.5	2.2	4.1
3	1.5	1.6	1.1	0.94	1.8	5.3	5.7	3.8	3.3	6.2
4	2.0	2.2	1.4	1.3	2.3	7.0	7.6	5.0	4.4	8.2
5	2.5	2.7	1.8	1.6	2.9	8.8	9.5	6.3	5.5	10.3
6	3.0	3.2	2.1	1.9	3.6	10.6	11.3	7.4	6.7	12.5
7	3.5	3.8	2.5	2.2	4.1	12.3	13.3	8.8	7.7	14.4
8	4.8	5.2	3.4	3.0	5.7	16.9	18.3	12.0	10.6	19.9

Note: Nominal capacity is measured under nominal working condition: condensating temperature 38℃, refrigerant temperature before the valve 34℃, vaporizing temperature 5℃, static overheat 3. 5K, operating superheat 4K.

Dimensions



Thread



Solder

Inlet A			Outlet B			External Equalization C		
Thread	mm	Tube in	Thread	mm	Tube in	Thread	mm	Tube in
5/8-18UNF	/	/	3/4-16UNF	/	/	7/16-20 UNF	/	/
/	10	3/8	/	12	1/2	/	6	1/4

Outline

RFGD series thermal expansion valves are used to adjust supply volume of refrigerant in the evaporator which can provide injection of various refrigerants under all working conditions. They can also meet the requirements of freezers, ice makers, dehumidifiers as well as refrigerating systems and air conditioners in various vaporizing temperature ranges.

Features

◆Replaceable valve core, easy to store, convenient for capacity match and repair
◆Thermal bulb utilizes cross injection technology, and the whole vaporizing temperature range share the same superheat degree
◆Valves with MOP function can be provided to prevent damages to compressor motor caused by excessive evaporation pressure
◆Stable performance of superheat adjustment
◆Long Life

General spec.

◆Applicable refrigerant: R22、R134a、R404A、R507、R407C、R410A etc.
◆Applicable medium temperature: -40～+70℃ or -60～70℃
◆Applicable ambient temperature: -35℃～55℃
◆Relative humidity: 0～100%RH
◆Maximum working pressure: 4.2MPa

Technical Parameters

Basic Parameters

Refrig-erant	Model	Pressure Equal-ization	Capillary Tubes Con-nection mm	Connection[b]				Vaporizing Temperature[c]		
				Inlet×Outlet		Equalization		-40℃～+10℃	-40℃～-5℃	-60℃～-25℃
				in	mm	in	mm			
R22	RFGD01	Internal	1500[a]	3/8×5/8 or 1/2×7/8 or 5/8×7/8	10×16 or 12×22 or 16×22	1/4	6	Without MOP or MOP +15℃	MOP 0℃	MOP -20℃
	RFGD01E	External								
R407C	RFGD02	Internal								
	RFGD02E	External								
R404A/ R507	RFGD03	Internal								
	RFGD03E	External								
R134a	RFGD04	Internal								/
	RFGD04E	External								
R410A	RFGD05	Internal								
	RFGD05E	External								

Note 1: [a]1500 is the recommended standard, which can be customized according to specific needs.
Note 2: [b]Inlet ends are conneted by solder;outlet and outer equalization ends can be connected by thread or solder.
Note 3: [C]The listed vaporizing temperature is the recommended standard, which can be customized according to specific needs.

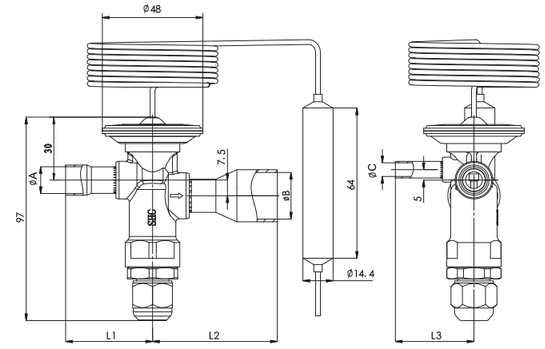
Technical Parameters

Nominal Capacity

No.	Nominal Capacity US.T					Nominal Capacity kW				
	R22	R407C	R404A/ R507	R134a	R410A	R22	R407C	R404A/ R507	R134a	R410A
1	3.0	3.1	2.0	1.8	3.5	10.5	11.0	7.5	6.5	12.0
2	4.0	4.2	2.8	2.5	4.5	14.0	15.0	10.0	9.0	16.0
3	6.0	6.3	4.2	3.6	7.0	21.0	22.5	15.0	13.0	24.5
4	7.5	8.1	5.4	4.6	8.6	26.5	28.5	19.0	16.5	30.5
5	11.0	11.7	7.8	6.8	12.8	38.5	41.5	27.5	24.0	45.0

Note: Nominal capacity is measured under nominal working condition: condensating temperature 38℃, refrigerant temperature before the valve 34℃, vaporizing temperature 5℃, static overheat 3. 5K, operating superheat 4K.

Dimensions



No.	Inlet A		Outlet B		External Equalization C		L1	L2	L3
	mm	in	mm	in	mm	in	mm	mm	mm
1	10	3/8	16	5/8	6	1/4	41.5	45.5	37.5
2	12	1/2	22	7/8	6	1/4	41.5	59.5	37.5
3									
4	16	5/8	22	7/8	6	1/4	45.5	59.5	37.5
5									

Outline

Used in refrigeration system with unidirectional flow to absorb moisture and acid in the system and filter out the impurities.

Features

◆High efficient in moisture absorption, and filtering capability
◆Hybrid desiccant
◆Solid filter cores are bound with desiccant which can minimize vibration and friction in system operation. And it also reduces the wear of desiccant.
◆Filtering fineness: 20μm
◆Corrosion resistant painting can survive salt spray test of 500 hours.
◆Connection type: thread or solder

General spec.

◆Applicable refrigerant: CFC, HFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃ ~ +120℃ (-22℉～+248℉)
◆Applicable ambient temperature: -30℃~ +55℃ (-22℉～+131℉)
◆Maximum working pressure: 4.8MPa (700Psig)
◆Certification: UL, CSA

Technical Parameters

Desiccant Selecting Table

Medium Type		80% 3A desiccant and 20% active alumina	100% 3A desiccant
Refrig-erant	HFC	Applicable	Applicable
	HCFC	Applicable	Applicable
	CFC	Applicable	Not Applicable[1)]
	HC	Applicable	Applicable
Oil	Mineral oil or AB	Applicable	Applicable
	Pure POE or PAG	Applicable	Applicable
	POE or PAG with addictive	Not applicable[2)]	applicable

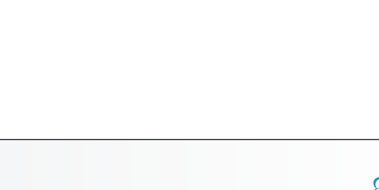
Note:
1) As for CFC system, it is recommended to use a core with alumina since a strong capability to absorb acid may need.
2) When the systems use oil with addictive, it is not recommended to use a core with alumina.

Technical Parameters

DTG-03 2 (KT A)
① ②③ ④ ⑤

	①Product Code	
	DTG	Indicates unidirectional filter drier with solder connection
	DTGL	Indicates unidirectional filter drier with thread connection
	②Internal volume	in^3
	03	3
	05	5
	08	8
	16	16
	30	30
	41	41
	75	75
	③Connection size in	
	2	1/4
	2.5	5/16
	3	3/8
	4	1/2
	5	5/8
	6	3/4
	7	7/8
	9	1-1/8
	④Form of inner core	
	KT	Solid filter core
	ST	Loose beads
	⑤Components of core	
	A	Composed of 80% 3A dessicant and 20% active alumina
	(Omitted)	Composed of 100%3A dessicant

Solder Connection



Thread Connection

ST Series with Loose Desiccant

Model		Con-nection Size in	D mm	B mm	A mm		Weight g
Solder Connection	Thread Connection				Solder Con-nection	Thread Connection	
DTG-032(ST)/(STA)	DTGL-032(ST)/(STA)	1/4	45	61	98.6	94	180
DTG-033(ST)/(STA)	DTGL-033(ST)/(STA)	3/8	45	61	99	100	
DTG-034(ST)/(STA)	DTGL-034(ST)/(STA)	1/2	45	61	109.2	105	
DTG-052(ST)/(STA)	DTGL-052(ST)/(STA)	1/4	68	83.5	121.1	116.5	450
DTG-053(ST)/(STA)	DTGL-053(ST)/(STA)	3/8	68	83.5	121.5	122.5	
DTG-082(ST)/(STA)	DTGL-082(ST)/(STA)	1/4	68	95.8	113.4	128.8	530
DTG-083(ST)/(STA)	DTGL-083(ST)/(STA)	3/8	68	95.8	113.8	134.8	
DTG-084(ST)/(STA)	DTGL-084(ST)/(STA)	1/2	68	95.8	144	139.8	
DTG-162(ST)/(STA)	DTGL-162(ST)/(STA)	1/4	68	116	153.6	149	680
DTG-163(ST)/(STA)	DTGL-163(ST)/(STA)	3/8	68	116	154	155	
DTG-164(ST)/(STA)	DTGL-164(ST)/(STA)	1/2	68	116	164.2	160	
DTG-165(ST)/(STA)	DTGL-165(ST)/(STA)	5/8	68	116	160	170	
DTG-167(ST)/(STA)	/	7/8	68	116	176	206	
DTG-303(ST)/(STA)	DTGL-303(ST)/(STA)	3/8	80	192.5	230.5	225.5	1300
DTG-304(ST)/(STA)	DTGL-304(ST)/(STA)	1/2	80	192.5	240.7	231.5	
DTG-305(ST)/(STA)	DTGL-305(ST)/(STA)	5/8	80	192.5	236.5	236.5	
DTG-306(ST)/(STA)	DTGL-306(ST)/(STA)	3/4	80	192.5	252.5	246.5	
DTG-307(ST)/(STA)	DTGL-307(ST)/(STA)	7/8	80	192.5	252.5	268.9	
DTG-309(ST)/(STA)	/	9/8	80	192.5	262.5	282.5	

Note: The products listed are standard products which can also be customized.

Technical Parameters

KT Series with Loose Desiccant

Model		Con-nection Size in	D mm	B mm	A mm		Weight g
Solder Connection	Thread Connection				Solder Con-nection	Thread Connection	
DTG-032(KT)/(KTA)	DTGL-032(KT)/(KTA)	1/4	45	65	102.6	112	160
DTG-032.5(KT)/(KTA)	/	5/16	45	65	102.6	/	
DTG-033(KT)/(KTA)	DTGL-033(KT)/(KTA)	3/8	45	65	103	125.2	
DTG-034(KT)/(KTA)	/	1/2	45	65	113.2	/	
DTG-052(KT)/(KTA)	DTGL-052(KT)/(KTA)	1/4	68	76.2	113.8	123.2	450
DTG-052.5(KT)/(KTA)	/	5/16	68	76.2	113.8	/	
DTG-053(KT)/(KTA)	DTGL-053(KT)/(KTA)	3/8	68	76.2	114.2	136.4	
DTG-054(KT)/(KTA)	/	1/2	68	76.2	124.4	/	
DTG-055(KT)/(KTA)	/	5/8	68	76.2	120.2	/	
DTG-082(KT)/(KTA)	DTGL-082(KT)/(KTA)	1/2	68	96.8	134.4	143.8	550
DTG-082.5(KT)/(KTA)	/	5/16	68	96.8	134.4	/	
DTG-083(KT)/(KTA)	DTGL-083(KT)/(KTA)	3/8	68	96.8	134.8	157	
DTG-084(KT)/(KTA)	DTGL-084(KT)/(KTA)	1/2	68	96.8	145	165	
DTG-085(KT)/(KTA)	/	5/8	68	96.8	140.8	/	
DTG-162 (KT)/(KTA)	DTGL-162(KT)/(KTA)	1/2	68	120.6	158.2	167.6	660
DTG-162.5(KT)/(KTA)	/	5/16	68	120.6	158.2	/	
DTG-163(KT)/(KTA)	DTGL-163(KT)/(KTA)	3/8	68	120.6	158.6	180.8	
DTG-164(KT)/(KTA)	DTGL-164(KT)/(KTA)	1/2	68	120.6	168.8	188.8	
DTG-165(KT)/(KTA)	DTGL-165(KT)/(KTA)	5/8	68	120.6	164.6	198	
DTG-166(KT)/(KTA)	DTGL-166(KT)/(KTA)	3/4	68	120.6	180.6	197	
DTG-167(KT)/(KTA)	/	7/8	68	120.6	180.6	/	
DTG-303(KT)/(KTA)	DTGL-303(KT)/(KTA)	3/8	80	190.5	228.5	250.7	1550
DTG-304(KT)/(KTA)	DTGL-304(KT)/(KTA)	1/2	80	190.5	238.7	258.7	
DTG-305(KT)/(KTA)	DTGL-305(KT)/(KTA)	5/8	80	190.5	234.5	268	
DTG-306(KT)/(KTA)	DTGL-306(KT)/(KTA)	3/4	80	190.5	250.5	277	
DTG-307(KT)/(KTA)	DTGL-307(KT)/(KTA)	7/8	80	190.5	250.5	280.5	
DTG-309(KT)/(KTA)	/	1-1/8	80	190.5	260.5	/	
DTG-414(KT)/(KTA)	DTGL-414(KT)/(KTA)	1/2	94	193.7	242	262.2	2050
DTG-415(KT)/(KTA)	DTGL-415(KT)/(KTA)	5/8	94	193.7	237.7	262.2	
DTG-417(KT)/(KTA)	/	7/8	94	193.7	253.7	/	
DTG-419(KT)/(KTA)	/	1-1/8	94	193.7	263.7	/	
DTG-757(KT)/(KTA)	/	7/8	94	333.5	393.5	/	3400
DTG-759(KT)/(KTA)	/	1-1/8	94	333.5	403.5	/	

Note: The products listed are standard products which can also be customized.

Technical Parameters

KT Series with Solid Desiccant (Parameters & Capacity List)

Model	Flow Rate tons@1 psig△P(tons)[1]					Moisture Absorption[2] (Drop[3])							
	R134a	R404A R507	R22	R407C	R410A	R134a R507		R404A		R407C R410A		R22	
						75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F
DTG-032	2.2	1.9	2.3	2.3	2.3	84	76	114	68	68	61	73	67
DTGL-032	2.0	1.4	2.0	2.0	2.1								
DTG-032.5	2.7	1.9	2.7	2.7	2.8								
DTG-033	4.1	3.0	4.2	4.2	4.2								
DTGL-033	2.7	1.9	2.7	2.7	2.8								
DTG-034	7.0	4.9	7.1	7.0	7.1								
DTG-052	2.4	1.7	2.4	2.4	2.4	231	217	353	204	217	190	227	193
DTGL-052	2.0	1.4	2.0	2.0	2.1								
DTG-052.5	3.1	2.1	3.1	3.1	3.2								
DTG-053	6.8	4.8	6.9	6.8	7.0								
DTGL-053	3.1	2.1	3.1	3.1	3.2								
DTG-054	7.2	5.1	7.3	7.3	7.4								
DTG-055	9.9	7.0	10.1	10	10.2								
DTG-082	2.4	1.7	2.4	2.4	2.4	295	284	473	396	295	260	310	262
DTGL-082	2.0	1.4	2.0	2.0	2.1								
DTG-082.5	3.3	2.3	3.4	3.3	3.4								
DTG-083	7.1	5.0	7.2	7.1	7.3								
DTGL-083	3.3	2.3	3.4	3.3	3.4								
DTG-084	8.7	6.1	8.9	8.8	9.0								
DTGL-084	7.2	5.1	7.3	7.3	7.4								
DTG-085	12.7	9.0	13.0	12.9	13.1								
DTG-162	3.1	2.2	3.2	3.1	3.2	412	389	664	366	412	351	418	354
DTGL-162	2.1	1.7	2.2	2.1	2.2								
DTG-162.5	3.3	2.3	3.4	3.3	3.4								
DTG-163	7.3	5.1	7.4	7.4	7.5								
DTGL-163	3.3	2.3	3.4	3.3	3.4								
DTG-164	9.2	6.5	9.4	9.3	9.6								
DTGL-164	7.3	5.1	7.4	7.4	7.5								
DTG-165	12.3	8.7	12.4	12.4	12.6								
DTGL-165	9.2	6.5	9.4	9.3	9.6								
DTG-166	13.2	9.3	13.4	13.3	13.6								
DTGL-166	12.7	9.0	13	12.9	13.1								
DTG-167	13.4	9.5	13.7	13.6	13.8								
DTG-303	7.3	5.1	7.4	7.4	7.5	1027	973	1667	1027	1026	874	1041	881
DTGL-303	5.1	3.6	5.2	5.1	5.2								
DTG-304	9.4	6.6	9.6	9.5	9.7								
DTGL-304	8.0	5.6	8.2	8.1	8.2								
DTG-305	13.0	9.1	13.2	13.1	13.3								
DTGL-305	9.8	6.9	10.0	9.9	10.1								
DTG-306	17.8	12.5	18.1	18.0	18.3								
DTGL-306	17.5	12.2	17.8	17.6	18.0								
DTG-307	17.9	12.6	18.2	18.1	18.4								
DTGL-307	17.8	12.5	18.1	18.0	18.3								
DTG-309	20.1	14.8	21.4	21.2	21.6								
DTG-414	10.0	7.0	10.2	10.1	10.3	1274	1194	2070	1114	1274	1178	1403	1187
DTGL-414	8.8	6.2	9.0	9.0	9.1								
DTG-415	17.3	12.2	17.6	17.5	17.8								
DTGL-415	10.5	7.4	10.7	10.6	10.8								
DTG-417	25.7	18.1	26.1	26.0	26.4								
DTG-419	26.2	18.4	26.6	26.4	26.9								
DTG-757	26.0	18.2	26.4	26.1	26.7	2465	2311	4006	2157	2465	2280	2715	2298
DTG-759	27.1	19.1	27.6	27.4	27.9								

Unidirectional Filter Driers

Technical Parameters

ST Series with Loose Desiccant(Parameters & Capacity List):

Model	Flow Rate tons@1 psig△P(tons)[1]					Moisture Absorption[2] (Drop[3])							
	R134a	R404A R507	R22	R407C	R410A	R134a	R507	R404A		R407C	R410A	R22	
						75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F
DTG-032	3.5	2.5	3.6	3.6	3.6	68	64	64	60	60	54	64	59
DTGL-032	3.1	2.2	3.1	3.1	3.2								
DTG-033	5.0	3.5	5.0	5.0	5.1								
DTGL-033	3.5	2.5	3.6	3.6	3.6								
DTG-034	7.5	5.3	7.7	7.6	7.8								
DTGL-034	5.3	3.7	5.4	5.4	5.5								
DTG-052	3.7	2.6	3.7	3.7	3.8	157	146	148	139	147	125	149	126
DTGL-052	3.3	2.3	3.4	3.3	3.4								
DTG-053	6.2	4.4	6.4	6.3	6.4								
DTGL-053	3.7	2.6	3.7	3.7	3.8								
DTG-082	3.7	2.6	3.7	3.7	3.8	271	252	256	240	246	216	257	217
DTGL-082	3.3	2.3	3.4	3.3	3.4								
DTG-083	6.2	4.4	6.4	6.3	6.4								
DTGL-083	3.7	2.6	3.7	3.7	3.8								
DTG-084	7.8	5.5	7.9	7.9	8.0								
DTGL-084	5.4	3.8	5.5	5.5	5.6								
DTG-162	4.4	3.1	4.4	4.4	4.5	325	302	307	287	295	259	308	201
DTGL-162	3.5	2.5	3.6	3.6	3.6								
DTG-163	6.8	4.8	6.9	6.9	7.0								
DTGL-163	4.4	3.1	4.4	4.4	4.5								
DTG-164	7.9	5.6	8.0	8.0	8.1								
DTGL-164	6.6	4.6	6.7	6.7	6.8								
DTG-165	10.3	7.3	10.6	10.4	10.7								
DTGL-165	7.4	5.2	7.5	7.4	7.6								
DTG-167	11.9	8.4	12.1	12.0	12.2								
DTG-303	7.0	4.9	7.1	7.0	7.1	647	601	610	572	590	515	613	519
DTGL-303	4.8	3.4	4.9	4.9	5.0								
DTG-304	8.1	5.7	8.3	8.2	8.4								
DTGL-304	7.5	5.3	7.7	7.6	7.8								
DTG-305	11.6	8.2	11.8	11.7	11.9								
DTGL-305	9.3	6.6	9.5	9.4	9.6								
DTG-306	16.4	11.5	16.7	16.5	16.8								
DTGL-306	14.7	10.3	15.0	14.9	15.1								
DTG-307	16.6	11.7	17.0	16.8	17.1								
DTGL-307	16.6	11.5	16.7	16.5	16.8								

Note[1]: Filter Driers for liquid line are manufactured in compliance with ARI Standard 710. Maximum flow rate of liquid refrigerant at a differential pressure of 1psi is indicated by Ton which is based on the temperature of liquid refrigerant 86° F and the following mass flow:

3.1 lb/min/ton R134a
4.1 lb/min/ton R404A、R507
3.0 lb/min/ton R22、R407C
2.8 lb/min/ton R410A

Note[2]: Data on water absorption is based on the following EPD (method: ASHRAE Standard 63.1):

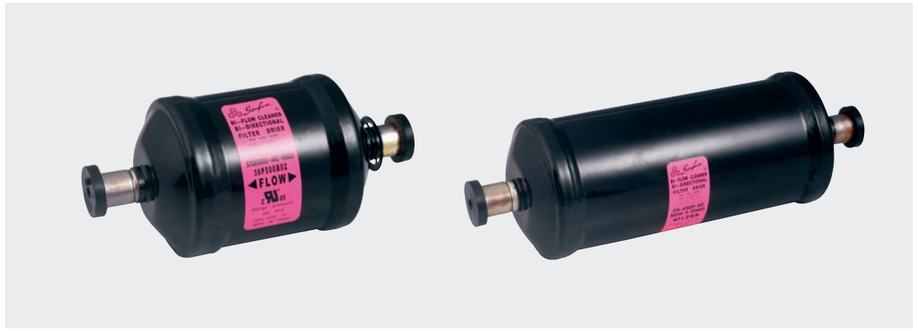
60ppm R22
15ppm R12
30ppm R502
50ppm R134a、R404A、R507、R410A、R407C

Note[3]: 20 drops of water = 1g (1cc)

Note: The above data is based on cleaning system of ideal condition; after impurities accumulate in the filter, the flow will decrease.

Bi-flow Dry Filter

Outline



Used in refrigeration system pipeline with bi-flow or unidirectional flow to absorb moisture and acid in the system and filter out impurities.

Features

◆High efficient in moisture absorption, and filtering capability
◆Hybrid desiccant
◆Solid filter cores are bound with desiccant which can minimize vibration and friction in system operation. And it also reduces the wear of desiccant.
◆Filtering fineness: 20μm
◆Corrosion resistant painting can survive salt spray test of 500 hours.
◆Connection type: thread or solder

General spec.

◆Applicable refrigerant: CFC, HFC, HCFC etc.
◆Applicable medium temperature: -30℃ ~ 120℃ (-22℉～+248℉)
◆Applicable ambient temperature: -30℃~ 55℃ (-22℉～+131℉)
◆Maximum working pressure: 4.8MPa (700Psig)
◆Certification: UL, CSA

Technical Parameters

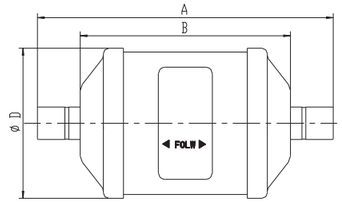
Desiccant Selecting Table

Medium Type		80% 3A desiccant and 20% active alumina	100% 3A desiccant
Refrig-erant	HFC	Applicable	Applicable
	HCFC	Applicable	Applicable
	CFC	Applicable	Not Applicable[1)]
	HC	Applicable	Applicable
Oil	Mineral oil or AB	Applicable	Applicable
	Pure POE or PAG	Applicable	Applicable
	POE or PAG with addictive	Not applicable[2)]	applicable

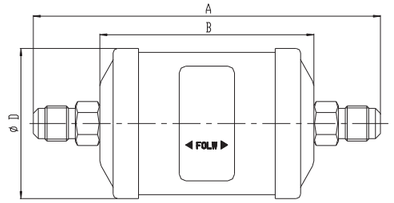
Note:
1) As for CFC system, it is recommended to use a core with alumina since a strong capability to absorb acid may need.
2) When the systems use oil with addictive, it is not recommended to use a core with alumina.

Technical Parameters

STG－05 2 (T A) ① ②③ ④⑤	①Product Code	
	STG	Indicates bi-flow dry filter with solder connection
	STGL	Indicates bi-flow dry filter with thread connection
	②Internal volume	in^3
	05	5
	08	8
	16	16
	30	30
	③Connection size	in
	2	1/4
	2.5	5/16
	3	3/8
	4	1/2
	5	5/8
	6	3/4
	7	7/8
	9	1-1/8
	④Form of inner core	
	T	Solid core
	⑤Components of inner core	
	A	Composed of 80% 3A molecule dessicant and 20% active alumina
	(Omitted)	Composed of 100%3A molecule dessicant



Solder Connection



Thread Connection

Model		Con-nection Size in	D mm	B mm	A mm		Weight g
Solder Connection	Thread Connection				Solder Con-nection	Thread Connection	
STG-052(T)/(TA)	STGL-052(T)/(TA)	1/4	68	76.2	113.8	109.2	450
STG-053(T)/(TA)	STGL-053(T)/(TA)	3/8	68	76.2	113.8	115.2	
STG-054(T)/(TA)	STGL-054(T)/(TA)	1/2	68	76.2	124.4	120.2	
STG-082(T)/(TA)	STGL-082(T)/(TA)	1/4	68	97.3	134.9	130.3	580
STG-082.5(T)/(TA)	/	5/16	68	97.3	134.9	/	
STG-083(T)/(TA)	STGL-083(T)/(TA)	3/8	68	97.3	134.9	136.3	
STG-084(T)/(TA)	STGL-084(T)/(TA)	1/2	68	97.3	145.5	141.3	
STG-163(T)/(TA)	STGL-163(T)/(TA)	3/8	80	118.1	155.7	157.1	900
STG-164(T)/(TA)	STGL-164(T)/(TA)	1/2	80	118.1	166.3	162.1	
STG-165(T)/(TA)	STGL-165(T)/(TA)	5/8	80	118.1	162.1	172.1	
STG-167(T)/(TA)	/	7/8	80	118.1	178.1	/	
STG-303(T)/(TA)	STGL-303(T)/(TA)	3/8	80	192.5	230.1	231.5	1700
STG-304(T)/(TA)	STGL-304(T)/(TA)	1/2	80	192.5	240.7	236.5	
STG-305(T)/(TA)	STGL-305(T)/(TA)	5/8	80	192.5	236.5	246.5	
STG-306(T)/(TA)	STGL-306(T)/(TA)	3/4	80	192.5	236.5	268.9	
STG-307(T)/(TA)	/	7/8	80	192.5	252.5	/	
STG-309(T)/(TA)	/	9/8	80	192.5	262.5	/	

Note: The products listed are standard products which can also be customized.

Technical Parameters

Parameters & Capacity List

Model	Flow Rate tons@1 psig△P(tons)[1]					Moisture Absorption[2] (Drop[3])							
	R134a	R404A R507	R22	R407C	R410A	R134a R507		R404A		R407C R410A		R22	
						75° F	125° F	75° F	125° F	75° F	125° F	75° F	125° F
STG-052	2.1	1.5	2.2	2.2	2.2	85	79	81	75	74	68	81	74
STGL-052	1.0	0.7	1.0	1.0	1.0								
STG-053	4.7	3.3	4.8	4.7	4.8								
STGL-053	3.3	2.3	3.3	3.4	3.4								
STG-054	7.1	5.0	7.2	7.1	7.2								
STGL-054	4.5	3.2	4.6	4.5	4.6								
STG-082	2.5	1.7	2.5	2.5	2.5	195	180	184	171	170	155	184	169
STGL-082	1.5	1.0	1.6	1.5	1.6								
STG-082.5	4.5	3.1	4.6	4.5	4.6								
STG-083	4.9	3.4	5.0	4.9	5.0								
STGL-083	4.5	3.1	4.6	4.5	4.6								
STG-084	7.3	5.1	7.5	7.4	7.5								
STGL-084	4.7	3.3	4.8	4.8	4.9								
STG-163	5.6	3.9	5.7	5.6	5.7	352	326	332	310	304	279	332	283
STGL-163	5.1	3.6	5.2	5.1	5.2								
STG-164	8.6	6.1	8.8	8.7	8.8								
STGL-164	5.6	3.9	5.7	5.6	5.7								
STG-165	9.7	6.8	9.9	9.8	10.0								
STGL-165	8.6	6.1	8.8	8.7	8.8								
STG-167	12	8.5	12.2	12.1	12.3								
STG-303	7.1	5.0	7.2	7.1	7.3	825	767	778	729	717	657	782	662
STGL-303	6.0	4.2	6.1	6.0	6.2								
STG-304	8.8	6.2	9.0	9.0	9.1								
STGL-304	7.1	5.0	7.2	7.1	7.3								
STG-305	10.1	7.1	10.3	10.2	10.4								
STGL-305	8.8	6.2	9.0	9.0	9.1								
STG-306	11.26	8.0	11.4	11.3	11.5								
STGL-306	10.1	7.1	10.3	10.2	10.4								
STG-307	13.2	9.2	13.4	13.3	13.5								
STG-309	15.4	10.8	15.7	15.5	15.8								

Note[1]: Filter Driers for liquid line are manufactured in compliance with ARI Standard 710. Maximum flow rate of liquid refrigerant at a differential pressure of 1psi is indicated by Ton which is based on the temperature of liquid refrigerant 86° F and the following mass flow:

3.1 lb/min/ton R134a
4.1 lb/min/ton R404A、R507
3.0 lb/min/ton R22、R407C
2.8 lb/min/ton R410A

Note[2]: Data on water absorption is based on the following EPD (method: ASHRAE Standard 63.1):

60ppm R22
15ppm R12
30ppm R502
50ppm R134a、R404A、R507、R410A、R407C

Note[3]: 20 drops of water = 1g (1cc)

Note: The above data is based on clean system of ideal condition; after impurities accumulate in the filter, the flow will decrease.

Outline

HTG series filter drier with replaceable core is used in liquid line and gas line of refrigerating, freezing and air conditioning systems of fluorine refrigerant. Its design allows for selecting different kinds of cores. It's sealed by bottom cover for the convenience of removal and replacement of core from the bottom.

Features

◆High efficient in moisture absorption, impurity, acid removal
◆Corrosion resistant painting surviving 500h salt spray test
◆Connection type: Copper or steel tube solder

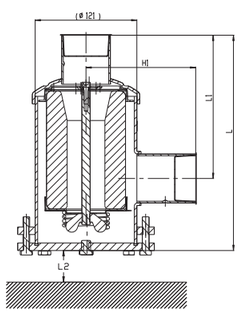
Features

◆SH-48A filter element
80% 3A Desiccant, 20% active alumina for acid absorption.
Great desiccation ability is applicable under wide range of temperature showing high pressure educability and excellent anti-shock performance. The even size of desiccant beads removes impurities effectively and keep low pressure drop.
Applicable refrigerant: R22, R134a, R404A, R507 etc.
◆SH-48Hfilter element
100% 3A desiccant.
Can work with POE oil with strong moisture absorption capability.
Applicable refrigerant: R134a, R 404A and R 407C etc.
◆SH-48C filter element
30% 3A Desiccant, 70% active alumina for acid absorption.
Great desiccation ability is applicable under wide range of temperature showing high pressure educability and excellent anti-shock performance. The even size of desiccant beads removes impurities effectively and keep low pressure drop.
Protecting compressor, Effectively absorb acid and water; filter out impurities; extend the service life of compressor.
Applicable refrigerant: R22, R134a, R404A, R507 etc.

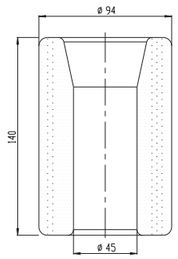
General spec.

◆Applicable refrigerant: HCFC, HFC, CFC etc.
◆Applicable medium temperature: -50 ℃~+120℃ (-58℉～+248℉)
◆Applicable ambient temperature: -50 ℃~+80℃ (-58℉～+176℉)
◆Maximum working pressure: HTG-A48 35bar, HTG-A96 35bar, HTG-B44 35bar, HTG-B92 28bar
◆Certification: PED

Technical Parameters



HTG Series Filter Drier



Filter Core

Technical Parameters

HTG Copper Tube Connection

Model	Connection Size		L mm	L1 mm	L2 mm	H1 mm	Qty of Filter Cores
	in	mm					
HTG-A48050-001	5/8	16	252	168	170	113.5	1
HTG-A48070-001	7/8	22	252	168	170	113.5	1
HTG-A48090-001	/	28	255	171	170	116.5	1
HTG-A48090-001	1 1/8	/	255	171	170	116.5	1
HTG-A48110-001	1 3/8	35	258	174	170	119.5	1
HTG-A48130-001	1 5/8	/	260	176	170	121.5	1
HTG-A48130-001	/	42	260	176	170	121.5	1
HTG-A48170-001	2 1/8	54	254	170	170	127.5	1
HTG-A48210-001	2 5/8	/	257	161.5	170	131.5	1
HTG-A96070-001	7/8	22	396	312	310	113.5	2
HTG-A96090-001	/	28	396	315	310	116.5	2
HTG-A96090-001	1 1/8	/	399	315	310	116.5	2
HTG-A96110-001	1 3/8	35	402	318	310	119.5	2
HTG-A96130-001	1 5/8	/	404	320	310	121.5	2
HTG-A96130-001	/	42	404	320	310	121.5	2
HTG-A96170-001	2 1/8	54	398	314	310	127.5	2
HTG-B44090-001	/	28	540	456	310	116.5	3
HTG-B44110-001	1 3/8	35	543	459	310	119.5	3
HTG-B44130-001	/	42	545	461	310	121.5	3
HTG-B44170-001	2 1/8	54	539	455	310	127.5	3
HTG-B92130-001	1 5/8	54	689	605	310	121.5	4
HTG-B92130-001	/	42	689	605	310	121.5	4
HTG-B92170-001	2 1/8	54	683	599	310	127.5	4

HTG Steel Tube Connection

Model	Con-nection Size in	L mm	L1 mm	L2 mm	H1 mm	Qty of Filter Cores
HTG-A48051-001	1/2	236	152	170	87.5	1
HTG-A48071-001	3/4	247	163	170	95.5	1
HTG-A48091-001	1	246	162	170	97.5	1
HTG-A48111-001	1 1/4	246	162	170	97.5	1
HTG-A48131-001	1 1/2	253	169	170	99.5	1
HTG-A48171-001	2	251	167	170	99.5	1
HTG-A48211-001	2 1/2	267	173	170	128	1
HTG-A96071-001	3/4	391	307	310	95.5	2
HTG-A96091-001	1	390	306	310	97.5	2
HTG-A96111-001	1 1/4	390	306	310	97.5	2
HTG-A96131-001	1 1/2	397	313	310	99.5	2
HTG-A96171-001	2	395	311	310	99.5	2
HTG-B44091-001	1	531	447	310	97.5	3
HTG-B44111-001	1 1/4	531	447	310	97.5	3
HTG-B44131-001	1 1/2	538	454	310	99.5	3
HTG-B44171-001	2	536	452	310	99.5	3
HTG-B92111-001	1 1/4	675	591	310	97.5	4
HTG-B92131-001	1 1/2	682	598	310	99.5	4
HTG-B92171-001	2	680	596	310	99.5	4

Note: The products listed are standard products which can also be customized.

Outline

P series accumulator is installed between the suction port of the refrigerating system compressors and evaporator to separate gas and fluid, store fluid, return oil and filter.

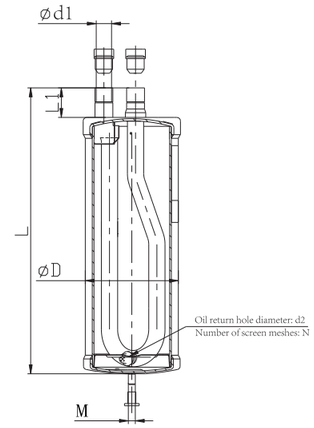
Features

◆Inlet and outlet are made of copper tubes
◆The oil return hole is matching the system capacity to optimize the flow of liquid refrigerant and lubrication oil into compressor.
◆The filter fittings on U-tube is an assembly of screen and return oil hole which can effectively prevent impurities or dirt impacting oil return.
◆Powder coated surface can survive 500hours of salt spray test.

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -35℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 2.5MPa (360Psig)
◆Certification: UL, CSA and PED

Technical Parameters



Model	L mm	Screw Size M	D mm	d1 mm	L1 mm	N meshes/ in	d2 mm
ACM-P00076-037	262.9	3/8-16UNC-2A	76	12.7	28.4	30	1.4
ACM-P00076-038	262.9	3/8-16UNC-2A	76	16	28.4	30	1.4
ACM-P00076-027	382.3	3/8-16UNC-2A	76	16	34.3	60	1.4
ACM-P00076-016	382.3	3/8-16UNC-2A	76	19.2	34.3	60	1.4
ACM-P00101-061	190.5	3/8-16UNC-2A	101.6	19.2	34.3	60	1.4
ACM-P00101-057	244.3	3/8-16UNC-2A	101.6	16	27.7	30	0.9
ACM-P00101-074	293.4	M8	101.6	16	27.7	60	0.74
ACM-P00101-063	320	3/8-16UNC-2A	101.6	19.2	34.3	60	1.4
ACM-P00101-064	357.1	3/8-16UNC-2A	101.6	19.2	34.3	30	2.03
ACM-P00101-065	438.2	3/8-16UNC-2A	101.6	22.4	40.4	60	1.0
ACM-P00127-177	244.3	3/8-16UNC-2A	127	22.4	40.4	60	1.4
ACM-P00127-180	287.8	3/8-16UNC-2A	127	19.2	34.3	30	1.4
ACM-P00127-181	327.2	3/8-16UNC-2A	127	22.4	40.4	30	1.4
ACM-P00127-186	389.6	3/8-16UNC-2A	127	22.4	40.4	30	1.4
ACM-P00127-205	438.2	3/8-16UNC-2A	127	22.4	40.4	30	1.4
ACM-P00153-052	381	3/8-16UNC-2A	152.4	28.7	38.1	30	3.2
ACM-P00153-053	388.2	3/8-16UNC-2A	152.4	35.1	40	30	2.03
ACM-P00153-003	400.6	3/8-16UNC-2A	152.4	35.1	45/60	30	1.4
ACM-P00153-054	487.2	3/8-16UNC-2A	152.4	35.1	45	30	1.8
ACM-P00153-043	570	M12	152.4	35.1	40	30	2.03

Note: The products listed are standard products which can also be customized.

Outline

S series accumulator is installed between the suction port of the refrigerating system compressors and evaporator to separate gas and fluid, store fluid, return oil and filter.

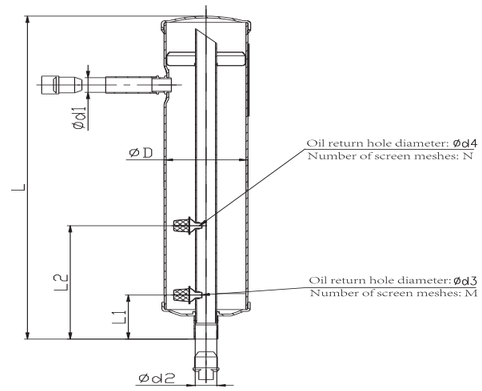
Features

◆Inlet and outlet are made of copper tubes
◆The oil return hole is matching the system capacity to optimize the flow of liquid refrigerant and lubrication oil into compressor.
◆The filter fittings on U-tube is an assembly of screen and return oil hole which can effectively prevent impurities or dirt impacting oil return.
◆Powder coated surface can survive 500hours of salt spray test.

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -35℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 2.5MPa (360Psig)
◆Certification: UL, CSA and PED

Technical Parameters



Model	L mm	D mm	d1 mm	d2 mm	L1 mm	L2 mm	d3 mm	d4 mm	M meshes/ in	N meshes/ in
ACM-S00063-004	355.6	63.5	16	16	51	127	1.52	0.74	60	60
ACM-S00063-005	355.6	63.5	16	16	51	127	3.2	0.74	60	60
ACM-S00063-006	355.6	63.5	16	16	51	127	0.74	0.74	60	60
ACM-S00063-012	431.8	63.5	19.2	19.2	51	127	1.14	0.74	60	60
ACM-S00076-007	279.4	76	19.2	19.2	64.3	140.5	1.52	1.52	30	30
ACM-S00076-008	330.2	76	22.4	22.4	70.6	146.8	1.52	1.52	30	30
ACM-S00101-023	333.3	101.6	19.2	19.2	50.8	127	1.52	0.74	30	60
ACM-S00101-033	333.3	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-017	371.4	101.6	19.2	19.2	50.8	127	1.52	0.74	60	60
ACM-S00101-012	371.4	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-022	438	101.6	22.4	22.4	50.8	127	1.52	0.74	30	60
ACM-S00101-021	485.7	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-016	523.7	101.6	22.4	22.4	50.8	127	1.52	0.74	60	60
ACM-S00101-025	558.8	101.6	19.2	19.2	50.8	127	0.74	0.74	60	60
ACM-S00101-024	612.7	101.6	22.4	22.4	50.8	152.4	1.52	0.74	60	60

Note: The products listed are standard products which can also be customized.

Accumulator
M Series

Outline

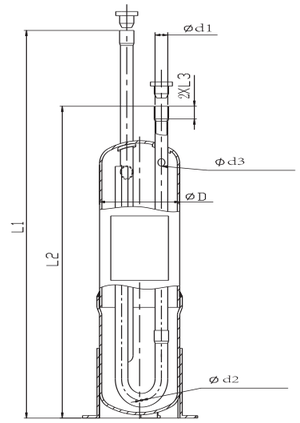
M series accumulator is installed between the suction port of the refrigerating system compressors and evaporator to separate gas and fluid, store fluid, return oil and filter.

Features

◆Inlet and outlet are made of copper tubes
◆The oil return hole is matching the system capacity to optimize the flow of liquid refrigerant and lubrication oil into compressor
◆The filter fittings on U-tube is an assembly of screen and return oil hole which can effectively prevent impurities or dirt impacting oil return
◆Powder coated surface can survive 500hours of salt spray test

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -30℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 2.5MPa (360Psig)
◆Certification: UL, CSA and PED



Technical Parameters

Model	L1 mm	L2 mm	D mm	L3 mm	d1 mm	d2 mm	d3 mm
ACM-M00082-022	360.5	290	80.4	12	12.8	2	7
ACM-M00114-010	486.2	486.2	114.5	15	19.2	1.5	6
ACM-M00082-021	566	566	81.5	15	15.98	1.7	10
ACM-M00105-001	271.5	271.5	109.6	15	17.9/16	2	10
ACM-M00105-002	401.5	401.5	109.6	15	19.3/17.05	2	10
ACM-M00127-021	440	440	127	15	19.2	1.2	1.5
ACM-M00127-022	355	355	127	15	19.2	1.5	1.5
ACM-M00219-010	745	745	219	20	25.6/22.4	1.6	0.7

Note: The products listed are standard products which can also be customized.

Receiver
V Series

Outline

V series receivers are usually installed on high pressure liquid line of refrigeration systems to store excessive refrigerant when the load of the system changes.

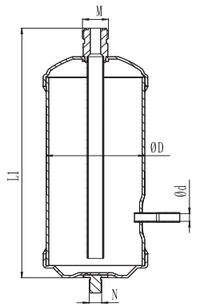
Features

◆The inlet is use solder connection and outlet uses thread connection
◆Internal flow-out is realized by suction tube
◆Powder coated surface can survive 500hours of salt spray test

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -30℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 3.5MPa（500Psig）
◆Certification: UL, PED

Technical Parameters



Model	M in	d		L	D		L		N
		in	mm		in	mm	in	mm	
LRA-V00076-017	3/4-16UNF-2A	0.256	6.5	0.75	3	76.2	8.27	210	screw 3/8-16UNC-2A
LRA-V00076-018	3/4-16UNF-2A	0.256	6.5	0.6	3	76.2	6.73	171	screw 3/8-16UNC-2A
LRA-V00127-016	3/4-16UNF-2A	0.256	6.5	2.1	5	127.0	8.70	221	screw 3/8-16UNC-2A
LRA-V00127-017	3/4-16UNF-2A	0.381	9.67	3.5	5	127.0	12.95	329	screw 3/8-16UNC-2A
LRA-V00153-004	3/4-16UNF-2A	0.381	9.67	5	6	152.4	12.95	329	screw 3/8-16UNC-2A
LRA-V00153-011	1-14UNS-2A	0.381	9.67	6	6	152.4	15.95	405	screw 3/8-16UNC-2A
LRA-V00153-012	1-14UNS-2A	0.506	12.85	8	6	152.4	19.96	507	screw 3/8-16UNC-2A

Note: The products listed are standard products which can also be customized.

Accumulator
F Series

Outline

Applicable for household air conditioner compressors, the receiver is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by fluid impact.

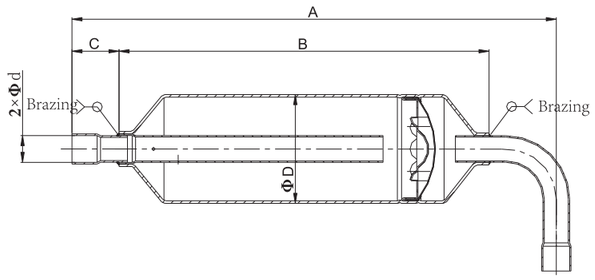
Features

◆Finished with powder painting surviving 500 hours of salt spray test
◆Steel casing, more endurable

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -35℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 4.8MPa (700Psig)
◆Certification: UL

Technical Parameters

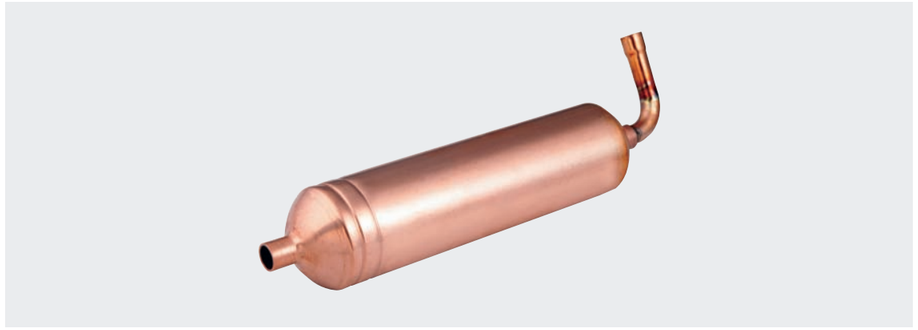


Model	Dimensions					Connection Type
	D mm	B mm	A mm	C mm	d in	
KCY-FXX025	25.4	70～330	120～450	25～150	1/2、1/4、3/8	Solder connection
KCY-FXX031	31.75	70～330	120～450	25～150	1/2、1/4、3/8	
KCY-FXX035	35	70～330	120～450	25～150	1/2、1/4、3/8	
KCY-FXX040	40	90～330	140～450	25～150	1/2、1/4、3/8	
KCY-FXX048	48	90～330	140～450	25～150	1/2、1/4、3/8	
KCY-FXX050	50.8	90～330	140～450	25～150	1/2、1/4、3/8	
KCY-FXX065	65	130～330	180～450	25～150	1/2、1/4、3/8	

Note: 1) The products listed are standard products which can also be customized.
2) No moisture or impurities can get in during brazing process. The coated area can not be burnt during brazing.

Receiver
C Series

Outline



Applicable for household air conditioner compressors, the receiver is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by fluid impact.

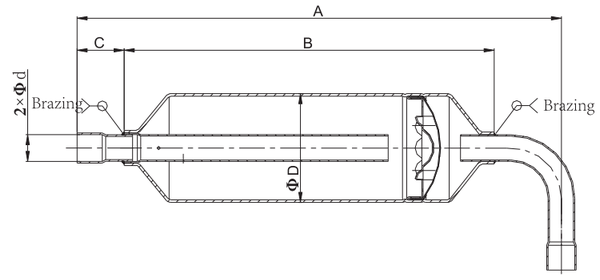
Features

◆Finished with powder painting surviving 500 hours of salt spray test

General spec.

◆Applicable refrigerant: CFC,HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -30℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 4.8 MPa (700Psig)
◆Certification: UL

Technical Parameters



Model	Dimensions						Connection Type
	D mm	B mm	A mm	C mm	E mm	d in	
KCY-CXX025	25.4	70～330	120～450	5～15	25～150	1/2、1/4、3/8	Solder connection
KCY-CXX030	30	70～330	120～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX031	31.75	70～330	120～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX035	35	90～330	140～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX041	41.3	90～330	140～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX048	48	90～330	140～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX050	50.8	130～330	180～450	5～15	25～150	1/2、1/4、3/8	
KCY-CXX057	57.2	130～330	180～450	5～15	25～150	1/2、1/4、3/8	

Note: The products listed are standard products which can also be customized.

Receiver ST Series

(ZHONGSHAN CITY SANHUA REFRIGERATION COMPONENTS CO., LTD.)
Tel: 0086-760-22518980

Outline

The receiver is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by flood shock.

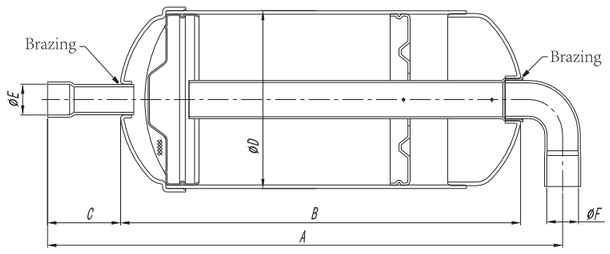
Features

◆Stable performance and high reliability

General spec.

◆Applicable refrigerant: R22，R502，R134a，R407A，R410A etc.
◆Applicable meidum temperature: -30℃~+120℃(-22℉~+248℉)
◆Applicable ambient temperature: -30℃~+55℃(-22℉~+131℉)
◆Max. working pressure: 4.8MPa(700Psig)
◆Certification: UL

Technical Parameters



Model	D mm	B mm	A mm	C mm	Connection ΦE/ΦF	Connec-tion Type
ST-XX48XXX	48	140~250	200~350	20~100	Φ9.53~Φ20	Solder con-nection
ST-XX55XXX	54.2					
ST-XX64XXX	63.5					
ST-XX75XXX	74.7					
ST-XX80XXX	80					

Note:
1) The products listed are standard products whicn can be customized.
2) No moisture or outher foreign impurities can enter the product during installation.
3) During the brazing process, it is not allowed to directly heat the existing welding line which may cause leak.

Receiver KCY Series

(ZHONGSHAN CITY SANHUA REFRIGERATION COMPONENTS CO., LTD.)
Tel: 0086-760-22518980

Outline

The receiver is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by flood shock.

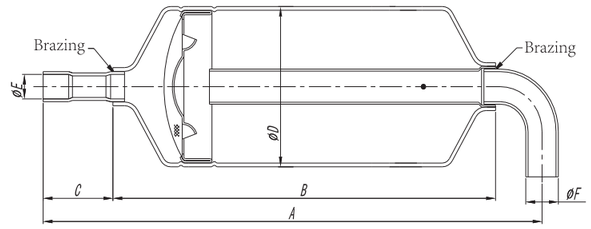
Features

◆Stable performance and high reliability

General spec.

◆Applicable refrigerant: R22，R502，R134a，R407A，R410A etc.
◆Applicable meidum temperature: -30℃~+120℃(-22℉~+248℉)
◆Applicable ambient temperature: -30%~+55℃(-22℉~+131℉)
◆Max. working pressure: 4.8MPa(700Psig)
◆Certification: UL

Technical Parameters



Model	D mm	B mm	A mm	C mm	Connection ΦE/ΦF	Connec-tion Type
KCY-XX20XXX	20	58~300	100~400	20~100	Φ6.35~Φ20	Solder con-nection
KCY-XX31XXX	31.8					
KCY-XX40XXX	40					
KCY-XX48XXX	48					
KCY-XX50XXX	50.8					
KCY-XX54XXX	54.5					
KCY-XX57XXX	57.2					
KCY-XX64XXX	64					
KCY-XX75XXX	75					
KCY-XX80XXX	80					
KCY-XX90XXX	90					

Note:
1) The products listed are standard products whicn can be customized.
2) No moisture or other foreign impurities can enter the product during installation
3) During the brazing process, it is not allowed to directly heat the existing welding line which may cause leak.

Receiver
AC Series

(ZHONGSHAN CITY SANHUA REFRIGERATION COMPONENTS CO., LTD.)
Tel: 0086-760-22518980

Outline

The receiver is installed in front of the compressor to separate refrigerant and refrigeration oil and impurities not completely gasified by evaporators. It has functions of gas-liquid separation, liquid storage, oil return and noise reduction to ensure that the compressor would not be damaged by flood shock.

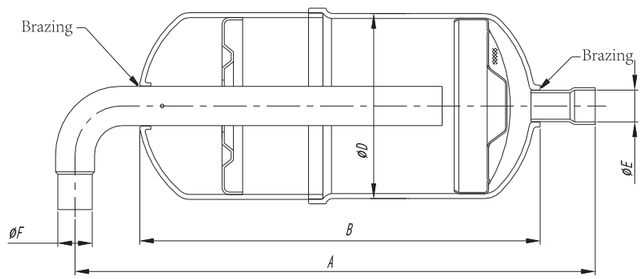
Features

◆Stable performance and high reliability

General spec.

◆Applicable refrigerant: R22，R502，R134a，R407A，R410A etc.
◆Applicable meidum temperature: -30℃~+120℃(-22℉~+248℉)
◆Applicable ambient temperature: -30℃~+55℃(-22℉~+131℉)
◆Max. working pressure: 4.8MPa(700Psig)
◆Certification: UL

Technical Parameters



Model	D mm	B mm	A mm	C mm	Connection ΦE/ΦF	Connec-tion Type
AC-XX55XXX	55	100~300	150~350	20~100	Φ9.53~Φ20	Solder con-nection
AC-XX65XXX	65					
AC-XX75XXX	75					
AC-XX80XXX	80					
AC-XX90XXX	90					

Note:
1) The products listed are standard products whicn can be customized.
2) No moisture or other foreign impurities can enter the product during installation
3) During the brazing process, it is not allowed to directly heat the existing welding line which may cause leak.

Compensator

Outline

Mainly used to store excessive refrigerant in air conditioners during cooling or heating (defrosting), and increase the temperature of refrigerant flowing into compressor to reduce the compressor load and improve system efficiency.

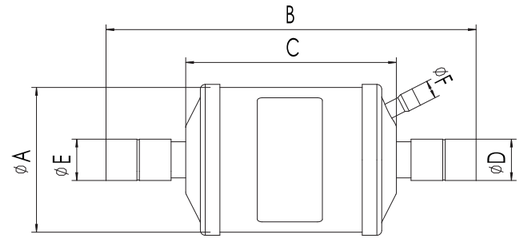
Features

◆Solid copper solder connection
◆Minimize pressure drop
◆Guarantee the Maximum working pressure
◆Powder coated surface can survive 500 hours of salt spray test

General spec.

◆Applicable refrigerant: HFC, HCFC, HC etc.
◆Applicable medium temperature: -30℃ ~ +120℃（-22℉～+248℉）
◆Applicable ambient temperature: -30℃~ +55℃（-22℉～+131℉）
◆Maximum working pressure: 4.8MPa
◆Certification: UL, CSA

Technical Parameters



Model	Dimensions						Connec-tion Type
	A mm	B mm	C mm	D in	E in	F in	
JYQ-A23070-001	89	182.6	84.6	7/8	7/8	3/8	Solder Con-nection
JYQ-A31070-001	89	206.7	108.7	7/8	7/8	3/8	
JYQ-A36070-001	89	226.5	128.5	7/8	7/8	3/8	
JYQ-A45070-001	89	258	160	7/8	7/8	3/8	
JYQ-A78070-001	89	358.4	260.4	7/8	7/8	3/8	

Note: The products listed are standard products which can also be customized.

Muffler

Outline

Mufflers are used in refrigerating systems such as household air conditioners or commercial air conditioners. Mufflers are installed in discharge line or other pipes to eliminate and alleviate noises and vibration.

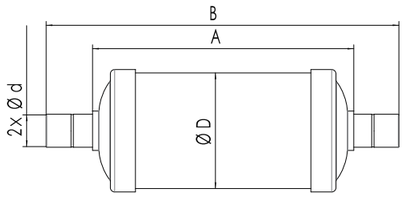
Features

◆Powder coated surface can survive 500 hours of salt spray test

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -30℃～+120℃（-22℉～+248℉）
◆Applicable ambient temperature: -30℃～+55℃（-22℉～+131℉）
◆Maximum working pressure: 4.8 MPa(700Psig)
◆Certification: UL, CSA

Technical Parameters



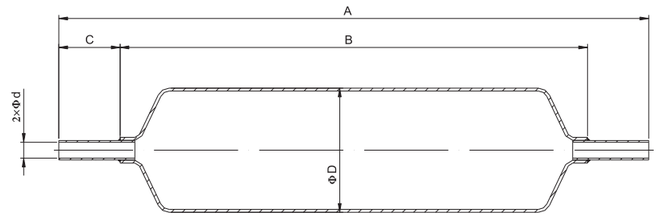
Regular Steel Muffler

Model	Dimensions					Connection Type
	D mm	A mm	B mm	d in	d in	
TXY-A12040-002	63	76.2	154.4	1/2	1/2	Solder Connection
TXY-A29040-001	76	115.6	163.8	1/2	1/2	
TXY-A49040-003	76	190.5	238.7	1/2	1/2	
TXY-A30040-003	76	123.9	231.9	1/2	1/2	

Note: 1) The products listed are standard products which can also be customized.
2) No moisture or impurities can get in during brazing process. The coated area can not be burnt during brazing.

Muffler

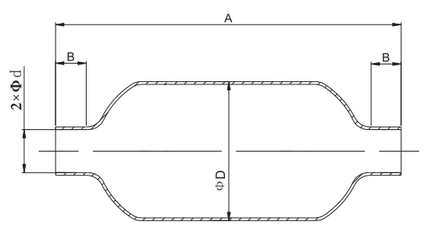
Technical Parameters



Spun Steel Muffler

Model	Dimensions					Connection Type
	D mm	B mm	A mm	C mm	d in	
XYQ-FXX025	25.4	70～330	120～450	25～150	1/2、1/4、3/8	Solder Connection
XYQ-FXX031	31.75	70～330	120～450	25～150	1/2、1/4、3/8	
XYQ-FXX035	35	70～330	120～450	25～150	1/2、1/4、3/8	
XYQ-FXX040	40	70～330	120～450	25～150	1/2、1/4、3/8	
XYQ-FXX048	48	90～330	120～450	25～150	1/2、1/4、3/8	
XYQ-FXX050	50.8	90～330	120～450	25～150	1/2、1/4、3/8	
XYQ-FXX065	65	130～330	120～450	25～150	1/2、1/4、3/8	

Note: 1) The products listed are standard products which can also be customized.
2) No moisture or impurities can get in during brazing process. The coated area can not be burnt during brazing.



Spun Copper Muffler

Model	Dimensions				Connection Type
	D mm	B mm	A mm	d in	
XYQ-CXX025	25.4	5～15	70～330	1/2、1/4、3/8	Solder Connection
XYQ-CXX030	30	5～15	70～330	1/2、1/4、3/8	
XYQ-CXX031	31.75	5～15	70～330	1/2、1/4、3/8	
XYQ-CXX035	35	5～15	70～330	1/2、1/4、3/8	
XYQ-CXX041	41.3	5～15	90～330	1/2、1/4、3/8	
XYQ-CXX048	48	5～15	90～330	1/2、1/4、3/8	
XYQ-CXX050	50.8	5～15	90～330	1/2、1/4、3/8	

Note: The products listed are standard products which can also be customized.

Muffler
XYQ Series

Outline

Muffler is used in piping line to reduce vibration and noise.

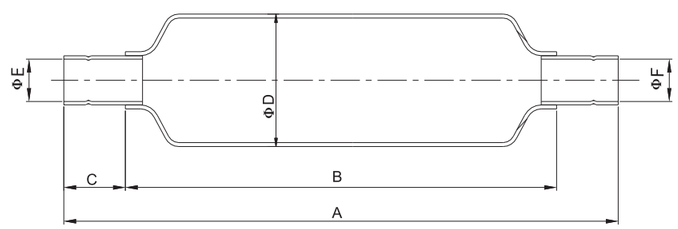
Features

◆Spun without welding

General spec.

◆Applicable refrigerant: R22，R502，R134a，R407A，R410A etc.
◆Applicable meidum temperature: -30℃~+120℃(-22℉~+248℉)
◆Applicable ambient temperature: -30%~+55℃(-22℉~+131℉)
◆Max. working pressure: 4.8MPa(700Psig)
◆Certification: UL

Technical Parameters



Model	D mm	B mm	A mm	C mm	Connection ΦE/ΦF	Connec-tion Type
XYQ-XX28XXX	28.6	60~300	100~350	20~100	Φ9.53~Φ20	Solder Con-nection
XYQ-XX30XXX	30					
XYQ-XX31XXX	31.8					
XYQ-XX40XXX	40					
XYQ-XX50XXX	50.8					
XYQ-XX65XXX	65					

Note:
1) The products listed are standard products whicn can be customized.
2) No moisture or other foreign impurities can enter the product during installation
3) During the brazing process, it is not allowed to directly heat the existing welding line which may cause leak.

Sight Glass

Outline

Sight glass is installed after the filter drier in refrigerating systems, which is used to observe moisture change in the refrigerating system, indicate the moisture level by colors, and remind timely replacement of relevant parts of the filter drier.

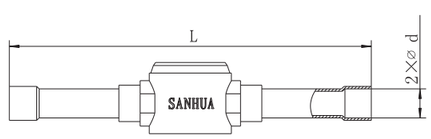
Features

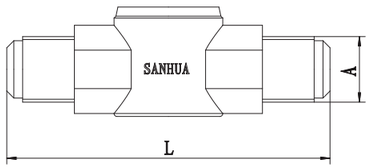
◆Contamination-free structure: The indicator is pasted closely to the glass to prevent surface contamination
◆High precision color indicator
◆The brass material is solid and corrosion resistant
◆Using high clear sight glass of wide angle
◆Using low creep PTFE at sealing position to ensure no leakage

General spec.

◆Applicable refrigerant: CFC, HCFC, HFC etc.
◆Applicable medium temperature: -50℃~+120℃（-58℉~+248℉）
◆Applicable ambient temperature: -50℃~+80℃（-58℉~+176℉）
◆Maximum working pressure: 4.2MPa
◆Certification：UL, CSA

Technical Parameters





Model	d		L mm	Connec-tion Type
	in	mm		
SYJ-A00040-000	1/4	/	101	Solder
SYJ-A00061-000	/	6	101	Solder
SYJ-A00060-000	3/8	/	119	Solder
SYJ-A00101-000	/	10	119	Solder
SYJ-A00080-000	1/2	/	146	Solder
SYJ-A00121-000	/	12	146	Solder
SYJ-A00100-000	5/8	16	146	Solder
SYJ-A00120-000	3/4	19	173	Solder
SYJ-A00140-000	7/8	22	173	Solder

Model	A		L mm	Connec-tion Type
	in	Metric		
SYJ-A02042-001	1/4	/	67	Thread
SYJ-A02063-001	/	M6	67	Thread
SYJ-A02062-001	3/8	/	82	Thread
SYJ-A02103-001	/	M10	82	Thread
SYJ-A02082-001	1/2	/	88	Thread
SYJ-A02123-001	/	M12	88	Thread
SYJ-A02102-001	5/8	/	104	Thread
SYJ-A02163-001	/	M16	104	Thread
SYJ-A02122-001	3/4	/	110	Thread

Note: The products listed are standard products which can also be customized.

Pressure Vessel

Outline

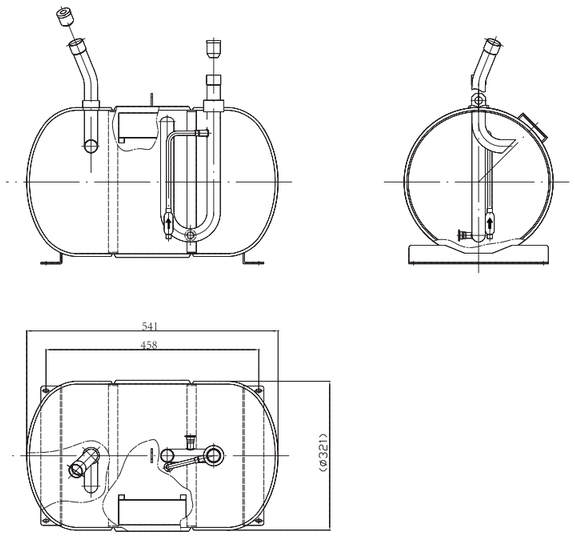
Features

◆The design, manufacturing and inspection is based on NB/T 47012 and TSG R0004 standard
◆The welding is governed by JB/T 4709
◆The inspection of welding line is governed by Grade II in JB/T 4730.2 with x-ray
◆The pressure test is following NB/T 47012

General spec.

◆Type of the vessel: D2
◆Maximum operating pressure: 10 MPa
◆Material of the main pressure parts: Carbon Steel and stainless steel
◆Applicable refrigerant: as per customer
◆Diameter range of body: Φ 150～Φ700 mm
◆Maximum length of the product: 4000 mm

Technical Parameters



Note: The products listed are standard products which can also be customized.

Piping Assembly

Outline

Piping assembly is applicable for heat pump air conditioning systems such as room air conditioners to provide flow path for refrigerant.

General spec.

◆Applicable refrigerant: R22, R407C, R410A etc.
◆Applicable medium temperature: -30℃～+120℃
◆Maximum working pressure R22, R407C: 3MPa
R410A: 4.2MPa

Technical Parameters

Item	Refrigerant	Standard
Content of undissolved impurites	R22	⩽5mg
	R407C	⩽5mg
	R410A	⩽5mg
Content of mineral oil	R22	⩽20mg
	R407C	⩽15mg
	R410A	⩽15mg
Content of chloride ion	R22	/
	R407C	⩽5PPM
	R410A	

Dimensions

Due to the particularity of pipe components, the installation position, product structure and connection size required by different customers differs, even those required by different model of products of one customer differs. Therefore, product structure and interface size are varied subject to the specific customer and product model.

Iron Piping Assembly for Air Conditioners

Outline

Iron piping assembly is applicable for room air conditioners to provide flow path for refrigerant.

Features

◆Coating can be black or copper color
◆Cost-effective design compared with copper

General spec.

◆Applicable refrigerant: R22, R407C, R410A,etc.
◆Applicable medium temperature: -30℃～+120℃
◆Maximum working pressure R22, R407C: 3.0MPa
R410A: 4.2MPa

Technical Parameters

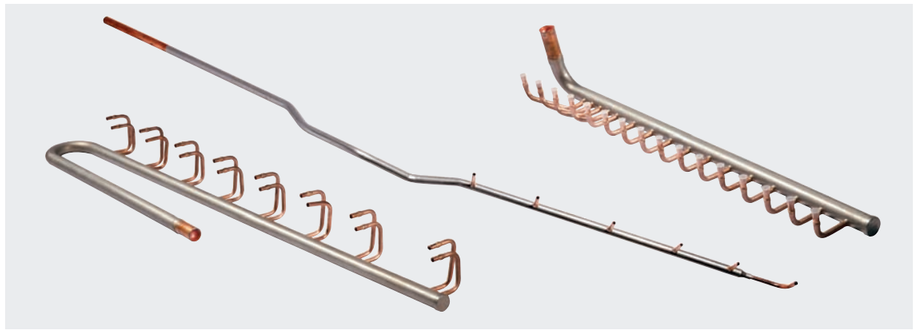
Item	Refrigerant	Standard
Paint Film Thickness	R22	Area of Dropped Paint≤15%
	R407C	
	R410A	
Paint Film Adhesion	R22	≥2H
	R407C	
	R410A	
Paint Film Hardness	R22	≥50um
	R407C	
	R410A	
Salt Spray test	R22	≥240h
	R407C	
	R410A	

Dimensions

Note:
1) Due to the particularity of pipe components, the installation position, product structure and connection size required by different customers differs, even those required by different model of products of one customer differs. Therefore, product structure and interface size are varied subject to the specific customer and product model.
2) No moisture or impurities can get in during brazing process. The coated area can not be burnt during brazing.

Stainless Steel Piping Assembly for Air Conditioners

Outline



Stainless steel piping assembly is applicable for refrigerating system such as central air conditioners to provide flow path for refrigerant.

Features

◆Durability against corrosion
◆Clean and environment-friendly
◆Endurance against pressure

General spec.

◆Applicable refrigerant: R22, R407C, R410A,etc.
◆Applicable medium temperature: -30℃～+120℃
◆Maximum working pressure: R22, R407C: 3.0MPa
R410A: 4.2MPa

Technical Parameters

Item	Refrigerant	Standard
Salt Spray test	R22	≥1000h
	R407C	
	R410A	

Dimensions

Due to the particularity of pipe components, the installation position, product structure and connection size required by different customers differs, even those required by different model of products of one customer differs. Therefore, product structure and interface size are varied subject to the specific customer and product model.

Solenoid Valve
BDF/KMV Bi-stable Solenoid Valve

Outline

BDF/KMV bi-stable solenoid valves are used in duel temperature/double control household refrigerators, deep freezers, wine cabinet, water dispenser and other similar small scale cooling systems to switch the flow path of refrigerants.

Features

◆Maintaining working conditions with pulse actuation and magnet latching mode
◆Good inner leakage performance
◆Low noise

General spec.

◆Applicable refrigerant: R600a, R134a etc.
◆Applicable medium temperature: -30℃ ~ +65℃
◆Ambient temperature: -20℃~ +60℃
◆Relative humidity: below 95% RH
◆Maximum working pressure: 2.5MPa

Technical Parameters

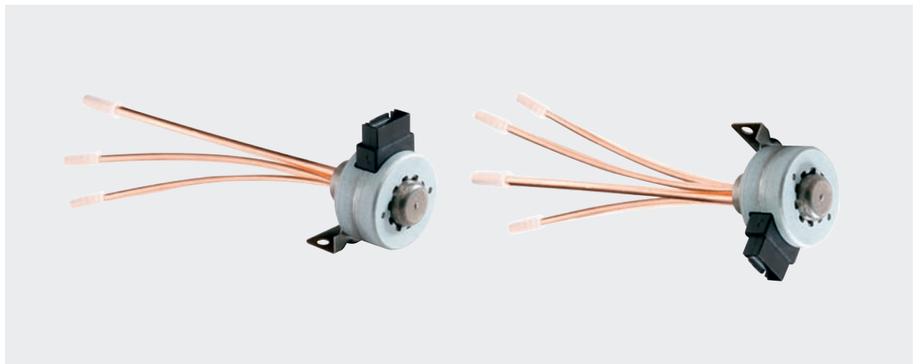
Model	Voltage V	Frequency Hz	Sealing Structure	Max. Opening Differential Pressure MPa	Air Flow L/h (△P=0.4MPa)	Inner Leakage ml/min (△P=0.4MPa)
BDF	AC110V~120V	50/60	Rubber	1.6	⩾1000	⩽10
KMV	AC220V~240V		Steel ball	1.6	⩾1000	＜83.3

Dimensions

Product structure and interface dimensions can be customized according to customers' requirements.

Step Valve
DDF Series

Outline



DDF series step valves are mainly used in duel temperature/double control household refrigerators with variable temperature areas (with 0℃ preservation area or -7℃ temperature area) and similar refrigeration systems for controlling and switching the flow direction of refrigerant.

Features

◆Optimized design of refrigeration system, lower power consumption
◆Low operation noise: utilizing rotary actuation

General spec.

◆Applicable refrigerant: R600a and R134a
◆Applicable medium temperature: -20℃ ~ +65℃
◆Applicable ambient temperature: -20℃ ~ +60℃
◆Relative humidity: below 95%
◆Noise: Distance 15cm, starting noise ⩽ 50dB (A), rotary noise ⩽ 40dB (A)

Technical Parameters

Technical Parameters of Valve Body

Model	Port mm	Air Flow L/h (△P=0.8MPa)	Inner Leakage ml/min (△P=0.8MPa)	Max. Working Pressure MPa
DDF	0.8	⩾1500	150	2.5

Electrical Parameters of Coil

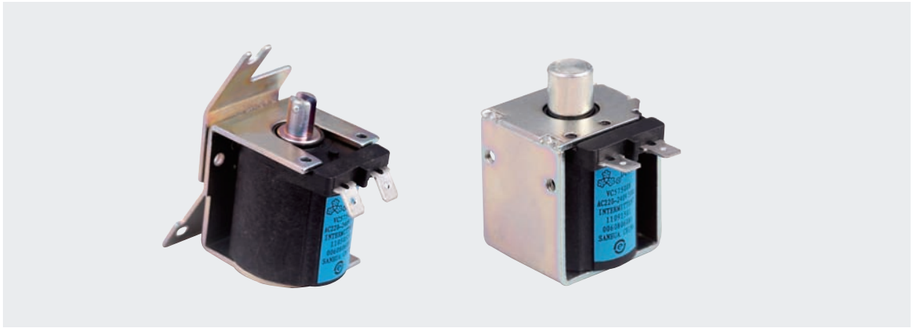
Resistance at 20℃ Ω	Rated Voltage V	Voltage Change	Rated Current When Unidirectional Winding is Powered mA	Max. Differential Pressure of Opening Valve MPa
46±3	DC12V	90%~110%	260	1.8

Dimensions

Product structure and interface dimensions can be customized according to the customers' requirements.

Door-opening Electromagnet
DCT Series

Outline



DCT series door-opening electromagnets are used to open and close ice access door. Intermittent energization: attracted when power on, and released when power off.

General spec.

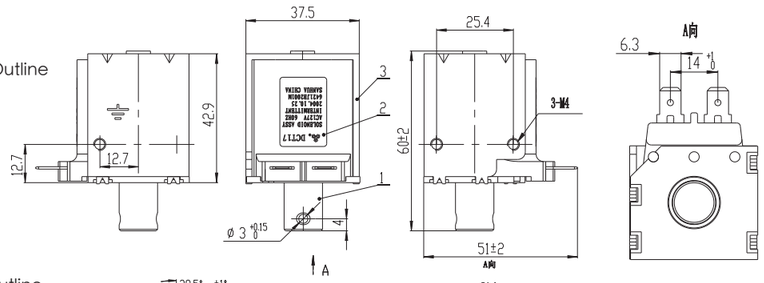
◆Applicable ambient temperature: -30℃ ~ +50℃ (but no condensation or icing is allowed)
◆Relative humidity: 30% ~ 90% RH
◆Certification: UL, DCT4/DCT5 acquired TUV certification

Technical Parameters

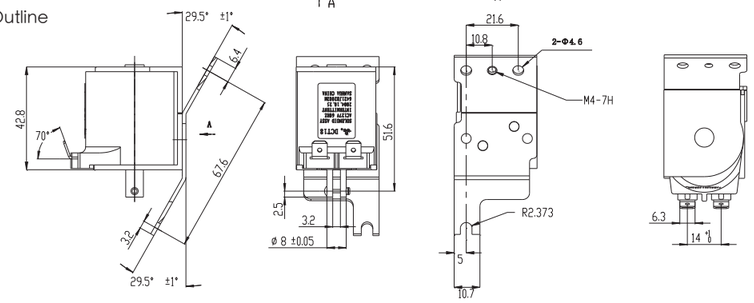
Model	Rated Voltage V	Frequency Hz	Power W	Ambient Temperature ℃	Working Stroke mm
DCT1	220±20%	60	41±10%	-30~0	18.5
DCT2	220±20%	60	26±10%	-30~+50	12
DCT4	240±20%	50	28±10%	-30~+50	12
DCT5	240±20%	50	45±10%	-30~0	18.5
DCT11	110±20%	60	38±10%	-30~0	18.5
DCT12	110±20%	60	26±10%	-30~+50	12
DCT13	220±20%	50/60	42/35±10%	-30~0	18.5
DCT14	220±20%	50/60	25/21±10%	-30~+50	12
DCT17	127±20%	60	43W±10%	-30~0	18.5
DCT18	127±20%	60	27W±10%	-30~+50	12

Dimensions

DCT1/5/11/13/17 17 Outline
Installation Diagram



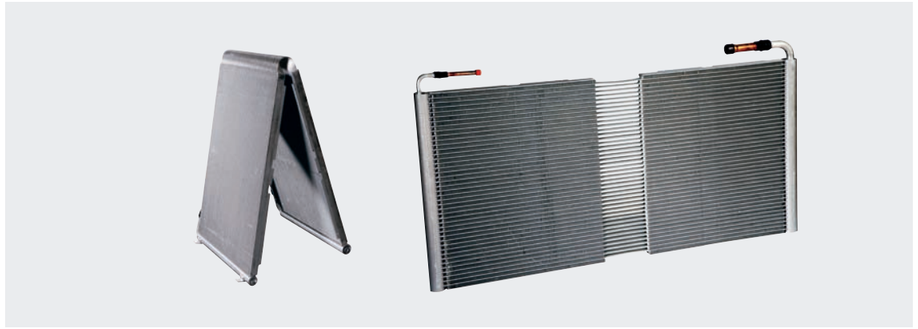
DCT2/4/12/14/1817 Outline
Installation Diagram



Micro Channel Evaporator

SANHUA (HANGZHOU) MICRO CHANNEL HEAT EXCHANGER CO., LTD.
Tel: 0086-571-86672399 Http://www.sanhuamc.com Email: sales@sanhuamc.com

Outline



Micro Channel evaporator is applicable in residential or commercial cooling air conditioning system as well as refrigeration. Unique A-coil design allows refrigerant flow without restriction.

Features

◆MCHE is more applicable in R410a environment.
◆50% reduction of refrigerant charge
◆30% more heat transfer efficiency than copper tube and fin
◆30% lower air flow resistance
◆50% less space and MCHE is lighter
◆All aluminum heat exchanger can be easily recycled and more environment friendly
◆100% welding, less performance attenuation
◆100% aluminum more compatible with electrochemical corrosion
◆Special tube bending design for A-Coil
◆Special design of distribution channel guarantees even distribution.
◆Special design of fins facilitate draining condensing water

General spec.

◆Applicable Refrigerant: R410A、R134A、R22、R407C、R404A
◆Applicable medium temperature：-30° C~+121° C (-22℉ ~ +250℉)
◆Applicable ambient temperature：-30° C~+72° C (-22℉ ~ +161.6℉)
◆Max. working pressure：4.5MPa

Dimensions

Customized.

Outline

Micro channel condenser is applicable in residential or commercial cooling air conditioning system as well as refrigeration

Features

◆MCHE is more applicable in R410a environment
◆50% reduction of refrigerant charge
◆30% more heat transfer efficiency than copper tube and fin
◆30% lower air flow resistance
◆50% less space and MCHE is lighter
◆All aluminum heat exchanger can be easily recycled and more environment friendly
◆100% welding, less performance attenuation
◆100% aluminum more compatible with electrochemical corrosion

General spec.

◆Applicable Refrigerant: R410A, R134A, R22, R407C, R404A
◆Applicable medium temperature: -30° C~121° C (-22℉ ~ 250℉)
◆Applicable ambient temperature: -30° C~72° C (-22℉ ~ 161.6℉)
◆Max. working pressure: 4.5MPa

Technical Parameters

Model	Air Volume (CFM)	Heat Rejection(BTU/H)			DP (air side) in H_2O
		131°F	120.2°F	109.4°F	
SH011	130	3410	2390	1360	0.077
	220	5120	3750	1710	0.148
	320	6820	4440	2390	0.224
	410	8530	5460	3070	0.306
SH029	320	9210	5460	3410	0.117
	550	14330	9890	4780	0.225
	770	19450	12620	5800	0.343
	990	23540	15010	8190	0.466
SH051	560	16720	11260	6140	0.076
	960	25250	17400	9550	0.147
	1350	32070	21840	12280	0.223
	1740	37870	25930	14670	0.303
SH059	640	19110	13310	7510	0.076
	1090	29000	20130	11260	0.146
	1540	37190	25590	14330	0.223
	1980	44010	30370	17060	0.303
SH091	1010	30030	20810	11940	0.076
	1720	44700	31050	17740	0.146
	2430	55960	38560	22180	0.223
	3130	64830	45040	25930	0.303

Model	Air Volume (CFM)	Heat Rejection(BTU/H)			DP (air side) in H_2O
		131°F	120.2°F	109.4°F	
SH113	1080	34800	23880	14330	0.171
	1840	53910	38560	22860	0.329
	2600	69600	49130	28660	0.500
	3350	83940	58690	34800	0.680
SH151	1450	47770	32410	18770	0.171
	2470	75060	51520	29000	0.329
	3480	97920	67560	37190	0.500
	4480	117710	80860	44360	0.680
SH156	1700	51180	35140	19450	0.076
	2900	77790	53230	30030	0.146
	4090	99630	68240	38210	0.223
	5270	118060	80860	45380	0.303
SH226	2510	75060	51860	29680	0.076
	4280	111570	77110	44360	0.146
	6040	139550	96560	55620	0.223
	7780	162750	112250	64830	0.303
SH236	2290	71990	50500	30030	0.171
	3910	113960	80520	45720	0.329
	5510	151150	105430	60050	0.500
	7100	183570	128290	74380	0.680

Testing Conditions:
1. Refrigerant: R410A 2. Condensing Temperature: 55℃, 49℃和43℃
3. Superheat at inlet: 33℃ 3. Supercol at outlet: 3℃ 4. Inward flow temperature: Dry ball 35℃, Wet ball 24℃

Micro Channel Evaporator
SANHUA (HANGZHOU) MICRO CHANNEL HEAT EXCHANGER CO., LTD.
Tel: 0086-571-86672399 Http://www.sanhuamc.com Email: sales@sanhuamc.com

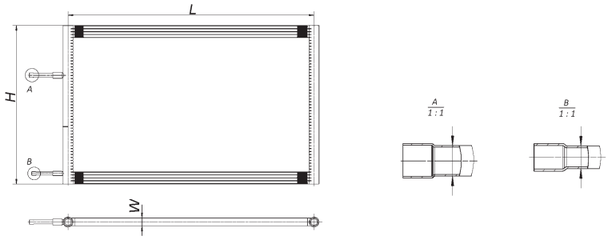
Technical Parameters

Model	Air Volume (CFM)	Heat Rejection(BTU/H)			DP (air side) in H_2O
		131°F	120.2°F	109.4°F	
SH306	2910	96560	66880	37870	0.171
	4960	151490	104410	58690	0.329
	7000	196870	136140	77790	0.500
	9010	235770	162750	93150	0.680
SH316	3710	107820	74720	43330	0.076
	6340	155250	107820	63120	0.146
	8940	189710	132390	77450	0.223
	11510	217000	150470	88710	0.303
SH362	3920	120780	83590	47770	0.142
	6700	178450	123510	70970	0.272
	9450	222120	153540	88710	0.414
	12170	256580	177420	102700	0.563
SH367	3450	115670	78820	45040	0.171
	5900	182200	125220	69950	0.329
	8330	238500	164120	90420	0.500
	10720	287290	197550	107820	0.680

Model	Air Volume (CFM)	Heat Rejection(BTU/H)			DP (air side) in H_2O
		131°F	120.2°F	109.4°F	
SH422	4140	135120	94170	54590	0.171
	7070	207110	143990	83940	0.329
	9970	264090	183570	107140	0.500
	12840	310150	215640	125900	0.680
SH429	3940	134430	94850	55270	0.171
	6740	207450	146370	83940	0.329
	9510	269890	189710	110550	0.500
	12240	324140	227920	133070	0.680
SH506	6990	176060	122150	71650	0.142
	11940	248730	172650	101340	0.272
	16850	298550	207110	121810	0.414
	21690	330280	231670	136820	0.563
SH702	6070	227580	158320	91100	0.171
	10380	343930	239520	140230	0.329
	14640	432980	301960	177420	0.500
	18850	503950	352120	207110	0.680

Testing Conditions:
1. Refrigerant: R410A 2. Condensing Temperature: 55℃, 49℃和43℃
3. Superheat at inlet: 33℃ 3. Supercol at outlet: 3℃ 4. Inward flow temperature: Dry ball 35℃, Wet ball 24℃

Dimensions

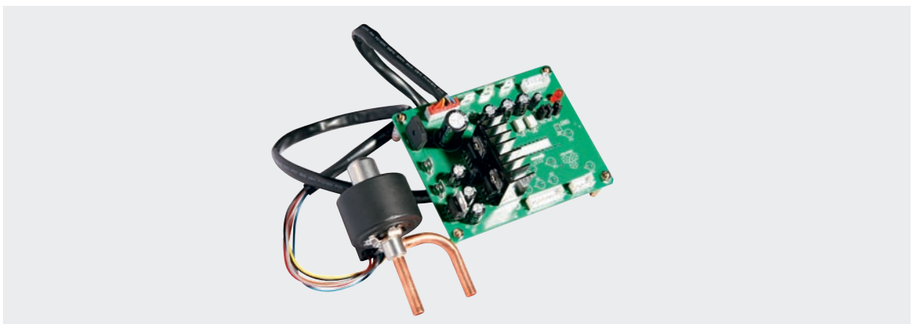


Model	Nominal Heat Rejection (BTU/H)	Coil Height (L)	Coil Length (H)	Tube Width (W)	Pass	Fin Density (FPI)	Inlet Diamet	Outlet Diameter
SH011	3750	6.0	12.6	0.6	2	23	1/2	3/8
SH029	9890	13.0	14.2	0.8	2	23	3/8	3/8
SH051	17400	15.6	20.7	0.6	4	23	3/8	3/8
SH059	20130	18.2	20.3	0.6	4	23	1/2	3/8
SH091	31050	19.7	29.5	0.6	4	23	3/8	3/8
SH113	38560	16.3	38.1	1.0	4	23	3/4	1/2
SH151	51520	19.7	42.3	1.0	2	23	1/2	1/2
SH156	53230	25.6	38.2	0.6	2	23	1/2	3/8
SH226	77110	23.8	60.8	0.6	2	23	1/2	3/8
SH236	80520	25.3	52.1	1.0	2	23	5/8	1/2
SH306	104410	31.9	52.4	1.0	2	23	5/8	1/2
SH316	107820	27.8	76.8	0.6	2	23	1/2X2	3/8
SH362	123510	38.0	59.4	0.7	2	23	5/8	3/8
SH367	125220	47.1	42.3	1.0	2	23	7/8	7/8
SH422	143990	29.7	80.3	1.0	2	23	5/8	3/8
SH429	146370	38.2	59.5	1.0	3	23	5/8	3/8
SH506	172650	36.0	97.2	0.7	2	23	1/2	3/8
SH702	239520	47.8	84.2	1.0	2	23	3/4x3	3/8x2

Connect tube: Copper tube or Aluminum tube

Controller for Electronic Expansion Valve

Outline



Electronic expansion valve controller is applicable for cooling systems such as room air conditioners, commercial air conditioners and freezers which is the core component for refrigerant flow control.

Features

◆High sharing design，use both temperature sensor or pressure sensor to collect signal
◆Integrated with advanced system control solution and the parameters are adjustable
◆Use feedback of superheat to control, PID calculation control and protection control or defrost control

General Spec

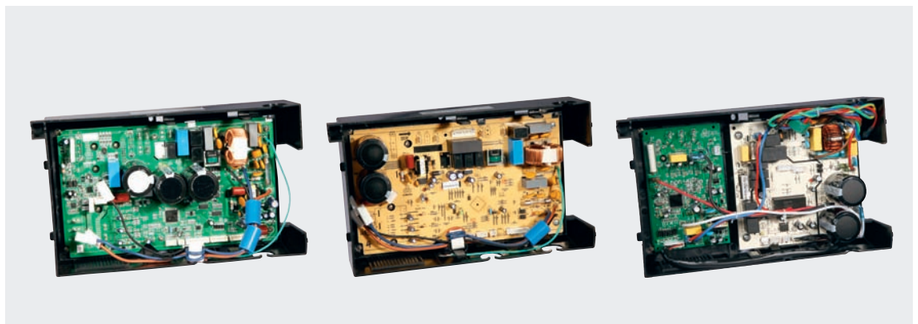
◆Rated Voltage: DC12V+10%,AC24V+10%,AC100V~AC240V
◆Applicable frequency: 50Hz, 60Hz
◆Applicable electronic expansion valve: Q, O, S, R, T
◆Applicable port size of electronic expansion valve:1.3mm~6.5mm
◆Applicable excitation:1~2 Phase, 2~2 Phase

Technical Parameters

Item \ Shared Model	Only cooling / Heat pump AC
Construction mode	One-unit, duel-panel FR-4 design
Ambient temperature and humidity	-20℃～+70℃、10%～95%
Storage environment temperature and humidity	-30℃～+85℃、10%～95%
Rated Electric Input Power	20VA
Max. Electric Input Power	30VA
Size	90x70mm 100x80mm、110x90mm、available for customization as per customers' needs
Certification	3C、CE、ETL、TUV、UL(including EMC)

Residential Inverter Controller

Outline



Residential inverter controller is applicable for controlling room air conditioners including heat pump air conditioning systems, which is the core component of inverter air conditioners.

Features

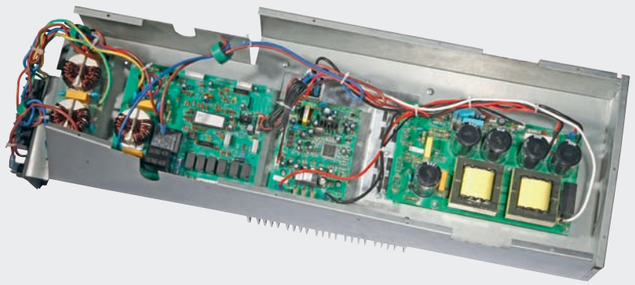
◆Integratd system control, performance, electronic conrol; provide higher performance and lower energy consumption as a whole solution
◆ Equipped with DC inverter 180° sine wave control, full active PFC control, torque compensation and low voltage improvement
◆All comply with EMC and other safety testing, full frequency in accordance with national export standard

Technical Parameters

Item \ Nominal Refrigerating Capacity	1HP	1.5HP	2HP	3HP
Frequency Range	Passive PFC 15Hz~80Hz/ Active PFC 12Hz~120Hz			
Power Factor	Passive PFC:0.85~0.93 Partial PFC:0.93~0.97 Full Active PFC:0.97~0.997			
Structure	Monolithic design or Intersected design			
Compressor actuating method	150° wide-angle actuating/Sine wave actuating/Sine wave act uating			
Outdoor blower	DC blower/AC blower			
Throttle mode	Electronic expansion valve/capillary tubes			
Actuating compressor	GMCC, Panasonic, Hitachi, Sanyo, MITSUBISHI etc.			
Certification	3C/CE/ETL/TUV(including EMC)			

Air Conditioning Controller Assembly
Inverter Controller for Large System

Outline



Inverter controller for large System is mainly used to control whole electric control systems such in outdoor unit as commercial or multiple inverter air conditioners. They not only realize frequency conversion control over DC converter compressor, but also control all kinds of electric parts such as outdoor blowers, electronic expansion valves and solenoid valves, greatly improving the efficiency of the whole system.

Features

◆Equipped with DC inverter 180° sine wave control, full active PFC control, torque compensation and low voltage improvement

◆Equipped with circuits for both electronic expansion valve and DC inverter blower in order to improve the overal performance

◆Passing EMC tests with the whole frequency meeting national and relevant export standards

General spec.

◆Applicable voltage: single phase 220V±25%

◆Frequency conversion range: 15~120Hz

◆Temperature control accuracy: ±1°

◆Specifications of controllers: 1-with-4, 1-with-3, 1-with-2 and 1-with-1 (max. 5HP)

◆Compatible indoor units: wall mounted air conditioners, cabinet air conditioners, ceiling air conditioners and duct type air conditioners

Air Conditioning Controller Assembly
Inverter Controller for HP Water Heater

Outline

Inverter Controller for HP Water Heater is used to realize overall control of the outdoor unit of heat pump and water heating system. Energy efficiency of whole water heating system can be greatly improved by actuating frequency conversion control over DC converter compressor and electrical parts such as outdoor blower, electronic expansion valve and solenoid valves. Normally, the efficiency can be up to 3.2 with incomparable energy saving advantages over other water heating methods.

Features

◆ Intelligent anti-freezing protection

◆ Multiple-stage switch timer, tank temperature control, temperature check, malfunction check

◆ Equipped with DC inverter 180° sine wave control, full active PFC control, torque compensation and low voltage improvement

◆ Equipped with circuits for both electronic expansion valve and DC inverter blower in order to improve the overal performance

◆Passing EMC tests with the whole frequency meeting national and relevant export standards

General spec.

◆Applicable voltage: single phase 220V±25%, 3-phase 380V±15%

◆Frequency conversion range: 15~150Hz

◆Water heating temperature: 0~+55℃

◆Water temperature control accuracy: ±0.5°

◆Specifications of controllers: inverter 3HP, inverter 5HP; inverter 3HP+fixed frequency 3HP, inverter 5HP + fixed frequency 5HP

浙江三花股份有限公司
ZHEJIANG SANHUA CO., LTD.

Add: Xinchang, Zhejiang, China
Tel: 0086-575-86225959
Fax: 0086-575-86223483 86221855 86227971
P.C.: 312500
Website: http://www.zjshc.com

Business Loc.: Europe

Sanhua International Europe S.L.
Add: Jose Celestino Mutis, 4 - 2l
28703 San Sebastian de los Reyes - Madrid Spain
TEL: 0034-91-654-46-92 FAX: 0034-91-123-03-08

Business Loc.: America

Sanhua International
Add: 8400 Industrial Parkway, Plain City, OH 43064,U.S.A.
TEL: 001-614-873-7400 FAX: 001-614-873-7018

Business Loc.: Asia- Pacific

Nihon Sanhua Trading Co., Ltd.
Add: Shinwa Building 502, 3-20-8 Nishinakajima, Yodogawa-Ku, Osaka, Japan
TEL: 0081-6-6101-0381 0081-5-4205-8118
FAX: 0081-6-6101-0382 0081-5-4205-8117

Thailand Office
Add: 633/76 Moo Ban Roong Ruang Ladprad Road SO180(Chantina22)Wangthong larng Bangkok 10310 Thailand
TEL: 0066-29327561 FAX: 0066-29355743

Business Loc.: Korea

Sanhua International Korea Co., Ltd.
Add: Room 1608 Tower A, Hanwha Centum O/T, 1484, W002-Dong, Haeundae-Gu, Busan City, Korea
TEL: +82-51-747-2653 FAX: +82-51-747-2651

Business Loc.: China

Gree Office
Tel: 18605859933
Midea Office
Tel: 18605859929
Qingdao Office
Tel: 18605859918
Hefei Office
Tel: 18605859926
Shanghai Office
Tel: 18605859922
Panyu Office
Tel: 18605859896
Shunde Office
Tel: 18605859949

Business Loc.: China CR

Guangdong Office
Tel: 18605859958
Shanghai Office
Tel: 18605859910
North Office
Tel: 18605859956
Agent Office
Tel: 18605859768
Commercial Hotline
Tel: 400-0575-333

2012.06

三花股份
SANHUA CO., LTD.

Intelligent HVAC&R Flow Control Solutions