

# Air Cooled Semi Hermetic Condensing Units From 1 To 40HP

Designed For Highly Efficient And Reliable Operation



**Copeland**<sup>®</sup>  
brand products

  
**EMERSON**<sup>™</sup>  
Climate Technologies

## Semi- Hermetic Air-cooled Condensing Units

For many years, users of Copeland™ semi hermetic condensing units have relied on Emerson Climate Technologies to provide high performance and value to the market. Emerson Climate Technologies is committed to continuous technical development while maintaining the traditional values of Copeland™ for refrigeration.

The Semi-hermetic condensing units are manufactured at our Cold Chain & Distribution Center, Chakan, Pune. With this release, we offer the widest range of choice for new family of condensing units in the semi hermetic technology from our India manufacturing plant for commercial and industrial applications. With Local Manufacturing & Stocking, Our customers will now be able to get the units with faster lead times and customized products according to their requirement. They feature excellent quality and are traditionally well

known in the refrigeration industry.

This product selection catalogue provides a full listing of the semi-hermetic condensing unit range for 50Hz operation. Long engineering and manufacturing experience lead to these condensing units, which are manufactured in one of the most advanced facilities in India.



### Range:

#### Two versions are available:

**Standard units:** Available from 1 to 20HP; economically priced and based on K, L, 2S, 3S and 4S compressors, using reed valve technology. The models come with a large sized condenser, suitable for extreme conditions like high evaporating and/or high ambient temperatures. All units are fit for both medium and low temperature applications.

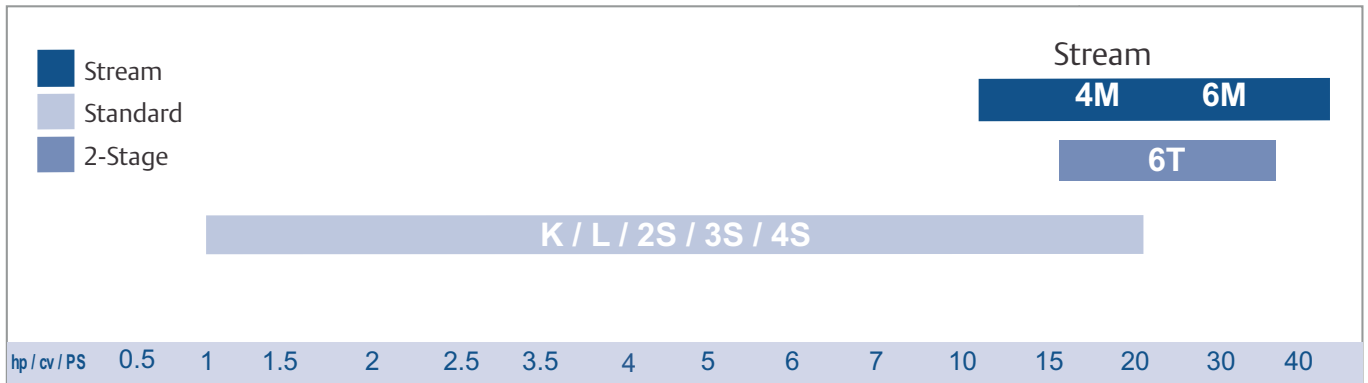
**Copeland Stream™ units:** Available from 13-40HP featuring High Efficiency Discus® valve compressor technology, covering models from 13 to 40 hp. For specific models, they come with a high ambient version featuring a large sized condenser, suitable for extreme conditions. These units are specifically suitable for those applications where high efficiency is required.

**2-Stage units:** Available from 15 to 25HP; For very low temperature applications, units with 2-stage compressors in the range of 15 to 25 hp are available.



## General Information

### Product Range



### Model Designation

V9	3	S	C	750	AWM
1	2	3	4	5	6
1	Condenser type				
2	Number of cylinders				
3	Compressor type K / L / S =Standard compressor M =Stream T =2-Stage				
4	Displacement, Valve plate, store, bore				
5	Motor size X = Ester oil O = Mineral oil				
6	Motor version				

1) DTC Discharge gas temperature protection valve

2) Demand cooling

## General Information

### Compressor Motors

Motor-Version	Voltage	Connection
		Δ
AWM	380-420 / 3 / 50	YY/Y
EWL	380-420 / 3 / 50	Y

YY/Y =Part-winding-start

## Scope of Supply:

Semi Hermetic Condensing Units	Standard Series	Stream Series
HP/LP Switch Mounted	✓	✓
Liquid Reciever With Shut Off Valve	✓	✓
Connection For Relief Valve	✓	✓
Electrical Box	✓	✓
Compressor		
Compressor With Rotalock Connections	✓	✓
Oil Sight Glass	✓	✓
Crankcase Heater	✓	✓
Coresense Diagnostics		✓
Ester Oil Charge	✓	✓
Differential Oil Pressure Switch	✓	✓

### Optional Accessories

"The Semi-Hermetic Condensing Unit offers a wide range of different optional accessories:"

- Liquid Reciever With Larger Capacity
- Oil Seperator
- Canopy
- Unloaded start
- Fan speed controller
- Filter Drier
- Capacity Control

## Copeland™ Standard Semi Hermetic Compressors (K, L, 2S & 3S) for 1-20HP

This series is equipped with compressors using reed valve technology which provide 1 to 20 HP motor power. The wide range of models offers solutions for most applications including operation in extreme conditions like high evaporation temperatures and high ambient temperatures.

The Salient features of these Units are

- Standard equipment
- Multiple choice of refrigerants incl. R404A, R134a and R22
- Robust design with good component accessibility
- Wide range of quality accessories
- Proven reliability



## Copeland™ Stream four and six cylinders compressors (4M,6M) for 13-40HP With Discus Technology

Copeland™ Stream Condensing Units are Emerson Climate Technologies latest innovative development in the semi-hermetic unit segment. This platform responds to advanced system requirements focusing on efficiency, refrigerant flexibility and reliability.



## Energy Savings Through Superior Efficiency

With increasing energy costs, system efficiency became the key driver to cut life cycle costs of the installation. Thus energy efficiency is at the forefront of new product design at Emerson.

- The unique Discus™ valve technology improves the efficiency of the Stream compressor
- Generously sized condensers lower the condensing pressure and increase savings

## Multiple Refrigerant Approvals Increasing Flexibility for System Design

Refrigerants are usually chosen by application, costs and environmental impact. With more refrigerants in the market it becomes more important that a system can operate as flexibly as possible. Stream units are approved for operation with R404A, R134a, R407A, R407C, R407F and R22. The benefits are:

- One model fits all refrigerants (universality)
- Design flexibility
- Less variation of refrigeration equipment
- Easier logistics & lower stock levels

## Maximum Reliability Through CoreSense™ Diagnostics

Besides durable design and the precisely adjusted components CoreSense further improves reliability featuring added protection and diagnostics:

- Motor overheat protection
- Oil level protection
- High discharge temperature protection
- Advanced motor protection against single phasing, locked rotor and voltage imbalance
- Alarm history
- LED status display





# Standard – R22

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)	Evaporating Temperature (°C)												
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
B8-KJ-10X	Capacity kW	27	0.57	0.77	1.02	1.32	1.67	2.06	2.5	2.98	3.5	4.05	4.28	4.63	4.94
		32	0.51	0.7	0.94	1.22	1.55	1.92	2.34	2.79	3.28	3.81	4.03	4.36	4.65
		38	0.44	0.62	0.84	1.1	1.41	1.76	2.14	2.57	3.03	3.52	3.73		
		43	0.39	0.55	0.76	1.01	1.29	1.62	1.98	2.38	2.82				
		46	0.35	0.51	0.71	0.95	1.22	1.54	1.89	2.27					
	49		0.47	0.66	0.89	1.15	1.46	1.79							
	Total Power Input kW	27	0.59	0.66	0.75	0.84	0.93	1.02	1.12	1.23	1.34	1.46	1.51	1.58	1.65
		32	0.59	0.67	0.76	0.85	0.95	1.06	1.17	1.28	1.4	1.54	1.59	1.67	1.75
		38	0.59	0.68	0.77	0.87	0.98	1.09	1.22	1.34	1.48	1.62	1.68		
		43	0.58	0.67	0.77	0.88	1	1.12	1.25	1.39	1.53				
46		0.58	0.67	0.77	0.89	1	1.13	1.27	1.41						
49		0.67	0.77	0.89	1.01	1.14	1.29								
D8-KSJ-15X	Capacity kW	27		1.08	1.4	1.8	2.26	2.79	3.37	4.01	4.7	5.44	5.75	6.23	
		32	0.75	0.99	1.3	1.67	2.11	2.61	3.17	3.77	4.43	5.13	5.43	5.88	
		38	0.67	0.89	1.18	1.53	1.94	2.4	2.92	3.49	4.11				
		43	0.6	0.81	1.08	1.41	1.79	2.23	2.72	3.26					
		46	0.56	0.76	1.02	1.34	1.71	2.13	2.6	3.12					
	49	0.52	0.71	0.96	1.26	1.62	2.03	2.48	2.98						
	Total Power Input kW	27	0.89	0.98	1.08	1.18	1.28	1.39	1.49	1.58	1.67	1.71	1.75		
		32	0.8	0.89	1	1.11	1.22	1.34	1.46	1.57	1.68	1.79	1.82	1.88	
		38	0.79	0.9	1.01	1.14	1.27	1.4	1.53	1.66	1.79				
		43	0.78	0.9	1.02	1.16	1.3	1.44	1.59	1.73					
46		0.77	0.89	1.02	1.17	1.31	1.46	1.62	1.77						
49	0.76	0.89	1.03	1.17	1.33	1.49	1.65	1.81							
H8-KSL-20X	Capacity kW	27	1.16	1.57	2.06	2.63	3.29	4.04	4.88	5.83					
		32	1.05	1.45	1.91	2.46	3.08	3.79	4.6	5.5					
		38	0.93	1.3	1.74	2.25	2.83	3.5	4.26						
		43	0.83	1.19	1.6	2.08	2.63	3.26							
		46	0.78	1.12	1.52	1.98	2.51	3.12							
	49	0.72	1.05	1.44	1.88	2.4									
	Total Power Input kW	27	1.15	1.31	1.47	1.62	1.78	1.93	2.09	2.23					
		32	1.15	1.32	1.49	1.67	1.85	2.03	2.2	2.37					
		38	1.15	1.33	1.52	1.72	1.92	2.12	2.32						
		43	1.14	1.33	1.54	1.75	1.97	2.19							
46		1.13	1.33	1.54	1.77	2	2.23								
49	1.13	1.33	1.55	1.78	2.02										
H8-LE-20X	Capacity kW	27	0.97	1.38	1.9	2.52	3.26	4.1	5.06	6.14	7.34	8.65	9.21	10.1	10.85
		32	0.84	1.23	1.72	2.31	3	3.8	4.71	5.74	6.87	8.12	8.66	9.48	
		38	0.69	1.06	1.51	2.06	2.71	3.45	4.3	5.26	6.33	7.51	8		
		43	0.57	0.92	1.35	1.86	2.47	3.17	3.98	4.88	5.89				
		46	0.5	0.84	1.25	1.75	2.33	3.01	3.78	4.66	5.63				
	49		0.76	1.16	1.64	2.2	2.85	3.6	4.44	5.38					
	Total Power Input kW	27	1.21	1.35	1.51	1.67	1.83	2	2.17	2.34	2.51	2.67	2.74	2.84	2.92
		32	1.18	1.34	1.51	1.69	1.87	2.06	2.25	2.44	2.63	2.82	2.9	3.01	
		38	1.15	1.32	1.5	1.7	1.91	2.12	2.34	2.56	2.77	2.99	3.08		
		43	1.11	1.3	1.5	1.71	1.93	2.16	2.4	2.64	2.88				
46		1.09	1.28	1.49	1.71	1.94	2.19	2.43	2.69	2.94					
49		1.27	1.48	1.71	1.95	2.21	2.47	2.73	3						
P8-LF-30X	Capacity kW	27			2.69	3.57	4.6	5.79	7.11	8.57	10.15	11.85	12.55	13.65	14.6
		32	1.25	1.78	2.46	3.29	4.27	5.39	6.65	8.04	9.54	11.15	11.85	12.9	13.8
		38	1.07	1.55	2.19	2.97	3.88	4.94	6.12	7.42	8.84	10.35	11	12	12.85
		43	0.92	1.37	1.97	2.71	3.57	4.57	5.68	6.92	8.26	9.7	10.3		
		46	0.84	1.27	1.85	2.56	3.39	4.35	5.43	6.62	7.92	9.32	9.9		
	49	0.76	1.17	1.73	2.41	3.22	4.14	5.18	6.33	7.59	8.94				
	Total Power Input kW	27			1.87	2.1	2.33	2.55	2.77	2.98	3.17	3.34	3.4	3.48	3.54
		32	1.44	1.66	1.89	2.14	2.39	2.64	2.89	3.12	3.34	3.54	3.62	3.72	3.79
		38	1.41	1.65	1.91	2.18	2.46	2.74	3.01	3.28	3.54	3.77	3.86	3.98	4.08
		43	1.39	1.64	1.91	2.2	2.5	2.81	3.11	3.4	3.68	3.95	4.05		
46		1.37	1.63	1.91	2.21	2.53	2.84	3.16	3.47	3.77	4.05	4.16			
49	1.35	1.62	1.91	2.22	2.55	2.88	3.21	3.53	3.85	4.15					
P8-LJ-30X	Capacity kW	27		2.3	3.13	4.12	5.28	6.59	8.04	9.62	11.3	13.1	13.85	15	15.95
		32	1.47	2.07	2.85	3.79	4.89	6.13	7.51	9	10.6	12.3	13	14.1	
		38	1.25	1.81	2.53	3.41	4.44	5.61	6.89	8.29	9.8	11.4			
		43	1.09	1.61	2.29	3.12	4.09	5.19	6.4	7.72	9.14				
		46	1	1.5	2.15	2.95	3.88	4.94	6.12	7.39	8.76				
	49	0.91	1.39	2.02	2.79	3.69	4.71	5.84	7.07						
	Total Power Input kW	27		1.8	2.07	2.35	2.62	2.9	3.17	3.42	3.66	3.87	3.95	4.05	4.13
		32	1.54	1.81	2.09	2.39	2.7	3	3.3	3.58	3.85	4.09	4.18	4.3	
		38	1.51	1.8	2.11	2.44	2.77	3.1	3.43	3.75	4.05	4.33			
		43	1.48	1.79	2.12	2.46	2.82	3.18	3.53	3.88	4.22				
46		1.46	1.78	2.12	2.48	2.85	3.22	3.59	3.96	4.31					
49	1.45	1.77	2.12	2.49	2.87	3.26	3.65	4.03							
P8-LI-40X	Capacity kW	27	2.22	3.01	4	5.19	6.56	8.09	9.78	11.6	13.55	15.6	16.45	17.75	
		32	1.99	2.73	3.67	4.8	6.1	7.56	9.16	10.9	12.75	14.7	15.5		
		38		2.42	3.3	4.35	5.57	6.94	8.44	10.05	11.8				
		43		2.18	3.01	4	5.15	6.44	7.86	9.4	11.05				
		46		2.04	2.84	3.8	4.91	6.15	7.52	9.01					
	49		1.9	2.67	3.6	4.67	5.87	7.2	8.63						
	Total Power Input kW	27	1.93	2.21	2.51	2.83	3.17	3.52	3.88	4.25	4.62	4.99	5.14	5.36	
		32	1.93	2.23	2.55	2.9	3.27	3.65	4.04	4.45	4.86	5.27	5.44		
		38		2.25	2.6	2.97	3.37	3.79	4.23	4.68	5.14				
		43		2.26	2.63	3.03	3.46	3.91	4.38	4.86	5.36				
46			2.26	2.64	3.06	3.5	3.97	4.46	4.97						
49		2.27	2.66	3.09	3.55	4.04	4.55	5.08							

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Standard – R22

380-420V/50HZ/3 Phase

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)														
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
R7-2SA-45X	Capacity kW	27	2.85	3.83	4.99	6.34	7.89	9.65	11.65							
		32	2.6	3.54	4.65	5.93	7.41	9.09								
		38	2.31	3.2	4.25	5.46	6.85									
		43	2.08	2.93	3.92	5.07	6.39									
		46		2.77	3.73	4.84	6.12									
	49		2.61	3.54	4.62											
	Total Power Input kW	27	2.56	2.93	3.31	3.71	4.11	4.54	4.98							
		32	2.57	2.97	3.38	3.81	4.26	4.73								
		38	2.56	3	3.45	3.93	4.42									
		43	2.54	3.01	3.5	4.01	4.55									
46			3.01	3.52	4.06	4.62										
49		3.01	3.55	4.1												
M9-2SA-55X	Capacity kW	27					6.85	8.63	10.6	12.8	15.2	17.7	18.75	20.4	21.7	
		32						8.08	9.95	12	14.25	16.6	17.6	19.1	20.3	
		38							9.18	11.05	13.1	15.3	16.15			
		43								10.3	12.2					
		46								9.85						
	49															
	Total Power Input kW	27					4.12	4.54	4.96	5.4	5.87	6.41	6.65	7.03	7.38	
		32						4.72	5.19	5.67	6.18	6.75	7	7.4	7.76	
		38							5.42	5.97	6.54	7.16	7.42			
		43								6.19	6.82					
46									6.31							
49																
S9-2SC-55X	Capacity kW	27	3.42	4.64	6.07	7.72	9.63									
		32	3.12	4.28	5.64	7.22										
		38	2.77	3.87	5.15											
		43	2.5	3.55	4.76											
		46		3.36	4.54											
	49		3.18	4.32												
	Total Power Input kW	27	3	3.47	3.95	4.45	4.95									
		32	3.02	3.53	4.05	4.59										
		38	3.03	3.58	4.15											
		43	3.03	3.61	4.23											
46			3.63	4.27												
49		3.64	4.31													
S9-2SC-65X	Capacity kW	27					9.98	12.1	14.4	16.9	19.55	22.4	23.5	25.3	26.8	
		32						9.15	11.1	13.25	15.5	17.95	20.5	21.6	23.2	24.6
		38								11.85	13.85	16.05	18.3	19.25	20.7	21.9
		43								10.7	12.5	14.45	16.45	17.3		
		46									11.7	13.5				
	49									10.85						
	Total Power Input kW	27					5.63	6.2	6.79	7.39	8	8.62	8.87	9.25	9.56	
		32					5.78	6.4	7.05	7.71	8.39	9.09	9.37	9.79	10.15	
		38							7.35	8.09	8.85	9.64	9.95	10.45	10.85	
		43							7.6	8.41	9.24	10.1	10.45			
46									8.6	9.47						
49								8.8								
V9-2SK-65X	Capacity kW	27				8.65	10.85	13.35	16.15	19.25						
		32					10.15	12.5	15.15	18.1						
		38						11.5	14	16.75						
		43						10.7	13.05	15.65						
		46							12.45	15						
	49							11.9								
	Total Power Input kW	27				5.2	5.8	6.44	7.1	7.8						
		32					5.97	6.68	7.44	8.24						
		38						6.96	7.82	8.75						
		43						7.19	8.14	9.17						
46								8.33	9.41							
49							8.52									
V9-3SA-75X	Capacity kW	27				7.99	10.15	12.7	15.6	18.9	22.6	26.6	28.3	30.9	33.2	
		32					9.47	11.85	14.6	17.7	21.2	25	26.6	29.1	31.3	
		38						10.9	13.45	16.35	19.55	23.1	24.6	26.9	29	
		43							12.5	15.2	18.25	21.6	23			
		46								14.55	17.45					
	49								13.9							
	Total Power Input kW	27				4.91	5.44	5.99	6.56	7.15	7.79	8.49	8.79	9.26	9.68	
		32					5.57	6.18	6.83	7.5	8.23	9.02	9.35	9.88	10.35	
		38						6.4	7.13	7.91	8.74	9.64	10	10.6	11.15	
		43							7.37	8.23	9.15	10.15	10.55			
46									8.42	9.4						
49								8.61								
V6-3SC-75X	Capacity kW	27	4.3	5.97	7.99	10.4	13.15	16.35	19.95	24						
		32	3.8	5.38	7.28	9.55	12.2	15.2	18.65	22.5						
		38	3.23	4.69	6.45	8.56	11.05	13.85	17.1	20.7						
		43	2.77	4.13	5.78	7.76	10.1	12.75	15.8	19.25						
		46	2.51	3.81	5.39	7.29	9.52	12.1								
	49	2.25	3.49	5	6.82											
	Total Power Input kW	27	4.12	4.7	5.3	5.94	6.61	7.34	8.13	8.99						
		32	4.1	4.73	5.38	6.07	6.8	7.58	8.42	9.35						
		38	4.04	4.74	5.46	6.22	7.01	7.87	8.79	9.8						
		43	3.96	4.72	5.51	6.33	7.2	8.12	9.11	10.2						
46		3.9	4.71	5.53	6.4	7.3	8.27									
49	3.84	4.69	5.56	6.46												

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Standard – R22

380-420V/50HZ/3 Phase

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)														
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
V6-3SC-100X	Capacity kW	27	10													
		32	11.85													
		38	13.6													
		43	15.6													
		46	18.15													
	49	17.4														
	Total Power Input kW	27	6.19													
		32	7.02													
		38	8.05													
		43	9.21													
46		10.4														
49	10.65															
W9-3SS-100X	Capacity kW	27	5.69	7.94	10.6	13.65	17.15	21.1	25.5	30.3						
		32	5.05	7.2	9.72	12.65	15.95	19.7	23.9	28.5						
		38	4.31	6.34	8.71	11.45	14.55	18.05	22	26.3						
		43	3.72	5.65	7.9	10.5	13.4	16.75								
		46	3.39	5.26	7.43	9.92										
	49	3.06	4.88	6.97												
	Total Power Input kW	27	5.38	6.27	7.18	8.14	9.16	10.3	11.5	12.9						
		32	5.37	6.33	7.31	8.33	9.42	10.6	11.9	13.35						
		38	5.33	6.38	7.45	8.56	9.72	11	12.35	13.85						
		43	5.28	6.42	7.56	8.75	9.99	11.3								
46		5.24	6.43	7.63	8.86	10.15										
49	5.2	6.45	7.7													
W9-3SS-150X	Capacity kW	27	13.8													
		32	16.15													
		38	19.8													
		43	22.2													
		46	20.8													
	49	23.8														
	Total Power Input kW	27	8.36													
		32	9.5													
		38	10.55													
		43	12.15													
46		12.65														
49	14.45															
Z9-4SA-200X	Capacity kW	27	20.5													
		32	19.2													
		38	23.9													
		43	22													
		46	25.1													
	49	24														
	Total Power Input kW	27	10.05													
		32	10.4													
		38	11.9													
		43	13.45													
46		13.75														
49	15.35															

# Stream-R22

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)														
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
Z9-4MA-22X	Capacity kW	27	19.25													
		32	17.9													
		38	20.7													
		43	19.15													
		46	22.9													
	49	26.8														
	Total Power Input kW	27	9.61													
		32	10.05													
		38	11.65													
		43	12.1													
46		13.65														
49	15.4															
Z9-4MH-25X	Capacity kW	27	22.3													
		32	20.8													
		38	26													
		43	27.6													
		46	26.5													
	49	30.8														
	Total Power Input kW	27	11.35													
		32	11.85													
		38	13.8													
		43	15.9													
46		16.3														
49	18.35															

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power



# Stream-R22

380-420V/50HZ/3 Phase

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)														
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
Z9-4MI-30X	Capacity kW	27				24.4	30	36.3	43.4	51.3	60	69.6	73.6	79.9	85.3	
		32				22.8	28.2	34.2	40.9	48.4	56.7	65.6	69.4	75.3	80.4	
		38					26	31.7	38	44.9	52.6	60.9	64.4	69.8	74.6	
		43						29.6	35.5	42	49.1	56.9	60.2	65.3		
		46							34	40.3	47.1					
	49								32.5	38.5						
	Total Power Input kW	27				12.5	13.8	15.2	16.65	18.1	19.65	21.2	21.8	22.8	23.6	
		32				13.05	14.5	16	17.55	19.15	20.8	22.5	23.1	24.2	25	
		38					15.3	16.9	18.55	20.3	22.1	23.9	24.6	25.7	26.6	
		43						17.6	19.35	21.2	23.1	25	25.7	26.9		
46								19.8	21.7	23.6						
49								20.2	22.2							
Z9-4MJ-33X	Capacity kW	27				27	33.2	40.1	47.8	56.4	65.8	76	80.3	87	92.7	
		32				25.3	31.2	37.8	45.1	53.2	62.1	71.7	75.7	82	87.4	
		38					28.8	35	41.8	49.4	57.5	66.4	70.2	75.9	80.9	
		43						32.6	39.1	46.1	53.8	62				
		46							37.4	44.2	51.5					
	49															
	Total Power Input kW	27				13.9	15.45	17.1	18.75	20.5	22.3	24.2	25	26.1	27.1	
		32				14.55	16.2	17.95	19.75	21.6	23.6	25.5	26.4	27.6	28.6	
		38					17.05	18.95	20.9	22.9	24.9	27.1	27.9	29.3	30.4	
		43						19.7	21.7	23.8	26	28.3				
46								22.2	24.4	26.6						
49																
W99-4MK-35X	Capacity kW	27				30.5	37.5	45.2	54	63.6	74.1	85.5	90.3	97.7	104	
		32					35.2	42.6	50.9	60	69.9	80.6	85.1	92.1	98.1	
		38						32.5	39.5	47.2	55.6	64.8	74.7	78.8	85.3	90.8
		43							36.8	44	51.9	60.5	69.7			
		46								42.2	49.7					
	49															
	Total Power Input kW	27				15.6	17.4	19.25	21.2	23.2	25.3	27.4	28.3	29.7	30.8	
		32					18.2	20.2	22.3	24.4	26.7	29	29.9	31.3	32.5	
		38					19.2	21.3	23.5	25.8	28.2	30.7	31.7	33.2	34.5	
		43						22.2	24.5	26.9	29.4	32				
46								25.1	27.5							
49																
W99-6MI-40X	Capacity kW	27				35.7	44.1	53.5	64	75.4	87.8	101	106.5	115	122.5	
		32					41.3	50.3	60.2	71	82.7	95.2	100.5	108.5	115.5	
		38						46.4	55.7	65.8	76.6	88.2				
		43							51.9	61.3						
		46														
	49															
	Total Power Input kW	27				18.95	21.2	23.5	26	28.6	31.3	34.1	35.2	37	38.5	
		32					22.1	24.7	27.3	30	32.9	35.9	37.1	39	40.6	
		38						26	28.8	31.7	34.8	38				
		43							29.9	33						
46																
49																

# 2-Stage R22

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)												
		-60	-55	-50	-45	-40	-35	-30	-25	-20				
Z9-6TH-200X	Capacity kW	27												
		32												
		38												
		43												
		46												
	49													
	Total Power Input kW	27				9.91	10.85	11.95	13.1	14.45	15.9	17.55		
		32				10.35	11.35	12.55	13.85	15.35	17	18.8		
		38				10.8	11.95	13.3	14.8	16.45	18.3	20.4		
		43					12.45	13.9	15.55	17.4	19.45	21.8		
46						12.75	14.3	16	17.95					
49					13.05	14.65								
W99-6TJ-250X	Capacity kW	27				10.3	13.2	16.75	21	26.1	32.1	39.1		
		32					10	12.9	16.4	20.6	25.7	31.6	38.5	
		38						9.63	12.5	15.95	20.1	25	30.9	37.6
		43							12.05	15.45	19.55	24.4	30.1	36.8
		46							11.75	15.15	19.2	24		
	49								11.4	14.75				
	Total Power Input kW	27					10.5	11.75	13.15	14.7	16.45	18.3	20.4	
		32					10.95	12.3	13.8	15.5	17.4	19.45	21.7	
		38					11.45	12.95	14.6	16.45	18.55	20.8	23.4	
		43						13.45	15.25	17.25	19.5	22	24.8	
46								13.75	15.6	17.75	20.1			
49								14	16					

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Standard – R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)	Evaporating Temperature (°C)												
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
B8-KJ-10X	Capacity kW	27	0.66	0.9	1.17	1.48	1.82	2.2	2.6	3.03	3.48	3.95	4.14		
		32	0.58	0.8	1.05	1.34	1.66	2	2.38	2.77	3.19	3.62			
		38	0.48	0.69	0.92	1.18	1.46	1.77	2.11	2.47					
		43	0.4	0.59	0.81	1.04	1.31	1.59							
		46	0.36	0.54	0.75	0.97	1.21								
	49	0.32	0.49	0.68											
	Total Power Input kW	27	0.67	0.77	0.88	0.99	1.1	1.22	1.34	1.47	1.6	1.73	1.79		
		32	0.66	0.77	0.88	1	1.12	1.25	1.38	1.52	1.66	1.81			
		38	0.64	0.76	0.88	1.01	1.15	1.28	1.43	1.58					
		43	0.63	0.75	0.88	1.02	1.16	1.31							
46		0.62	0.74	0.88	1.02	1.16									
49	0.61	0.74	0.87												
D8-KSJ-15X	Capacity kW	27	0.92	1.23	1.58	1.98	2.44	2.95	3.52	4.14	4.81				
		32	0.82	1.11	1.43	1.81	2.24	2.71	3.24	3.82					
		38	0.71	0.97	1.27	1.61	1.99	2.43	2.91						
		43	0.61	0.86	1.13	1.44	1.79	2.19	2.63						
		46	0.56	0.79	1.05	1.34	1.68	2.05							
	49	0.5	0.72	0.97	1.25										
	Total Power Input kW	27	0.85	0.98	1.11	1.26	1.4	1.55	1.69	1.82	1.96				
		32	0.83	0.97	1.12	1.27	1.43	1.59	1.75	1.91					
		38	0.82	0.96	1.11	1.28	1.46	1.64	1.82						
		43	0.81	0.95	1.11	1.29	1.48	1.67	1.87						
46		0.8	0.95	1.12	1.3	1.49	1.69								
49	0.8	0.95	1.12	1.3											
H8-KSL-20X	Capacity kW	27	1.38	1.83	2.35	2.94	3.62	4.38	5.21	6.13					
		32	1.24	1.66	2.15	2.7	3.33	4.04	4.82	5.67					
		38	1.07	1.46	1.9	2.41	2.99	3.63	4.34						
		43	0.94	1.3	1.71	2.17	2.7	3.29							
		46	0.86	1.2	1.59	2.03	2.53	3.09							
	49	0.78	1.1	1.47	1.89										
	Total Power Input kW	27	1.28	1.45	1.63	1.83	2.03	2.24	2.46	2.69					
		32	1.27	1.46	1.66	1.87	2.09	2.32	2.56	2.81					
		38	1.26	1.46	1.68	1.91	2.15	2.4	2.67						
		43	1.24	1.46	1.69	1.93	2.2	2.47							
46		1.23	1.46	1.69	1.95	2.22	2.51								
49	1.22	1.45	1.7	1.96											
H8-LE-20X	Capacity kW	27	1.07	1.57	2.14	2.8	3.55	4.39	5.31	6.32	7.41	8.57	9.06	9.8	
		32	0.86	1.33	1.88	2.5	3.2	3.98	4.83	5.76	6.77	7.84	8.29		
		38	0.6	1.05	1.56	2.14	2.78	3.48	4.26	5.1	6	6.97			
		43		0.82	1.3	1.84	2.43	3.07	3.78	4.54					
		46		0.69	1.15	1.66	2.22	2.83	3.49						
	49			1	1.48	2.01									
	Total Power Input kW	27	1.1	1.27	1.45	1.64	1.83	2.03	2.24	2.45	2.66	2.88	2.97	3.11	
		32	1.05	1.24	1.44	1.64	1.85	2.07	2.3	2.53	2.77	3.01	3.12		
		38	0.99	1.18	1.4	1.62	1.86	2.1	2.36	2.62	2.88	3.16			
		43		1.12	1.35	1.59	1.85	2.12	2.39	2.68					
46			1.08	1.32	1.57	1.84	2.12	2.41							
49			1.28	1.54	1.82										
P8-LF-30X	Capacity kW	27	1.74	2.41	3.2	4.09	5.12	6.26	7.53	8.92	10.4	12.05	12.7		
		32	1.51	2.14	2.87	3.71	4.66	5.72	6.9	8.19	9.6	11.1	11.75		
		38	1.24	1.82	2.49	3.26	4.12	5.09	6.16	7.34	8.62				
		43	1.02	1.56	2.18	2.89	3.68	4.57	5.55	6.63					
		46	0.9	1.41	2	2.67	3.42	4.26	5.19						
	49	0.77	1.26	1.81	2.45	3.15									
	Total Power Input kW	27	1.61	1.85	2.09	2.33	2.57	2.8	3.04	3.28	3.52	3.78	3.88		
		32	1.59	1.85	2.11	2.37	2.64	2.9	3.16	3.43	3.71	3.99	4.1		
		38	1.53	1.81	2.1	2.39	2.69	2.98	3.28	3.58	3.89				
		43	1.47	1.77	2.08	2.39	2.71	3.03	3.35	3.68					
46		1.43	1.74	2.06	2.38	2.71	3.04	3.38							
49	1.38	1.7	2.03	2.36	2.7										
P8-LJ-30X	Capacity kW	27	1.96	2.69	3.54	4.51	5.61	6.84	8.19	9.66	11.25	12.95	13.65		
		32	1.7	2.38	3.17	4.07	5.09	6.23	7.48	8.85	10.35	11.9	12.6		
		38	1.38	2.01	2.74	3.56	4.48	5.51	6.65	7.9	9.25				
		43	1.12	1.71	2.38	3.13	3.98	4.92	5.97	7.11					
		46	0.97	1.53	2.16	2.88	3.68	4.57	5.56						
	49	0.82	1.35	1.95	2.63	3.38									
	Total Power Input kW	27	1.75	2.05	2.35	2.64	2.94	3.23	3.52	3.81	4.09	4.36	4.47		
		32	1.7	2.02	2.34	2.67	3	3.32	3.64	3.96	4.28	4.59	4.72		
		38	1.63	1.97	2.33	2.68	3.05	3.41	3.77	4.14	4.5				
		43	1.57	1.93	2.31	2.69	3.08	3.48	3.87	4.27					
46		1.54	1.91	2.3	2.69	3.1	3.52	3.93							
49	1.5	1.88	2.29	2.7	3.12										

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Standard – R404A

380-420V/50HZ/3 Phase

Condensing Unit	Ambient Temp (°C)	Evaporating Temperature (°C)													
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
P8-LL-40X	Capacity kW	27	2.42	3.29	4.31	5.48	6.81	8.29	9.93	11.7	13.65	15.7			
		32	2.12	2.93	3.87	4.97	6.2	7.59	9.12	10.8	12.6				
		38	1.75	2.49	3.36	4.35	5.48	6.74	8.14	9.67					
		43	1.45	2.14	2.93	3.84	4.88	6.04	7.33						
		46	1.28	1.92	2.67	3.53	4.52								
	49	1.1	1.71	2.42	3.23										
	Total Power Input kW	27	2.07	2.38	2.71	3.07	3.45	3.86	4.29	4.76	5.26	5.8			
		32	2.04	2.39	2.75	3.15	3.56	4.01	4.49	4.99	5.54				
		38	1.97	2.36	2.77	3.21	3.68	4.17	4.69	5.25					
		43	1.87	2.29	2.74	3.22	3.73	4.26	4.83						
46		1.77	2.22	2.7	3.21	3.74									
49	1.65	2.13	2.63	3.17											
R7-2SA-45X	Capacity kW	27		4.14	5.34	6.71	8.23	9.91	11.75	13.7					
		32		3.73	4.85	6.12	7.53	9.09	10.8	12.6					
		38			4.27	5.42	6.7	8.11	9.64	11.3					
		43			3.79	4.84	6.01	7.3							
		46				4.5	5.6								
	49														
	Total Power Input kW	27		3.38	3.87	4.37	4.89	5.42	5.96	6.53					
		32		3.38	3.9	4.45	5.01	5.59	6.19	6.81					
		38			3.93	4.52	5.14	5.77	6.44	7.12					
		43			3.93	4.56	5.22	5.9							
46					4.57	5.26									
49															
M9-2SA-55X	Capacity kW	27			5.13	6.47	7.95	9.54	11.2	12.95	14.75	16.55	17.25		
		32			4.66	5.9	7.26	8.72	10.25	11.8	13.4				
		38			4.09	5.22	6.44	7.73	9.07						
		43				4.65	5.76								
		46				4.31									
	49														
	Total Power Input kW	27			3.68	4.21	4.74	5.28	5.84	6.42	7.03	7.68	7.95		
		32			3.72	4.29	4.87	5.45	6.04	6.66	7.3				
		38			3.73	4.35	4.98	5.61	6.25						
		43				4.36	5.03								
46					4.33										
49															
S9-2SC-55X	Capacity kW	27	3.53	4.8	6.28	7.98	9.89	12	14.3	16.8					
		32	3.14	4.33	5.71	7.29	9.06	11	13.15	15.45					
		38		3.75	5.01	6.44	8.05	9.82	11.75	13.85					
		43			4.43	5.74	7.2	8.81							
		46			4.08	5.31	6.69								
	49			3.73											
	Total Power Input kW	27	3.12	3.69	4.29	4.9	5.54	6.2	6.87	7.56					
		32	3.07	3.68	4.31	4.98	5.67	6.38	7.12	7.87					
		38		3.62	4.3	5.02	5.77	6.55	7.36	8.19					
		43			4.26	5.02	5.81	6.64							
46				4.22	5	5.82									
49			4.17												
S9-2SC-65X	Capacity kW	27			6.34	8	9.87	11.95	14.2	16.6	19.2	21.9	23		
		32			5.74	7.31	9.05	10.95	13.05	15.25	17.6	20.1	21.1		
		38			5.04	6.49	8.08	9.8	11.65	13.65	15.7				
		43			4.47	5.83	7.28	8.85							
		46				5.43	6.81								
	49														
	Total Power Input kW	27			4.57	5.1	5.65	6.23	6.83	7.45	8.09	8.74	9		
		32			4.63	5.19	5.79	6.43	7.09	7.77	8.48	9.2	9.49		
		38			4.7	5.3	5.96	6.65	7.39	8.15	8.93				
		43			4.77	5.41	6.1	6.85							
46					5.48	6.2									
49															
V9-2SK-65X	Capacity kW	27	4.21	5.77	7.55	9.56	11.8	14.3	17	19.9					
		32		5.18	6.85	8.73	10.8	13.1	15.6	18.3					
		38			6.04	7.75	9.65	11.75	14	16.45					
		43			5.38	6.95	8.69	10.6							
		46				6.49	8.13								
	49														
	Total Power Input kW	27	3.78	4.43	5.09	5.79	6.52	7.3	8.12	9.01					
		32		4.45	5.16	5.91	6.7	7.53	8.41	9.36					
		38			5.22	6.02	6.87	7.77	8.72	9.73					
		43			5.24	6.09	6.99	7.94							
46					6.13	7.05									
49															

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Standard – R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)	Evaporating Temperature (°C)												
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
V9-3SA-75X	Capacity kW	27			7.24	9.23	11.5	14.05	16.8	19.8	23	26.3	27.6		
		32			6.54	8.4	10.5	12.85	15.4	18.1	21	24	25.3		
		38			5.7	7.4	9.31	11.4	13.65	16.1	18.65				
		43			5	6.57	8.31	10.2	12.25						
		46				6.07	7.71								
	49														
	Total Power Input kW	27			4.65	5.32	6.02	6.74	7.48	8.23	8.97	9.68	9.96		
		32			4.67	5.38	6.12	6.9	7.69	8.49	9.29	10.05	10.35		
		38			4.65	5.4	6.2	7.03	7.89	8.75	9.61				
		43			4.6	5.38	6.22	7.09	8						
46					5.35	6.21									
49															
V6-3SC-75X	Capacity kW	27	4.95	6.72	8.82	11.25	14.05	17.15	20.6	24.3					
		32		6.03	7.97	10.2	12.8	15.65	18.85	22.3					
		38		5.23	6.96	8.98	11.3	13.85	16.75	19.85					
		43			6.14	7.96	10.05	12.35	15	17.85					
		46			5.66	7.35	9.29	11.5							
	49				6.75										
	Total Power Input kW	27	4.33	5.08	5.88	6.71	7.57	8.45	9.34	10.25					
		32		5.11	5.95	6.82	7.73	8.67	9.63	10.6					
		38		5.12	6	6.93	7.89	8.9	9.93	11					
		43			6.02	6.98	8	9.05	10.15	11.25					
46				6.02	7	8.04	9.13								
49				7.02											
V6-3SC-100X	Capacity kW	27			9.24	11.7	14.5	17.65	21.1	24.8	28.8	33	34.8		
		32			8.41	10.7	13.35	16.25	19.4	22.8	26.5	30.3	31.9		
		38			7.43	9.54	11.9	14.5	17.35	20.4	23.7	27.1			
		43			6.6	8.56	10.7	13.1	15.65						
		46				7.97	10	12.2							
	49				7.38										
	Total Power Input kW	27			5.99	6.75	7.54	8.35	9.17	9.99	10.8	11.6	11.9		
		32			6.06	6.87	7.73	8.61	9.5	10.4	11.3	12.15	12.5		
		38			6.09	6.97	7.9	8.86	9.83	10.8	11.8	12.75			
		43			6.08	7.01	8	9.02	10.05						
46					7.02	8.04	9.1								
49				7.01											
W9-3SS-100X	Capacity kW	27	7.07	9.35	11.95	14.95	18.25	21.9	25.8	30					
		32		8.52	11	13.75	16.8	20.1	23.8	27.7					
		38			9.8	12.3	15.1	18.1	21.4	24.9					
		43			8.83	11.15	13.65	16.4							
		46				10.45									
	49														
	Total Power Input kW	27	5.94	6.88	7.91	9.02	10.2	11.5	12.85	14.3					
		32		6.94	8.01	9.18	10.45	11.8	13.25	14.8					
		38			8.13	9.37	10.7	12.15	13.75	15.4					
		43			8.25	9.52	10.95	12.45							
46					9.63										
49															
W9-3SS-150X	Capacity kW	27			12.5	15.6	19.05	22.9	27	31.4	36.1	41	42.9		
		32			11.4	14.3	17.55	21.1	24.9	28.9	33.2	37.7	39.5		
		38			10.15	12.8	15.75	18.95	22.3	26					
		43			9.08	11.6	14.25	17.15							
		46				10.85									
	49														
	Total Power Input kW	27			8.3	9.38	10.5	11.65	12.9	14.15	15.5	16.9	17.45		
		32			8.41	9.57	10.8	12.05	13.35	14.7	16.1	17.55	18.15		
		38			8.47	9.74	11.05	12.4	13.8	15.25					
		43			8.47	9.82	11.2	12.65							
46					9.85										
49															
Z9-4SA-200X	Capacity kW	27		10.25	13.55	17.45	21.9	27	32.6	38.9	45.7	53.1	56.2		
		32			12.25	15.9	20.1	24.7	30	35.8	42.1	49	51.8		
		38			10.8	14.1	17.85	22.1	26.8	32.1	37.8	44	46.6		
		43			9.56	12.6	16.05	19.9	24.2	29	34.2	39.9			
		46			8.85	11.7	14.95	18.6	22.7	27.2					
	49			8.16	10.85	13.9	17.3								
	Total Power Input kW	27		7.89	8.97	10.05	11.15	12.2	13.25	14.25	15.25	16.2	16.6		
		32			9.08	10.25	11.45	12.6	13.8	14.95	16.05	17.15	17.6		
		38			9.15	10.45	11.75	13.05	14.35	15.65	16.95	18.25	18.75		
		43			9.15	10.5	11.9	13.35	14.75	16.2	17.65	19.05			
46				9.12	10.55	12	13.5	15	16.5						
49			9.07	10.55	12.05	13.6									

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Stream-R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)	Evaporating Temperature (°C)												
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
V6-4MF-13X	Capacity kW	27													
		32	9.08	11.85	15	18.5	22.4	26.6	31	35.8					
		38		10.75	13.65	16.9	20.4	24.3	28.4	32.8					
		43		9.46	12.05	14.95	18.1	21.5	25.2						
		46			10.75	13.35	16.2								
	49			9.96											
	Total Power Input kW	27	6.96	8.11	9.31	10.55	11.9	13.25	14.7	16.25					
		32		8.22	9.5	10.85	12.25	13.75	15.25	16.9					
		38		8.3	9.68	11.15	12.65	14.25	15.9						
		43			9.79	11.35	12.95								
46				9.84											
49															
V6-4ML-15X	Capacity kW	27	11	14.2	17.8	21.8	26.1	30.6	35.5	40.5					
		32		13	16.35	20	23.9	28.1	32.6						
		38			14.55	17.85	21.4								
		43			13.05										
		46													
	49														
	Total Power Input kW	27	8.31	9.71	11.2	12.8	14.5	16.25	18.05	19.95					
		32		9.86	11.45	13.1	14.9	16.75	18.65						
		38			11.65	13.4	15.3								
		43			11.8										
46															
49															
Z9-4ML-15X	Capacity kW	27	11.8	15.45	19.65	24.5	30	36	42.8	50.1					
		32	10.75	14.2	18.1	22.6	27.7	33.3	39.5	46.3					
		38		12.65	16.25	20.3	24.9	30	35.6	41.8					
		43			14.65	18.4	22.6	27.2	32.4	38.1					
		46			13.7	17.25	21.2	25.6							
	49			12.75	16.1										
	Total Power Input kW	27	9.01	10.3	11.7	13.05	14.45	15.85	17.2	18.45					
		32	9.13	10.5	11.95	13.45	14.95	16.5	17.95	19.4					
		38		10.7	12.25	13.85	15.5	17.15	18.85	20.5					
		43			12.45	14.15	15.9	17.7	19.5	21.3					
46				12.55	14.3	16.1	18								
49			12.65	14.45											
W9-4MM-20X	Capacity kW	27	12.4	15.9	19.75	23.9	28.4	33	37.9	42.9					
		32		14.5	18.05	21.9	25.9	30.2	34.6						
		38			16	19.4	23								
		43			14.3										
		46													
	49														
	Total Power Input kW	27	9.28	10.8	12.4	14.1	15.95	17.85	19.95	22.1					
		32		10.95	12.7	14.5	16.45	18.5	20.7						
		38			12.95	14.9	17								
		43			13.1										
46															
49															
Z9-4MM-20X	Capacity kW	27	13.35	17.35	21.9	27	32.8	39.1	46.1	53.6					
		32	12.2	15.9	20.1	24.9	30.2	36.1	42.5	49.4					
		38		14.15	18	22.3	27.1	32.3	38.1	44.3					
		43			16.2	20.1	24.4	29.2	34.4						
		46			15.1	18.8	22.9								
	49			14.05											
	Total Power Input kW	27	9.96	11.35	12.75	14.2	15.65	17.15	18.7	20.2					
		32	10.1	11.6	13.1	14.7	16.3	17.95	19.65	21.3					
		38		11.8	13.5	15.2	17	18.85	20.7	22.6					
		43			13.75	15.6	17.55	19.5	21.5						
46				13.85	15.8	17.8									
49			13.95												
W9-4MT-22X	Capacity kW	27	13.75	17.45	21.5	26	30.7	35.8	41.1						
		32		15.9	19.7	23.8	28.1	32.8							
		38			17.45	21.1									
		43			15.6										
		46													
	49														
	Total Power Input kW	27	10.4	12.15	14.05	16.05	18.2	20.5	22.9						
		32		12.35	14.35	16.45	18.7	21.1							
		38			14.6	16.8									
		43			14.7										
46															
49															
Z9-4MT-22X	Capacity kW	27	14.95	19.25	24.2	29.8	36.1	43	50.7	59					
		32	13.65	17.65	22.2	27.4	33.3	39.7	46.9	54.6					
		38		15.7	19.9	24.6	29.9	35.7	42.2	49.2					
		43			17.9	22.2	27	32.3							
		46			16.7	20.7	25.3								
	49			15.5											
	Total Power Input kW	27	11.05	12.65	14.3	16.05	17.8	19.6	21.4	23.3					
		32	11.2	12.95	14.7	16.55	18.5	20.4	22.4	24.4					
		38		13.15	15.1	17.1	19.2	21.3	23.5	25.7					
		43			15.35	17.5	19.7	22							
46				15.45	17.65	19.95									
49			15.5												

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power

# Stream-R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)					Evaporating Temperature (°C)									
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
Z9-4MU-25X	Capacity kW	27	16.1	20.8	26.2	32.4	39.2	46.8	55.1							
		32	14.8	19.15	24.1	29.8	36.1	43.1	50.7							
		38		17.1	21.6	26.6	32.3	38.6								
		43			19.35	23.9	29	34.7								
		46			18	22.3										
	49															
	Total Power Input kW	27	12.25	14.1	16.1	18.15	20.2	22.4	24.6							
		32	12.4	14.4	16.45	18.65	20.9	23.1	25.5							
		38		14.6	16.8	19.1	21.5	23.9								
		43			17	19.4	21.9	24.4								
46				17.05	19.5											
49																
Z9-6MM-30X	Capacity kW	27	19.3	24.8	30.9	37.9	45.7	54.1	63.3	73.1						
		32		22.8	28.5	34.9	42	49.8	58.2	67.2						
		38		20.4	25.5	31.3	37.6	44.5	52							
		43			23	28.2										
		46			21.4											
	49															
	Total Power Input kW	27	14.7	16.95	19.3	21.8	24.4	27	29.8	32.7						
		32		17.3	19.8	22.5	25.3	28.2	31.2	34.3						
		38		17.55	20.3	23.2	26.2	29.4	32.6							
		43			20.6	23.7										
46				20.7												
49																
Z9-4MA-22X	Capacity kW	27	9.57	13	16.9	21.3	26.2	31.6	37.7	44.4	51.6	59.5	62.8			
		32	8.37	11.65	15.3	19.4	24	29.1	34.8	40.9	47.7	55	58.1			
		38		10.05	13.45	17.25	21.5	26.1	31.3	36.9	43.1	49.7	52.6			
		43			11.9	15.45	19.35	23.6	28.4	33.5	39.2					
		46			11	14.35	18.1	22.2	26.6							
	49			10.05	13.3	16.85										
	Total Power Input kW	27	7.66	8.8	9.91	11	12.05	13.1	14.1	15.1	16.05	17	17.4			
		32	7.61	8.86	10.1	11.3	12.5	13.7	14.85	15.95	17.05	18.15	18.6			
		38		8.85	10.25	11.6	13	14.35	15.65	16.95	18.25	19.55	20.1			
		43			10.3	11.8	13.3	14.8	16.3	17.75	19.2					
46				10.3	11.9	13.5	15.1	16.65								
49			10.25	11.95	13.65											
Z9-4MH-25X	Capacity kW	27	11.05	14.8	19.1	24.1	29.7	36	42.9	50.6	58.9	67.8	71.6			
		32		13.4	17.5	22.1	27.3	33.2	39.6	46.7	54.5	62.8	66.3			
		38		11.75	15.5	19.7	24.5	29.8	35.6	42.1	49.1	56.7	59.9			
		43			13.8	17.7	22	26.9	32.3	38.2						
		46			12.8	16.5	20.6	25.2								
	49			11.75	15.25											
	Total Power Input kW	27	8.85	10.1	11.45	12.75	14.1	15.45	16.8	18.1	19.4	20.7	21.2			
		32		10.2	11.6	13.1	14.55	16.05	17.55	19.05	20.5	22	22.6			
		38		10.2	11.8	13.4	15.05	16.75	18.45	20.2	21.8	23.5	24.2			
		43			11.85	13.6	15.45	17.3	19.15	21						
46				11.85	13.7	15.6	17.55									
49			11.85	13.8												
Z9-4MI-30X	Capacity kW	27	12.65	17	21.8	27.2	33.1	39.6	46.7	54.4	62.7	71.5	75.2			
		32		15.4	19.95	25	30.5	36.6	43.1	50.3	57.9	66.1	69.5			
		38		13.45	17.7	22.3	27.4	32.8	38.8	45.2	52.1					
		43			15.8	20.1	24.7	29.7	35.1							
		46			14.6	18.7	23.1									
	49			13.45												
	Total Power Input kW	27	9.72	11.2	12.7	14.15	15.65	17.1	18.6	20.1	21.6	23.2	23.8			
		32		11.35	13	14.6	16.25	17.9	19.55	21.2	22.9	24.6	25.3			
		38		11.35	13.2	15.05	16.9	18.75	20.6	22.5	24.3					
		43			13.3	15.35	17.4	19.4	21.4							
46				13.3	15.5	17.65										
49			13.3													
Z9-4MJ-33X	Capacity kW	27	14.15	18.7	23.8	29.7	36.1	43.2	51	59.4	68.3	77.8	81.8			
		32		17	21.8	27.2	33.2	39.7	46.9	54.6	62.9	71.6	75.2			
		38		15	19.4	24.3	29.6	35.5	41.9	48.8	56.3					
		43			17.35	21.8	26.7	32								
		46			16.15	20.3	24.9									
	49			14.9												
	Total Power Input kW	27	10.65	12.25	13.9	15.6	17.35	19.1	20.9	22.7	24.6	26.4	27.2			
		32		12.4	14.15	16	17.9	19.85	21.8	23.8	25.8	27.8	28.6			
		38		12.5	14.4	16.4	18.45	20.6	22.7	24.9	27.2					
		43			14.55	16.65	18.85	21.1								
46				14.6	16.75	19.05										
49			14.6													

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power



# Stream-R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)					Evaporating Temperature (°C)									
			-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
W99-4MK-35X	Capacity kW	27	15.8	20.7	26.4	32.7	39.7	47.5	55.9	64.9	74.5	84.6	88.8			
		32		18.9	24.1	30	36.5	43.6	51.3	59.6	68.4	77.8	81.6			
		38		16.7	21.4	26.7	32.5	38.8	45.7	53.1						
		43			19.1	23.9	29.1	34.8								
		46			17.75	22.2										
	49															
	Total Power Input kW	27	12.1	13.85	15.75	17.75	19.9	22	24.3	26.5	28.8	31.1	32			
		32		14.1	16.15	18.25	20.5	22.8	25.2	27.6	30	32.4	33.3			
		38		14.35	16.5	18.75	21.1	23.6	26.1	28.7						
		43			16.7	19.1	21.6	24.1								
46				16.8	19.25											
49																
W99-6MI-40X	Capacity kW	27	18.45	24.2	30.8	38	46	54.7	64.1	74	84.3	95.1	99.5			
		32		22.1	28.2	34.9	42.3	50.3	58.8	67.9	77.4					
		38		19.55	25.1	31.2	37.8	44.9	52.5							
		43			22.5	28	33.9									
		46			20.9											
	49															
	Total Power Input kW	27	14.15	16.45	18.85	21.3	23.9	26.6	29.4	32.2	35.2	38.3	39.5			
		32		16.75	19.3	22	24.8	27.6	30.6	33.6	36.8					
		38		17	19.8	22.7	25.7	28.8	32							
		43			20.2	23.2	26.4									
46				20.3												
49																

# 2-Stage R404A

380-420V/50HZ/3 Phase

Condensing Unit		Ambient Temp (°C)		Evaporating Temperature (°C)								
				-60	-55	-50	-45	-40	-35	-30	-25	-20
Z9-6TA-150X	Capacity kW	27				8.81	11.3	14.2	17.4	21	25	29.4
		32		4.73	6.54	8.66	11.1	13.85	17	20.5	24.4	28.6
		38		4.66	6.41	8.44	10.75	13.4	16.4	19.75	23.4	27.4
		43		4.59	6.27	8.22	10.45	13	15.85	19.05	22.5	
		46		4.55	6.19	8.08	10.25	12.7	15.5	18.55	22	
	49		4.5	6.09	7.92	10	12.4	15.1				
	Total Power Input kW	27				9.43	10.35	11.3	12.25	13.25	14.3	15.4
		32		7.92	8.85	9.81	10.8	11.8	12.9	14	15.15	16.35
		38		8.32	9.31	10.35	11.4	12.55	13.7	14.9	16.2	17.55
		43		8.7	9.74	10.85	11.95	13.15	14.4	15.7	17.1	
46			8.94	10	11.15	12.3	13.55	14.85	16.2	17.65		
49		9.18	10.3	11.45	12.65	13.95	15.25					
Z9-6TH-200X	Capacity kW	27			8.34	10.75	13.6	16.85	20.5	24.5	28.9	33.6
		32		6.16	8.17	10.55	13.3	16.45	20	23.8	28	32.5
		38		6	7.95	10.25	12.9	15.95	19.3	23	26.9	31.1
		43		5.84	7.76	10	12.55	15.45	18.7	22.2	25.9	
		46		5.74	7.62	9.82	12.35	15.15	18.3	21.7		
	49		5.63	7.48	9.64	12.1						
	Total Power Input kW	27			10.25	11.5	12.75	14.05	15.4	16.85	18.4	20.1
		32		9.33	10.65	12	13.35	14.75	16.2	17.8	19.45	21.3
		38		9.8	11.2	12.65	14.1	15.6	17.2	18.95	20.8	22.8
		43		10.25	11.7	13.2	14.75	16.35	18.05	19.9	21.9	
46			10.55	12.05	13.55	15.15	16.85	18.6	20.5			
49		10.85	12.4	13.95	15.6							
W99-6TJ-250X	Capacity kW	27		7.79	9.97	12.8	16.2	20.1	24.3	28.7	33.2	37.7
		32		7.61	9.68	12.4	15.65	19.4	23.4	27.7	32	36.2
		38		7.38	9.35	11.9	15	18.55	22.4	26.4	30.4	34.3
		43		7.2	9.06	11.5	14.45	17.85	21.5	25.3	29.1	
		46		7.09	8.89	11.25	14.15	17.4	20.9			
	49		6.99	8.72	11	13.8						
	Total Power Input kW	27		10.45	11.55	12.9	14.4	16.1	17.85	19.65	21.4	23
		32		10.85	12.05	13.45	15.05	16.85	18.75	20.7	22.6	24.4
		38		11.4	12.65	14.15	15.9	17.8	19.85	21.9	24	26.1
		43		11.85	13.15	14.75	16.6	18.6	20.8	23	25.3	
46			12.15	13.5	15.15	17.05	19.15	21.4				
49		12.45	13.9	15.6	17.5							

Operating Conditions: 20 °C Return Gas Temperature  
 Stated Power Values are inclusive of fan motor power  
 The 2-Stage CDU comes with liquid subcooler mounted

# Mechanical & Electrical Data

## Standard

## Mechanical Data

Condensing Unit	Receiver Capacity <sup>6)</sup>	Depth/Width T/B mm	Height H mm	Dimensions (holes) b x t mm (Ø")	Suction Diameter SL Ø" (inch)	Liquid Line FL Ø" (inch)	Air Flow m <sup>3</sup> /sec.	Gross weight kg	Housing Type (option)
	l								
B8-KJ-10X	3.1	570/560	396	530x330 (11)	5/8	1/2	0.36	68	D/B
D8-KSJ-15X	3.7	570/560	446	530x330 (11)	7/8	1/2	0.51	72	D/B
D8-LF-20X	3.7	715/560	446	530x475 (14)	7/8	1/2	0.51	114	D-L
P8-LF-30X	7.5	640/950	633	915 x 380 (14)	1 1/8	1/2	1.06	154	P-CR
P8-LJ-30X	7.5	640/950	633	915 x 380 (14)	7/8	1/2	1.06	154	P-CR
P8-LL-40X	7.5	640/950	633	915 x 380 (14)	1 1/8	1/2	1.06	155	P-CR
M9-2SA-55X	7.5	730/735	708	700 x 390 (14)	1 1/8	1/2	1.24	167	M
R7-2SA-45X / 45X Air <sup>4)</sup>	14.0	820/1130	633	1095 x 475 (14)	1 1/8	3/4	1.97	167	R/S
S9-2SC-65X	14.0	820/1130	708	1095 x 475 (14)	1 1/8	3/4	1.94	180	R/S
S9-2SC-55X	14.0	820/1130	708	1095 x 475 (14)	1 1/8	3/4	1.94	167	R/S
M9-2SK-65X	7.5	730/735	708	700 x 390 (14)	1 1/8	1/2	1.24	167	M
V9-2SK-65X	18.0	820/1330	835	1295 x 475 (14)	1 1/8	7/8	2.18	167	V
V9-3SA-75X	18.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.18	295	V
V6-3SC-75X	18.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	360	V
V6-3SC-100X	18.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	360	V
W9-3SS-100X	18.0	820/1640	869	1605 x 475 (14)	1 3/8	7/8	3.33	417	W
W9-3SS-150X	18.0	820/1640	869	1605 x 475 (14)	1 5/8	7/8	3.33	417	W
Z9-4SA-200X	18,0	1108/1600	1252	1435 x 535 (18)	1 5/8	7/8	5,41	567	-

6) Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature (R22, R134a, R404A)

Air: Compressor motor air-cooled: Suction valve must be mounted on body instead of cover

Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature (R22, R134a, R404A)

## Standard

## Electrical Data

Condensing Unit	Maximum Operating Current (compressor)		Locked Rotor Current (compressor)		Fan Model	Condenser Fan Current 230V/1-50Hz
	EWL++	AWM	EWL++	AWM		
B8-KJ-10X	3.2		15.5		71	0.46
D8-KSJ-15X	3.4		20.4		121	0.66
H8-LE-20X	5.7		37.6		271	1.38
P8-LF-30X	7.2		53.0		2 x 121	0.66
P8-LJ-30X	8.1		53.0		2 x 121	0.66
K9-LL-30X	7.3		53.0		2 x 121	0.66
P8-LL-40X	9.5		68.5		2 x 121	0.66
M9-2SA-55X	13.1		67.3		2 x 271	2.13
R7-2SA-45X / 45X Air <sup>4)</sup>	10.4		68.5		271	1.38
S9-2SC-65X	16.2		85.0		2 x 271	1.38
S9-2SC-55X	12.8		74.1		2 x 271	1.38
M9-2SK-65X	16.4		85.3		611	2.13
V9-2SK-65X	16.4		85.3		2 x 271	1.38
V9-3SA-75X		17.9		82.0	2 x 271	1.38
V6-3SC-75X		19.8		70.0	2 x 611	2.13
V6-3SC-100X		21.6		106.0	2 x 611	2.13
W9-3SS-100X		26.0		109.0	2 x 611	2.13
W9-3SS-150X		30.2		125.0	2 x 611	2.13
Z9-4SA-200X		31,6		175,0	4 x 611	2,13

4) Air: Compressor motor air-cooled: Suction valve must be mounted on body instead of cover

## Mechanical Data

### Stream

Condensing Unit	Receiver Capacity	Depth/Width	Height	Dimensions	Suction Diameter	Liquid Line	Air Flow	Gross Weight
	6)	T/B	H	(holes)	SL	FL		
	l	mm	mm	b x t mm (Ø")	Ø" (inch)	Ø" (inch)	m <sup>3</sup> /sec.	kg
V6-4MF-13X	18.9	955/1289	835	1146 x 520 (14)	1 5/8	7/8	2.97	375
V6-4ML-15X	18.9	955/1289	835	1146 x 520 (14)	1 5/8	7/8	2.97	383
W9-4MM-20X	18.9	1107/1600	875	1435 x 535 (18)	2 1/8	7/8	3.33	472
W9-4MT-22X	18.9	1107/1600	875	1435 x 535 (18)	2 1/8	7/8	3.33	472
Z9-4MA-22X	18.9	1107/1600	1263	1435 x 535 (18)	1 5/8	7/8	5.41	548
Z9-4MH-25X	18.9	1107/1600	1263	1435 x 535 (18)	2 1/8	7/8	5.41	554
Z9-4MI-30X	18.9	1107/1600	1263	1435 x 535 (18)	2 1/8	7/8	5.41	581
Z9-4MJ-33X	18.9	1107/1600	1263	1435 x 535 (18)	2 1/8	7/8	5.41	581
Z9-4ML-15X	18.9	1107/1600	1252	1435x515 (18)	1 5/8	7/8	5.41	551
Z9-4MM-20X	18.9	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	553
Z9-4MT-22X	18.9	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	554
Z9-4MU-25X	18.9	1107/1600	1263	1435 x 535 (18)	2 1/8	7/8	5.41	557
Z9-6MM-30X	18.9	1130/1600	1263	1435x515 (18)	2 1/8	7/8	5.41	575
99-4MK-35X	47.9	1189/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	711
W99-6MI-40X	47.9	1213/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	728

6) Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature

## Electrical Data

### Stream

Condensing Unit	Maximum Operating Current (compressor)		Locked Rotor Current (compressor)		Fan Model	Condenser Fan Current Each 230V/1-50Hz
	AWM		AWM			
	A		A			
V6-4MF-13X	30.8		105		2 X 611	2.48
V6-4ML-15X	35.4		156		2 X 611	2.48
W9-4MM-20X	39.0		175		2 X 611	2.48
W9-4MT-22X	44.5		175		2 X 611	2.48
Z9-4MA-22X	36.3		175		4 X 611	2.48
Z9-4MH-25X	41.6		199		4 X 611	2.48
Z9-4MI-30X	46.6		221		4 X 611	2.48
Z9-4MJ-33X	52.9		221		4 X 611	2.48
Z9-4ML-15X	35.4		156		4 X 611	2.48
Z9-4MM-20X	39.0		175		4 X 611	2.48
Z9-4MT-22X	44.5		175		4 X 611	2.48
Z9-4MU-25X	51.9		199		4 X 611	2.48
Z9-6MM-30X	59.7		255		4 X 611	2.48
W99-4MK-35X	61.1		255		4 X 611	2.48
W99-6MI-40X	71.4		304		4 X 611	2.48

## Mechanical Data

### 2-Stage

Condensing Unit	Receiver Capacity 6)	Depth/Width	Height	Dimensions (holes)	Suction Diameter	Liquid Line	Air Flow	Gross Weight
	l	T/B mm	H mm	b x t mm (Ø")	SL Ø" (inch)	FL Ø" (inch)	m <sup>3</sup> /sec.	kg
Z9-6TA-150X-SUB	18.0	1138/1600	1252	1436 x 535 (18)	1 5/8	7/8	5.41	614
Z9-6TH-200X-SUB	23.0	1138/1600	1252	1438 x 535 (18)	1 5/8	7/8	5.41	617
W99-6TJ-250X-SUB	23.0	1137/1600	1810	1440 x 535 (18)	1 5/8	7/8	7.25	756

6) Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature (R22, R134a, R404A)

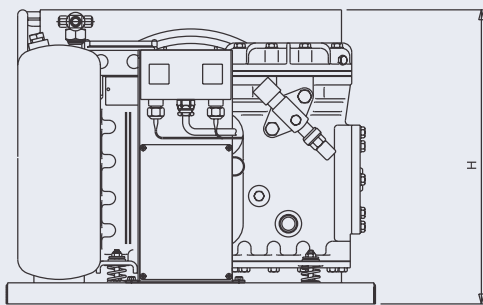
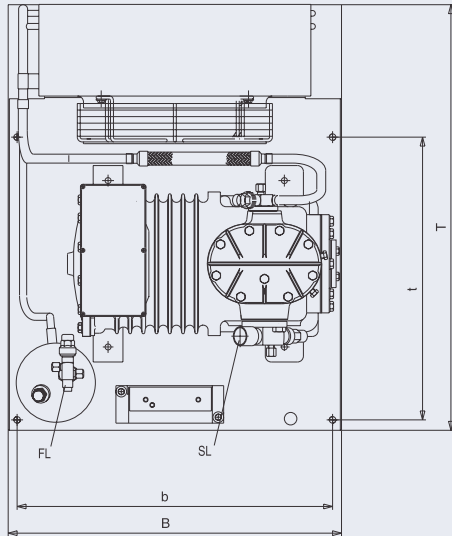
## Electrical Data

### 2-Stage

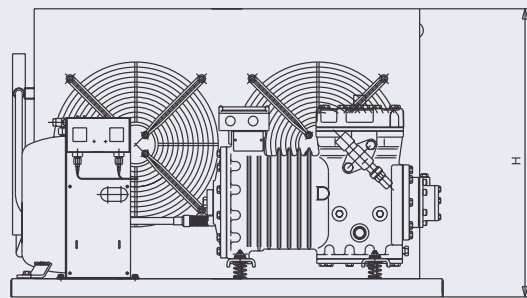
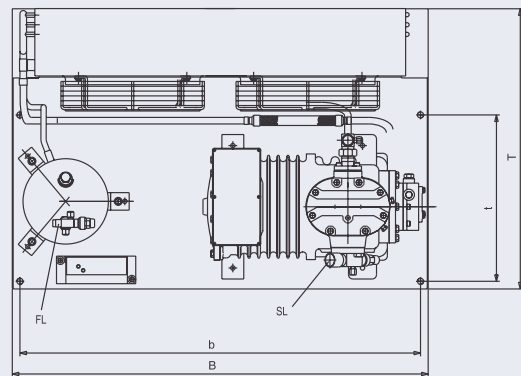
Condensing Unit	Maximum Operating Current (compressor)	Locked Rotor Current (compressor)	Fan Model	Condenser Fan Current 230V/1-50Hz
	AWM A	AWM A		
Z9-6TA-150X-SUB	30.1	174	4 x 611	2.13
Z9-6TH-200X-SUB	37.3	174	4 x 611	2.13
W99-6TJ-250X-SUB	40.2	203	4 x 611	2.13

# Dimensional Drawings

Condenser B, D, H, M with L, K, 2S compressor



Condenser P with L Compressor



H: Height

B: Width

T: Depth

b,t: Dimensions (holes)

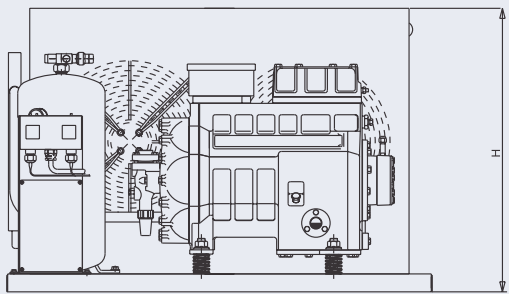
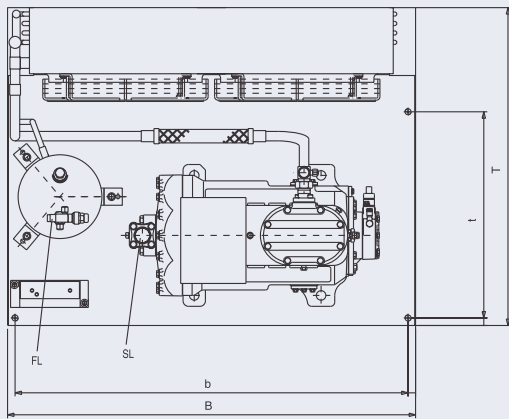
SL: Suction line

FL: Liquid line

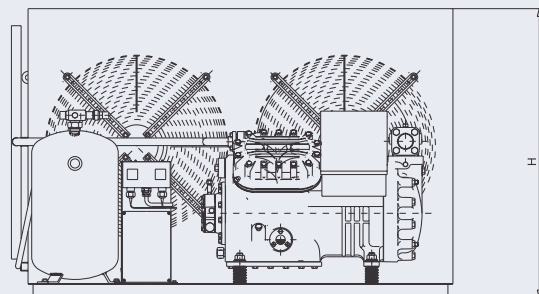
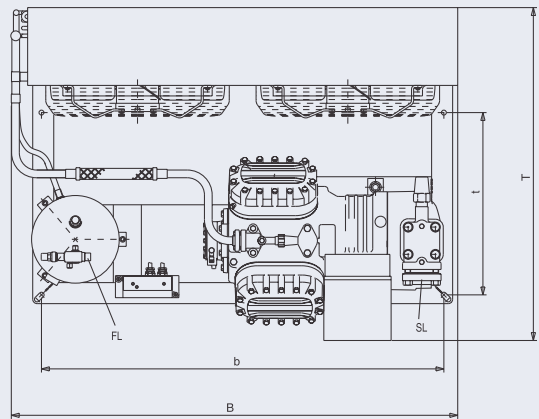
Please refer to data tables on page 40 to 48 for concrete dimensions

# Dimensional Drawings

Condenser P,S, R, V, W with 2S, 3S compressor



Condenser V, W with 4S, 4M, 6M compressor



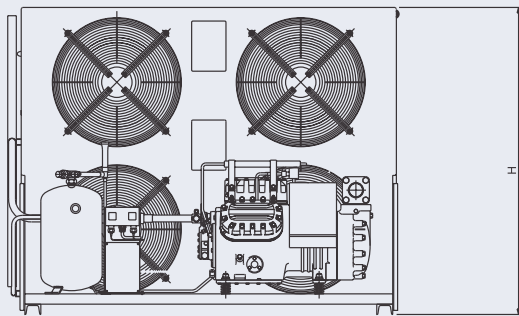
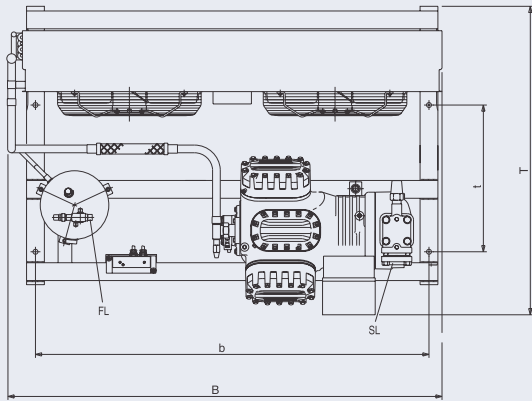
- H: Height
- B: Width
- T: Depth
- b,t: Dimensions (holes)
- SL: Suction line
- FL: Liquid line

Please refer to data tables on page 40 to 48 for concrete dimensions

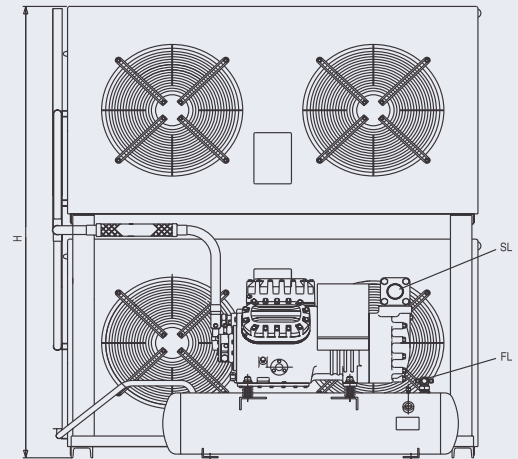
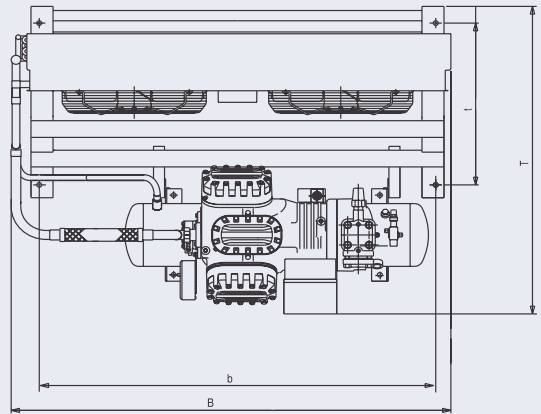


# Dimensional Drawings

Condenser Z with 4S, 4M, 6M compressor



Condenser W99 with 6M compressor



- H: Height
- B: Width
- T: Depth
- b,t: Dimensions (holes)
- SL: Suction line
- FL: Liquid line

Please refer to data tables on page 40 to 48 for concrete dimensions

# India Semi Hermetic Servicing Center “Reduced Downtime & Peace of Mind For Our Customers”

## What We Offer?



For more than 80 years we have been introducing pioneering technologies to the market, from the first semi hermetic and hermetic compressor in the 1940s and 1950s, to the brand new and high efficiency semi hermetic “Stream” and scroll compressors of nowadays. With our global expertise in the field of semi hermetic & scroll technology, we have setup best in class processes and testing facilities to ensure the quality and reliability in compressor servicing.

Built on global standards, the semi-hermetic repair center assists customers with in-depth equipment testing, complete overhaul of electrical and mechanical components and functional testing for the entire range of semi-hermetic compressors sold in India.



## Assured Of Highest Quality

Our Service centers have extensive product knowledge and provide a prompt, professional, guaranteed repair service. We have the complete analysis & test setup for the entire range of semi hermetic/scroll models sold in India. Our Technical Staff are trained at the highest level in the area of semi hermetic repair and scroll TDA. Leveraging our global network of R&D and Best In Industry experience, we ensure that our quality resources are delivering on their commitment to provide you efficient & quality service.

## Genuine Spare Parts



When you need parts for your compressor, whether for repair work or scheduled maintenance, make sure you specify and insist on Genuine Copeland Parts. Genuine Copeland Parts are engineered for long-term service and maximum performance. To enable fast and efficient service, we maintain an extensive inventory of Original & Genuine COPELAND spare parts at our Distribution center, Chakan. To facilitate our customers, we have a dedicated website for selection of spare parts. For more details, please use the below link:

<http://parts.emersonclimate.eu/IPP1/>

With Genuine Copeland Parts, you can be assured of getting the engineering design and special construction features that only Copeland can offer.

## Semi Hermetic Compressor Servicing

Once we receive a compressor for repair, the compressor goes through the stringent forms of checks & testing before certifying it for use in the market. The compressor is dismantled after removing the oil. After a thorough inspection and examination of the parts, We only recommend a part replacement if it doesn't comply with our standards. The parts & compressor are thoroughly cleaned and then reassembled on a special Assembly Rig.

## Rigorous Testing To Ensure Reliability

We are the only manufacturer with a full-fledged test facility for semi hermetic compressors in India. Our Service Center is equipped with the state of the art test equipment to ensure the operation of the semi hermetic compressors after the repair process. The results are then evaluated against our Emerson standards to ensure that

the compressor passes all the standard qualification criteria for re-use.

1. Leakage Check: After reassembly, the compressors go through Burst test and Dip tank leak test to ensure that there are no leakages.
2. Vacuum Dehydration: The compressors are then vacuum dehydrated in a special setup to ensure that there is no air/moisture in the compressor
3. Oil Filling: Using an advanced "Auto Charge Board", we ensure that the right amount of oil is filled according to the model.

Final Test: The final testing is performed with a sophisticated test board with all the data logging features. We check for the electrical performance, oil pump performance, pressure buildup, leakages etc.





# Project Design Services For All Your Refrigeration Needs.



## Project Design Report: 2000MT Cold storage For Apples

Job Request No: 201403024

Company: M/S ABC Refrigeration

Location: Delhi

BY:

PROJECT DESIGN SERVICES GROUP  
EMERSON COLD CHAIN & DISTRIBUTION CENTER

DATE: 26-03-2014



# Optimally designed comprehensive solutions.

As expectations for quality of life continue to rise, there is a growing need for reliable and efficient refrigeration technology to keep food safe during production, processing, transportation and storage, leading to improved food quality and human health.

Therefore, for the refrigeration industry, the equipment selection, project design and construction as well as after-sales services play a crucial role in the implementation of a project. From heat load calculation to the equipment selection, we work with you every step of the way helping ensure your refrigeration project is optimally designed and customized refrigeration solutions are provided to meet your unique cooling requirements.

# Our Design Team - Qualified & Committed to Deliver.

Emerson design engineers bring to the table a world of experience culled from Emerson facilities the world over. They are highly specialized in the area of refrigerated facility design (with each having over 10 years of field experience). They are trained at the highest level in the area of refrigeration systems & design and leverage an experience borne from a global network of R&D. Emerson engineers are truly equipped and committed to provide you efficient & quality solutions for your cooling needs.

### CDU Performance Parameters:

Evaporating Temp.	:-	-7 °C
Ambient Temp.	:-	43 °C
Suction Gas Return Temp.	:-	18.3°C
Total Capacity Requirement	:-	7.1 Kw
No. Of CDU	:-	1 Nos.
Capacity Required/Unit	:-	7.1 KW

### Selected Emerson CDU Model:

KHR553PQE-DX	:-	1 Nos.
--------------	----	--------

### KHR553PQE-DX CDU Performance Details:

Refrigeration Capacity	:-	7.2 KW
Power Consumption	:-	3.9 KW

### Recommended TXV & Solenoid Valve:

TXV Model	:-	TISE-HW
Orifice	:-	TIO-003
Solenoid Valve	:-	200RB 3T4

### Recommended Pipe Size

Suction Line	:-	7/8 Inch
Liquid Line	:-	1/2 Inch
Suction Line Insulation Thk.	:-	19 MM

### Required Evaporator Specification:

Evaporator Cooling Capacity	:-	7.2 KW
TD	:-	8K

# Integrated Solutions For a Wide Range Of Applications

## Best-in-class performance across the entire Cold Chain.

By optimizing and combining refrigeration compressors, energy-conservation control systems, remote network monitoring systems and flow control elements, Emerson Climate Technologies' integrated solutions offer best-in-class performance and reliability for diverse applications. Applications range from Milk Cooling, Fruit ripening, Vegetable preservation, Meat & Fish Preservation etc.



Ripening Chamber



Blast Freezer



Retail



Cold Storages



Milk Cooling



Process Chilling



## Education Services -Developing Industry Awareness & Instilling Best Practices

**A unique learning experience holds everyone's attention.**

Technical training is more important than ever. Emerson's Educational Services group delivers comprehensive

training programs that not only cover essential service skills, they also keep you up-to-date on emerging technology. From hands-on seminars to online tools, Emerson provides the training you need, at a time and place that fits your schedule. Whether it's learning new techniques in Refrigeration system maintenance or designing a cold room or implementing a comprehensive energy management program for supermarkets, Emerson Climate Technologies gives you the knowledge to succeed.



## Emerson Instructors- Recognized Industry Leaders Imparting Global Expertise

An Emerson certified Instructor is a professional driven by a passion to help make a difference to the industry, as also to create a legion of fellow professionals who can do the same. Every Emerson Climate Technologies course is led by an

Emerson certified instructor. They are a fine blend of exceptional knowledge and an in-depth understanding of refrigeration principles, technology and the industry as a whole. The instructors have extensive hands-on experience; an innate understanding of the contractor's business needs and concerns, and a proven ability to hold the attention of the participants to provide the best learning experience possible.





## Our Programs: Programs For Excellence

Emerson has identified three critical areas within the industry and has created specialized programs that address every minute detail in these areas. The specialized technology programs are precisely tailored day-long

sessions and focus on only one specific subject area at a time, covering it in totality. Trainees opting for these programs can choose from any of the three specialized technologies.

### Cold Room Basics

Cold Room Design & Optimization Development and Selection of Equipment Blast Freezers, Ripening Chambers, Cold Rooms, CA Stores Design and Installation.



Live Freezer/Chiller Rooms

### Compressor Technologies

Refrigeration Basics, Additional System Components, Refrigerants and Oils, Scroll Technology Fundamentals, Scroll Applications, Semi-Hermetic Technology Fundamentals and Advanced Compressor Electronics.



### Refrigeration Troubleshooting

Refrigeration Basics, Additional System Components, System Troubleshooting & Diagnostic, Condensing Units and Rack Systems.



Advanced Refrigeration Controls/Remote Monitoring Systems

## The Infrastructure to train tomorrow's industry professionals.

The Centre showcases Emerson Climate Technologies' top-of-the-line product range for the Cold Chain industry. These are the benchmarks that define the latest trends in

energy efficiency and Integrated solutions for the industry. Here, Emerson customers can experience first hand the world-class options of technology on offer.



Advanced Refrigeration Controls/Remote Monitoring Systems



Full Range Product Display

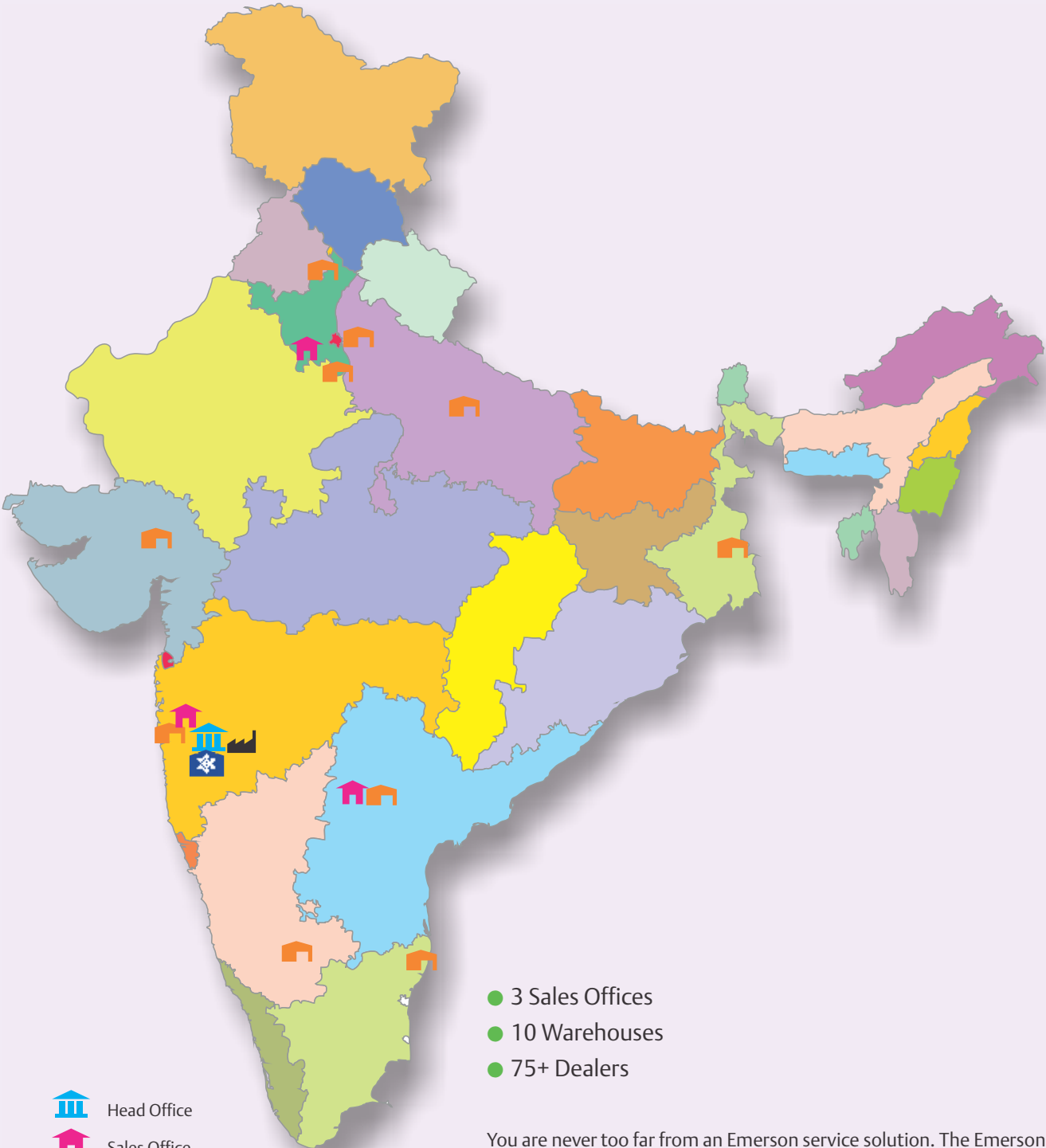


Live Freezer/Chiller Rooms



Training Room

# Cold Chain Solutions That Span Across The Nation



-  Head Office
-  Sales Office
-  Cold Chain Centre
-  Factory
-  Warehouse

- 3 Sales Offices
- 10 Warehouses
- 75+ Dealers

You are never too far from an Emerson service solution. The Emerson service network is extensive and spread across the nation. Our service engineers are swift to respond, comprehensively trained and equipped to cater to any eventuality. Emerson service has set benchmarks for the industry to emulate.

## General Information

Technical data given was correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson Climate Technologies stating clearly the information required. Emerson Climate Technologies cannot be held responsible for errors in capacities, dimensions, etc., stated herein. Products, specifications and data in this literature are subject to change without notice. The information given herein is based on data and tests which Emerson Climate Technologies believes to be reliable and which are in accordance with today's technical knowledge. It is intended for use by persons having the appropriate technical knowledge and skill, at their own discretion and risk. Our products are designed and adapted for fixed locations. For mobile applications, failures may occur. The suitability for this has to be assured from the plant manufacturer, which may include making appropriate tests.

## Note

The components listed in this catalogue are not released for use with caustic, poisonous or flammable substances. Emerson Climate Technologies cannot be held responsible for any damage caused by using these substances.



## SALES OFFICES:

### Gurgaon

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DLF Cyber Terraces, DLF Building No . 5,  
DLF Cyber City, Phase -III  
Gurgaon-122002  
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Emerson Climate Technologies (India) Ltd.  
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6th Floor, Central Avenue,  
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Mumbai- 400076  
Tel: (91-22) 6662 0566

### Secunderabad

Emerson Climate Technologies (India) Ltd  
2nd Floor, Survey No. 240, 242, 243,  
Chinna Thokata, New Bowenpally,  
Secunderabad-500011  
Tel: (91-40) 3315 4018

## WAREHOUSES:

### Ahmedabad

Emerson Climate Technologies (India) Ltd.  
54, Shivam Estate, S. G. Highway, Sarkhej,  
Ahmedabad-382 210  
Tel: (91-79) 69431993

### Bangalore

Emerson Climate Technologies (India) Limited  
C/o Agility Logistics Pvt. Ltd  
Shed No. 8 Survey No31,  
18KM Old Madras Road,  
Virgonagar, Bangalore-560049  
Tel: (91-80) 3221 0509/501

### Chandigarh

Emerson Climate Technologies (India) Ltd.  
177, Industrial Area, Phase - II,  
Chandigarh-160002  
Tel: (91-172) 2653987

### Chennai

Emerson Climate Technology (India) Ltd,  
C/o. Agility Logistics Pvt Ltd,  
Kanishk Warehouse, Sr. No. 204,  
Vijayanallur Village Road, Nallur Village,  
Cholovaram Po, Ponneri Tk, Chennai-600067.  
Tel: (91-44) 4325 7796

### Faridabad

Emerson Climate Technologies (India) Ltd.  
3B-3B.P., NIT  
Faridabad-120 001  
Tel : (91-129) 2431037

### Kolkata

Emerson Climate Technologies (India) Ltd.  
35/7, Tollygunje Circular Road  
P.S.New Alipore  
Kolkata-700 053  
Tel: (91-33) 2400 2779/2400 2781

### Lucknow

Emerson Climate Technologies (India) Ltd.  
A-5, Sector-B, Aliganj, Near CMS School,  
Lucknow-226 024  
Tel: (91-522) 2337812

### Mumbai

Emerson Climate Technologies (India) Ltd.  
Unit No. 59, Ground Floor, 'AA' Wing,  
Building No.1, at Kailas Industrial complex,  
CTS No. 1/7 & 1/11, Veer Savarkar Marg,  
Near Hiranandani Park,  
Vikhroli (West), Mumbai-400 079  
Tel: (91-22) 4270 8001

### New Delhi

Emerson Climate Technologies (India) Ltd.  
56, Rama Road Industrial Area  
Nr. Mahindra Showroom  
New Delhi-110 015  
Tel: (91-11) 45751000

### Secunderabad

Emerson Climate Technologies India Limited,  
C/o: Agility Logistics Pvt. Ltd, # 8-122, Devaryamjal Road,  
Kompally, Shameerpet Mandal, Ranga Reddy Dist.,  
Secunderabad-500014,  
Tel: (91) 9247000174/9000649871

## REGISTERED HEAD OFFICE

Emerson Climate Technologies (India) Limited  
Plot No. 23, Rajiv Gandhi Infotech Park, Phase - II, Hinjewadi, Pune-411 057  
Tel: (91-20) 4200 2000, Fax: (91-20) 4200 2099

## PLANT

Atit Pali Road, Atit - 415 519, Maharashtra Tel: (91-2162) 224200,  
Fax: (91-2162) 262069

## COLD CHAIN & DISTRIBUTION CENTER

Emerson Climate Technologies (India) Limited Plot No. G-8/3, Block M.I.D.C.  
Chakan Industrial Area, Phase - III, Taluka : Khed. Dist : Pune-410 501  
Tel: (91- 2135) 653550

## HELP DESK:

1800-209-1700  
Write to us : ClimateIndia@Emerson.com

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