

# PRODUCT SPECIFICATION

COMPRESSOR MODEL

**CR22K6M-PF1-XXX**

BILL OF MATERIALS

**131, 171, 631, 671**

**Emerson Climate Technologies (India) Limited**  
Karad Dhebewadi Road  
Karad - 415 110  
INDIA

Note : Sales compressor drawing number and compressor model name are the same.

				01	F25-1206-0591 Current EN No.	A2 13.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F45-0604-0758 Last EN No.	REV. No. DATE

**PRODUCT SPECIFICATION****MODEL : CR22K6M-PF1-XXX****A ) MODEL DESCRIPTION**

<b>Model Name</b>	<b>CR22K6M-PF1-XXX</b>
<b>Compressor Type</b>	Reciprocating, Connecting Rod Type
<b>Application Group</b>	High Temperature (HBP)
<b>Evaporating Temperature Range</b>	-23.3°C To 12.8°C (-10 °F To 55°F)
<b>Refrigerant</b>	R-22
<b>Rated Voltage</b>	230 V, 50 Hz, 1 Phase
<b>Compressor Cooling</b>	Fan : 400 ft <sup>3</sup> / minute
<b>Typical Application</b>	Air - conditioning, Heat Pump
<b>Certifications &amp; Approvals</b>	ISI, EN60335-2-34

**B ) PERFORMANCE SPECIFICATION @ RATED CONDITION**

<b>Parameter</b>	<b>Unit</b>	<b>ASRE / T</b>	<b>ARI</b>
Cooling Capacity	Btu / h	19000	18500
	kcal / h	4788	4662
	W	5563	5417
	Nominal HP	---	1.83
Input Power	W	1750	1750
Input Current	A	7.8	7.8
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	10.86	10.57
	kcal / W-h	2.74	2.66
	W / W	3.18	3.10

Note : Above performance parameters are nominal values & subject to  $\pm 5\%$  variation.

**C ) RATING CONDITIONS**

<b>Parameter</b>	<b>Unit</b>	<b>ASRE / T</b>	<b>ARI</b>
Evaporating Temperature	°C (°F)	7.2 (45)	7.2 (45)
Condensing Temperature	°C (°F)	54.4 (130)	54.4 (130)
Ambient Temperature	°C (°F)	35 (95)	35 (95)
Sub - cooled Liquid Temperature	°C (°F)	46 (115)	46 (115)
Return Gas Temperature	°C (°F)	35 (95)	18.3 (65)
Test Voltage	V	230	230

				02	F25-1206-0591 Current EN No.	A2 13.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F45-0604-0758 Last EN No.	REV. No. DATE

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**MODEL : CR22K6M-PF1-XXX**

## D) MECHANICAL SPECIFICATION

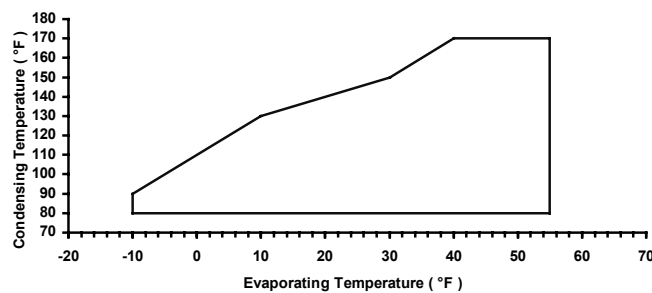
Parameter	Unit	Value
Number of Cylinders	Number(s)	Two (2)
Displacement	cm <sup>3</sup> ( inch <sup>3</sup> ) / rev	40.80 ( 2.490 )
Net Weight	kg	29.8
Approximate Shipping Weight	kg	31.5
Oil Charge	cm <sup>3</sup> ( Oz )	1,330 ( 45 )
Oil Type	Refrigeration Grade	Mineral
IPRV ( Pressure Differential )	kg / cm <sup>2</sup> ( psig )	31.64 / 38.67 (450 / 550)
** Crank - Case Heater	W @ V	N / A

\*\* Recommended only for Heat Pump Application.

## E) ELECTRICAL SPECIFICATION

Parameter	Unit	Value
Operating Voltage Range	V	180 To 260
Motor Circuit	---	PSC (Optional : CSCR)
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	80 To 100 @ 275
➤ Run Capacitor	μF @ V AC	36 @ 440
➤ Relay	---	AC85004
➤ Over Load Protector	---	Internal
Lock Rotor Ampere ( LRA )	A	54
Maximum Continuous Current ( MCC )	A	13.5
Motor Insulation	---	B Class
High Potential Test	( kV / second / mA )	1.85 / 1 / 5.5 ± 0.5

## F) OPERATING ENVELOPE @ 230 V, 50 Hz, 1 Phase



				03	F25-1206-0591 Current EN No.	A2 13.12.2006
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SPECIFICATION

**PRODUCT SPECIFICATION****MODEL : CR22K6M-PF1-XXX****PERFORMANCE TABLES**

<b>Superheating</b>	11 °C ( 20 °F )	<b>Voltage</b>	230V, 50Hz, 1 Phase
<b>Sub - cooling</b>	8.3 °C ( 15 °F )	<b>Compressor cooling</b>	400 ft <sup>3</sup> / minute
<b>Ambient Temperature</b>	35 °C ( 95 °F )	-	-

**A ) COOLING CAPACITY ( Btu / h )**

Condensing Temperature		Evaporating Temperature								
		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	( °F )	-10	0	10	20	30	40	45	50	55
37.8	100	2280	5950	9370	12900	16900	21800	24600	27800	31400
43.3	110	-	4830	8200	11600	15400	19900	22600	25600	29000
48.9	120	-	-	7020	10300	13900	18100	20600	23400	26500
54.4	130	-	-	5800	8920	12300	16200	18500	21100	24000
60.0	140	-	-	-	7520	10600	14200	16300	18700	21400
65.5	150	-	-	-	6050	8920	12200	14100	16300	18700

**B ) INPUT POWER ( W )**

Condensing Temperature		Evaporating Temperature								
		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	( °F )	-10	0	10	20	30	40	45	50	55
37.8	100	750	990	1170	1290	1380	1440	1460	1490	1510
43.3	110	-	970	1180	1340	1460	1550	1590	1640	1680
48.9	120	-	-	1170	1360	1520	1650	1710	1760	1820
54.4	130	-	-	1140	1370	1560	1720	1750	1870	1940
60.0	140	-	-	-	1350	1570	1770	1860	1950	2040
65.5	150	-	-	-	1320	1570	1800	1910	2010	2120

**C ) INPUT CURRENT ( A )**

Condensing Temperature		Evaporating Temperature								
		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	( °F )	-10	0	10	20	30	40	45	50	55
37.8	100	3.3	4.3	5.1	5.6	6.0	6.3	6.4	6.5	6.6
43.3	110	-	4.2	5.2	5.8	6.3	6.7	6.9	7.1	7.4
48.9	120	-	-	5.1	5.9	5.9	7.1	7.4	7.7	8.0
54.4	130	-	-	5.0	6.0	6.8	7.5	7.8	8.2	8.5
60.0	140	-	-	-	5.9	6.8	7.7	8.1	8.5	9.0
65.5	150	-	-	-	5.8	6.8	7.8	8.3	8.8	9.3

Note : 1. Nominal Performance Values ( ± 5% ) based on 24 h of 'run in'. Subject to change without notice.

2. Compressor is intended to be operated in the range of condensing & evaporating temperatures where performance values are specified in above tables.

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