

PRODUCT SPECIFICATION

COMPRESSOR MODEL

CR30K6M-PF1-XXX

BILL OF MATERIALS

131, 631

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

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

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Prepared by	Checked by	Verified by	Approved by	Page No.	F45-0304-0248 Last EN No.	REV. No. DATE

PRODUCT SPECIFICATION**MODEL : CR30K6M-PF1-XXX****A) MODEL DESCRIPTION**

Model Name	CR30K6M-PF1-XXX
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	High Temperature (HBP)
Evaporating Temperature Range	(-) 23.3 °C To 12.8 °C (-) 10 °F To 55 °F
Refrigerant	R-22
Rated Voltage	230 V, 50 Hz, 1 Phase
Compressor Cooling	Fan : 400 ft ³ / minute
Typical Application	Air - conditioning, Heat Pump
Certifications & Approvals	ISI, EN60335-2-34

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Parameter	Unit	ASRE / T	ARI
Cooling Capacity	Btu / h	25,000	24,250
	kcal / h	6,300	6,110
	W	7,330	7,110
	Nominal HP	2.50	2.50
Input Power	W	2,350	2,350
Input Current	A	11.0	11.0
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	10.64	10.32
	kcal / W-h	2.68	2.60
	W / W	3.12	3.03

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

C) RATING CONDITIONS

Parameter	Unit	ASRE / T	ARI
Evaporating Temperature	°C (°F)	7.2 \pm 0.5 (45)	7.2 \pm 0.5 (45)
Condensing Temperature	°C (°F)	54.4 \pm 1 (130)	54.4 \pm 1 (130)
Ambient Temperature	°C (°F)	35 \pm 1 (95)	35 \pm 1 (95)
Sub - cooled Liquid Temperature	°C (°F)	46 \pm 1 (115)	46 \pm 1 (115)
Return Gas Temperature	°C (°F)	35 \pm 1 (95)	18.3 \pm 1 (65)
Test Voltage	V	230	230

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MODEL : CR30K6M-PF1-XXX

D) MECHANICAL SPECIFICATION

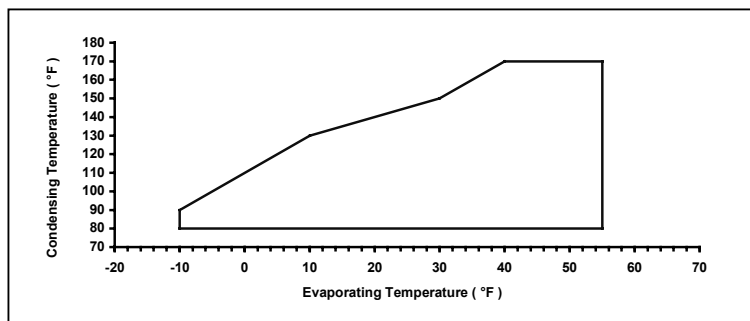
Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	51.47 (3.141)
Net Weight	kg	32.5
Approximate Shipping Weight	kg	33.1
Oil Charge	cm ³ (Oz)	1,330 (45)
Oil Type	Refrigeration Grade	Mineral
IPRV (Pressure Differential)	kg / cm ² (psig)	31.64 / 38.67 (450 / 550)
** Crank - Case Heater	W @ V	-

** 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	150 - 200 @ 275
➤ Run Capacitor	μF @ V AC	45 @ 440
➤ Relay	---	AC85001M
➤ Over Load Protector	---	Internal
Lock Rotor Ampere (LRA)	A	72
Maximum Continuous Current (MCC)	A	17.8
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



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PRODUCT SPECIFICATION**MODEL : CR30K6M-PF1-XXX****PERFORMANCE TABLES**

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

A) COOLING CAPACITY (Btu / h)

Condensing Temperature		Evaporating Temperature								
°C	(°F)	-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		-10	0	10	20	30	40	45	50	55
37.8	100	5040	8200	12200	17000	22400	28600	32000	35600	39400
43.3	110	-	6870	10600	15300	20400	26300	29500	32900	36500
48.9	120	-	-	9060	13600	18500	24000	27100	30300	33700
54.4	130	-	-	7550	12000	16600	21800	24250	27700	30900
60.0	140	-	-	-	10300	14600	19600	22200	25100	28100
65.5	150	-	-	-	8680	12800	17400	19900	22500	25400

B) INPUT POWER (W)

Condensing Temperature		Evaporating Temperature								
°C	(°F)	-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		-10	0	10	20	30	40	45	50	55
37.8	100	980	1190	1390	1660	1770	1840	1850	1860	1850
43.3	110	-	1180	1410	1740	1890	2000	2040	2060	2080
48.9	120	-	-	1410	1800	1990	2140	2200	2250	2290
54.4	130	-	-	1390	1840	2070	2260	2350	2420	2480
60.0	140	-	-	-	1850	2120	2360	2460	2560	2640
65.5	150	-	-	-	1820	2130	2410	2540	2660	2770

C) INPUT CURRENT (A)

Condensing Temperature		Evaporating Temperature								
°C	(°F)	-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		-10	0	10	20	30	40	45	50	55
37.8	100	5.5	6.3	7.1	8.7	9.2	9.4	9.5	9.4	9.3
43.3	110	-	6.3	7.2	8.9	9.5	9.9	10.0	10.1	10.0
48.9	120	-	-	7.2	9.0	9.7	10.3	10.5	10.7	10.0
54.4	130	-	-	7.1	9.0	9.9	10.7	11.0	11.2	11.4
60.0	140	-	-	-	9.1	10.1	11.1	11.5	11.8	12.1
65.5	150	-	-	-	9.2	10.3	11.4	11.9	12.4	12.8

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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