

PRODUCT SPECIFICATION

COMPRESSOR MODEL

CR72KQM-TFM-XXXXX

BILL OF MATERIALS

233DM

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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PRODUCT SPECIFICATION**MODEL: CR72KQM-TFM-XXXXX****A) MODEL DESCRIPTION**

Model Name	CR72KQM-TFM-XXXXX
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	High Temperature (HBP)
Evaporating Temperature Range	(-)23.3 °C To 12.8 °C Or (-)10 °F To 55 °F
Refrigerant	R-22
Rated Voltage	380-420 V, 50 Hz, 3 Phase
Compressor Cooling	Fan : 400 ft ³ / minute
Typical Application	Air - Conditioning, Heat Pump
*Certifications & Approvals	---

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Parameter	Unit	ASRE/T	ARI
Cooling Capacity	Btu / hr	61,500	60,000
	kcal / hr	15,498	15,120
	W	18,024	17,584
	Nominal HP	6.15	6.00
Input Power	W	6,100	6,100
Input Current	A	10.5	10.5
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-hr	10.08	9.83
	kcal / W-hr	2.54	2.47
	W / W	2.95	2.88

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	400	400

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D) MECHANICAL SPECIFICATIONS

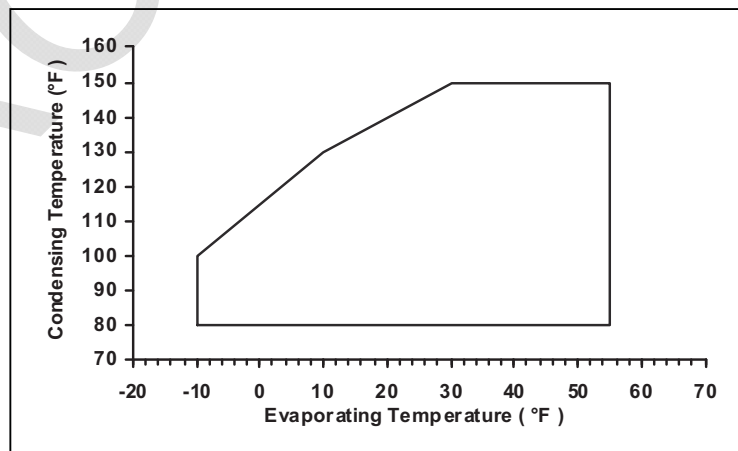
Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	115.79 (7.066)
Net Weight	kg	37.5
Approximate Shipping Weight	kg	38.3
Oil Charge	cm ³ (Oz)	1,330 (45)
Oil Type	Refrigeration Grade	Mineral
IPRV (Pressure Differential)	kg/cm ² (psig)	31.64 / 38.67 (450 / 550)
** Crank - case Heater	W @ V	40 @ 240 For CR72KQM-TFM-XX2 40 @ 480 For CR72KQM-TFM-XX3

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	360 To 460
Motor Circuit	---	3 Phase
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	N/A
➤ Run Capacitor	μF @ V AC	N/A
➤ Relay	---	N/A
➤ Over Load Protector	---	Internal
Locked Rotor Ampere (LRA)	A	69.0 @ 420 V
Maximum Continuous Current (MCC)	A	19.5
High Potential Test	(kV / second / mA)	2.3 / 1 / 5.5 ± 0.5

F) OPERATING ENVELOPE @ 400 V, 50 Hz, 3 Phase



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G) PERFORMANCE TABLES

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

H) COOLING CAPACITY (Btu / hr)

Condensing Temperature		Evaporating Temperature									Coefficients	
											c1	c2
°C		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10.0	12.8	c3	Under Evolution
(°F)		-10	0	10	20	30	40	45	50	55	c4	
37.8	100	Under Evolution									c5	
43.3	110										c6	
48.9	120										c7	
54.4	130										c8	
60.0	140										c9	
65.6	150										c10	

J) INPUT POWER (W)

Condensing Temperature		Evaporating Temperature									Coefficients	
											c1	c2
°C		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10.0	12.8	c3	Under Evolution
(°F)		-10	0	10	20	30	40	45	50	55	c4	
37.8	100	Under Evolution									c5	
43.3	110										c6	
48.9	120										c7	
54.4	130										c8	
60.0	140										c9	
65.6	150										c10	

K) INPUT CURRENT (A)

Condensing Temperature		Evaporating Temperature									Coefficients	
											c1	c2
°C		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10.0	12.8	c3	Under Evolution
(°F)		-10	0	10	20	30	40	45	50	55	c4	
37.8	100	Under Evolution									c5	
43.3	110										c6	
48.9	120										c7	
54.4	130										c8	
60.0	140										c9	
65.6	150										c10	

L) MASS FLOW RATE (lbs/hr)

Condensing Temperature		Evaporating Temperature									Coefficients	
											c1	c2
°C		-23.3	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10.0	12.8	c3	Under Evolution
(°F)		-10	0	10	20	30	40	45	50	55	c4	
37.8	100	Under Evolution									c5	
43.3	110										c6	
48.9	120										c7	
54.4	130										c8	
60.0	140										c9	
65.6	150										c10	

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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