

PRODUCT SPECIFICATION

COMPRESSOR MODEL

CR42K6-TF5-XXX

BILL OF MATERIALS

111

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 : CR42K6-TF5-XXX****A) MODEL DESCRIPTION**

Model Name	CR42K6-TF5-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	400 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 / h	35,100	34,200
	kcal / h	8,845	8,618
	W	10,278	10,014
	Nominal HP	---	3.5
Input Power	W	3,300	3,300
Input Current	A	6.1	6.1
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	10.64	10.36
	kcal / W-h	2.68	2.61
	W / W	3.12	3.04

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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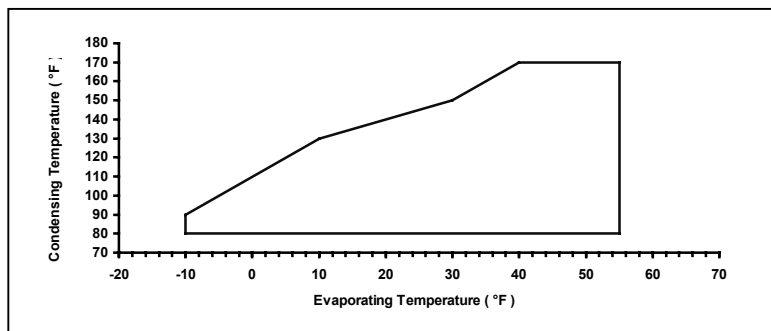
PRODUCT SPECIFICATION**MODEL : CR42K6-TF5-XXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	72.09 (4.399)
Net Weight	kg	32.7
Approximate Shipping Weight	kg	34.0
Oil Charge	cm ³ (Oz)	1,330 (45)
Oil Type	Refrigeration Grade	Mineral
IPRV (Pressure Differential)	kg / cm ² (psig)	31.65 / 38.68 (450 / 550)
** Crank - Case Heater	W @ V	--

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATION

Parameter	Unit	Value
Operating Voltage Range	V	340 To 460
Motor Circuit	---	Three Phase
Electrical Accessories	---	--
➤ Start Capacitor	μF @ V AC	N / A
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	N / A
➤ Over Load Protector	---	Internal
Lock Rotor Ampere (LRA)	A	45
Maximum Continuous Current (MCC)	A	8
Motor Insulation	---	B Class
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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PRODUCT SPECIFICATION**MODEL : CR42K6-TF5-XXX****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)	-	-

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	9400	12800	17800	24000	31100	39600	44400	49700	55400
43.3	110	-	11500	15900	21700	28500	36500	41000	46000	51300
48.9	120	-	-	14200	19500	25900	33300	37700	42300	47300
54.4	130	-	-	12600	17200	23200	30300	34200	38500	43300
60.0	140	-	-	-	15000	20600	27100	30900	34800	39200

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	1500	1680	1920	2190	2370	2480	2520	2550	2570
43.3	110	-	1700	1950	2290	2520	2700	2770	2830	2880
48.9	120	-	-	1990	2370	2650	2890	2990	3070	3150
54.4	130	-	-	2020	2410	2750	3040	3300	3290	3400
60.0	140	-	-	-	2430	2820	3170	3450	3490	3620

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	4.2	4.3	4.6	4.8	5.0	5.2	5.2	5.2	5.3
43.3	110	-	4.3	4.7	4.9	5.2	5.6	5.6	5.6	5.8
48.9	120	-	-	4.8	5.0	5.4	5.8	5.9	6.0	6.2
54.4	130	-	-	4.9	5.1	5.5	6.0	6.1	6.2	6.5
60.0	140	-	-	-	5.2	5.6	6.2	6.3	6.5	6.8

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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