

PRODUCT SPECIFICATION

COMPRESSOR MODEL

KCJ444HAG-BXXX

BILL OF MATERIALS

B220, B221

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 – KCJ444HAG-BXXX****A) MODEL DESCRIPTION**

Model Name	KCJ444HAG-BXXX
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	High / Medium Temperature (HBP/CBP)
Evaporating Temperature Range	-17.8 ⁰ C To 12.8 ⁰ C (0°F To 55°F)
Refrigerant	R-134a
Rated Voltage	230 V, 50 Hz, 1 Phase
Compressor Cooling	Fan : 350 ft ³ / minute
Typical Application	Water Cooler, Bottle Cooler
Certifications & Approvals	ISI, EN60335-2-34

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Specification	Unit	HBP	CBP
Cooling Capacity	Btu / h	3700	1720
	kcal / h	932	433
	W	1064	504
	Nominal HP	1.08	0.50
Input Power	W	450	330
Input Current	A	2.8	2.34
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	8.22	5.21
	kcal / W-h	2.07	1.31
	W / W	2.40	1.53

Note – Above performance parameters are nominal values & subject to \pm 5% variation

C) RATING CONDITIONS

Parameter	Unit	HBP @ ASRE/T	CBP @ ASRE/T
Evaporating Temperature	°C (°F)	7.2 (45)	-6.7 (20)
Condensing Temperature	°C (°F)	54.4 (130)	54.4 (130)
Ambient Temperature	°C (°F)	35 (95)	35 (95)
Sub cooled Liquid Temp.	°C (°F)	46.1 (115)	46.1 (115)
Return Gas Temperature	°C (°F)	35 (95)	35 (95)
Test Voltage	V	230	230

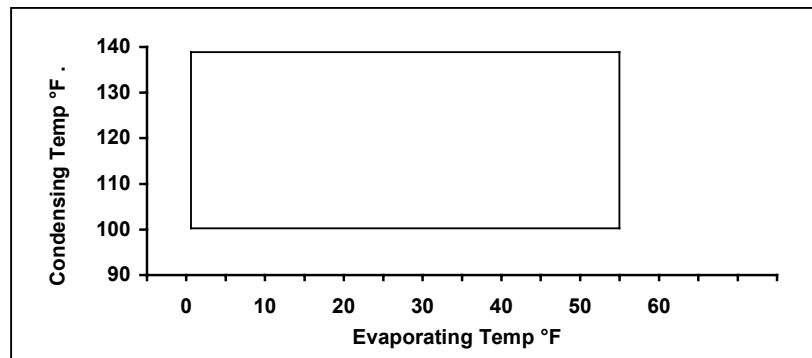
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PRODUCT SPECIFICATION**MODEL – KCJ444HAG-BXXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One
Displacement	cm ³ (inch ³) / rev	12.58 (0.768)
Net Weight	kg	20.2
Approximate Shipping Weight	kg	---
Oil Charge	cm ³ (Oz)	890 (30)
Oil Type	Refrigeration Grade	Polyolester (POE)
IPRV (Pressure Differential)	kg / cm ² (psig)	N / A
Crank Case Heater	W / V	N / A

E) ELECTRICAL SPECIFICATION

Parameter	Unit	Value
Operating Voltage Range	V	180 To 260
Motor Circuit	---	CSIR
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	80 / 100 @ 275
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	MTRP4841 / KARP4841
➤ Over Load Protector	---	KAT0159 / B2
Lock Rotor Ampere (LRA)	A	17
Maximum Continuous Current (MCC)	A	4.7
Motor Insulation	---	B Class
High Potential Test	(kV/second/mA)	1.85 / 1 / 5.5

F) OPERATING ENVELOP @ 230 V, 50 Hz, 1 Phase

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PRODUCT SPECIFICATION**MODEL – KCJ444HAG-BXXX****PERFORMANCE TABLES**

Superheating	35 °C (95 °F)	Voltage	230 V, 50 Hz, 1 hase
Liquid Subcooling	8.3 °C (15 °F)	Compressor cooling	350 ft ³ / minute
Ambient Temperature	35 °C (95 °F)	---	---

A) COOLING CAPACITY (Btu / h)

Condensing Temperature		Evaporating Temperature							
		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	0	10	20	30	40	45	50	55
37.8	100	1330	1720	2240	3060	4400	5310	6430	7780
43.3	110	1240	1610	2050	2740	3880	4680	5660	6860
48.9	120	1110	1490	1870	2450	3420	4120	4980	6040
54.4	130	960	1370	1720	2210	3030	3700	4390	5330
60.0	140	790	1250	1590	2010	2720	3240	3900	4720

B) INPUT POWER (W)

Condensing Temperature		Evaporating Temperature							
		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	0	10	20	30	40	45	50	55
37.8	100	235	261	288	319	353	371	390	411
43.3	110	235	267	301	353	375	395	417	440
48.9	120	238	278	315	355	398	421	445	470
54.4	130	241	285	330	375	422	450	475	500
60.0	140	241	291	341	392	445	472	500	530

C) INPUT CURRENT (A)

Condensing Temperature		Evaporating Temperature							
		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	0	10	20	30	40	45	50	55
37.8	100	2.09	2.21	2.27	2.34	2.47	2.58	2.73	2.93
43.3	110	2.10	2.22	2.30	2.39	2.55	2.67	2.84	3.05
48.9	120	2.10	2.23	2.32	2.42	2.60	2.74	2.92	3.14
54.4	130	2.11	2.24	2.34	2.45	2.65	2.80	2.99	3.23
60.0	140	2.14	2.29	2.38	2.61	2.72	2.88	3.08	3.33

- Note – 1. Nominal performance values (+ 5%) based on 24 hours running. Subject to change without notice.
2. Compressor is intended to be operated in the range of condensing & evaporating temperature where performance values are specified in above tables.

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