

PRODUCT SPECIFICATION

COMPRESSOR MODEL

KCJ513HAE-B3XX

BILL OF MATERIALS

B322, B323

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 – KCJ513HAE-B3XX****A) MODEL DESCRIPTION**

Model Name	KCJ513HAE-B3XX
Compressor Type	Reciprocating , Connecting Rod Type
Application Group	High temperature (HBP)
Evaporating Temperature Range	-6.7°C To 12.8°C (20 °F To 55°F)
Refrigerant	R-22
Rated Voltage	230 V, 50 Hz, 1 Phase
Compressor Cooling	FAN : 350 ft ³ / minute
Typical Application	Water Cooler
Certifications & Approvals	ISI, EN60335-2-34

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Specification	Unit	HBP	CBP
Cooling Capacity	Btu / h	12600	N / A
	kcal / h	3175	
	W	3690	
	Nominal HP	1.28	
Input Power	W	1440	
Input Current	A	6.8	
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	8.75	
	kcal / W-h	2.20	
	W / W	2.56	

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)	N / A
Condensing Temperature	°C (°F)	54.4 (130)	
Ambient Temperature	°C (°F)	35 (95)	
Sub cooled Liquid Temp.	°C (°F)	46.1 (115)	
Return Gas Temperature	°C (°F)	35 (95)	
Test Voltage	V	230	

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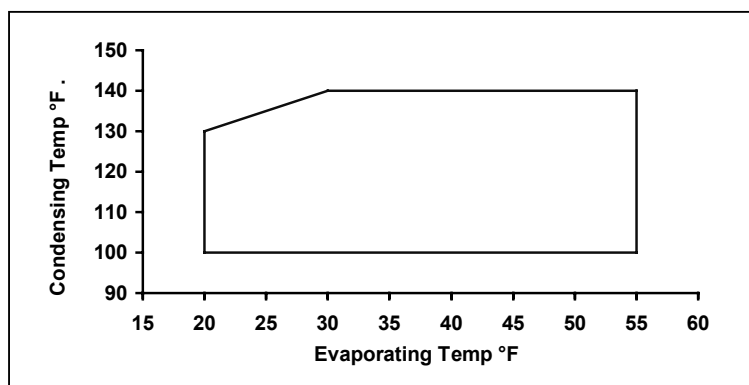
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PRODUCT SPECIFICATION**MODEL - KCJ513HAE-B3XX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One (1)
Displacement	cm ³ (inch ³) / rev	25.91 (1.581)
Net Weight	kg	22.5
Approximate Shipping Weight	kg	----
Oil Charge	cm ³ (Oz)	890 (30)
Oil Type	Refrigeration Grade	Mineral
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	---	CSCR
Electrical Accessories		
➤ Start Capacitor	μF @ V AC	80 / 100
➤ Run Capacitor	μF @ V AC	36 @ 440 VAC
➤ Relay	---	AC85001M
➤ Over Load Protector	---	Internal
Lock Rotor Ampere (LRA)	A	30
Maximum Continuous Current (MCC)	A	11.5
Motor Insulation	---	B Class
High Potential Test	(kV/second/mA)	1.85 / 1 / 5.5

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

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PRODUCT SPECIFICATION**MODEL – KCJ513HAE-BXXX****PERFORMANCE TABLES**

Superheating	27.8°C (50°F)	Voltage	230V, 1Ph, 50Hz
Liquid Sub cooling	8.3°C (15°F)	Compressor cooling	350 ft ³ / minute
Ambient temp.	35°C (95°F)		

A) COOLING CAPACITY (Btu / h)

Condensing Temperature		Evaporating Temperature					
		-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	20	30	40	45	50	55
37.8	100	8135	10793	13341	15561	17599	19578
43.3	110	7486	9944	12493	14661	16619	18548
48.9	120	6896	9144	11453	13620	15660	17469
54.4	130	6366	8375	10404	12800	14801	16579
60.0	140	---	7536	9575	11763	13922	15620

B) INPUT POWER (W)

Condensing Temperature		Evaporating Temperature					
		-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	20	30	40	45	50	55
37.8	100	1100	1179	1239	1294	1346	1395
43.3	110	1133	1219	1284	1342	1392	1440
48.9	120	1161	1259	1331	1395	1444	1493
54.4	130	1202	1302	1386	1440	1495	1550
60.0	140	---	1346	1432	1498	1550	1596

C) INPUT CURRENT (A)

Condensing Temperature		Evaporating Temperature					
		-6.7	-1.1	4.4	7.2	10	12.8
°C	(°F)	20	30	40	45	50	55
37.8	100	5.0	5.4	5.8	6.1	6.4	6.5
43.3	110	5.1	5.6	6.0	6.4	6.6	6.8
48.9	120	5.2	5.8	6.3	6.6	6.8	7.0
54.4	130	5.4	6.0	6.5	6.8	7.0	7.2
60.0	140	---	6.2	6.7	7.1	7.3	7.4

- Note – 1. Nominal performance values ($\pm 5\%$) 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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