

PRODUCT SPECIFICATION

COMPRESSOR MODEL

KCJ511HAE-BXXX

BILL OF MATERIALS

B420, B421, B321

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 – KCJ511HAE-BXXX****A) MODEL DESCRIPTION**

Model Name	KCJ511HAE-BXXX
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	Air Conditioning
Certifications & Approvals	ISI, EN 60335-2-34

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Specification	Unit	ASRE/T	ARI
Cooling Capacity	Btu / h	9350	9100
	kcal / h	2356	2293
	W	2740	2626
	Nominal HP	0.78	0.76
Input Power	W	1020	1020
Input Current	A	4.7	4.7
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	9.17	8.92
	kcal / W-h	2.31	2.25
	W / W	2.69	2.57

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 (45)	7.2 (45)
Condensing Temperature	°C (°F)	55 (131)	55 (131)
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)	18.3 (65)
Test voltage	V	230	230

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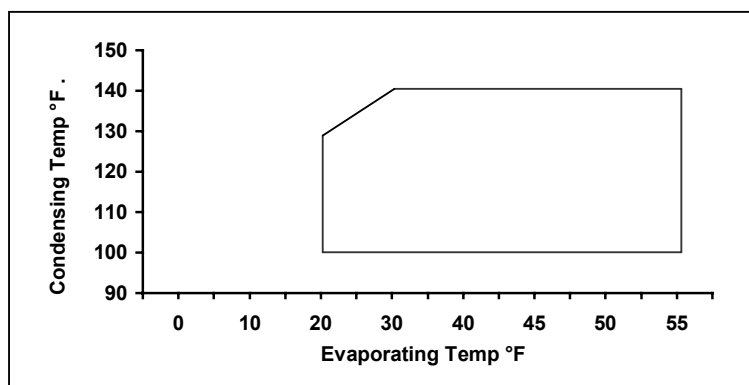
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PRODUCT SPECIFICATION**MODEL - KCJ511HAE-BXXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One (1)
Displacement	cm ³ (inch ³) / rev	18.27 (1.114)
Net Weight	kg	21.5
Approximate Shipping Weight	kg	23.0
Oil Charge	cm ³ (Oz)	905 (30.5)
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	---	PSC (optional CSCR)
Electrical Accessories		
➤ Start Capacitor	μF @ V AC	80 – 100 @ 275
➤ Run Capacitor	μF @ V AC	25 @ 440
➤ Relay	---	LT85002
➤ Over Load Protector	---	Internal
Lock Rotor Ampere (LRA)	A	25
Maximum Continuous Current (MCC)	A	7.7
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 – KCJ511HAE-BXXX****PERFORMANCE TABLES**

Superheating	18.3°C (65°F)	Voltage	230V, 1Ph, 50Hz
Sub cooling	46.1°C (115°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	5960	7120	10100	11900	13800	15500
43.3	110	5240	6280	9180	11000	12800	14500
48.9	120	4650	5540	8290	10000	11700	13400
54.4	130	4210	4880	7440	9100	10700	12300
60.0	140	---	4310	6610	8110	9650	11100

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	712	725	830	806	980	1050
43.3	110	739	756	869	945	1020	1100
48.9	120	769	792	910	988	1070	1150
54.4	130	801	829	952	1020	1110	1190
60.0	140	---	867	992	1070	1160	1240

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	3.8	3.9	4.2	4.4	4.5	4.7
43.3	110	3.9	4.0	4.3	4.5	4.7	4.9
48.9	120	4.0	4.1	4.4	4.6	4.8	5.0
54.4	130	4.1	4.2	4.5	4.7	5.0	5.2
60.0	140	---	4.4	4.7	4.9	5.1	5.3

- 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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