

# PRODUCT SPECIFICATION

COMPRESSOR MODEL

**KCE419HAG-BXXX**

BILL OF MATERIALS

**B130**

**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 – KCE419HAG-BXXX****A ) MODEL DESCRIPTION**

<b>Model Name</b>	<b>KCE419HAG-BXXX</b>
Compressor Type	Reciprocating ,Connecting Rod Type
Application Group	High / Medium temperature (HBP / CBP)
Evaporating Temperature Range	-17.8°C To 12.8°C (0° To 55°F)
Refrigerant	R-134a
Rated Voltage	230V, 50Hz, 1Phase
Compressor Cooling	FAN : 350 ft <sup>3</sup> / minute
Typical Application	Water Coolers / Bottle Coolers
Certifications & Approvals	ISI, EN 60335-2-34

**B ) PERFORMANCE SPECIFICATION @ RATED CONDITION**

Specification	Unit	HBP	CBP
Cooling Capacity	Btu / h	1585	860
	kcal / h	399	217
	W	465	252
	Nominal HP	0.16	0.13
Input Power	W	245	166
Input Current	A	1.6	1.36
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	6.48	5.18
	kcal / W-h	1.63	1.30
	W / W	1.90	1.52

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

**C ) RATING CONDITIONS**

Parameter	Unit	HBP @ ASHRAE-T	CBP @ ASHRAE-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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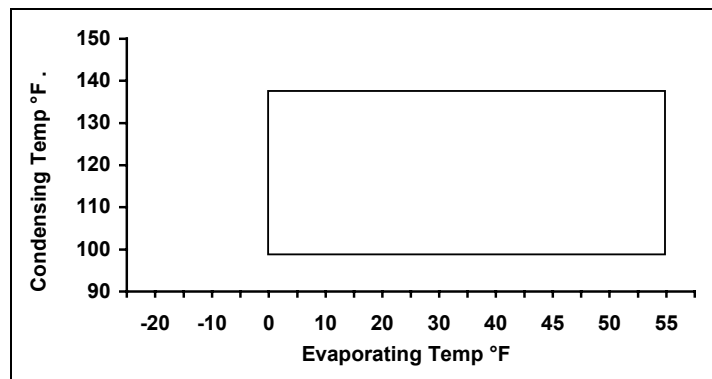
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**PRODUCT SPECIFICATION****MODEL – KCE419HAG-BXXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One ( 1 )
Displacement	cm <sup>3</sup> ( inch <sup>3</sup> ) / rev	5.79 (0.353)
Net Weight	kg	10.2
Approximate Shipping Weight	kg	11.5
Oil Charge	cm <sup>3</sup> ( Oz )	310 (10.5)
Oil Type	Refrigeration Grade	Polyolester (POE)
IPRV ( Pressure Differential )	kg / cm <sup>2</sup> ( 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	---	RSIR
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	N / A
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	KARP 3627
➤ Over Load Protector	---	TAE15 / H3
Lock Rotor Ampere ( LRA )	A	11
Maximum Continuous Current ( MCC )	A	2.4
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 - KCE419HAG-BXXX****PERFORMANCE TABLES**

Return Gas Temp.	35°C (95°F)	Voltage	230V, 1Ph, 50Hz
Liquid Sub Cooling	8.3°C (15°F)	Compressor Cooling	350 ft <sup>3</sup> / minute
Ambient temp.	35°C (95°F)	---	---

**A ) COOLING CAPACITY ( Btu / h )**

Condensing Temperature		Evaporating Temperature							
°C	(°F)	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		0	10	20	30	40	45	50	55
37.8	100	750	960	1160	1450	1890	2190	2550	2980
43.3	110	625	830	1020	1290	1690	1970	2310	2720
48.9	120	545	735	916	1160	1530	1790	2100	2480
54.4	130	490	675	860	1040	1370	1585	1900	2250
60.0	140	400	580	750	900	1200	1410	1680	2010

**B ) INPUT POWER ( W )**

Condensing Temperature		Evaporating Temperature							
°C	(°F)	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		0	10	20	30	40	45	50	55
37.8	100	140	139	151	174	202	217	232	246
43.3	110	140	141	156	180	210	228	242	257
48.9	120	142	144	161	187	219	235	252	268
54.4	130	144	148	166	194	227	245	262	278
60.0	140	148	154	173	202	235	254	272	289

**C ) INPUT CURRENT ( A )**

Condensing Temperature		Evaporating Temperature							
°C	(°F)	-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
		0	10	20	30	40	45	50	55
37.8	100	1.27	1.28	1.34	1.42	1.51	1.55	1.58	1.61
43.3	110	1.28	1.29	1.35	1.43	1.52	1.57	1.61	1.64
48.9	120	1.29	1.29	1.35	1.44	1.54	1.58	1.63	1.67
54.4	130	1.29	1.30	1.36	1.45	1.55	1.60	1.65	1.69
60.0	140	1.30	1.31	1.36	1.46	1.57	1.62	1.67	1.72

- 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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