

PRODUCT SPECIFICATION

COMPRESSOR MODEL

KCE425HAG-BXXX

BILL OF MATERIALS

B230, B231

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 – KCE425HAG-BXXX****A) MODEL DESCRIPTION**

Model Name	KCE425HAG-BXXX
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 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	2145	1075
	kcal / h	540	271
	W	629	315
	Nominal HP	0.64	0.16
Input Power	W	360	261
Input Current	A	2.3	2.18
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	5.96	4.12
	kcal / W-h	1.50	1.04
	W / W	1.75	1.21

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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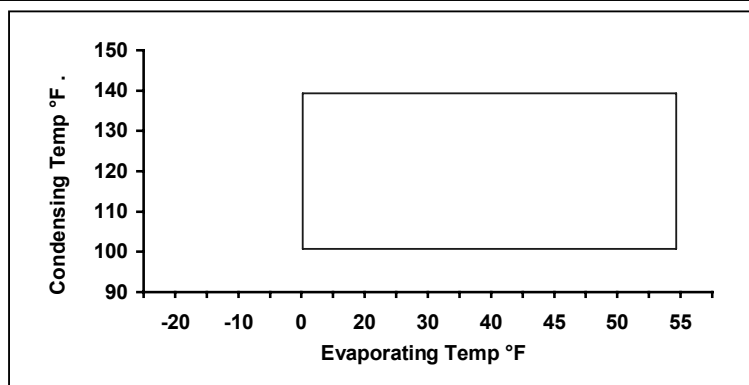
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PRODUCT SPECIFICATION**MODEL – KCE425HAG-BXXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One (1)
Displacement	cm ³ (inch ³) / rev	7.58 (0.462)
Net Weight	kg	10.8
Approximate Shipping Weight	kg	11.5
Oil Charge	cm ³ (Oz)	310 (10.5)
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	40-60 @ 275
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	KARP-4141
➤ Over Load Protector	---	TAE 21/H3
Lock Rotor Ampere (LRA)	A	14
Maximum Continuous Current (MCC)	A	3.1
Motor Insulation	---	B Class
High Potential Test	(kV/second/mA)	1.85 / 1 / 5.5

F) OPERATING ENVELOP @ 230 V, 50 Hz, 1 PhaseS
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PRODUCT SPECIFICATION**MODEL – KCE425HAG-BXXX****PERFORMANCE TABLES**

Return Gas Temp.	35°C (95°C)	Voltage	230V, 1Ph, 50Hz
Liquid Sub Cooling	8.3°C (15°F)	Compressor Cooling	350 ft3 / minute
Ambient temp.	35°C (95°F)	---	---

A) COOLING CAPACITY (Btu / h)

Condensing Temperature		Evaporating Temperature							
°C		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
	(°F)	0	10	20	30	40	45	50	55
37.8	100	970	1200	1450	1820	2410	2820	3310	3910
43.3	110	880	1090	1310	1650	2190	2570	3040	3600
48.9	120	785	985	1190	1490	1990	2340	2780	3310
54.4	130	654	890	1075	1340	1800	2145	2530	3030
60.0	140	580	770	945	1180	1600	1900	2280	2750

B) INPUT POWER (W)

Condensing Temperature		Evaporating Temperature							
°C		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
	(°F)	0	10	20	30	40	45	50	55
37.8	100	208	221	238	263	298	320	345	373
43.3	110	210	225	245	272	308	330	355	384
48.9	120	212	231	253	281	319	341	367	395
54.4	130	214	236	261	291	329	360	378	407
60.0	140	216	241	267	299	339	365	388	417

C) INPUT CURRENT (A)

Condensing Temperature		Evaporating Temperature							
°C		-17.8	-12.2	-6.7	-1.1	4.4	7.2	10	12.8
	(°F)	0	10	20	30	40	45	50	55
37.8	100	2.10	2.12	2.14	2.18	2.22	2.25	2.28	2.32
43.3	110	2.10	2.12	2.15	2.19	2.24	2.27	2.30	2.33
48.9	120	2.09	2.13	2.16	2.21	2.26	2.28	2.32	2.35
54.4	130	2.09	2.13	2.18	2.22	2.27	2.30	2.33	2.37
60.0	140	2.08	2.13	2.18	2.23	2.29	2.32	2.35	2.38

- 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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