

# PRODUCT SPECIFICATION

COMPRESSOR MODEL

**KCJ498HAG-CXXX**

BILL OF MATERIALS

**C220, C221**

C  
O  
N  
F  
I  
D  
E  
N  
T  
I  
A  
L

**Emerson Climate Technologies (India) Limited**

Karad Dhebewadi Road

Karad - 415 110

INDIA

Note – Sales compressor drawing number and compressor model name are the same.

				1	F25-1206-0591 Current EN No.	A2 31.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F42-0304-0237 Last EN No.	REV. NO. DATE

**PRODUCT SPECIFICATION****MODEL – KCJ498HAG-CXXX****A ) MODEL DESCRIPTION**

<b>Model Name</b>	<b>KCJ498HAG-CXXX</b>
<b>Compressor Type</b>	Reciprocating ,Connecting Rod Type
<b>Application Group</b>	High temperature (HBP)
<b>Evaporating Temperature Range</b>	-6.7°C TO 12.8°C ( 20 °F TO 55°F )
<b>Refrigerant</b>	R-134a
<b>Rated Voltage</b>	230 V, 50 Hz, 1 Phase
<b>Compressor Cooling</b>	FAN : 350 ft <sup>3</sup> / minute
<b>Typical Application</b>	Water Cooler
<b>Certifications &amp; Approvals</b>	EN60335-2-34

**B ) PERFORMANCE SPECIFICATION @ RATED CONDITION**

<b>Specification</b>	<b>Unit</b>	<b>HBP</b>	<b>CBP</b>
Cooling Capacity	Btu / h	8200	N / A
	kcal / h	2066	
	W	2402	
	Nominal HP	0.82	
Input Power	W	975	
Input Current	A	5.9	
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	8.41	
	kcal / W-h	2.12	
	W / W	2.46	

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

**C ) RATING CONDITIONS**

<b>Parameter</b>	<b>Unit</b>	<b>HBP @ ASRE/T</b>	<b>CBP @ ASRE/T</b>
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	

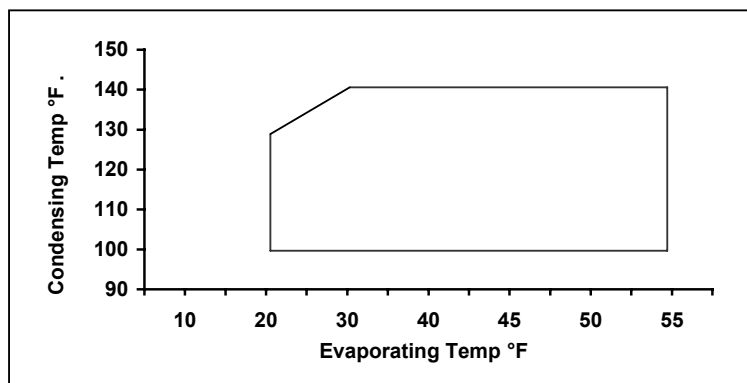
				2	F25-1206-0591 Current EN No.	A2 31.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F42-0304-0237 Last EN No.	REV. NO. DATE

**PRODUCT SPECIFICATION****MODEL – KCJ498HAG-CXXX****D) MECHANICAL SPECIFICATION**

Parameter	Unit	Value
Number of Cylinders	Number (s)	One (1)
Displacement	cm <sup>3</sup> ( inch <sup>3</sup> ) / rev	25.91 (1.581)
Net Weight	kg	21.5
Approximate Shipping Weight	kg	----
Oil Charge	cm <sup>3</sup> ( Oz )	890 (30)
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	198 To 264
Motor Circuit	---	CSIR
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	80-100 @ 275
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	AC85001M
➤ Over Load Protector	---	KAT0163 / B2
Lock Rotor Ampere ( LRA )	A	32
Maximum Continuous Current ( MCC )	A	9.9
Motor Insulation	---	B Class
High Potential Test	(kV/second/mA)	1.85 / 1 / 5.5

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

				3	F25-1206-0591 Current EN No.	A2 31.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F42-0304-0237 Last EN No.	REV. NO. DATE

**PRODUCT SPECIFICATION****MODEL – KCJ498HAG-CXXX****PERFORMANCE TABLES**

<b>Super heating</b>	35°C (95°F)	<b>Voltage</b>	230V, 1Ph, 50Hz
<b>Liquid Sub cooling</b>	8.3°C (15°F)	<b>Compressor cooling</b>	350 ft <sup>3</sup> / minute
<b>Ambient temp.</b>	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	5610	7280	9251	10400	11675	13095
43.3	110	5120	6730	8570	9670	10920	12295
48.9	120	4625	6000	7890	8930	10121	11470
54.4	130	4100	5470	7150	8200	9295	10585
60.0	140	---	4900	6400	7450	8500	9800

**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	667	742	815	857	929	997
43.3	110	689	779	856	899	969	1051
48.9	120	712	822	906	943	1024	1092
54.4	130	731	841	950	975	1071	1153
60.0	140	---	873	989	1044	1126	1207

**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	4.8	5.0	5.2	5.3	5.6	5.8
43.3	110	4.9	5.1	5.4	5.5	5.8	6.1
48.9	120	4.9	5.1	5.5	5.7	6.0	6.4
54.4	130	4.9	5.2	5.6	5.9	6.3	6.6
60.0	140	---	5.3	5.7	6.1	6.5	6.9

- 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.

				4	F25-1206-0591 Current EN No.	A2 31.12.2006
Prepared by	Checked by	Verified by	Approved by	Page No.	F42-0304-0237 Last EN No.	REV. NO. DATE