

PRODUCT SPECIFICATION

COMPRESSOR MODEL

KCJ482HAG-SX20H

BILL OF MATERIALS

S420H, S320H

Emerson Climate Technologies (India) Private Limited
Karad Dhebewadi Road
Karad - 415 110
INDIA

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

MBS				01	F42-0916-0269 EN No.	A1 08.09.2016
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PRODUCT SPECIFICATION**MODEL: KCJ482HAG-SX20H****A) MODEL DESCRIPTION**

Model Name	KCJ482HAG-SX20H
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	High Temperature (HBP)
Evaporating Temperature Range	(-)17.8 °C To 12.8 °C Or 0 °F To 55 °F
Refrigerant	R134a
Rated Voltage	220 - 230 V, 50/60 Hz, 1 Phase
Compressor Cooling	Fan : 350 ft ³ / minute
Typical Application	Water Cooler
Certifications & Approvals	---

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Parameter	Unit	HBP @ 50 Hz	HBP @ 60 Hz
Cooling Capacity	Btu / hr	7000	8250
	kcal / hr	1764	2079
	W	2051	2418
	Nominal HP	0.68	0.68
Input Power	W	760	923
Input Current	A	3.60	4.30
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-hr	9.20	8.93
	kcal / W-hr	2.32	2.25
	W / W	2.70	2.61

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)	-6.7 (20)
Condensing Temperature	°C (°F)	54.4 (130)	54.4 (130)
Ambient Temperature	°C (°F)	35 (95)	35 (95)
Sub-cooled Liquid Temperature	°C (°F)	46.1 (115)	46.1 (115)
Return Gas Temperature	°C (°F)	35 (95)	35 (95)
Test Voltage	V	220/230	220/230

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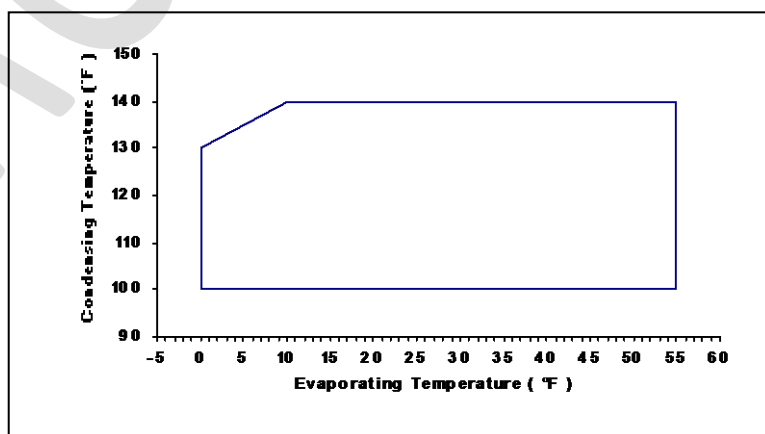
PRODUCT SPECIFICATION**MODEL: KCJ482HAG-S420H****D) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Number of Cylinders	Number	One (1)
Displacement	cm ³ (inch ³) / rev	22.01 (1.343)
Net Weight	kg	21.5
Approximate Shipping Weight	kg	-----
Oil Charge	cm ³ (Oz)	905 (30.5)
Oil Type	Refrigeration Grade	POE
IPRV (Pressure Differential)	kg/cm ² (psig)	N/A
** Crank - case Heater	W @ V	N/A

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	198 To 264 @ 50 Hz 207 To 253 @ 60 Hz
Motor Circuit	---	PSC
Electrical Accessories	---	---
➤ Start Capacitor	μF @ V AC	---
➤ Run Capacitor	μF @ V AC	25 @ 440
➤ Relay	---	----
➤ Over Load Protector	---	Internal
Locked Rotor Ampere (LRA)	A	32
Maximum Continuous Current (MCC)	A	8.0
High Potential Test	(kV / second / mA)	1.85 / 1 / 5.5 ± 0.5

F) OPERATING ENVELOP @ 230 V, 50/60 Hz, 1 Phase

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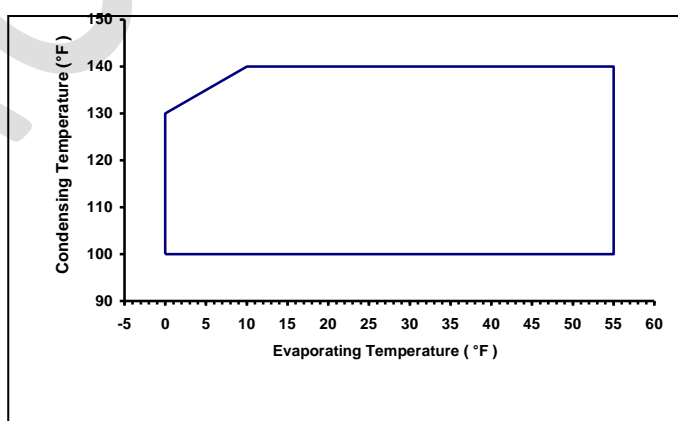
PRODUCT SPECIFICATION**MODEL: KCJ482HAG-S320H****D) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Number of Cylinders	Number	One (1)
Displacement	cm ³ (inch ³) / rev	22.01 (1.343)
Net Weight	kg	21.5
Approximate Shipping Weight	kg	-----
Oil Charge	cm ³ (Oz)	905 (30.5)
Oil Type	Refrigeration Grade	POE
IPRV (Pressure Differential)	kg/cm ² (psig)	N/A
** Crank - case Heater	W @ V	N/A

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	198 To 264 @ 50 Hz 207 To 253 @ 60 Hz
Motor Circuit	---	CSCR
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	80-100 @ 230
➤ Run Capacitor	μF @ V AC	25 @ 440
➤ Relay	---	HLR3800-3F3C-4
➤ Over Load Protector	---	Internal
Locked Rotor Ampere (LRA)	A	32
Maximum Continuous Current (MCC)	A	8.0
High Potential Test	(kV / second / mA)	1.85 / 1 / 5.5 ± 0.5

F) OPERATING ENVELOP @ 230 V, 50/60 Hz, 1 Phase

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PRODUCT SPECIFICATION**MODEL: KCJ482HAG-S420H****J) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Cylinder Bore Diameter	cm (inch)	3.49 (1.3752)
Crank - Shaft Eccentricity	cm (inch)	1.148(0.4522)
Crank - Shaft Stroke	cm (inch)	2.297(0.904)
Approximate Internal Free Volume (Without Oil)	cm ³ (inch ³)	4530 (276)
Maximum Residual Moisture	mg	100
Maximum Internal Solid Residue / Impurities	mg	75

K) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Motor Type	---	2 Pole, Induction, Single Phase
Nominal Motor Speed	rpm	2,900 @ 50Hz, 3450 @ 60Hz
Nominal Motor Winding Resistance (@ 25 °C)	Main	Ω 2.70 To 3.10
	Aux.	Ω 5.30 To 6.10
Nominal Motor Output Power	kW	0.79 @ 50 Hz, 0.93 @ 60 Hz
Max. Allowable Motor Winding Temp.	°F (°C)	266 (130) B Class Insulation
Relay		
Type	---	-----
Part Number	---	-----
Pick Up (Maximum)	V	-----
Drop Out (Minimum)	V	-----
Maximum Voltage Rating of Coils	V	----
Over Load Protector		
Type	---	Internal
Part Number		3HM-188-110
Disc Opening Temperature	°F (°C)	257 To 275 (125 To 135)
Disc Closing Temperature	°F (°C)	152 To 192 (67 To 89)
1 st Cycle Trip Current	A	22
1 st Cycle Trip On Time	second	2 To 10
Terminal Fused Cluster	---	1/4" Quick connector
Wire Material	---	Hermetic Grade Round Enameled
Wire Enamel Designation & Construction	---	H Class, Dual Coated

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PRODUCT SPECIFICATION**MODEL: KCJ482HAG-S320H****G) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Cylinder Bore Diameter	cm (inch)	3.49 (1.3752)
Crank - Shaft Eccentricity	cm (inch)	1.148(0.4522)
Crank - Shaft Stroke	cm (inch)	2.297(0.904)
Approximate Internal Free Volume (Without Oil)	cm ³ (inch ³)	4530 (276)
Maximum Residual Moisture	mg	100
Maximum Internal Solid Residue / Impurities	mg	75

H) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Motor Type	---	2 Pole, Induction, Single Phase
Nominal Motor Speed	rpm	2,900 @ 50Hz, 3450 @ 60Hz
Nominal Motor Winding Resistance (@ 25 °C)	Main	Ω 2.70 To 3.10
	Aux.	Ω 5.30 To 6.10
Nominal Motor Output Power	kW	0.79 @ 50 Hz, 0.93 @ 60 Hz
Max. Allowable Motor Winding Temp.	°F (°C)	266 (130) B Class Insulation
Relay		
Type	---	Potential
Part Number	---	HLR3800-3F3C-4
Pick Up (Maximum)	V	165 To 185
Drop Out (Minimum)	V	65 To 95
Maximum Voltage Rating of Coils	V	330
Over Load Protector		
Type	---	Internal
Part Number		3HM-188-110
Disc Opening Temperature	°F (°C)	257 To 275 (125 To 135)
Disc Closing Temperature	°F (°C)	152 To 192 (67 To 89)
1 st Cycle Trip Current	A	22
1 st Cycle Trip On Time	second	2 To 10
Terminal Fused Cluster	---	1/4" Quick connector
Copper Wire Material	---	Hermetic Grade Round Enameled
Copper Wire Enamel Designation & Construction	---	H Class, Dual Coated

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