




PRODUCT SPECIFICATION

COMPRESSOR MODEL

CS12K6ME-PFV-XXXXX

Emerson Climate Technologies (India) Private Limited
INDIA

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

DVM				01	F45-1020-0097 EN No.	A3 07.10.2020
Prepared by	Checked by Sandeep Joshi	Verified by Abhijeet Kulkarni	Approved by Manoj Chiplunkar	Page No.	CS12K6ME-PFV-XXXXX DOCUMENT No.	

PRODUCT SPECIFICATION**MODEL : CS12K6ME-PFV-XXXXX****A) MODEL DESCRIPTION**



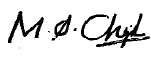
Model Name	CS12K6ME-PFV-XXXXX
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	Medium Temperature
Evaporating Temperature Range	(-)31.7 °C To 1.1 °C Or (-)25°F To 30 °F
Refrigerant	R-404A
Rated Voltage	200-220 V,50 Hz, 1 Phase 208-230 V,60 Hz, 1 Phase
Compressor Cooling	Fan: 400 ft ³ / minute
Typical Application	Cold Room Application

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Parameter	Unit	ARI - MBP	
		50Hz	60Hz
Cooling Capacity	Btu / h	10500	12000
	kcal / h	2646	3024
	W	3075	3514
Input Power	W	1700	1950
Input Current	A	9.1	8.6
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-h	6.18	6.15
	kcal / W-h	1.56	1.55
	W / W	1.81	1.80

Note: Above Performance Parameters are Nominal Values & subject to \pm 5% variation.**C) RATING CONDITIONS**

Parameter	Unit	ARI-MBP
Evaporating Temperature	°C (°F)	-6.7 (20)
Condensing Temperature	°C (°F)	48.9 (120)
Ambient Temperature	°C (°F)	35 (95)
Sub-cooled Liquid Temp	°C (°F)	48.9 (120)
Return Gas Temperature	°C (°F)	4.4 (40)
Test Voltage	V	200 @ 50Hz
		230 @ 60Hz

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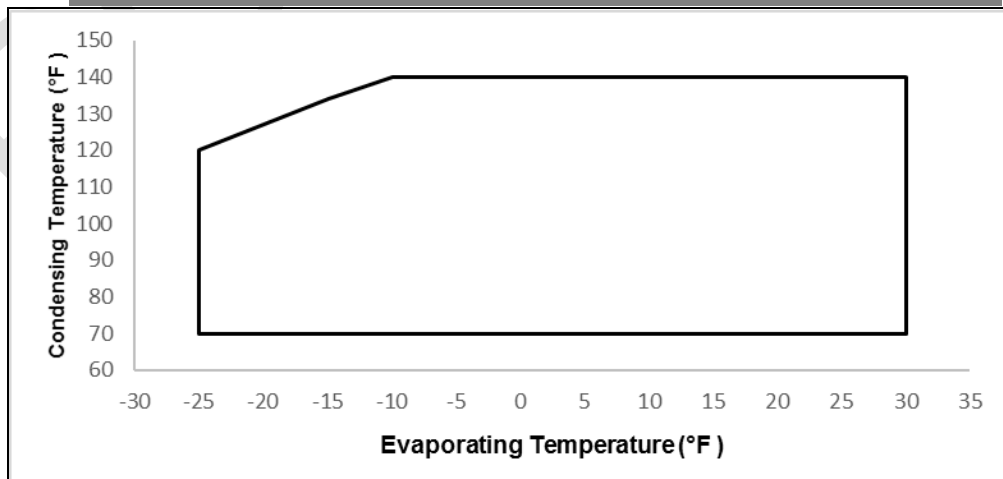
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PRODUCT SPECIFICATION**MODEL : CS12K6ME-PFV-XXXXX****D) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	47.37 (2.89)
Net Weight	Kg (Lbs)	33.5 (73.9)
Approximate Shipping Weight	Kg (Lbs)	34.5 (76.0)
Oil Charge	cm ³ (Oz)	1,330 (45)
Oil Type	Refrigeration Grade	POE
IPRV (Pressure Differential)	kg/cm ² (psig)	31.64 / 38.67 (450/550)
Crank - Case Heater	W @ V	40 @ 240 for CS12K6ME-PFV-XX5 40 @ 480 for CS12K6ME-PFV-XX6

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	180 TO 242 50Hz 197 TO 253 60Hz
Motor Circuit	---	CSCR
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	189-227 @ 330
➤ Run Capacitor	μF @ V AC	36 @ 440
➤ Relay	---	Potential
➤ Over Load Protector	---	Internal
Locked Rotor Ampere (LRA)	A	61A @ 50Hz 61A @ 60Hz
Maximum Continuous Current (MCC)	A	15.6
High Potential Test	(kV / second / mA)	1.85 / 1 / 5.5 ± 0.5

F) OPERATING ENVELOPE, 50Hz & 60 Hz, 1 Phase

DVM	<i>Sandeep Joshi</i>	<i>Abhijeet Kulkarni</i>	<i>M. d. Chiplunkar</i>	03	F45-1020-0097 EN No.	A3 07.10.2020
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PRODUCT SPECIFICATION**MODEL: CS12K6ME-PFV-XXXXX****P) PERFORMANCE SPECIFICATIONS**

Parameter	Unit	Value
Bare Compressor Sound	dBA	80.0 Maximum
Bare Compressor Vibration	µm	85 Maximum
Compressor Discharge Pulse	psi	5.0 Maximum

Q) TEST CONDITIONS



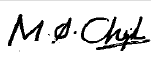
Parameter	Voltage	Suction Pressure	Discharge Pressure	Top Shell Temperature	Ambient Temperature
Unit	V	kg/cm ² (psig)	kg/cm ² (psig)	°C (°F)	°C (°F)
Test					
Overload (High Load)	242,50Hz 253,60Hz	5.13 (73)	31.70 (451)	--	46 (115)
Blocked Fan	200,50Hz 230,60Hz	6.7 (95)	30.58 (435)	--	35(95)
Low Voltage Start: Equalised	180,50Hz 197,60Hz	8 (114) 14.3 (203)	25.3(360) 14.3(203)	65(149) 65(149)	--
Low Voltage Run	180,50Hz 197,60Hz	5.13 (73)	31.70 (451)	--	46 (115)

Note: Above test conditions are only for reference. Refer operating envelop and maximum allowable discharge line temperature for safe operation of compressor.

R) REFERENCE APPLICATION DETIAL CONDITIONS

Parameter	Unit	Value
Maximum Allowable Ambient Temperature	°C (°F)	46 (115)
Maximum Discharge Line Temperature	°C (°F)	135 (275)
Maximum Return Gas Temperature	°C (°F)	43 (109)

Note: Application details are the guidelines for safe operation of compressor.

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