

PRODUCT SPECIFICATION

COMPRESSOR MODEL

CR35K6ME-TFM-XXXXX

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.

DVM				01	F45-0915-0519 EN No.	A1 23.09.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR35K6ME-TFM-XXXXX DOCUMENT No.	

PRODUCT SPECIFICATION**MODEL : CR35K6ME-TFM-XXXXX****A) MODEL DESCRIPTION**

Model Name	CR35K6ME-TFM-XXXXX
Compressor Type	Reciprocating, Connecting Rod Type
Application Group	High Temperature (HBP)
Evaporating Temperature Range	(-)23.3 °C To 12.8 °C Or (-)10 °F To 55 °F
Refrigerant	R407C
Rated Voltage	380 - 420 V, 50 Hz, 3 Phase
Compressor Cooling	Fan : 400 ft ³ / minute
Typical Application	Air - Conditioning, Heat Pump
Certifications & Approvals	-----

B) PERFORMANCE SPECIFICATION @ RATED CONDITION

Parameter	Unit	ASRE / T
Cooling Capacity	Btu / hr	29,350
	kcal / hr	7,396
	W	8,599
	Nominal HP	2.35
Input Power	W	2,650
Input Current	A	4.8
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-hr	11.07
	kcal / W-hr	2.78
	W / W	3.24

Note: Above Performance Parameters are Nominal Values & subject to \pm 5% variation.

C) RATING CONDITIONS

Parameter	Unit	ASRE / T
Evaporating Temperature	°C (°F)	7.2 \pm 0.5 (45)
Condensing Temperature	°C (°F)	54.4 \pm 1 (130)
Ambient Temperature	°C (°F)	35 \pm 1 (95)
Sub-cooled Liquid Temperature	°C (°F)	46 \pm 1 (115)
Return Gas Temperature	°C (°F)	35 \pm 1 (95)
Test Voltage	V	400

DVM				02	F45-0915-0519 EN No.	A1 23.09.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR35K6ME-TFM-XXXXX DOCUMENT No.	

PRODUCT SPECIFICATION

MODEL : CR35K6ME-TFM-XXXXX

D) MECHANICAL SPECIFICATIONS

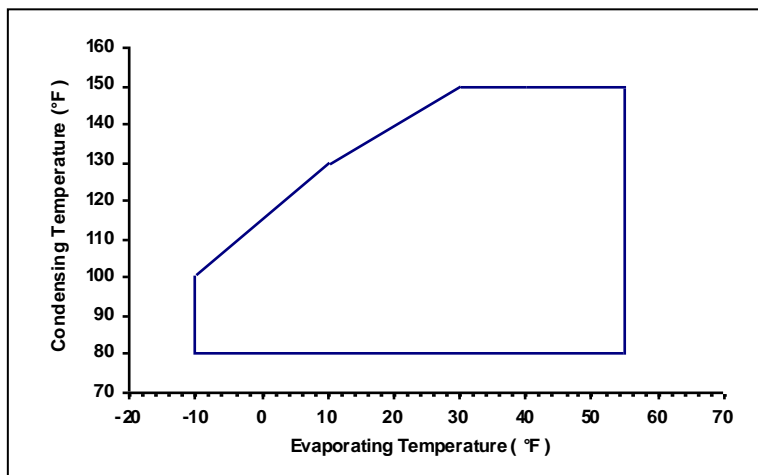
Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	59.66 (3.640)
Net Weight	kg	31.0
Approximate Shipping Weight	kg	32.1
Oil Charge	cm ³ (Oz)	1,330 (45)
Oil Type	Refrigeration Grade	POE
IPRV (Pressure Differential)	kg/cm ² (psig)	31.64 / 38.67 (450 / 550)
** Crank - case Heater	W @ V	40 @ 240 For CR35K6ME-TFM-102

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	360 To 460
Motor Circuit	---	Three Phase
Electrical Accessories	---	
➤ Start Capacitor	μF @ VAC	N/A
➤ Run Capacitor	μF @ VAC	N/A
➤ Relay	---	N/A
➤ Over Load Protector	---	Internal
Lock Rotor Ampere (LRA)	A	41
Maximum Continuous Current (MCC)	A	7.3
High Potential Test	(kV/second/mA)	2.3 / 1 / 5.5 ± 0.5

F) OPERATING ENVELOP @ 400 V, 50 Hz, 3 Phase



S
P
E
C
I
F
I
C
A
T
I
O
N

DVM				03	F45-0915-0519 EN No.	A1 23.09.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR35K6ME-TFM-XXXXX DOCUMENT No.	

PRODUCT SPECIFICATION**MODEL : CR35K6ME-TFM-XXXXX****M) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Cylinder Bore Diameter	cm (inch)	4.21 (1.656)
Crank - Shaft Eccentricity	cm (inch)	1.07 (0.423)
Crank - Shaft Stroke	cm (inch)	2.15 (0.846)
Approximate Internal Free Volume (Without Oil)	cm ³ (inch ³)	7,866 (480)
Maximum Residual Moisture	mg	300
Maximum Internal Solid Residue / Impurities	mg	40

N) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Motor Type	---	2 Pole, Induction, Three Phase
Nominal Motor Speed	rpm	2,900
Nominal Motor Winding Resistance (@ 25 °C)	Main	Ω 4.08 To 4.63
	Aux.	Ω -----
Nominal Motor Output Power	kW	2.35
Max. Allowable Motor Winding Temp.	°F (°C)	266 (130) B Class Insulation
Relay		
Type	---	N/A
Make - Part Number	---	N/A
Pick Up (Maximum)	V	N/A
Drop Out (Minimum)	V	N/A
Maximum Voltage Rating of Coils	V	N/A
Over Load Protector		
Type	---	Internal
Part Number		34HM-252-56
Disc Opening Temperature	°F (°C)	212 To 230 (100 To 110)
Disc Closing Temperature	°F (°C)	126 To 158 (52 To 70)
1 st Cycle Trip Current	A	24
1 st Cycle Trip On Time	second	3 to 10
Terminal Fused Cluster	---	¼" Quick connector
Copper Wire Material	---	Hermetic Grade Round Enameled
Copper Wire Enamel Designation & Construction	---	H Class, Dual Coated

S
P
E
C
I
F
I
C
A
T
I
O
N

DVM				04	F45-0915-0519 EN No.	A1 23.09.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR35K6ME-TFM-XXXXX DOCUMENT No.	

PRODUCT SPECIFICATION**MODEL : CR35K6ME-TFM-XXXXX****P) SOUND & VIBRATION SPECIFICATIONS**

Parameter	Unit	Value
Bare Compressor Sound	dBA	79.0 Maximum
Bare Compressor Vibration	µm	142.0 Maximum
Compressor Discharge Pulse	psi	6.0 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)	400	6.81 (97.0)	38.46 (547.0)	--	55 (131)
Blocked Fan	400	6.26 (89.0)	30.58 (435.0)	--	--
Low Voltage Start : Equalised Unequilised	360 360	14.90 (212)	14.90 (212)	62 (143.6)	--
Low Voltage Run	360	6.81 (97.0)	38.46 (547.0)	--	55 (131)

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 DETAIL CONDITIONS

Parameter	Unit	Value
Maximum Allowable Ambient Temperature	°C (°F)	55 (131)
Maximum Discharge Line Temperature	°C (°F)	129.4 (265)
Maximum Return Gas Temperature	°C (°F)	27 (80.6)

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

DVM				05	F45-0915-0519 EN No.	A1 23.09.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR35K6ME-TFM-XXXXX DOCUMENT No.	

S
P
E
C
I
F
I
C
A
T
I
O
N