

PRODUCT SPECIFICATION

COMPRESSOR MODEL

CR37K6ME-TFD-XXX

@ 50 Hz

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	F45-0515-0313 Current EN No.	A1 08.05.2015
Prepared by	Checked by	Verified by	Approved by	Page No.	CR37K6ME-TFD-XXX(@50Hz) DOCUMENT No.	

PRODUCT SPECIFICATION**MODEL: CR37K6ME-TFD-XXX****A) MODEL DESCRIPTION**

Model Name	CR37K6ME-TFD-XXX
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	30,900
	kcal / hr	7,787
	W	9,054
	Nominal HP	2.57
Input Power	W	2900
Input Current	A	5.40
EER = $\frac{\text{Cooling Capacity}}{\text{Input Power}}$	Btu / W-hr	10.65
	kcal / W-hr	2.68
	W / W	3.12

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	380

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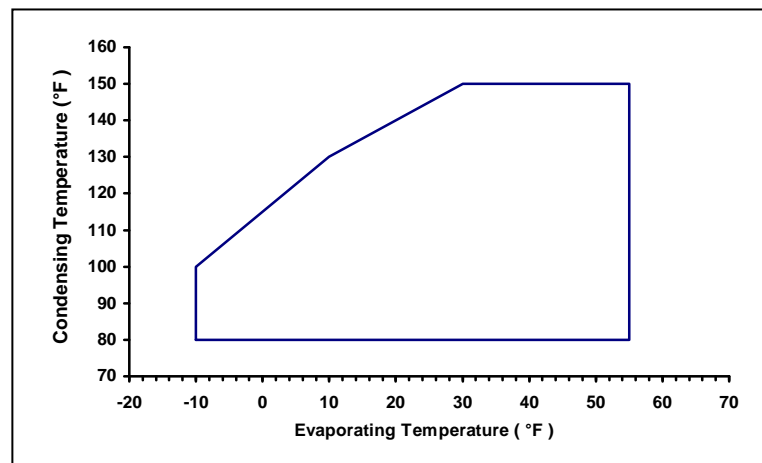
PRODUCT SPECIFICATION**MODEL: CR37K6ME-TFD-XXX****D) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Number of Cylinders	Number	Two (2)
Displacement	cm ³ (inch ³) / rev	63.52 (3.87)
Net Weight	kg	32
Approximate Shipping Weight	kg	32.5
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	35@240 FOR CR37K6ME-TFD-102 35@480 FOR CR37K6ME-TFD-103

** Recommended only for Heat Pump Application.

E) ELECTRICAL SPECIFICATIONS

Parameter	Unit	Value
Operating Voltage Range	V	342 To 462
Motor Circuit	---	3 Phase
Electrical Accessories	---	
➤ Start Capacitor	μF @ V AC	N / A
➤ Run Capacitor	μF @ V AC	N / A
➤ Relay	---	N / A
➤ Over Load Protector	---	Internal
Locked Rotor Ampere (LRA)	A	45
Maximum Continuous Current (MCC)	A	9.1
High Potential Test	(kV / second / mA)	2.3/1/5.5 ± 0.5

F) OPERATING ENVELOPE @ 380 V, 50 Hz, 3 Phase

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PRODUCT SPECIFICATION**MODEL: CR37K6ME-TFD-XXX****M) MECHANICAL SPECIFICATIONS**

Parameter	Unit	Value
Cylinder Bore Diameter	cm (inch)	4.21 (1.656)
Crank - Shaft Eccentricity	cm (inch)	1.14 (0.450)
Crank - Shaft Stroke	cm (inch)	2.28 (0.900)
Approximate Internal Free Volume (Without Oil)	cm ³ (inch ³)	6,900 (421)
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 3.34 To 3.72
	Aux.	Ω --
Nominal Motor Output Power	kW	2.64
Max. Allowable Motor Winding Temp.	°F (°C)	266 (130) B Class Insulation
Relay		
Type	---	N / A
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-251-6
Disc Opening Temperature	°F (°C)	248 To 266 (120 To 130)
Disc Closing Temperature	°F (°C)	126 To 158 (52 To 70)
1 st Cycle Trip Current	A	27
1 st Cycle Trip On Time	second	3 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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PRODUCT SPECIFICATION**MODEL: CR37K6ME-TFD-XXX****P) PERFORMANCE SPECIFICATIONS**

Parameter	Unit	Value
Bare Compressor Sound	dBA	75 Maximum
Bare Compressor Vibration	µm	140 Maximum
Compressor Discharge Pulse	psi	8.0 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)
Overload (High Load)	380	6.81 (97.0)	38.46 (547.0)	--	55 (131)
Blocked Fan	380	6.26 (89.0)	30.58 (435.0)	--	--
Low Voltage Start : Equalised	342	14.90 (212)	14.90 (212)	62 (143.6)	--
Low Voltage Run	342	6.81 (97.0)	38.46 (547.0)	--	55 (131)

Note: Above Test Conditions are for Reference Only. Refer Operating Envelop & 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.

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