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brand products



EMERSON[™]



Project Report

Refrigerant	R449A Dew Point
High Side Properties:	
Condensing Temperature, °C	45.00
Abs. Condensing Pressure, bar	18.75
Dew Point, °C	45.00
Bubble Point, °C	40.50
Saturated vapour enthalpy, kJ/kg	413.00
Specific volume of saturated vapour, dm ³ /kg	11.30
Liquid Temperature, °C	40.50
Liquid enthalpy, kJ/kg	261.00
Low Side Properties:	
Evaporating Temperature, °C	-10.00
Evaporating Abs. Pressure, bar	3.58
Dew Point, °C	-10.00
Bubble Point, °C	-15.80
With vapour at, °C	0.00
Specific volume, dm ³ /kg	66.40
Enthalpy, kJ/kg	402.00
Operating Conditions:	
Evaporating Temperature, °C	-10.00
Condensing Temperature, °C	45.00
Suction Superheat, K	10.00
Subcooling, K	0.00
Compressor Selected	ZFD18KVE-TFD EVI

**PERFORMANCE AT SPECIFIED OPERATING POINT
ZFD18KVE-TFD EVI Data at 50 Hz**

Cooling Capacity, kW	12.65
Power, kW	4.68
COP	2.70
Current at 400 V, A	8.22
Suction Mass Flow, g/s	67.50
Heating Capacity, kW	17.10
Isentropic Eff., %	71.13
Economiser Load, kW	3.16
Intermediate Dew Temperature, °C	10.50
Liquid Temperature LO, °C	10.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	17.1
Length/Width, mm	300/299
Height, mm	481
Net Weight, kg	43.1
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.89
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (LT), dBA	67
Sound Power (LT), dBA	78
Sound Power with Sound Shell (LT), dBA	68
Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed)	-35 / 40 / 20 °C at 50 Hz
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Refrigerant's GWP	1397
Refrigerant's classification	A1

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	13.8
Locked Rotor Current, A	74
Winding Resistance, ohm	2.27
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection
Mounting Grommets

NTC sensor
Standard

ACCESSORIES OPTIONAL

Crankcase Heater
Oil Control System
Sound Attenuation
Valve Coil
Solenoid Valve Kit
Digital Control Kit
Valve Coil
Solenoid Valve Kit
Digital Control Kit
Mounting Grommets
Digital Tubing Kit
Digital Tubing Kit
Digital Driver

70 W External
ALCO Trax-Oil OM3
Sound Shell (10dBA)
220V
220 V Ac 12" lead Length
EC2-552
24V AC
24 V Ac 12" lead Length
EC3-652
Hard Mounts for Paralleling
220 V 0.3m Rotalock
24 V 0.3m Rotalock
EC3-D13

ZFD13,18KVE

VAPOR INJECTION
FITTING (BRAZED)
Ø 12.80-12.90

SOLENOID FITTING
Ø 9.65-9.77

1.00-14UNS-2A
ROTALOCK DISCHARGE

1.25-12UNF 2A
ROTALOCK SUCTION

Ø 185.5

