



Minimum Evaporating Temp. With:	
— 20 K Suction Superheat	— 20 K Suction Superheat Liquid injection
— 20 °C Suction Gas Return Liquid injection	
— Maximum Evaporating Temperature	

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	2.87	3.61	4.49	5.52	6.72	8.09					
15.0	2.83	3.59	4.49	5.53	6.73	8.10	9.66				
20.0	2.78	3.55	4.45	5.50	6.70	8.07	9.62	11.35			
25.0	2.71	3.49	4.39	5.44	6.63	7.99	9.53	11.25	13.20		
30.0	2.62	3.40	4.31	5.34	6.53	7.87	9.39	11.10	13.00	15.10	16.00
35.0	2.52	3.30	4.20	5.22	6.39	7.71	9.21	10.90	12.75	14.85	15.70
40.0	2.41	3.18	4.06	5.07	6.22	7.52	8.98	10.60	12.45	14.50	15.35
45.0		3.04	3.90	4.89	6.01	7.28	8.71	10.30	12.10	14.10	14.95
50.0							8.39	9.95	11.70	13.60	14.45
55.0									11.25	13.10	13.90

50 Hz

ZFD13KVE-TFD EVI

R449A Dew Point

Cond °C	Power, kW										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	1.18	1.27	1.34	1.43	1.52	1.64					
15.0	1.32	1.40	1.49	1.57	1.66	1.76	1.87				
20.0	1.46	1.56	1.66	1.74	1.82	1.90	2.00	2.12			
25.0	1.64	1.75	1.84	1.93	2.00	2.08	2.16	2.26	2.38		
30.0	1.84	1.96	2.07	2.15	2.22	2.29	2.36	2.44	2.54	2.66	2.71
35.0	2.07	2.21	2.32	2.41	2.48	2.55	2.60	2.67	2.74	2.83	2.87
40.0	2.34	2.50	2.62	2.71	2.78	2.84	2.89	2.94	2.99	3.05	3.08
45.0		2.82	2.96	3.06	3.13	3.19	3.23	3.26	3.29	3.33	3.35
50.0							3.62	3.64	3.65	3.67	3.68
55.0									4.07	4.07	4.07

Cond °C	Current at 400 V, A										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	3.79	3.84	3.89	3.95	4.03	4.13					
15.0	3.87	3.94	4.01	4.07	4.15	4.24	4.36				
20.0	3.98	4.07	4.15	4.22	4.30	4.38	4.49	4.62			
25.0	4.13	4.24	4.33	4.42	4.49	4.57	4.66	4.77	4.91		
30.0	4.32	4.45	4.56	4.65	4.73	4.81	4.89	4.98	5.09	5.23	5.29
35.0	4.56	4.72	4.85	4.95	5.03	5.10	5.17	5.25	5.33	5.44	5.49
40.0	4.85	5.04	5.19	5.30	5.39	5.46	5.52	5.58	5.65	5.73	5.76
45.0		5.44	5.60	5.73	5.82	5.89	5.95	5.99	6.04	6.09	6.11
50.0							6.46	6.49	6.51	6.54	6.55
55.0									7.08	7.08	7.08

Cond °C	Suction Mass Flow, g/s										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	10.80	14.05	17.90	22.50	28.20	34.90					
15.0	10.70	14.00	17.95	22.60	28.30	35.10	43.30				
20.0	10.60	13.95	17.90	22.70	28.40	35.20	43.40	53.00			
25.0	10.40	13.80	17.80	22.60	28.30	35.20	43.30	52.90	64.20		
30.0	10.20	13.60	17.65	22.40	28.10	35.00	43.10	52.70	64.00	77.00	82.80
35.0	9.90	13.35	17.35	22.10	27.90	34.70	42.80	52.40	63.60	76.60	82.30
40.0	9.57	13.00	17.00	21.80	27.50	34.20	42.30	51.80	63.00	75.90	81.60
45.0		12.60	16.60	21.30	26.90	33.70	41.70	51.10	62.20	75.10	80.70
50.0							40.90	50.30	61.30	74.00	79.70
55.0									60.10	72.80	78.40

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	11.7
Length/Width, mm	246/250
Height, mm	481
Net Weight, kg	38.6
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 (0)
Sound Pressure @ 1m (LT), dBA	65
Sound Power (LT), dBA	76
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	9
Locked Rotor Current, A	64
Winding Resistance, ohm	2.75
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection	NTC sensor
Mounting Grommets	Standard

ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Mounting Grommets	Hard Mounts for Paralleling
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Valve Coil	220V
Valve Coil	24V AC
Solenoid Valve Kit	220 V Ac 12" lead Length
Solenoid Valve Kit	24 V Ac 12" lead Length
Digital Tubing Kit	220 V 0.3m Rotalock
Digital Tubing Kit	24 V 0.3m Rotalock
Digital Control Kit	EC2-552
Digital Control Kit	EC3-652
Digital Driver	EC3-D13

MOTOR OPTIONS

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
TFD	380-420 V / 3~ / 50 Hz	400		Y	1.00