



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	8.59	10.50	12.80	15.55					
15.0	8.22	10.10	12.30	14.90	17.90				
20.0	7.83	9.62	11.75	14.20	17.05	20.30			
25.0	7.43	9.14	11.15	13.50	16.20	19.30	22.80		
30.0	7.01	8.63	10.55	12.75	15.30	18.20	21.50	23.00	25.30
35.0	6.57	8.10	9.88	11.95	14.35	17.05	20.20	21.60	23.70
40.0	6.12	7.55	9.21	11.15	13.35	15.90	18.80	20.10	22.10
45.0		6.98	8.51	10.25	12.30	14.65	17.30	18.50	20.40
50.0		6.38	7.77	9.37	11.20	13.35	15.80	16.85	18.60
55.0			7.01	8.44	10.10	12.00	14.20	15.20	16.75
60.0				7.48	8.94	10.65	12.60	13.45	14.85

50 Hz

ZBD45KCE-TFD

R404A Dew Point

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	2.16	2.29	2.45	2.64					
15.0	2.35	2.48	2.63	2.81	3.02				
20.0	2.56	2.69	2.84	3.01	3.21	3.43			
25.0	2.79	2.93	3.08	3.25	3.43	3.64	3.88		
30.0	3.05	3.20	3.36	3.52	3.70	3.90	4.12	4.21	4.36
35.0	3.34	3.51	3.67	3.84	4.01	4.20	4.41	4.49	4.63
40.0	3.66	3.84	4.02	4.19	4.37	4.55	4.75	4.83	4.95
45.0		4.22	4.41	4.59	4.77	4.95	5.14	5.21	5.33
50.0		4.63	4.83	5.03	5.22	5.40	5.58	5.66	5.77
55.0			5.30	5.52	5.71	5.90	6.09	6.16	6.27
60.0				6.05	6.26	6.46	6.64	6.72	6.82

Cond °C	Current at 400 V, A								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	4.92	5.18	5.49	5.89					
15.0	5.31	5.52	5.76	6.07	6.49				
20.0	5.68	5.86	6.05	6.29	6.62	7.06			
25.0	6.03	6.20	6.36	6.55	6.81	7.17	7.65		
30.0	6.38	6.55	6.70	6.86	7.07	7.36	7.75	7.95	8.29
35.0	6.71	6.91	7.07	7.22	7.40	7.64	7.96	8.13	8.42
40.0	7.05	7.29	7.47	7.63	7.80	8.01	8.29	8.43	8.68
45.0		7.69	7.92	8.11	8.28	8.48	8.73	8.86	9.07
50.0		8.12	8.41	8.65	8.85	9.06	9.30	9.41	9.61
55.0			8.96	9.26	9.50	9.74	9.99	10.10	10.29
60.0				9.94	10.25	10.53	10.81	10.93	11.12

Cond °C	Suction Mass Flow, g/s								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	48.30	59.50	72.90	88.90					
15.0	48.20	59.40	72.90	88.90	108.00				
20.0	48.00	59.30	72.80	88.80	107.50	129.50			
25.0	47.70	59.10	72.50	88.50	107.00	129.00	155.00		
30.0	47.40	58.70	72.10	88.00	106.50	128.50	154.50	166.00	184.50
35.0	47.00	58.30	71.60	87.40	106.00	127.50	153.50	165.00	183.50
40.0	46.50	57.70	70.90	86.50	105.00	126.50	152.00	163.50	182.00
45.0		57.00	70.10	85.50	103.50	125.00	150.50	162.00	180.50
50.0		56.30	69.10	84.30	102.50	123.50	149.00	160.50	179.00
55.0			68.10	83.00	100.50	122.00	147.00	158.50	177.50
60.0				81.70	99.20	120.00	145.50	157.00	176.50

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	17.1
Length/Width, mm	241/246
Height, mm	481
Net Weight, kg	39.9
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 (MT), dBA	61
Sound Power (MT), dBA	72
Sound Power with Sound Shell (MT), dBA	62
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	1
Max. Low Side Internal Free Volume, l	6.3
Max. High Side Internal Free Volume, l	0.5
Max. Internal Free Volume, l	6.80
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	12.3
Locked Rotor Current, A	74
Winding Resistance, ohm	2.27
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Mounting Grommets	Standard
Discharge Temperature Protection	NTC sensor

ACCESSORIES OPTIONAL

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

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
TF5	200-220 V / 3~ / 50 Hz	200		Y	2.09
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09