



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	4.76									
25.0	4.61	5.83								
30.0	4.34	5.52	6.94	8.63						
35.0	4.08	5.21	6.56	8.18	10.10	12.35	13.35			
40.0	3.82	4.89	6.18	7.72	9.55	11.70	12.65	14.20	15.60	17.10
45.0		4.58	5.80	7.26	8.99	11.05	11.95	13.45	14.75	16.20
50.0		4.27	5.42	6.79	8.43	10.35	11.25	12.65	13.90	15.30
55.0			5.03	6.32	7.86	9.69	10.50	11.85	13.05	14.35
60.0				5.85	7.29	9.00	9.78	11.05	12.20	13.45
65.0				5.37	6.70	8.31	9.03	10.20	11.30	12.50
70.0					6.12	7.61	8.28	9.39	10.40	11.50
75.0					5.53	6.90	7.52	8.56	9.51	10.55

50 Hz

ZBD45KCE-TFD

R134a

Cond °C	Power, kW									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	1.69									
25.0	1.78	1.87								
30.0	1.93	2.04	2.13	2.23						
35.0	2.09	2.22	2.32	2.42	2.53	2.67	2.73			
40.0	2.25	2.40	2.53	2.63	2.74	2.86	2.92	3.01	3.10	3.20
45.0		2.60	2.74	2.86	2.97	3.09	3.14	3.22	3.30	3.39
50.0		2.79	2.97	3.11	3.23	3.35	3.40	3.47	3.54	3.62
55.0			3.20	3.37	3.51	3.64	3.68	3.76	3.82	3.89
60.0				3.65	3.81	3.95	4.00	4.07	4.14	4.20
65.0				3.93	4.12	4.28	4.34	4.42	4.48	4.55
70.0					4.44	4.63	4.70	4.79	4.86	4.93
75.0					4.77	5.00	5.07	5.18	5.26	5.33

Cond °C	Current at 400 V, A									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	4.37									
25.0	4.56	4.72								
30.0	4.85	5.01	5.13	5.26						
35.0	5.10	5.26	5.39	5.49	5.61	5.77	5.85			
40.0	5.30	5.50	5.63	5.73	5.83	5.95	6.01	6.13	6.24	6.38
45.0		5.70	5.87	5.99	6.08	6.18	6.22	6.31	6.40	6.51
50.0		5.89	6.11	6.25	6.35	6.45	6.49	6.56	6.63	6.72
55.0			6.34	6.53	6.66	6.77	6.81	6.88	6.94	7.01
60.0				6.83	7.01	7.14	7.19	7.26	7.32	7.39
65.0				7.15	7.39	7.57	7.63	7.72	7.79	7.86
70.0					7.82	8.06	8.14	8.25	8.33	8.42
75.0					8.28	8.60	8.71	8.86	8.96	9.07

50 Hz

ZBD45KCE-TFD

R134a

Cond °C	Suction Mass Flow, g/s									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	29.10									
25.0	28.90	35.80								
30.0	28.50	35.50	43.70	53.30						
35.0	28.20	35.10	43.30	52.90	64.00	76.70	82.20			
40.0	27.80	34.80	43.00	52.50	63.50	76.20	81.70	90.60	98.60	107.00
45.0		34.40	42.50	52.00	63.00	75.60	81.20	90.10	98.00	106.50
50.0		34.00	42.10	51.50	62.40	75.00	80.50	89.40	97.40	106.00
55.0			41.70	51.00	61.80	74.30	79.80	88.70	96.70	105.00
60.0				50.40	61.10	73.60	79.10	88.00	96.00	104.50
65.0				49.90	60.50	72.90	78.40	87.20	95.20	104.00
70.0					59.80	72.10	77.60	86.50	94.50	103.00
75.0					59.20	71.40	76.90	85.80	94.00	102.50

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 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	1430
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

Discharge Temperature Protection	NTC sensor
Mounting Grommets	Standard

ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Mounting Grommets	Hard Mounts for Paralleling
Solenoid valve	Standard
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
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