



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	5.91									
25.0	5.71	7.29								
30.0	5.39	6.91	8.75	10.95						
35.0	5.07	6.52	8.29	10.40	12.90	15.80	17.10			
40.0	4.74	6.13	7.81	9.83	12.20	15.00	16.25	18.20	20.00	21.90
45.0		5.73	7.33	9.25	11.50	14.20	15.35	17.25	18.95	20.80
50.0		5.33	6.83	8.65	10.80	13.35	14.45	16.25	17.90	19.65
55.0			6.33	8.03	10.05	12.45	13.50	15.25	16.80	18.45
60.0				7.41	9.31	11.55	12.55	14.20	15.65	17.20
65.0				6.77	8.53	10.65	11.55	13.10	14.50	15.95
70.0					7.75	9.69	10.55	12.00	13.30	14.70
75.0					6.95	8.73	9.54	10.85	12.05	13.35

50 Hz

ZBD57KCE-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	2.33									
25.0	2.48	2.48								
30.0	2.76	2.77	2.78	2.80						
35.0	3.06	3.08	3.10	3.12	3.14	3.17	3.18			
40.0	3.39	3.42	3.44	3.47	3.49	3.52	3.53	3.55	3.57	3.59
45.0		3.79	3.83	3.86	3.89	3.91	3.93	3.94	3.96	3.97
50.0		4.20	4.25	4.29	4.32	4.35	4.36	4.38	4.39	4.41
55.0			4.72	4.76	4.81	4.84	4.85	4.87	4.88	4.89
60.0				5.29	5.34	5.38	5.40	5.42	5.43	5.44
65.0				5.88	5.94	5.99	6.00	6.02	6.04	6.05
70.0					6.59	6.65	6.67	6.69	6.71	6.72
75.0					7.32	7.38	7.41	7.43	7.45	7.47

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	8.07									
25.0	8.22	8.17								
30.0	8.49	8.47	8.46	8.46						
35.0	8.82	8.81	8.82	8.83	8.85	8.89	8.90			
40.0	9.19	9.22	9.24	9.26	9.29	9.32	9.34	9.37	9.39	9.43
45.0		9.69	9.73	9.77	9.81	9.84	9.86	9.88	9.90	9.93
50.0		10.24	10.31	10.36	10.41	10.45	10.47	10.49	10.51	10.53
55.0			10.97	11.05	11.11	11.16	11.18	11.20	11.22	11.24
60.0				11.84	11.92	11.98	12.00	12.03	12.04	12.06
65.0				12.74	12.84	12.92	12.94	12.97	12.99	13.01
70.0					13.89	13.98	14.01	14.05	14.07	14.09
75.0					15.07	15.18	15.22	15.27	15.29	15.31

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	36.10									
25.0	35.80	44.80								
30.0	35.40	44.40	55.10	67.60						
35.0	35.00	44.00	54.70	67.20	81.70	98.10	105.50			
40.0	34.50	43.60	54.30	66.80	81.20	97.70	105.00	116.50	126.50	137.00
45.0		43.00	53.70	66.20	80.60	97.10	104.50	115.50	126.00	136.50
50.0		42.50	53.10	65.60	79.90	96.40	103.50	115.00	125.00	136.00
55.0			52.40	64.80	79.10	95.50	102.50	114.00	124.50	135.00
60.0				63.90	78.10	94.40	101.50	113.00	123.00	134.00
65.0				62.90	77.00	93.20	100.50	112.00	122.00	133.00
70.0					75.70	91.90	99.00	110.50	120.50	131.50
75.0					74.40	90.50	97.60	109.00	119.00	130.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	21.4
Length/Width, mm	246/257
Height, mm	481
Net Weight, kg	43.1
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1 1/4
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 (19)
Sound Pressure @ 1m (MT), dBA	68
Sound Power (MT), dBA	79
Sound Power with Sound Shell (MT), dBA	69
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	20
Refrigerant's GWP	1430
Refrigerant's classification	A1

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

Maximum Operating Current, A	15.9
Locked Rotor Current, A	102
Winding Resistance, ohm	1.72
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection	Internal Thermistor
Mounting Grommets	Standard

ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge
Oil Control System	ALCO Trax-Oil OM3
Enclosure Class	IP66 With Molded Plug
Mounting Grommets	Hard Mounts for Paralleling

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