



Minimum Evaporating Temp. With:

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

Suction Return Temperature 18.3°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
4.0	9.78	12.15	15.00	18.45					
5.0	9.73	12.10	14.95	18.40					
10.0	9.35	11.65	14.45	17.75	21.60				
15.0	8.98	11.20	13.90	17.10	20.80				
20.0	8.60	10.80	13.35	16.45	20.00	24.20			
25.0	8.23	10.30	12.80	15.75	19.15	23.10	27.70	29.70	
30.0	7.84	9.85	12.20	15.00	18.25	22.00	26.40	28.30	31.40
35.0	7.44	9.35	11.60	14.25	17.35	20.90	25.00	26.80	29.80
40.0		8.83	10.95	13.45	16.35	19.70	23.60	25.30	28.10
45.0			10.25	12.60	15.30	18.45	22.10	23.70	26.30
50.0			9.53	11.70	14.20	17.10	20.50	22.00	24.40
55.0				10.70	13.00	15.70	18.85	20.20	22.40
60.0					11.75	14.20	17.10	18.35	20.40

50 Hz

ZBD57KCE-TFD

R449A Dew Point

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
4.0	2.13	2.16	2.14	2.09					
5.0	2.17	2.20	2.18	2.13					
10.0	2.45	2.53	2.56	2.55	2.51				
15.0	2.71	2.84	2.91	2.94	2.93				
20.0	2.96	3.13	3.25	3.31	3.34	3.35			
25.0	3.22	3.43	3.58	3.68	3.74	3.77	3.80	3.80	
30.0	3.49	3.74	3.93	4.06	4.15	4.21	4.25	4.26	4.29
35.0	3.78	4.07	4.30	4.46	4.58	4.66	4.72	4.74	4.77
40.0		4.44	4.70	4.89	5.04	5.14	5.22	5.25	5.28
45.0			5.15	5.37	5.54	5.66	5.76	5.79	5.84
50.0			5.66	5.91	6.10	6.24	6.35	6.39	6.44
55.0				6.51	6.73	6.89	7.01	7.05	7.10
60.0					7.43	7.61	7.74	7.79	7.85

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
4.0	4.33	4.40	4.40	4.34					
5.0	4.40	4.49	4.49	4.43					
10.0	5.02	5.17	5.23	5.22	5.18				
15.0	5.55	5.75	5.86	5.91	5.91				
20.0	6.01	6.26	6.43	6.52	6.57	6.58			
25.0	6.42	6.73	6.95	7.09	7.17	7.22	7.25	7.26	
30.0	6.83	7.19	7.45	7.63	7.75	7.83	7.89	7.92	7.95
35.0	7.24	7.65	7.95	8.18	8.33	8.45	8.53	8.57	8.61
40.0		8.14	8.49	8.75	8.94	9.09	9.20	9.24	9.30
45.0			9.09	9.38	9.61	9.77	9.91	9.96	10.03
50.0			9.77	10.10	10.35	10.54	10.70	10.75	10.83
55.0				10.92	11.20	11.41	11.59	11.65	11.74
60.0					12.18	12.42	12.61	12.67	12.77

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
4.0	43.80	54.60	67.80	83.80					
5.0	43.70	54.60	67.80	83.70					
10.0	43.40	54.40	67.70	83.60	102.50				
15.0	43.20	54.20	67.50	83.50	102.50				
20.0	42.90	54.00	67.30	83.30	102.00	124.50			
25.0	42.70	53.80	67.10	83.00	102.00	124.00	150.00	162.00	
30.0	42.40	53.50	66.80	82.50	101.00	123.50	149.50	161.00	180.00
35.0	42.00	53.10	66.30	81.90	100.50	122.50	148.50	160.00	179.00
40.0		52.60	65.70	81.10	99.50	121.00	147.00	158.50	177.50
45.0			64.80	80.10	98.20	119.50	145.00	156.50	175.50
50.0			63.70	78.70	96.50	118.00	143.00	154.50	173.00
55.0				76.90	94.40	115.50	140.50	151.50	170.50
60.0					91.80	112.50	137.00	148.50	167.00

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /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 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	1397
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
Enclosure Class	IP66 With Molded Plug
Mounting Grommets	Hard Mounts for Paralleling
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge

### **MOTOR OPTIONS**

<b>Motor Code</b>	<b>Power Supply</b>	<b>Nominal Voltage, V</b>	<b>Start Connection</b>	<b>DOL Connection</b>	<b>Amps Factor</b>
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