



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- 20 °C Suction Gas Return
- 25 °C Suction Gas Return with Voltage limit  $\pm 0\%$
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Evaporating Temperature, °C

Liquid Subcooling 0.0K

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
10.0	4.45	5.57	6.94	8.57						
15.0	4.27	5.36	6.69	8.28						
20.0	4.08	5.15	6.44	7.98	9.79					
25.0	3.89	4.92	6.17	7.66	9.40	11.45	12.35			
30.0	3.70	4.69	5.90	7.33	9.01	10.95	11.80	13.20	14.45	
35.0	3.51	4.46	5.61	6.98	8.59	10.45	11.30	12.60	13.80	15.05
40.0	3.31	4.22	5.32	6.63	8.16	9.94	10.75	12.00	13.10	14.35
45.0		3.98	5.02	6.26	7.72	9.41	10.15	11.35	12.45	13.60
50.0			4.72	5.89	7.26	8.86	9.56	10.70	11.70	12.80
55.0				5.50	6.79	8.29	8.96	10.00	11.00	12.00
60.0				5.11	6.31	7.71	8.33	9.33	10.20	11.20
65.0					5.82	7.12	7.69	8.62	9.45	10.35
70.0						6.51	7.04	7.89	8.65	9.47
75.0						5.89	6.37	7.15	7.84	8.59

50 Hz

ZB38KCE-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
10.0	1.12	1.12	1.12	1.14						
15.0	1.28	1.27	1.28	1.28						
20.0	1.44	1.43	1.44	1.44	1.46					
25.0	1.60	1.60	1.60	1.62	1.64	1.66	1.67			
30.0	1.78	1.78	1.80	1.80	1.82	1.84	1.85	1.86	1.88	
35.0	1.98	1.98	2.00	2.01	2.03	2.04	2.05	2.07	2.08	2.09
40.0	2.19	2.21	2.22	2.24	2.25	2.27	2.28	2.29	2.30	2.31
45.0		2.45	2.47	2.49	2.51	2.53	2.53	2.54	2.55	2.56
50.0			2.74	2.77	2.79	2.81	2.82	2.83	2.84	2.84
55.0				3.07	3.10	3.12	3.13	3.14	3.15	3.16
60.0				3.42	3.45	3.47	3.48	3.49	3.50	3.51
65.0					3.83	3.86	3.87	3.89	3.89	3.90
70.0						4.29	4.30	4.32	4.33	4.34
75.0						4.76	4.78	4.80	4.81	4.82

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
10.0	4.88	4.83	4.81	4.81						
15.0	5.01	4.96	4.94	4.94						
20.0	5.15	5.11	5.09	5.09	5.10					
25.0	5.30	5.27	5.26	5.26	5.27	5.30	5.32			
30.0	5.48	5.46	5.46	5.46	5.47	5.50	5.51	5.54	5.57	
35.0	5.69	5.69	5.69	5.70	5.71	5.73	5.75	5.77	5.79	5.81
40.0	5.93	5.95	5.96	5.98	5.99	6.02	6.03	6.04	6.06	6.08
45.0		6.25	6.28	6.30	6.33	6.35	6.36	6.38	6.39	6.41
50.0			6.65	6.69	6.72	6.74	6.75	6.77	6.78	6.79
55.0				7.13	7.17	7.20	7.21	7.23	7.24	7.25
60.0				7.64	7.69	7.73	7.74	7.76	7.77	7.78
65.0					8.28	8.33	8.35	8.37	8.38	8.39
70.0						9.02	9.04	9.06	9.08	9.09
75.0						9.80	9.82	9.85	9.87	9.88

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
10.0	21.60	27.10	33.90	42.00						
15.0	21.40	27.00	33.80	42.10						
20.0	21.20	26.90	33.80	42.00	51.90					
25.0	21.00	26.70	33.60	41.90	51.80	63.40	68.60			
30.0	20.80	26.50	33.50	41.80	51.70	63.30	68.50	76.90	84.50	
35.0	20.60	26.30	33.20	41.60	51.50	63.10	68.30	76.80	84.40	92.70
40.0	20.30	26.00	33.00	41.30	51.20	62.80	68.00	76.50	84.20	92.50
45.0		25.80	32.70	41.00	50.80	62.50	67.70	76.10	83.80	92.10
50.0			32.30	40.50	50.40	62.00	67.20	75.70	83.30	91.70
55.0				40.10	49.90	61.40	66.60	75.10	82.80	91.10
60.0				39.50	49.20	60.80	65.90	74.40	82.00	90.40
65.0					48.60	60.00	65.20	73.60	81.20	89.60
70.0						59.20	64.30	72.70	80.30	88.60
75.0						58.20	63.30	71.70	79.40	87.70

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /h	14.4
Length/Width, mm	242/242
Height, mm	438
Net Weight, kg	37.4
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
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	67
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	1
Internal Free Volume, l	4.2
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	1430
Refrigerant's classification	A1

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

Maximum Operating Current, A	12.8
Locked Rotor Current, A	65.5
Winding Resistance, ohm	2.74
Default Enclosure Class	IP 21 (IEC 34)

### **ACCESSORIES INCLUDED**

Discharge Temperature Protection	Internal Thermodisk
Mounting Grommets	Standard

### **ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
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
TW5	200-220 V / 3~ / 50 Hz	200		Y	2.30
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09