



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 ± 0 %
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

50 Hz

ZB45KCE-TFD

R134a

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	5.52	6.83	8.42	10.35						
15.0	5.30	6.59	8.15	10.00						
20.0	5.07	6.33	7.85	9.65	11.80					
25.0	4.82	6.05	7.52	9.27	11.35	13.70	14.80			
30.0	4.57	5.76	7.18	8.87	10.85	13.15	14.20	15.85	17.30	
35.0	4.31	5.45	6.82	8.44	10.35	12.55	13.55	15.15	16.55	18.05
40.0	4.04	5.14	6.44	7.99	9.81	11.95	12.90	14.40	15.75	17.20
45.0		4.81	6.06	7.53	9.26	11.30	12.20	13.65	14.95	16.35
50.0			5.66	7.05	8.69	10.60	11.45	12.85	14.05	15.40
55.0				6.56	8.10	9.91	10.70	12.00	13.20	14.45
60.0				6.06	7.50	9.19	9.95	11.15	12.30	13.45
65.0					6.88	8.46	9.16	10.30	11.35	12.45
70.0						7.71	8.36	9.42	10.40	11.45
75.0						6.95	7.54	8.52	9.41	10.35

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	1.23	1.24	1.25	1.25						
15.0	1.42	1.42	1.44	1.44						
20.0	1.60	1.62	1.63	1.64	1.65					
25.0	1.80	1.82	1.84	1.85	1.86	1.87	1.88			
30.0	2.01	2.03	2.05	2.07	2.08	2.10	2.10	2.11	2.11	
35.0	2.25	2.27	2.29	2.31	2.32	2.34	2.34	2.35	2.36	2.36
40.0	2.50	2.53	2.55	2.57	2.59	2.61	2.61	2.62	2.63	2.63
45.0		2.82	2.85	2.87	2.89	2.91	2.91	2.92	2.93	2.93
50.0			3.17	3.20	3.22	3.24	3.25	3.26	3.26	3.27
55.0				3.57	3.60	3.62	3.62	3.63	3.64	3.65
60.0				3.99	4.02	4.04	4.05	4.06	4.07	4.07
65.0					4.49	4.52	4.52	4.54	4.54	4.55
70.0						5.05	5.06	5.07	5.08	5.08
75.0						5.65	5.66	5.67	5.68	5.68

50 Hz

ZB45KCE-TFD

R134a

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	2.84	2.83	2.81	2.78						
15.0	3.00	3.00	2.99	2.97						
20.0	3.15	3.15	3.15	3.13	3.11					
25.0	3.28	3.29	3.29	3.28	3.27	3.24	3.22			
30.0	3.39	3.41	3.42	3.42	3.41	3.39	3.38	3.36	3.34	
35.0	3.50	3.52	3.53	3.54	3.54	3.53	3.52	3.50	3.49	3.47
40.0	3.60	3.62	3.64	3.65	3.66	3.65	3.65	3.64	3.63	3.61
45.0		3.72	3.74	3.75	3.76	3.77	3.77	3.76	3.75	3.74
50.0			3.83	3.85	3.86	3.87	3.87	3.87	3.87	3.87
55.0				3.94	3.96	3.97	3.98	3.98	3.98	3.98
60.0				4.03	4.05	4.07	4.08	4.08	4.09	4.09
65.0					4.15	4.17	4.17	4.18	4.19	4.19
70.0						4.26	4.27	4.28	4.29	4.30
75.0						4.36	4.37	4.38	4.39	4.40

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	26.80	33.20	41.10	50.70						
15.0	26.60	33.20	41.20	50.80						
20.0	26.40	33.10	41.10	50.90	62.40					
25.0	26.10	32.80	41.00	50.80	62.40	76.10	82.30			
30.0	25.70	32.50	40.70	50.60	62.20	76.00	82.20	92.30	101.50	
35.0	25.30	32.10	40.40	50.20	62.00	75.80	82.00	92.10	101.50	111.00
40.0	24.80	31.70	39.90	49.80	61.50	75.40	81.70	91.80	101.00	111.00
45.0		31.20	39.40	49.20	61.00	74.90	81.20	91.40	100.50	111.00
50.0			38.80	48.60	60.30	74.20	80.50	90.80	100.00	110.50
55.0				47.80	59.50	73.40	79.70	90.00	99.40	109.50
60.0				46.90	58.50	72.40	78.70	89.10	98.50	109.00
65.0					57.40	71.30	77.60	88.00	97.50	108.00
70.0						70.00	76.40	86.80	96.40	107.00
75.0						68.70	75.00	85.50	95.20	106.00

### **COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, m <sup>3</sup> /h	17.1
Length/Width, mm	242/242
Height, mm	438
Net Weight, kg	39.1
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	62
Sound Power (MT), dBA	73
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
Max. Internal Free Volume, l	5.90
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	13.1
Locked Rotor Current, A	74
Winding Resistance, ohm	2.27
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
TFE	500 V / 3~ / 50 Hz	500		Y	0.80
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
TFE	575 V / 3~ / 60 Hz	575		Y	0.80