



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
10.0	6.19	7.82	9.75	12.00						
15.0	5.85	7.43	9.31	11.50						
20.0	5.53	7.05	8.87	11.00	13.45					
25.0	5.22	6.68	8.43	10.50	12.85	15.60	16.80			
30.0	4.93	6.32	7.99	9.96	12.25	14.90	16.05	17.90	19.55	
35.0	4.64	5.97	7.56	9.44	11.65	14.20	15.30	17.10	18.70	20.40
40.0	4.37	5.61	7.12	8.92	11.00	13.45	14.55	16.25	17.80	19.45
45.0		5.26	6.68	8.38	10.40	12.70	13.75	15.40	16.90	18.45
50.0			6.24	7.84	9.74	11.95	12.95	14.50	15.95	17.45
55.0			5.79	7.28	9.07	11.15	12.10	13.60	14.95	16.40
60.0				6.71	8.38	10.35	11.25	12.65	13.95	15.35
65.0					7.68	9.53	10.35	11.70	12.90	14.25
70.0					6.95	8.66	9.44	10.70	11.85	13.10
75.0						7.77	8.49	9.67	10.75	11.90

50 Hz

ZB50KCE-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	1.48	1.48	1.53	1.62						
15.0	1.69	1.68	1.72	1.80						
20.0	1.92	1.90	1.93	1.99	2.07					
25.0	2.16	2.14	2.16	2.22	2.28	2.34	2.36			
30.0	2.42	2.40	2.42	2.47	2.52	2.57	2.58	2.59	2.59	
35.0	2.70	2.69	2.71	2.75	2.80	2.84	2.84	2.84	2.83	2.81
40.0	3.00	2.99	3.02	3.06	3.11	3.14	3.14	3.13	3.11	3.08
45.0		3.32	3.35	3.40	3.44	3.47	3.47	3.46	3.44	3.40
50.0			3.71	3.76	3.81	3.84	3.84	3.83	3.80	3.75
55.0			4.09	4.15	4.21	4.24	4.24	4.23	4.20	4.15
60.0				4.57	4.64	4.68	4.68	4.67	4.64	4.60
65.0					5.10	5.15	5.16	5.15	5.12	5.08
70.0					5.59	5.66	5.67	5.67	5.65	5.60
75.0						6.20	6.21	6.22	6.21	6.17

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	6.85	6.91	7.00	7.10						
15.0	7.04	7.08	7.16	7.24						
20.0	7.23	7.26	7.32	7.39	7.45					
25.0	7.42	7.44	7.49	7.55	7.60	7.61	7.60			
30.0	7.62	7.63	7.67	7.73	7.78	7.79	7.77	7.74	7.68	
35.0	7.84	7.84	7.88	7.94	7.98	7.99	7.98	7.94	7.89	7.81
40.0	8.08	8.08	8.12	8.18	8.22	8.24	8.23	8.20	8.14	8.07
45.0		8.36	8.40	8.46	8.51	8.53	8.53	8.50	8.45	8.38
50.0			8.73	8.79	8.86	8.89	8.88	8.86	8.82	8.76
55.0			9.11	9.18	9.26	9.30	9.30	9.29	9.26	9.20
60.0				9.64	9.73	9.79	9.80	9.79	9.77	9.72
65.0					10.27	10.35	10.37	10.38	10.36	10.33
70.0					10.90	11.00	11.03	11.05	11.05	11.03
75.0						11.75	11.79	11.83	11.84	11.83

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	34.20	42.50	52.10	63.00						
15.0	33.70	42.00	51.60	62.60						
20.0	33.20	41.50	51.20	62.30	74.80					
25.0	32.70	41.10	50.80	61.90	74.50	88.70	94.90			
30.0	32.40	40.60	50.30	61.50	74.20	88.40	94.60	104.50	113.00	
35.0	32.10	40.30	49.90	61.10	73.80	88.10	94.30	104.00	113.00	122.00
40.0	31.80	39.90	49.50	60.60	73.30	87.70	93.90	104.00	112.50	121.50
45.0		39.50	49.00	60.00	72.70	87.10	93.40	103.50	112.00	121.50
50.0			48.50	59.40	72.10	86.50	92.80	102.50	111.50	121.00
55.0			47.90	58.70	71.30	85.70	92.00	102.00	111.00	120.00
60.0				57.90	70.40	84.70	91.00	101.00	110.00	119.50
65.0					69.20	83.50	89.80	99.90	109.00	118.50
70.0					67.90	82.20	88.50	98.60	107.50	117.00
75.0						80.50	86.80	97.00	106.00	116.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	19.8
Length/Width, mm	263/284
Height, mm	480
Net Weight, kg	59
Stub Suction, inch	1 1/8
Stub Discharge, inch	7/8
Oil Quantity, l	2.65
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	64
Sound Power (MT), dBA	75
Sound Power with Sound Shell (MT), dBA	65
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	2
Max. Internal Free Volume, l	10.5
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
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	14.6
Locked Rotor Current, A	100
Winding Resistance, ohm	1.75
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Mounting Grommets	Standard
Discharge Temperature Protection	Internal Thermistor

ACCESSORIES OPTIONAL

Crankcase Heater	66 W External
Enclosure Class	IP66 With Molded Plug
Mounting Grommets	Hard Mounts for Paralleling
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge
Oil Control System	ALCO Trax-Oil OM3

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
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