



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

Additional restrictions, please see application guidelines

50 Hz

ZR81KRE-TFD

R513A

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	20.0	25.0
10.0	6.40	7.99	9.85	12.00								
15.0	6.09	7.66	9.49	11.60	14.10							
20.0	5.76	7.30	9.08	11.15	13.55	16.35						
25.0	5.42	6.90	8.63	10.65	13.00	15.70	16.90	18.80				
30.0	5.06	6.49	8.15	10.10	12.35	14.95	16.15	18.00	19.70	21.50		
35.0	4.70	6.06	7.64	9.49	11.65	14.20	15.30	17.10	18.75	20.50		
40.0	4.35	5.62	7.12	8.87	10.95	13.35	14.45	16.15	17.75	19.40	23.20	
45.0	4.01	5.19	6.59	8.24	10.20	12.50	13.50	15.15	16.65	18.30	21.90	26.00
50.0		4.78	6.06	7.59	9.42	11.60	12.55	14.15	15.55	17.10	20.50	24.50
55.0			5.54	6.95	8.64	10.65	11.55	13.05	14.40	15.85	19.15	22.90
60.0			5.05	6.31	7.85	9.72	10.55	11.95	13.20	14.60	17.70	21.30
65.0				5.69	7.07	8.77	9.55	10.85	12.00	13.30	16.20	19.60
70.0					6.30	7.83	8.53	9.70	10.80	11.95	14.70	
75.0					5.56	6.89	7.52	8.57	9.56	10.65		

Cond °C	Power, kW											
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
10.0	1.56	1.55	1.57	1.62								
15.0	1.74	1.72	1.74	1.77	1.84							
20.0	1.94	1.92	1.92	1.94	2.00	2.07						
25.0	2.16	2.14	2.13	2.15	2.18	2.24	2.26	2.31				
30.0	2.42	2.39	2.38	2.39	2.41	2.44	2.46	2.50	2.53	2.56		
35.0	2.71	2.68	2.66	2.66	2.67	2.69	2.70	2.73	2.75	2.77		
40.0	3.03	3.01	2.99	2.98	2.98	2.98	2.99	3.00	3.01	3.03	3.06	
45.0	3.40	3.38	3.36	3.34	3.33	3.33	3.33	3.33	3.33	3.33	3.34	3.36
50.0		3.79	3.77	3.75	3.74	3.72	3.72	3.71	3.70	3.69	3.68	3.67
55.0			4.24	4.22	4.20	4.17	4.16	4.15	4.13	4.12	4.09	4.05
60.0			4.77	4.75	4.72	4.69	4.67	4.65	4.63	4.60	4.55	4.50
65.0				5.34	5.31	5.27	5.25	5.22	5.19	5.16	5.09	5.02
70.0					5.96	5.92	5.90	5.86	5.83	5.79	5.70	
75.0					6.69	6.64	6.62	6.58	6.54	6.49		

Additional restrictions, please see application guidelines

50 Hz

ZR81KRE-TFD

R513A

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	20.0	25.0
10.0	4.99	4.98	5.00	5.06								
15.0	5.46	5.44	5.46	5.51	5.58							
20.0	5.88	5.85	5.87	5.91	5.97	6.06						
25.0	6.28	6.25	6.25	6.28	6.33	6.40	6.43	6.48				
30.0	6.68	6.63	6.62	6.64	6.68	6.74	6.76	6.80	6.84	6.87		
35.0	7.08	7.02	7.00	7.01	7.04	7.08	7.10	7.13	7.15	7.18		
40.0	7.51	7.44	7.41	7.40	7.42	7.44	7.45	7.47	7.49	7.51	7.53	
45.0	7.98	7.90	7.86	7.84	7.83	7.84	7.85	7.86	7.87	7.87	7.88	7.87
50.0		8.43	8.37	8.33	8.31	8.30	8.30	8.30	8.30	8.29	8.28	8.25
55.0			8.95	8.90	8.86	8.84	8.83	8.82	8.80	8.79	8.75	8.70
60.0			9.63	9.56	9.51	9.46	9.45	9.42	9.40	9.37	9.31	9.24
65.0				10.33	10.26	10.20	10.17	10.13	10.10	10.06	9.98	9.88
70.0					11.14	11.06	11.02	10.97	10.93	10.88	10.77	
75.0					12.17	12.06	12.02	11.95	11.90	11.84		

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	20.0	25.0
10.0	39.40	48.10	58.10	69.40								
15.0	39.10	48.10	58.30	69.90	83.00							
20.0	38.80	47.90	58.30	70.00	83.30	98.40						
25.0	38.20	47.60	58.00	69.90	83.40	98.60	105.50	116.00				
30.0	37.60	47.00	57.60	69.60	83.20	98.60	105.50	116.00	125.50	135.50		
35.0	37.00	46.40	57.00	69.00	82.70	98.20	105.00	116.00	125.50	135.50		
40.0	36.40	45.70	56.30	68.30	82.00	97.60	104.50	115.50	125.00	135.00	157.50	
45.0	35.90	45.10	55.50	67.40	81.10	96.70	103.50	114.50	124.00	134.50	157.00	182.50
50.0		44.60	54.70	66.50	80.00	95.60	102.50	113.50	123.50	133.50	156.50	182.00
55.0			54.10	65.60	78.90	94.40	101.50	112.00	122.00	132.50	155.50	181.50
60.0			53.70	64.70	77.80	93.10	99.90	111.00	121.00	131.50	154.50	181.00
65.0				64.20	76.80	91.80	98.50	109.50	119.50	130.00	153.50	180.00
70.0					76.00	90.60	97.30	108.00	118.00	128.50	152.50	
75.0					75.90	89.90	96.40	107.00	117.00	127.50		

Additional restrictions, please see application guidelines

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/h	18.8
Length/Width, mm	246/257
Height, mm	443
Net Weight, kg	39.2
Stub Suction, inch	7/8
Stub Discharge, inch	3/4
Oil Quantity, l	1.77
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 (HT), dBA	61
Sound Power (HT), dBA	72
Sound Conditions (HT, Temperatures:	5 / 50 / 15 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Internal Free Volume, l	5.40
High Side PS gauge, bar	29
Low Side PS gauge, bar	21
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	631
Refrigerant's classification	A1

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

Maximum Operating Current, A	14
Locked Rotor Current, A	101
Winding Resistance, ohm	1.79
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection	Internal Thermodisk
----------------------------------	---------------------

Additional restrictions, please see application guidelines

50 Hz

ZR81KRE-TFD

R513A

ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Oil Control System	ALCO Trax-Oil OM3
Mounting Grommets	Standard
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge

MOTOR OPTIONS

<i>Motor Code</i>	<i>Power Supply</i>	<i>Nominal Voltage, V</i>	<i>Start Connection</i>	<i>DOL Connection</i>	<i>Amps Factor</i>
TFD	380-420 V / 3~ / 50 Hz	400		Y	1.00
TFD	460 V / 3~ / 60 Hz	460		Y	1.04

Additional restrictions, please see application guidelines