



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- 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
30.0	4.88	6.22	7.83	9.74	12.00	14.60	15.75	17.65		
35.0	4.59	5.88	7.42	9.26	11.40	13.90	15.05	16.80	18.45	
40.0	4.30	5.53	7.01	8.76	10.80	13.20	14.25	16.00	17.50	19.15
45.0		5.17	6.58	8.24	10.20	12.50	13.50	15.10	16.60	18.15
50.0		4.80	6.13	7.71	9.57	11.75	12.70	14.25	15.65	17.15
55.0			5.68	7.17	8.92	10.95	11.90	13.35	14.65	16.10
60.0				6.61	8.26	10.20	11.05	12.45	13.70	15.00
65.0				6.04	7.58	9.39	10.20	11.50	12.65	13.95
70.0					6.88	8.56	9.31	10.55	11.65	12.80
75.0					6.16	7.71	8.41	9.53	10.55	11.65

50 Hz

ZR81KCE-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
30.0	2.25	2.28	2.29	2.30	2.31	2.33	2.35	2.37		
35.0	2.51	2.54	2.56	2.57	2.59	2.61	2.63	2.65	2.68	
40.0	2.81	2.84	2.86	2.87	2.89	2.92	2.93	2.96	2.99	3.03
45.0		3.17	3.19	3.21	3.22	3.25	3.27	3.29	3.32	3.36
50.0		3.55	3.57	3.58	3.60	3.62	3.64	3.67	3.70	3.73
55.0			4.00	4.01	4.02	4.04	4.06	4.08	4.11	4.15
60.0				4.48	4.49	4.51	4.52	4.55	4.57	4.61
65.0				5.02	5.02	5.04	5.05	5.07	5.09	5.12
70.0					5.62	5.62	5.63	5.65	5.67	5.70
75.0					6.29	6.28	6.29	6.30	6.31	6.34

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
30.0	6.91	6.92	6.92	6.92	6.93	6.95	6.97	6.99		
35.0	7.12	7.14	7.14	7.15	7.17	7.19	7.21	7.24	7.27	
40.0	7.37	7.40	7.41	7.42	7.44	7.47	7.49	7.52	7.55	7.59
45.0		7.72	7.73	7.75	7.77	7.80	7.81	7.85	7.88	7.92
50.0		8.10	8.12	8.14	8.16	8.19	8.21	8.24	8.27	8.31
55.0			8.59	8.61	8.62	8.65	8.67	8.70	8.73	8.77
60.0				9.16	9.18	9.20	9.22	9.25	9.28	9.32
65.0				9.82	9.83	9.85	9.87	9.89	9.92	9.96
70.0					10.60	10.61	10.62	10.64	10.67	10.70
75.0					11.49	11.49	11.50	11.52	11.54	11.56

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
30.0	32.00	40.00	49.30	60.10	72.60	86.80	92.90	103.00		
35.0	31.70	39.70	49.00	59.80	72.30	86.40	92.60	102.50	111.00	
40.0	31.30	39.30	48.70	59.50	71.90	86.00	92.20	102.00	110.50	120.00
45.0		38.90	48.20	59.00	71.40	85.50	91.60	101.50	110.00	119.50
50.0		38.30	47.70	58.50	70.80	84.90	91.00	101.00	109.50	118.50
55.0			47.00	57.80	70.20	84.20	90.30	100.00	108.50	118.00
60.0				57.00	69.30	83.30	89.40	99.10	108.00	117.00
65.0				56.10	68.40	82.30	88.40	98.10	106.50	116.00
70.0					67.30	81.20	87.30	96.90	105.50	114.50
75.0					65.90	79.90	86.00	95.60	104.50	113.50

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/h	18.8
Length/Width, mm	246/246
Height, mm	456
Net Weight, kg	39
Gross Weight, kg	45
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1 1/4
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 (8.5)
Sound Pressure @ 1m (HT), dBA	61
Sound Power (HT), dBA	72
Sound Power with Sound Shell (HT), dBA	67
Sound Conditions (HT, Temperatures: Evap./Cond./Suction at freq./speed)	7 / 54 / 18 °C at 50 Hz
PED Category	1
Max. Internal Free Volume, l	4.20
High Side PS gauge, bar	29.5
Low Side PS gauge, bar	20
Low Side TS Max., °C	50
Refrigerant's GWP	1430
Refrigerant's classification	A1

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

Maximum Operating Current, A	15
Locked Rotor Current, A	101
Winding Resistance, ohm	1.79
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection	Internal Thermodisk
Mounting Grommets	Standard

ACCESSORIES OPTIONAL

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