



Minimum Evaporating Temp. With:

- 10 K Suction Superheat ASERCOM certified
- 25 °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
30.0	6.84	8.97	11.35	14.10	17.25	20.90	22.60	25.20	27.60	30.20
35.0	6.31	8.41	10.75	13.40	16.50	20.10	21.60	24.20	26.50	29.00
40.0	5.75	7.80	10.05	12.65	15.60	19.05	20.60	23.00	25.30	27.70
45.0		7.15	9.33	11.80	14.65	17.95	19.40	21.80	23.90	26.20
50.0			8.55	10.90	13.60	16.70	18.10	20.40	22.40	24.60
55.0				9.96	12.50	15.45	16.75	18.90	20.80	22.90
60.0					11.35	14.10	15.35	17.30	19.15	21.10
65.0					10.20	12.70	13.85	15.70	17.40	19.25
67.0						12.15	13.25	15.05	16.70	18.45

50 Hz

ZR81KCE-TFD

R407C Dew Point

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	3.12	3.16	3.19	3.22	3.26	3.31	3.34	3.39	3.44	3.50
35.0	3.53	3.57	3.60	3.63	3.66	3.71	3.74	3.79	3.84	3.90
40.0	4.01	4.05	4.07	4.09	4.12	4.17	4.19	4.24	4.28	4.34
45.0		4.60	4.62	4.63	4.65	4.68	4.70	4.74	4.79	4.84
50.0			5.25	5.25	5.25	5.27	5.29	5.32	5.36	5.40
55.0				5.96	5.95	5.95	5.96	5.98	6.01	6.04
60.0					6.74	6.72	6.72	6.73	6.74	6.77
65.0					7.64	7.60	7.59	7.58	7.58	7.60
67.0						7.98	7.97	7.95	7.95	7.96

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	7.91	8.05	8.08	8.05	8.00	8.00	8.02	8.09	8.19	8.33
35.0	8.08	8.26	8.32	8.31	8.29	8.32	8.35	8.43	8.55	8.70
40.0	8.43	8.63	8.70	8.71	8.71	8.75	8.79	8.88	9.00	9.16
45.0		9.19	9.27	9.28	9.28	9.32	9.36	9.45	9.57	9.73
50.0			10.04	10.04	10.03	10.05	10.09	10.18	10.29	10.44
55.0				11.01	10.98	10.98	11.00	11.08	11.17	11.32
60.0					12.15	12.12	12.13	12.18	12.26	12.38
65.0					13.58	13.50	13.49	13.50	13.56	13.65
67.0						14.12	14.10	14.10	14.15	14.23

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	40.00	51.60	64.30	78.50	94.80	113.50	121.50	134.50	146.50	159.00
35.0	38.70	50.70	63.70	78.20	94.60	113.50	121.50	135.00	147.00	159.50
40.0	37.10	49.40	62.70	77.40	94.00	113.00	121.00	134.50	146.50	159.50
45.0		47.80	61.30	76.10	92.80	112.00	120.00	133.50	145.50	158.50
50.0			59.60	74.50	91.20	110.00	118.50	132.00	144.00	157.00
55.0				72.50	89.20	108.00	116.50	130.00	142.00	155.00
60.0					86.80	105.50	114.00	127.50	139.50	152.50
65.0					84.10	103.00	111.00	124.50	136.50	149.50
67.0						101.50	110.00	123.00	135.50	148.50

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /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	1774
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