



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
27.0	8.12	10.35	12.95	16.00	19.55	23.70	25.50	28.40	31.00	33.90
30.0	7.78	9.97	12.50	15.50	18.95	22.90	24.70	27.50	30.10	32.80
35.0	7.20	9.33	11.80	14.65	17.90	21.70	23.40	26.10	28.60	31.20
40.0	6.59	8.66	11.00	13.75	16.90	20.50	22.10	24.70	27.00	29.50
45.0		7.94	10.20	12.80	15.80	19.25	20.80	23.20	25.40	27.80
50.0			9.36	11.85	14.70	17.95	19.40	21.70	23.80	26.00
55.0				10.85	13.50	16.60	17.95	20.10	22.10	24.20
60.0					12.30	15.20	16.45	18.50	20.30	22.30
65.0					11.00	13.75	14.90	16.85	18.55	20.40

50 Hz

ZRD81KCE-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
27.0	3.45	3.49	3.53	3.59	3.65	3.73	3.77	3.83	3.88	3.94
30.0	3.68	3.72	3.76	3.82	3.89	3.98	4.02	4.09	4.15	4.21
35.0	4.08	4.11	4.16	4.22	4.29	4.39	4.43	4.50	4.57	4.64
40.0	4.55	4.57	4.60	4.65	4.73	4.82	4.87	4.94	5.01	5.08
45.0		5.10	5.12	5.16	5.22	5.30	5.34	5.42	5.48	5.56
50.0			5.73	5.74	5.78	5.85	5.89	5.95	6.01	6.08
55.0				6.43	6.44	6.49	6.52	6.57	6.62	6.68
60.0					7.22	7.24	7.25	7.29	7.33	7.38
65.0					8.14	8.11	8.12	8.13	8.15	8.19

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
27.0	7.79	7.85	7.90	7.95	8.00	8.06	8.08	8.12	8.16	8.20
30.0	8.01	8.07	8.13	8.19	8.26	8.34	8.37	8.43	8.48	8.53
35.0	8.43	8.48	8.55	8.62	8.71	8.80	8.85	8.92	8.98	9.05
40.0	8.94	8.99	9.04	9.12	9.20	9.31	9.36	9.44	9.51	9.59
45.0		9.61	9.65	9.71	9.79	9.89	9.94	10.03	10.10	10.19
50.0			10.40	10.43	10.49	10.59	10.63	10.71	10.79	10.87
55.0				11.32	11.35	11.42	11.46	11.52	11.59	11.67
60.0					12.40	12.43	12.45	12.50	12.55	12.62
65.0					13.66	13.64	13.65	13.67	13.70	13.75

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
27.0	46.20	57.90	71.30	86.80	104.50	125.00	133.50	148.00	160.50	174.00
30.0	45.50	57.30	70.80	86.30	104.00	124.00	133.00	147.00	159.50	173.00
35.0	44.20	56.20	69.80	85.30	103.00	123.00	131.50	145.50	158.00	171.50
40.0	42.50	54.90	68.60	84.10	101.50	121.50	130.50	144.00	156.50	170.00
45.0		53.10	67.10	82.70	100.00	120.00	128.50	142.50	155.00	168.00
50.0			65.20	80.90	98.50	118.50	127.00	140.50	153.00	166.00
55.0				78.80	96.50	116.50	125.00	138.50	151.00	163.50
60.0					94.00	114.00	122.50	136.00	148.50	161.00
65.0					91.00	111.00	119.50	133.50	145.50	158.50

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	18.8
Length/Width, mm	246/246
Height, mm	494
Net Weight, kg	40.8
Gross Weight, kg	44
Stub Suction, inch	7/8
Stub Discharge, inch	3/4
Oil Quantity, l	1.89
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	67
Sound Power (HT), dBA	78
Sound Conditions (HT, Temperatures:	7 / 54 / 18 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Internal Free Volume, l	5.90
High Side PS gauge, bar	29.5
Low Side PS gauge, bar	20
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	100
Winding Resistance, ohm	1.79
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED**ACCESSORIES OPTIONAL**

Mounting Grommets	Hard Mounts for Paralleling
Mounting Grommets	Rubber Grommet For Single

50 Hz

ZRD81KCE-TFD

R407C Dew Point

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
TFD	460 V / 3~ / 60 Hz	460		Y	1.04