



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
20.0	10.30	12.95	15.85	19.05	22.80	27.00				
25.0	9.24	11.80	14.55	17.65	21.20	25.30	27.10	30.00		
30.0	8.44	10.90	13.55	16.50	19.90	23.80	25.50	28.30	30.90	33.60
35.0	7.84	10.20	12.75	15.55	18.80	22.50	24.20	26.90	29.30	32.00
40.0	7.36	9.63	12.05	14.80	17.85	21.40	23.00	25.60	27.90	30.50
45.0		9.13	11.45	14.05	17.00	20.40	21.90	24.40	26.60	29.00
50.0			10.85	13.35	16.15	19.40	20.80	23.20	25.30	27.60
55.0				12.55	15.20	18.30	19.70	21.90	23.90	26.20
60.0					14.15	17.10	18.40	20.50	22.50	24.60
65.0					12.90	15.65	16.90	18.95	20.80	22.80

50 Hz

ZR90K3E-TWD

R22

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	3.22	3.30	3.35	3.39	3.42	3.46				
25.0	3.55	3.63	3.67	3.69	3.71	3.74	3.75	3.78		
30.0	3.93	4.00	4.04	4.05	4.06	4.07	4.08	4.11	4.13	4.17
35.0	4.35	4.42	4.46	4.47	4.47	4.47	4.48	4.49	4.51	4.54
40.0	4.83	4.90	4.93	4.94	4.93	4.93	4.93	4.94	4.95	4.98
45.0		5.43	5.46	5.47	5.46	5.45	5.45	5.46	5.47	5.48
50.0			6.06	6.06	6.06	6.04	6.04	6.04	6.05	6.06
55.0				6.72	6.71	6.70	6.70	6.70	6.70	6.71
60.0					7.44	7.43	7.43	7.42	7.43	7.44
65.0					8.24	8.23	8.23	8.23	8.23	8.24

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	9.52	9.55	9.55	9.52	9.48	9.46				
25.0	9.71	9.75	9.75	9.73	9.70	9.67	9.67	9.67		
30.0	9.96	10.01	10.02	10.00	9.97	9.95	9.94	9.95	9.96	9.99
35.0	10.29	10.35	10.36	10.34	10.31	10.29	10.29	10.29	10.30	10.33
40.0	10.69	10.76	10.78	10.77	10.74	10.72	10.71	10.72	10.73	10.75
45.0		11.27	11.29	11.28	11.26	11.24	11.23	11.23	11.24	11.26
50.0			11.91	11.90	11.88	11.86	11.85	11.85	11.86	11.88
55.0				12.64	12.62	12.59	12.59	12.58	12.59	12.61
60.0					13.48	13.45	13.45	13.44	13.44	13.46
65.0					14.47	14.45	14.44	14.43	14.43	14.45

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	57.30	71.00	85.70	102.00	120.50	142.00				
25.0	53.20	66.90	81.50	97.70	116.00	137.00	146.00	161.00		
30.0	50.40	64.10	78.70	94.70	113.00	133.50	142.50	157.50	170.50	185.00
35.0	48.60	62.40	76.90	92.80	110.50	131.00	140.00	155.00	168.00	182.00
40.0	47.60	61.40	75.90	91.70	109.50	129.50	138.50	153.00	166.00	180.00
45.0		60.80	75.30	91.00	108.50	128.50	137.50	152.00	165.00	179.00
50.0			74.60	90.30	108.00	128.00	136.50	151.00	163.50	177.50
55.0				89.20	106.50	126.50	135.50	149.50	162.50	176.00
60.0					104.50	124.50	133.00	147.50	160.00	174.00
65.0					100.50	120.50	129.50	143.50	156.50	170.50

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/h	20.9
Length/Width, mm	319/357
Height, mm	525
Net Weight, kg	87
Gross Weight, kg	93
Rotalock Suction, inch	1 3/4
Rotalock Discharge, inch	1 1/4
Stub Suction, inch	1 3/8
Stub Discharge, inch	7/8
Oil Quantity, l	4.1
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	220 x 220 (8.5)
Sound Pressure @ 1m (HT), dBA	66
Sound Power (HT), dBA	77
Sound Power with Sound Shell (HT), dBA	66
Sound Conditions (HT, Temperatures: Evap./Cond./Suction at freq./speed)	7 / 54 / 18 °C at 50 Hz
PED Category	2
Max. Internal Free Volume, l	19.8
High Side PS gauge, bar	32
Low Side PS gauge, bar	20
Low Side TS Max., °C	52
Low Side TS Min., °C	-35
Refrigerant's GWP	1810
Refrigerant's classification	A1

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

Maximum Operating Current, A	17
Locked Rotor Current, A	99
Winding Resistance, ohm	1.45
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Discharge Temperature Protection	Internal Thermistor
Mounting Grommets	Standard

ACCESSORIES OPTIONAL

Crankcase Heater	49 W External
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Mounting Grommets	Hard Mounts for Paralleling

MOTOR OPTIONS

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