



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								
	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
30.0	6.76	8.52	10.60	13.00	15.80	17.05	19.10	20.90	22.80
35.0	6.38	8.07	10.05	12.40	15.10	16.30	18.25	20.00	21.90
40.0	6.00	7.62	9.52	11.75	14.35	15.50	17.35	19.05	20.80
45.0		7.17	8.98	11.10	13.55	14.65	16.45	18.05	19.80
50.0		6.71	8.42	10.45	12.80	13.85	15.50	17.05	18.70
55.0			7.86	9.75	11.95	12.95	14.55	16.00	17.60
60.0				9.06	11.15	12.10	13.60	14.95	16.45
65.0				8.35	10.30	11.15	12.60	13.85	15.25
70.0					9.42	10.25	11.55	12.75	14.05

50 Hz

ZR90K3E-TWD

R134a

Cond °C	Power, kW								
	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
30.0	2.70	2.72	2.74	2.76	2.79	2.80	2.82	2.84	2.87
35.0	3.02	3.05	3.06	3.07	3.08	3.08	3.09	3.10	3.12
40.0	3.36	3.39	3.41	3.41	3.41	3.41	3.41	3.42	3.42
45.0		3.76	3.78	3.79	3.79	3.79	3.79	3.79	3.79
50.0		4.15	4.18	4.20	4.21	4.21	4.21	4.21	4.21
55.0			4.61	4.65	4.67	4.67	4.68	4.68	4.69
60.0				5.11	5.16	5.17	5.19	5.20	5.21
65.0				5.61	5.68	5.70	5.74	5.76	5.78
70.0					6.23	6.27	6.32	6.36	6.39

Cond °C	Current at 400 V, A								
	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
30.0	8.22	8.24	8.25	8.26	8.26	8.26	8.26	8.26	8.25
35.0	8.49	8.51	8.52	8.53	8.53	8.53	8.52	8.52	8.51
40.0	8.79	8.82	8.84	8.84	8.84	8.84	8.84	8.83	8.82
45.0		9.17	9.19	9.21	9.21	9.21	9.21	9.20	9.19
50.0		9.56	9.60	9.62	9.63	9.63	9.63	9.63	9.63
55.0			10.06	10.09	10.12	10.12	10.13	10.13	10.13
60.0				10.63	10.67	10.68	10.69	10.70	10.71
65.0				11.23	11.29	11.31	11.33	11.35	11.36
70.0					11.98	12.01	12.05	12.07	12.09

Cond °C	Suction Mass Flow, g/s								
	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
30.0	43.50	53.70	65.30	78.60	93.90	100.50	111.00	120.50	131.00
35.0	43.10	53.30	65.00	78.40	93.70	100.50	111.00	120.50	130.50
40.0	42.60	52.90	64.70	78.10	93.40	100.00	110.50	120.50	130.50
45.0		52.60	64.30	77.70	93.00	99.60	110.50	120.00	130.00
50.0		52.10	63.90	77.20	92.50	99.10	110.00	119.50	129.50
55.0			63.40	76.70	91.80	98.50	109.00	118.50	129.00
60.0				76.00	91.10	97.70	108.50	118.00	128.00
65.0				75.30	90.30	96.90	107.50	117.00	127.00
70.0					89.30	95.80	106.50	116.00	126.00

### **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	1430
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

50 Hz

ZR90K3E-TWD

R134a

### **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**

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