



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return Liquid injection
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	11.75	14.60	18.20	22.50	27.50	33.50					
15.0	11.25	14.05	17.50	21.60	26.50	32.20	38.70				
20.0	10.70	13.45	16.75	20.70	25.40	30.70	36.90	44.00			
25.0	10.15	12.80	15.95	19.70	24.10	29.20	35.10	41.80	49.30		
30.0	9.59	12.10	15.10	18.65	22.80	27.60	33.20	39.40	46.50	54.50	57.90
35.0	8.99	11.35	14.15	17.50	21.40	25.90	31.10	37.00	43.70	51.10	54.40
40.0	8.38	10.60	13.20	16.30	19.95	24.10	28.90	34.40	40.60	47.60	50.60
45.0	7.75	9.80	12.20	15.05	18.40	22.20	26.70	31.70	37.50	43.90	46.70
50.0	7.12	8.99	11.20	13.75	16.80	20.30	24.30	28.90	34.20	40.10	42.70
55.0	6.49	8.16	10.10	12.45	15.10	18.25	21.90	26.00	30.80	36.20	38.60
60.0						16.15	19.35	23.10	27.30	32.10	34.30

50 Hz

ZF48K4E-TWD

R404A Dew Point

Cond °C	Power, kW										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	5.55	5.80	6.10	6.47	6.91	7.42					
15.0	6.06	6.32	6.63	6.99	7.41	7.90	8.46				
20.0	6.61	6.89	7.22	7.58	7.99	8.46	9.00	9.59			
25.0	7.20	7.52	7.86	8.24	8.65	9.11	9.63	10.20	10.85		
30.0	7.83	8.19	8.56	8.96	9.39	9.85	10.35	10.90	11.50	12.15	12.45
35.0	8.51	8.92	9.33	9.75	10.20	10.65	11.15	11.70	12.30	12.95	13.20
40.0	9.24	9.70	10.15	10.60	11.10	11.60	12.10	12.65	13.20	13.80	14.05
45.0	10.00	10.55	11.05	11.55	12.05	12.60	13.10	13.65	14.20	14.80	15.05
50.0	10.85	11.45	12.00	12.60	13.15	13.70	14.25	14.80	15.35	15.95	16.20
55.0	11.70	12.40	13.05	13.70	14.30	14.90	15.45	16.05	16.65	17.25	17.45
60.0						16.15	16.80	17.40	18.00	18.65	18.85

Cond °C	Current at 400 V, A										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	14.51	14.69	14.95	15.30	15.73	16.26					
15.0	14.94	15.15	15.44	15.80	16.24	16.77	17.39				
20.0	15.43	15.68	16.00	16.39	16.85	17.38	17.99	18.68			
25.0	15.98	16.29	16.65	17.07	17.55	18.10	18.72	19.40	20.17		
30.0	16.62	16.99	17.40	17.86	18.37	18.94	19.56	20.25	21.01	21.84	22.19
35.0	17.35	17.78	18.25	18.75	19.30	19.90	20.55	21.25	22.00	22.82	23.17
40.0	18.17	18.68	19.21	19.77	20.36	21.00	21.67	22.39	23.16	23.97	24.31
45.0	19.10	19.69	20.29	20.91	21.56	22.24	22.95	23.69	24.47	25.30	25.64
50.0	20.14	20.82	21.50	22.19	22.90	23.63	24.38	25.16	25.97	26.80	27.15
55.0	21.31	22.08	22.85	23.62	24.40	25.19	25.99	26.80	27.64	28.50	28.85
60.0						26.91	27.77	28.63	29.51	30.40	30.76

50 Hz

ZF48K4E-TWD

R404A Dew Point

Cond °C	Suction Mass Flow, g/s										
	-40.0	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0
10.0	65.30	81.60	102.00	126.50	155.50	190.00					
15.0	65.20	81.80	102.00	127.00	156.00	190.50	231.00				
20.0	65.00	81.70	102.00	127.00	156.50	190.50	231.00	277.00			
25.0	64.60	81.40	102.00	126.50	156.00	190.00	230.00	277.00	330.00		
30.0	64.10	81.00	101.50	126.00	155.00	189.50	229.00	275.00	329.00	390.00	418.00
35.0	63.40	80.30	100.50	125.00	154.00	188.00	227.00	273.00	327.00	388.00	416.00
40.0	62.70	79.50	99.80	124.00	152.50	186.00	225.00	271.00	324.00	385.00	413.00
45.0	62.00	78.60	98.60	122.50	150.50	183.50	222.00	267.00	320.00	382.00	410.00
50.0	61.30	77.70	97.20	120.50	148.00	180.50	219.00	264.00	316.00	378.00	406.00
55.0	60.80	76.80	95.90	118.50	145.50	177.50	215.00	260.00	312.00	375.00	403.00
60.0						174.00	211.00	256.00	309.00	372.00	400.00

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /h	42.8
Length/Width, mm	324/294
Height, mm	579
Net Weight, kg	112
Gross Weight, kg	119
Rotalock Suction, inch	2 1/4
Rotalock Discharge, inch	1 3/4
Oil Quantity, l	4.14
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 (LT), dBA	72
Sound Power (LT), dBA	83
Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed)	-35 / 40 / 20 °C at 50 Hz
PED Category	2
Internal Free Volume, l	21.2
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
Low Side TS Max., °C	50
Low Side TS Min., °C	-23
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	28.7
Locked Rotor Current, A	198
Winding Resistance, ohm	0.72
Default Enclosure Class	IP 54 (IEC 34)

### **ACCESSORIES INCLUDED**

Discharge Temperature Protection	Internal Thermistor
Mounting Grommets	Standard

### **ACCESSORIES OPTIONAL**

Crankcase Heater	49 W External
Liquid Injection	Capillary Tube
Mounting Grommets	Hard Mounts for Paralleling
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge

### **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
TWC	200 V / 3~ / 50 Hz	200		Y	2.09
TWE	500 V / 3~ / 50 Hz	500		Y	0.80
TWR	220-240 V / 3~ / 50 Hz	230		Y	1.73
TWD	460 V / 3~ / 60 Hz	460		Y	1.04
TWC	208-230 V / 3~ / 60 Hz	230		Y	2.09
TWE	575 V / 3~ / 60 Hz	575		Y	0.80
TW7	380 V / 3~ / 60 Hz	380		Y	1.26