



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	5.38	6.85	8.60	10.70	13.15	16.00					
15.0	5.17	6.59	8.27	10.25	12.60	15.30	18.50				
20.0	4.96	6.33	7.94	9.82	12.00	14.60	17.60	21.10			
25.0	4.75	6.07	7.60	9.37	11.45	13.85	16.70	19.95	23.70		
30.0	4.53	5.79	7.24	8.91	10.85	13.10	15.75	18.80	22.30	26.30	28.10
35.0	4.28	5.49	6.86	8.42	10.25	12.35	14.80	17.65	20.90	24.70	26.30
40.0	4.01	5.16	6.44	7.90	9.58	11.55	13.80	16.40	19.45	23.00	24.50
45.0	3.69	4.78	5.98	7.33	8.87	10.65	12.75	15.15	17.95	21.20	22.60
50.0	3.32	4.36	5.47	6.71	8.12	9.74	11.65	13.85	16.40	19.35	20.70
55.0	2.90	3.87	4.90	6.02	7.29	8.76	10.45	12.45	14.75	17.50	18.65
60.0						7.70	9.21	11.00	13.05	15.50	16.60

50 Hz

ZF24K4E-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	2.64	2.75	2.89	3.06	3.26	3.51					
15.0	2.87	2.99	3.13	3.29	3.48	3.72	3.99				
20.0	3.12	3.25	3.40	3.56	3.75	3.96	4.22	4.53			
25.0	3.39	3.54	3.70	3.86	4.05	4.25	4.50	4.78	5.11		
30.0	3.68	3.85	4.02	4.19	4.38	4.59	4.82	5.09	5.39	5.75	5.91
35.0	3.98	4.18	4.37	4.56	4.75	4.96	5.18	5.44	5.73	6.06	6.21
40.0	4.29	4.52	4.74	4.95	5.15	5.36	5.59	5.84	6.11	6.43	6.56
45.0	4.62	4.88	5.13	5.36	5.58	5.80	6.03	6.28	6.55	6.84	6.97
50.0	4.95	5.25	5.53	5.79	6.04	6.27	6.51	6.76	7.03	7.31	7.44
55.0	5.28	5.63	5.95	6.25	6.52	6.77	7.03	7.28	7.55	7.83	7.95
60.0						7.30	7.57	7.84	8.11	8.39	8.51

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	8.76	8.82	8.91	9.04	9.21	9.44					
15.0	8.92	9.00	9.10	9.23	9.39	9.61	9.88				
20.0	9.12	9.21	9.32	9.46	9.63	9.84	10.10	10.41			
25.0	9.34	9.46	9.59	9.74	9.91	10.12	10.37	10.67	11.03		
30.0	9.59	9.74	9.89	10.06	10.24	10.46	10.71	11.00	11.34	11.74	11.92
35.0	9.86	10.04	10.23	10.42	10.62	10.84	11.10	11.39	11.72	12.11	12.28
40.0	10.16	10.38	10.60	10.82	11.04	11.29	11.55	11.84	12.18	12.55	12.72
45.0	10.48	10.75	11.01	11.26	11.52	11.78	12.06	12.36	12.70	13.07	13.23
50.0	10.82	11.15	11.45	11.74	12.03	12.32	12.62	12.94	13.28	13.66	13.82
55.0	11.18	11.57	11.92	12.26	12.59	12.91	13.24	13.58	13.94	14.32	14.48
60.0						13.55	13.91	14.28	14.65	15.05	15.22

50 Hz

ZF24K4E-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	30.00	38.30	48.20	60.10	74.30	91.10					
15.0	30.00	38.30	48.30	60.10	74.20	90.80	110.50				
20.0	30.10	38.50	48.40	60.20	74.10	90.50	110.00	132.50			
25.0	30.20	38.70	48.60	60.20	74.00	90.20	109.50	132.00	158.50		
30.0	30.30	38.80	48.70	60.30	73.90	89.90	109.00	131.00	157.50	188.50	202.00
35.0	30.20	38.90	48.70	60.20	73.60	89.40	108.00	130.50	156.50	187.50	201.00
40.0	30.00	38.80	48.60	60.00	73.20	88.80	107.50	129.00	155.00	186.00	199.50
45.0	29.50	38.40	48.30	59.50	72.50	87.90	106.00	128.00	153.50	184.50	198.00
50.0	28.60	37.70	47.50	58.70	71.50	86.70	104.50	126.00	152.00	182.50	196.50
55.0	27.20	36.50	46.40	57.40	70.10	85.10	103.00	124.00	150.00	181.00	195.00
60.0						83.00	100.50	122.00	148.00	179.50	194.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	20.9
Length/Width, mm	316/368
Height, mm	525
Net Weight, kg	100
Rotalock Suction, inch	1 3/4
Rotalock Discharge, inch	1 1/4
Stub Injection, inch	1/4
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 (22.4)
Sound Pressure @ 1m (LT), dBA	72
Sound Power (LT), dBA	83
Sound Power with Sound Shell (LT), dBA	72
Sound Conditions (LT, Temperatures:	-35 / 40 / 20 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	2
Internal Free Volume, l	19.8
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	16.1
Locked Rotor Current, A	99
Winding Resistance, ohm	1.41
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

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
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