



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	7.71	9.70	12.10	15.00	18.45	22.40					
15.0	7.44	9.36	11.70	14.45	17.75	21.50	26.00				
20.0	7.13	8.98	11.20	13.85	16.95	20.60	24.80	29.60			
25.0	6.78	8.56	10.70	13.20	16.10	19.55	23.50	28.10	33.20		
30.0	6.41	8.10	10.10	12.45	15.20	18.45	22.20	26.40	31.30	36.90	39.30
35.0	6.00	7.61	9.50	11.70	14.30	17.30	20.80	24.80	29.30	34.60	36.80
40.0	5.57	7.09	8.85	10.90	13.30	16.10	19.30	23.00	27.30	32.10	34.30
45.0	5.13	6.55	8.18	10.05	12.25	14.80	17.80	21.20	25.20	29.70	31.60
50.0	4.67	5.99	7.48	9.20	11.20	13.55	16.25	19.35	23.00	27.10	29.00
55.0	4.21	5.41	6.76	8.30	10.10	12.20	14.65	17.45	20.70	24.50	26.20
60.0						10.80	13.00	15.50	18.45	21.90	23.40

50 Hz

ZF33K4E-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	3.47	3.66	3.86	4.08	4.32	4.58					
15.0	3.73	3.94	4.17	4.40	4.65	4.91	5.20				
20.0	4.02	4.26	4.50	4.75	5.01	5.28	5.57	5.88			
25.0	4.34	4.60	4.87	5.14	5.41	5.69	5.98	6.29	6.62		
30.0	4.68	4.98	5.27	5.56	5.85	6.14	6.44	6.75	7.08	7.43	7.57
35.0	5.06	5.39	5.71	6.02	6.33	6.63	6.94	7.26	7.59	7.93	8.07
40.0	5.47	5.83	6.18	6.52	6.85	7.17	7.50	7.82	8.15	8.49	8.63
45.0	5.91	6.31	6.70	7.06	7.42	7.76	8.10	8.43	8.77	9.11	9.24
50.0	6.39	6.83	7.25	7.65	8.03	8.39	8.75	9.09	9.44	9.78	9.92
55.0	6.90	7.39	7.85	8.28	8.69	9.08	9.45	9.81	10.15	10.50	10.65
60.0						9.81	10.20	10.60	10.95	11.30	11.45

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	10.31	10.46	10.65	10.87	11.13	11.41					
15.0	10.52	10.70	10.91	11.15	11.42	11.72	12.03				
20.0	10.76	10.98	11.22	11.48	11.77	12.08	12.41	12.76			
25.0	11.05	11.30	11.57	11.86	12.18	12.50	12.85	13.21	13.58		
30.0	11.37	11.66	11.97	12.30	12.64	12.99	13.36	13.73	14.12	14.51	14.67
35.0	11.74	12.08	12.43	12.80	13.17	13.55	13.94	14.34	14.74	15.14	15.30
40.0	12.16	12.55	12.95	13.36	13.77	14.18	14.60	15.02	15.44	15.87	16.03
45.0	12.64	13.09	13.53	13.99	14.44	14.89	15.35	15.80	16.24	16.68	16.86
50.0	13.18	13.68	14.19	14.69	15.19	15.68	16.18	16.66	17.14	17.60	17.79
55.0	13.78	14.34	14.91	15.47	16.02	16.56	17.10	17.62	18.13	18.63	18.82
60.0						17.53	18.11	18.68	19.23	19.76	19.97

50 Hz

ZF33K4E-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	42.90	54.10	67.90	84.40	104.00	127.50					
15.0	43.20	54.50	68.20	84.80	104.50	128.00	155.00				
20.0	43.20	54.60	68.40	84.90	104.50	127.50	155.00	186.50			
25.0	43.10	54.60	68.30	84.70	104.00	127.00	154.00	185.50	223.00		
30.0	42.80	54.30	68.00	84.30	103.50	126.50	153.00	184.50	221.00	264.00	283.00
35.0	42.30	53.90	67.50	83.60	102.50	125.50	152.00	183.00	220.00	262.00	281.00
40.0	41.70	53.30	66.80	82.80	101.50	124.00	150.00	181.00	217.00	260.00	279.00
45.0	41.00	52.60	66.00	81.70	100.50	122.00	148.00	179.00	215.00	258.00	277.00
50.0	40.20	51.70	65.00	80.50	98.70	120.50	146.00	176.50	213.00	256.00	275.00
55.0	39.40	50.90	64.00	79.20	97.10	118.50	143.50	174.00	210.00	254.00	273.00
60.0						116.50	142.00	172.00	209.00	253.00	273.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	28.8
Length/Width, mm	316/368
Height, mm	525
Net Weight, kg	93
Gross 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	22.3
Locked Rotor Current, A	127
Winding Resistance, ohm	1.02
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