



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
10.0	36.10	44.00	53.20	63.70							
15.0	34.90	42.70	51.80	62.30	74.40						
20.0	33.40	41.20	50.20	60.60	72.50	86.10					
25.0	31.80	39.50	48.40	58.60	70.30	83.70	89.50	98.80			
30.0	30.10	37.60	46.30	56.40	67.80	80.90	86.70	95.80	104.00	112.50	
35.0	28.20	35.60	44.10	53.90	65.10	77.90	83.50	92.40	100.50	109.00	127.00
40.0	26.30	33.40	41.60	51.10	62.00	74.50	80.00	88.70	96.40	104.50	122.50
45.0		31.10	39.00	48.20	58.80	70.90	76.20	84.60	92.20	100.00	117.50
50.0			36.30	45.10	55.30	67.00	72.10	80.30	87.60	95.40	112.50
55.0				41.80	51.60	62.80	67.70	75.60	82.70	90.20	106.50
60.0					47.70	58.40	63.10	70.70	77.50	84.80	100.50
65.0					43.60	53.80	58.30	65.60	72.10	79.00	

50 Hz

ZR310KCE-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
10.0	7.68	7.84	8.14	8.63							
15.0	8.72	8.80	9.02	9.41	10.00						
20.0	9.89	9.91	10.05	10.35	10.85	11.55					
25.0	11.20	11.15	11.25	11.45	11.85	12.45	12.75	13.25			
30.0	12.65	12.55	12.60	12.70	13.00	13.50	13.80	14.25	14.70	15.20	
35.0	14.30	14.15	14.10	14.20	14.40	14.80	15.05	15.45	15.80	16.25	17.40
40.0	16.10	15.90	15.85	15.85	16.00	16.35	16.50	16.85	17.20	17.60	18.60
45.0		17.90	17.75	17.75	17.85	18.10	18.25	18.50	18.80	19.15	20.10
50.0			19.90	19.85	19.90	20.10	20.20	20.40	20.70	21.00	21.80
55.0				22.20	22.20	22.30	22.40	22.60	22.80	23.10	23.80
60.0					24.80	24.90	24.90	25.10	25.30	25.50	26.10
65.0					27.60	27.70	27.70	27.80	28.00	28.20	

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
10.0	21.87	21.76	21.84	22.14							
15.0	22.91	22.82	22.91	23.18	23.66						
20.0	23.96	23.91	24.00	24.24	24.67	25.32					
25.0	25.10	25.09	25.18	25.40	25.78	26.34	26.63	27.12			
30.0	26.39	26.42	26.52	26.72	27.05	27.53	27.77	28.20	28.61	29.07	
35.0	27.90	27.97	28.08	28.26	28.54	28.95	29.15	29.51	29.85	30.25	31.19
40.0	29.69	29.80	29.93	30.10	30.33	30.66	30.83	31.12	31.40	31.72	32.50
45.0		31.99	32.13	32.29	32.48	32.74	32.86	33.09	33.31	33.56	34.18
50.0			34.75	34.90	35.05	35.24	35.33	35.49	35.65	35.83	36.29
55.0				37.99	38.11	38.23	38.28	38.38	38.48	38.60	38.90
60.0					41.72	41.77	41.80	41.84	41.88	41.93	42.08
65.0					45.94	45.94	45.93	45.91	45.90	45.88	

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
10.0	188.00	226.00	270.00	321.00							
15.0	187.00	227.00	272.00	323.00	382.00						
20.0	185.50	226.00	272.00	325.00	384.00	451.00					
25.0	183.00	224.00	271.00	325.00	385.00	454.00	483.00	530.00			
30.0	179.50	221.00	269.00	324.00	385.00	454.00	484.00	532.00	574.00	618.00	
35.0	175.00	218.00	266.00	321.00	383.00	453.00	484.00	532.00	575.00	620.00	717.00
40.0	170.00	213.00	262.00	317.00	380.00	451.00	482.00	531.00	574.00	619.00	718.00
45.0		207.00	256.00	312.00	375.00	447.00	478.00	527.00	571.00	617.00	718.00
50.0			249.00	305.00	369.00	441.00	473.00	523.00	567.00	613.00	715.00
55.0				297.00	361.00	434.00	466.00	516.00	561.00	608.00	710.00
60.0					352.00	425.00	457.00	508.00	553.00	600.00	704.00
65.0					341.00	414.00	446.00	497.00	543.00	591.00	

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/h	71.4
Length/Width, mm	447/390
Height, mm	724
Net Weight, kg	160
Gross Weight, kg	188
Rotalock Suction, inch	2 1/4 x 12 UN
Rotalock Discharge, inch	1 3/4 x 12 UN
Stub Suction, inch	1 5/8
Stub Discharge, inch	1 3/8
Oil Quantity, l	6.8
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	266.7 x 266.7 (22.6)
Sound Pressure @ 1m (HT), dBA	74
Sound Power (HT), dBA	85
Sound Conditions (HT, Temperatures:	7 / 54 / 18 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	2
Max. Internal Free Volume, l	34.0
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	52
Locked Rotor Current, A	272
Winding Resistance, ohm	0.51
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Enclosure Class	IP 54
Discharge Temperature Protection	Internal Thermistor
Discharge Temperature Protection	PTC in Scroll Discharge Port
Oil Charge	
Mounting Grommets	Standard
Oil Service Valve	Schraeder Valve
Check Valve	Discharge Low Leak Check Valve

ACCESSORIES OPTIONAL

Mounting Grommets	Rubber Grommet For Parallel
Oil Control System	Operation
Mounting Grommets	ALCO Trax-Oil OM3
Crankcase Heater	Rubber Grommet For Single
Adapter Kit	102 W External
	R1"3/4 - B1"3/8 For TPTL for
	Parallel Operation

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