



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												
	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0
25.0	10.15	13.65	17.70	22.40	27.90	34.40	41.80	50.50	54.30	60.40			
30.0	8.92	12.50	16.60	21.30	26.80	33.10	40.40	48.90	52.60	58.60	63.90	69.60	
35.0		11.20	15.30	20.00	25.40	31.60	38.70	46.90	50.60	56.30	61.50	67.10	
40.0			13.85	18.45	23.70	29.80	36.70	44.70	48.20	53.80	58.80	64.20	75.90
45.0				16.75	21.90	27.70	34.50	42.10	45.50	50.90	55.70	60.90	72.20
50.0					19.80	25.50	31.90	39.30	42.50	47.70	52.40	57.30	68.20
55.0						23.00	29.20	36.20	39.30	44.30	48.70	53.40	63.80
60.0							26.20	32.90	35.80	40.50	44.70	49.20	59.10
65.0								29.30	32.10	36.50	40.50	44.70	54.00

50 Hz

ZR190KCE-TFD

R407C Dew Point

Cond °C	Power, kW												
	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0
25.0	6.64	6.77	6.86	6.93	7.02	7.16	7.37	7.68	7.84	8.13			
30.0	7.41	7.57	7.67	7.74	7.80	7.89	8.03	8.26	8.38	8.60	8.82	9.08	
35.0		8.44	8.57	8.65	8.70	8.76	8.85	9.00	9.09	9.25	9.42	9.62	
40.0			9.57	9.67	9.73	9.77	9.83	9.92	9.98	10.10	10.20	10.35	10.80
45.0				10.80	10.90	10.95	10.95	11.05	11.05	11.15	11.20	11.35	11.65
50.0					12.20	12.25	12.30	12.30	12.35	12.40	12.45	12.50	12.75
55.0						13.75	13.75	13.80	13.80	13.85	13.85	13.90	14.05
60.0							15.45	15.50	15.50	15.50	15.50	15.55	15.65
65.0								17.35	17.35	17.40	17.40	17.40	17.45

Cond °C	Current at 400 V, A												
	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0
25.0	19.47	19.54	19.58	19.62	19.68	19.80	19.99	20.29	20.45	20.72			
30.0	20.03	20.14	20.20	20.24	20.28	20.34	20.47	20.67	20.78	20.98	21.19	21.43	
35.0		20.87	20.98	21.03	21.07	21.11	21.18	21.31	21.38	21.53	21.67	21.85	
40.0			21.91	22.01	22.07	22.10	22.14	22.22	22.27	22.36	22.46	22.59	22.93
45.0				23.18	23.27	23.33	23.36	23.41	23.44	23.50	23.56	23.65	23.89
50.0					24.70	24.79	24.84	24.88	24.90	24.94	24.98	25.03	25.20
55.0						26.51	26.59	26.65	26.66	26.69	26.72	26.75	26.86
60.0							28.62	28.71	28.73	28.76	28.79	28.81	28.88
65.0								31.08	31.12	31.16	31.19	31.22	31.28

Cond °C	Suction Mass Flow, g/s												
	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0
25.0	58.70	77.70	99.00	123.50	151.50	183.50	220.00	262.00	281.00	310.00			
30.0	54.00	74.50	97.20	122.50	151.50	184.50	222.00	265.00	283.00	313.00	339.00	367.00	
35.0		70.00	94.00	120.50	150.50	184.00	222.00	265.00	284.00	314.00	341.00	369.00	
40.0			89.30	117.00	148.00	182.50	221.00	265.00	284.00	314.00	341.00	370.00	432.00
45.0				112.00	143.50	179.00	219.00	263.00	282.00	313.00	340.00	368.00	431.00
50.0					138.00	174.00	214.00	259.00	279.00	309.00	337.00	366.00	429.00
55.0						167.50	208.00	254.00	273.00	305.00	332.00	362.00	425.00
60.0							200.00	247.00	266.00	298.00	326.00	356.00	420.00
65.0								237.00	257.00	289.00	318.00	348.00	413.00

### **COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, m <sup>3</sup> /h	43.3
Length/Width, mm	281/285
Height, mm	552
Net Weight, kg	66.2
Stub Suction, inch	1 3/8
Stub Discharge, inch	7/8
Oil Quantity, l	3.38
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	190 x 190 (0)
Sound Pressure @ 1m (HT), dBA	69
Sound Power (HT), dBA	80
Sound Power with Sound Shell (HT), dBA	69
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	14.0
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	1774
Refrigerant's classification	A1

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

Maximum Operating Current, A	35
Locked Rotor Current, A	174
Winding Resistance, ohm	0.83
Default Enclosure Class	IP 21 (IEC 34)

### **ACCESSORIES INCLUDED**

Discharge Temperature Protection	ASTP Therm-O-Disc In Scroll
Oil Service Valve	Schraeder Valve
Check Valve	Discharge Low Leak Check Valve
Enclosure Class	IP21
Oil Charge	

### ACCESSORIES OPTIONAL

Crankcase Heater	90 W External
Enclosure Class	IP66 With Molded Plug
Mounting Grommets	Hard Mounts for Paralleling
Sound Attenuation	Sound Shell (12dBA)
Mounting Grommets	Rubber Grommet For Single
Adapter Kit	R1"1/4 -B 1"1/8 For TPPL for
Oil Control System	Parallel Operation
	ALCO Trax-Oil OM3

### MOTOR OPTIONS

<i>Motor Code</i>	<i>Power Supply</i>	<i>Nominal Voltage, V</i>	<i>Start Connection</i>	<i>DOL Connection</i>	<i>Amps Factor</i>
TFD	380-420 V / 3~ / 50 Hz	400		Y	1.00
TF5	200-220 V / 3~ / 50 Hz	200		Y	2.09
TW5	200-220 V / 3~ / 50 Hz	200		Y	2.30
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09
TW7	380 V / 3~ / 60 Hz	380		Y	1.26
TF7	380 V / 3~ / 60 Hz	380		Y	1.26
TW5	200-230 V / 3~ / 60 Hz	230		Y	2.30