



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- 5 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
10.0	15.50	19.70	24.30	29.50	35.40	42.20							
15.0	13.90	18.10	22.70	27.90	33.70	40.40	48.00						
20.0	12.30	16.60	21.30	26.40	32.10	38.60	46.00	54.50					
25.0	10.65	15.10	19.80	24.90	30.60	37.00	44.20	52.40	56.00	61.80			
30.0	8.96	13.50	18.30	23.40	29.00	35.30	42.30	50.30	53.80	59.40	64.40	69.80	
35.0		11.80	16.65	21.80	27.40	33.50	40.50	48.20	51.60	57.10	61.90	67.10	
40.0			14.85	20.00	25.60	31.70	38.50	46.00	49.30	54.60	59.30	64.30	75.20
45.0				18.05	23.60	29.60	36.30	43.70	46.90	52.00	56.60	61.40	72.00
50.0					21.30	27.30	33.90	41.10	44.20	49.20	53.60	58.30	68.50
55.0						24.70	31.10	38.20	41.30	46.10	50.40	55.00	64.90
60.0							28.10	35.00	38.00	42.70	46.90	51.30	60.90
65.0								31.40	34.30	38.90	43.00	47.20	56.50

50 Hz

ZR190KCE-TFD

R22

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
10.0	4.59	4.75	4.92	5.09	5.26	5.43							
15.0	5.20	5.35	5.51	5.68	5.84	6.01	6.18						
20.0	5.85	6.00	6.15	6.31	6.47	6.63	6.80	6.97					
25.0	6.58	6.72	6.86	7.01	7.16	7.31	7.47	7.63	7.69	7.79			
30.0	7.40	7.52	7.65	7.79	7.92	8.07	8.22	8.37	8.43	8.52	8.59	8.67	
35.0		8.43	8.55	8.66	8.79	8.92	9.05	9.19	9.25	9.33	9.40	9.47	
40.0			9.56	9.66	9.77	9.88	10.00	10.10	10.15	10.25	10.30	10.40	10.50
45.0				10.80	10.90	10.95	11.05	11.20	11.20	11.30	11.35	11.40	11.50
50.0					12.15	12.20	12.30	12.40	12.40	12.45	12.50	12.55	12.65
55.0						13.60	13.65	13.75	13.75	13.80	13.85	13.90	13.95
60.0							15.25	15.25	15.30	15.30	15.35	15.35	15.40
65.0								17.00	17.00	17.00	17.05	17.05	17.05

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
10.0	15.15	15.25	15.36	15.51	15.70	15.96							
15.0	15.70	15.82	15.94	16.07	16.23	16.44	16.71						
20.0	16.30	16.44	16.57	16.71	16.85	17.03	17.25	17.53					
25.0	16.96	17.14	17.30	17.44	17.58	17.73	17.91	18.13	18.24	18.42			
30.0	17.70	17.94	18.13	18.29	18.43	18.57	18.72	18.90	18.98	19.12	19.25	19.40	
35.0		18.85	19.08	19.27	19.42	19.56	19.69	19.84	19.90	20.01	20.11	20.22	
40.0			20.18	20.40	20.58	20.73	20.86	20.98	21.03	21.11	21.18	21.27	21.46
45.0				21.72	21.93	22.09	22.22	22.33	22.38	22.44	22.49	22.55	22.68
50.0					23.48	23.67	23.82	23.93	23.96	24.01	24.05	24.09	24.18
55.0						25.49	25.66	25.77	25.81	25.85	25.88	25.91	25.95
60.0							27.76	27.90	27.94	27.98	28.00	28.02	28.04
65.0								30.32	30.36	30.41	30.44	30.45	30.45

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
10.0	82.70	103.50	126.50	151.50	180.00	212.00							
15.0	76.40	98.50	122.00	148.00	177.00	209.00	246.00						
20.0	70.00	93.40	118.00	144.50	174.00	207.00	244.00	286.00					
25.0	63.00	88.00	114.00	141.50	171.50	205.00	242.00	284.00	302.00	331.00			
30.0	55.00	81.80	109.00	138.00	168.50	203.00	240.00	282.00	301.00	330.00	356.00	383.00	
35.0		74.30	103.50	133.50	165.50	200.00	238.00	281.00	299.00	329.00	354.00	382.00	
40.0			96.00	127.50	161.00	196.50	236.00	279.00	297.00	327.00	353.00	380.00	441.00
45.0				120.00	155.00	192.00	232.00	276.00	294.00	324.00	350.00	378.00	439.00
50.0					146.50	185.00	226.00	271.00	290.00	320.00	347.00	375.00	436.00
55.0						175.50	218.00	264.00	284.00	315.00	342.00	370.00	432.00
60.0							207.00	255.00	275.00	307.00	334.00	363.00	426.00
65.0								242.00	263.00	295.00	324.00	353.00	417.00

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/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	71
Sound Power (HT), dBA	82
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	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	1810
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 TPTL for
Oil Control System	Parallel Operation ALCO Trax-Oil OM3

### **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>
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