



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	13.10	16.15	19.65	23.80	28.70	34.50							
15.0	12.05	15.30	18.85	23.00	27.70	33.30	39.80						
20.0	10.80	14.25	17.95	22.10	26.80	32.20	38.40	45.60					
25.0	9.28	13.00	16.90	21.10	25.80	31.00	37.00	43.90	46.90	51.70			
30.0	7.40	11.45	15.55	19.90	24.60	29.80	35.60	42.20	45.10	49.70	53.80	58.30	
35.0		9.53	13.95	18.45	23.20	28.40	34.10	40.50	43.30	47.70	51.60	55.80	
40.0			11.95	16.75	21.60	26.90	32.50	38.70	41.40	45.70	49.40	53.40	62.20
45.0				14.60	19.75	25.00	30.70	36.80	39.40	43.50	47.10	51.00	59.30
50.0					17.45	22.90	28.60	34.60	37.20	41.20	44.70	48.40	56.40
55.0						20.40	26.20	32.20	34.80	38.70	42.10	45.70	53.40
60.0							23.40	29.50	32.00	35.90	39.20	42.70	50.20
65.0								26.30	28.90	32.70	36.10	39.50	46.70

50 Hz

ZR160KCE-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	3.98	3.98	3.94	3.82	3.57	3.13							
15.0	4.51	4.56	4.60	4.60	4.51	4.28	3.85						
20.0	5.05	5.09	5.18	5.26	5.29	5.21	4.99	4.57					
25.0	5.65	5.65	5.74	5.85	5.96	6.00	5.94	5.71	5.57	5.29			
30.0	6.39	6.31	6.34	6.46	6.59	6.71	6.76	6.69	6.62	6.46	6.27	6.02	
35.0		7.11	7.07	7.13	7.26	7.40	7.52	7.56	7.55	7.48	7.38	7.23	
40.0			7.96	7.94	8.01	8.15	8.29	8.40	8.43	8.43	8.40	8.33	8.04
45.0				8.94	8.93	9.01	9.14	9.27	9.32	9.36	9.38	9.36	9.22
50.0					10.05	10.05	10.10	10.25	10.30	10.35	10.40	10.40	10.35
55.0						11.35	11.30	11.35	11.40	11.45	11.50	11.55	11.55
60.0							12.75	12.70	12.70	12.75	12.75	12.80	12.80
65.0								14.35	14.30	14.25	14.25	14.25	14.25

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	10.71	10.90	11.08	11.31	11.65	12.16							
15.0	11.13	11.31	11.46	11.63	11.88	12.27	12.85						
20.0	11.63	11.83	11.97	12.10	12.27	12.55	13.00	13.67					
25.0	12.24	12.48	12.61	12.72	12.84	13.03	13.36	13.88	14.16	14.66			
30.0	12.95	13.24	13.40	13.50	13.58	13.71	13.94	14.33	14.55	14.95	15.35	15.84	
35.0		14.14	14.34	14.44	14.51	14.59	14.74	15.02	15.19	15.50	15.82	16.22	
40.0			15.44	15.57	15.63	15.68	15.77	15.96	16.08	16.32	16.57	16.88	17.73
45.0				16.88	16.96	16.99	17.04	17.16	17.24	17.41	17.60	17.84	18.52
50.0					18.49	18.53	18.55	18.62	18.67	18.78	18.92	19.10	19.64
55.0						20.31	20.32	20.35	20.38	20.45	20.54	20.67	21.08
60.0							22.35	22.36	22.37	22.41	22.47	22.56	22.86
65.0								24.66	24.66	24.68	24.71	24.77	24.97

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	69.80	84.90	102.00	122.00	146.00	173.50							
15.0	66.50	83.10	101.50	122.00	145.50	172.50	204.00						
20.0	61.70	80.20	99.70	121.00	145.00	172.00	203.00	239.00					
25.0	54.80	75.70	97.10	119.50	144.50	172.00	203.00	238.00	253.00	278.00			
30.0	45.40	69.20	92.90	117.00	143.00	171.00	202.00	237.00	252.00	276.00	297.00	320.00	
35.0		60.00	86.50	113.00	140.50	169.50	201.00	236.00	251.00	275.00	296.00	318.00	
40.0			77.30	106.50	136.00	166.50	199.00	234.00	249.00	273.00	294.00	316.00	364.00
45.0				97.40	129.50	162.00	196.00	232.00	247.00	271.00	292.00	314.00	362.00
50.0					120.00	155.00	191.00	228.00	244.00	268.00	289.00	311.00	359.00
55.0						145.00	183.50	223.00	239.00	264.00	285.00	308.00	355.00
60.0							172.50	214.00	231.00	258.00	280.00	303.00	351.00
65.0								203.00	221.00	248.00	272.00	295.00	345.00

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	36.4
Length/Width, mm	281/285
Height, mm	552
Net Weight, kg	64.9
Stub Suction, inch	1 3/8
Stub Discharge, inch	7/8
Oil Quantity, l	3.37
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	68
Sound Power (HT), dBA	79
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	28
Locked Rotor Current, A	140
Winding Resistance, ohm	1.1
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

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

ACCESSORIES OPTIONAL

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

MOTOR OPTIONS

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