



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- 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	3.77	4.79	5.99	7.38	9.00	10.85					
15.0	3.58	4.58	5.74	7.09	8.66	10.45	12.55				
20.0	3.39	4.36	5.48	6.78	8.29	10.00	12.00	14.30			
25.0		4.13	5.20	6.44	7.88	9.54	11.45	13.60	16.10		
30.0		3.89	4.91	6.08	7.44	9.01	10.80	12.90	15.25	17.95	19.10
35.0		3.66	4.60	5.70	6.97	8.44	10.15	12.10	14.35	16.90	18.00
40.0			4.29	5.29	6.47	7.84	9.43	11.25	13.35	15.75	16.80
45.0			3.96	4.88	5.95	7.20	8.66	10.35	12.30	14.55	15.55
50.0				4.44	5.40	6.53	7.86	9.41	11.20	13.30	14.20
55.0					4.83	5.82	7.01	8.41	10.05	11.95	12.80
60.0						5.09	6.13	7.37	8.84	10.60	11.35

50 Hz

ZS38K4E-TFD

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	1.54	1.64	1.75	1.88	2.05	2.24					
15.0	1.68	1.78	1.89	2.02	2.18	2.36	2.58				
20.0	1.84	1.94	2.05	2.18	2.33	2.51	2.72	2.96			
25.0		2.12	2.23	2.37	2.52	2.69	2.89	3.12	3.38		
30.0		2.33	2.45	2.58	2.73	2.90	3.09	3.31	3.56	3.85	3.97
35.0		2.56	2.68	2.82	2.97	3.14	3.32	3.54	3.78	4.05	4.17
40.0			2.95	3.09	3.24	3.41	3.60	3.80	4.04	4.30	4.41
45.0			3.25	3.40	3.55	3.72	3.91	4.11	4.33	4.59	4.69
50.0				3.73	3.90	4.07	4.25	4.45	4.67	4.92	5.02
55.0					4.28	4.45	4.64	4.84	5.06	5.30	5.40
60.0						4.88	5.07	5.27	5.49	5.72	5.82

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	5.49	5.55	5.63	5.73	5.85	6.01					
15.0	5.56	5.63	5.71	5.82	5.95	6.11	6.31				
20.0	5.65	5.73	5.82	5.93	6.07	6.23	6.43	6.67			
25.0		5.86	5.96	6.08	6.22	6.39	6.59	6.83	7.11		
30.0		6.01	6.13	6.26	6.41	6.59	6.79	7.03	7.30	7.63	7.77
35.0		6.21	6.34	6.49	6.65	6.83	7.03	7.27	7.55	7.87	8.02
40.0			6.60	6.75	6.93	7.11	7.33	7.57	7.85	8.17	8.32
45.0			6.90	7.07	7.26	7.46	7.68	7.93	8.21	8.54	8.68
50.0				7.45	7.65	7.86	8.09	8.35	8.64	8.96	9.10
55.0					8.10	8.33	8.57	8.84	9.13	9.46	9.60
60.0						8.86	9.12	9.40	9.70	10.04	10.18

50 Hz

ZS38K4E-TFD

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	21.00	26.80	33.50	41.50	50.90	61.80					
15.0	20.80	26.60	33.50	41.60	51.00	62.10	74.90				
20.0	20.50	26.50	33.40	41.60	51.10	62.20	75.10	90.20			
25.0		26.30	33.30	41.40	50.90	62.10	75.10	90.20	108.00		
30.0		26.10	33.00	41.10	50.60	61.70	74.80	90.00	107.50	128.50	137.50
35.0		25.90	32.70	40.70	50.10	61.20	74.20	89.40	107.50	128.00	137.50
40.0			32.40	40.20	49.50	60.40	73.30	88.50	106.50	127.50	137.00
45.0			32.00	39.60	48.60	59.40	72.10	87.30	105.50	126.50	136.50
50.0				38.90	47.60	58.10	70.70	85.70	104.00	125.50	135.00
55.0					46.40	56.60	68.90	83.90	102.00	124.00	134.00
60.0						54.90	66.90	81.80	100.00	122.50	132.50

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

Displacement @ 50 Hz, m <sup>3</sup> /h	14.4
Length/Width, mm	241/244
Height, mm	438
Net Weight, kg	38
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
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 (8.5)
Sound Pressure @ 1m (LT), dBA	68
Sound Power (LT), dBA	79
Sound Power with Sound Shell (LT), dBA	69
Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed)	-35 / 40 / 20 °C at 50 Hz
Sound Pressure @ 1m (MT), dBA	65
Sound Power (MT), dBA	76
Sound Power with Sound Shell (MT), dBA	66
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	1
Max. Internal Free Volume, l	5.90
High Side PS gauge, bar	28.8
Low Side PS gauge, bar	21
Low Side TS Max., °C	50
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	10
Locked Rotor Current, A	64
Winding Resistance, ohm	2.75
Default Enclosure Class	IP 21 (IEC 34)

### **ACCESSORIES INCLUDED**

Discharge Temperature Protection	Discharge line thermostat
Mounting Grommets	Standard

### **ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Rotalock valves	suction and discharge

### **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
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09
TF7	380 V / 3~ / 60 Hz	380		Y	1.26