



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	1.74	2.15	2.63	3.20					
15.0	1.66	2.06	2.52	3.07	3.69				
20.0	1.59	1.96	2.41	2.93	3.53	4.21			
25.0	1.51	1.87	2.29	2.78	3.35	4.00	4.74		
30.0	1.42	1.76	2.17	2.63	3.17	3.78	4.48	4.79	5.27
35.0	1.34	1.66	2.03	2.47	2.98	3.55	4.21	4.50	4.95
40.0	1.25	1.54	1.90	2.30	2.77	3.31	3.93	4.20	4.62
45.0	1.15	1.42	1.75	2.13	2.56	3.06	3.63	3.88	4.28
50.0		1.30	1.60	1.94	2.34	2.80	3.33	3.56	3.93
55.0			1.44	1.76	2.12	2.53	3.01	3.22	3.56
60.0				1.56	1.88	2.25	2.68	2.87	3.18

50 Hz

ZS09KAE-TFD

R404A Dew Point

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	0.55	0.57	0.58	0.58					
15.0	0.59	0.62	0.63	0.63	0.63				
20.0	0.64	0.66	0.68	0.69	0.69	0.68			
25.0	0.69	0.72	0.74	0.76	0.76	0.76	0.74		
30.0	0.75	0.78	0.81	0.83	0.84	0.84	0.83	0.82	0.81
35.0	0.81	0.85	0.88	0.91	0.92	0.93	0.92	0.92	0.90
40.0	0.89	0.93	0.96	0.99	1.01	1.02	1.02	1.02	1.01
45.0	0.97	1.02	1.06	1.08	1.11	1.12	1.12	1.12	1.12
50.0		1.12	1.16	1.19	1.22	1.24	1.24	1.24	1.24
55.0			1.27	1.30	1.34	1.36	1.36	1.37	1.36
60.0				1.44	1.46	1.49	1.50	1.50	1.50

Cond °C	Current at 400 V, A								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	1.49	1.52	1.54	1.55					
15.0	1.56	1.60	1.62	1.63	1.62				
20.0	1.63	1.66	1.69	1.70	1.70	1.69			
25.0	1.69	1.73	1.76	1.78	1.79	1.78	1.76		
30.0	1.76	1.81	1.84	1.87	1.88	1.88	1.86	1.85	1.83
35.0	1.84	1.89	1.93	1.96	1.98	1.99	1.98	1.97	1.96
40.0	1.93	1.99	2.03	2.07	2.10	2.11	2.11	2.11	2.09
45.0	2.04	2.10	2.16	2.20	2.23	2.25	2.26	2.26	2.26
50.0		2.24	2.30	2.35	2.39	2.42	2.44	2.44	2.44
55.0			2.48	2.54	2.58	2.62	2.65	2.65	2.66
60.0				2.75	2.81	2.86	2.89	2.90	2.91

50 Hz

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R404A Dew Point

Cond °C	Suction Mass Flow, g/s								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	9.78	12.15	14.95	18.30					
15.0	9.77	12.15	14.95	18.30	22.20				
20.0	9.74	12.10	14.95	18.30	22.20	26.80			
25.0	9.69	12.10	14.90	18.25	22.20	26.80	32.20		
30.0	9.63	12.00	14.85	18.20	22.10	26.70	32.10	34.50	38.40
35.0	9.55	11.95	14.75	18.05	22.00	26.60	32.00	34.40	38.30
40.0	9.44	11.80	14.60	17.90	21.80	26.40	31.80	34.20	38.20
45.0	9.32	11.65	14.45	17.75	21.60	26.20	31.60	34.00	38.00
50.0		11.50	14.25	17.50	21.40	25.90	31.40	33.80	37.90
55.0			14.00	17.25	21.10	25.70	31.20	33.60	37.70
60.0				17.00	20.80	25.50	31.00	33.60	37.80

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m³/h	3.73
Length/Width, mm	246/246
Height, mm	387
Net Weight, kg	22.2
Stub Suction, inch	3/4
Stub Discharge, inch	1/2
Oil Quantity, l	0.74
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 (19)
Sound Pressure @ 1m (MT), dBA	58
Sound Power (MT), dBA	69
Sound Power with Sound Shell (MT), dBA	61
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
Max. Internal Free Volume, l	2.10
High Side PS gauge, bar	31.9
Low Side PS gauge, bar	21.6
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	3
Locked Rotor Current, A	27
Default Enclosure Class	IP 66

50 Hz

ZS09KAE-TFD

R404A Dew Point

ACCESSORIES INCLUDED

Mounting Grommets

Standard

ACCESSORIES OPTIONAL

Crankcase Heater

70 W External

Discharge Temperature Protection

Discharge line thermostat

Rotalock valves

suction and discharge

Crankcase Heater

40 W External

Discharge Temperature Protection

Internal Thermodisk

Enclosure Class

IP66 With Molded Plug

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