



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	2.38	2.94	3.60	4.38					
15.0	2.28	2.82	3.45	4.20	5.06				
20.0	2.17	2.69	3.30	4.01	4.83	5.77			
25.0	2.06	2.55	3.13	3.81	4.59	5.48	6.49		
30.0	1.94	2.41	2.96	3.60	4.33	5.18	6.13	6.55	7.21
35.0	1.82	2.27	2.78	3.38	4.07	4.86	5.76	6.15	6.78
40.0	1.70	2.11	2.59	3.15	3.79	4.53	5.37	5.74	6.33
45.0	1.56	1.95	2.39	2.91	3.50	4.19	4.97	5.31	5.85
50.0		1.78	2.19	2.66	3.20	3.83	4.55	4.86	5.37
55.0			1.97	2.39	2.89	3.46	4.11	4.40	4.86
60.0				2.12	2.56	3.07	3.66	3.92	4.33

50 Hz

ZS13KAE-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	0.72	0.74	0.75	0.75					
15.0	0.79	0.81	0.83	0.83	0.83				
20.0	0.86	0.89	0.91	0.92	0.92	0.91			
25.0	0.93	0.97	1.00	1.02	1.02	1.01	0.99		
30.0	1.02	1.06	1.10	1.12	1.12	1.12	1.10	1.09	1.07
35.0	1.11	1.16	1.20	1.23	1.24	1.24	1.22	1.21	1.20
40.0	1.21	1.28	1.32	1.36	1.37	1.37	1.36	1.34	1.32
45.0	1.32	1.40	1.45	1.49	1.51	1.51	1.50	1.49	1.48
50.0		1.52	1.59	1.64	1.66	1.67	1.66	1.66	1.64
55.0			1.74	1.80	1.82	1.84	1.84	1.83	1.82
60.0				1.96	2.01	2.03	2.03	2.02	2.01

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	1.90	1.93	1.95	1.97					
15.0	2.00	2.04	2.06	2.07	2.08				
20.0	2.10	2.14	2.17	2.18	2.18	2.18			
25.0	2.19	2.24	2.27	2.29	2.29	2.28	2.26		
30.0	2.29	2.35	2.38	2.41	2.41	2.41	2.38	2.37	2.35
35.0	2.39	2.46	2.51	2.54	2.55	2.54	2.52	2.51	2.49
40.0	2.51	2.59	2.65	2.69	2.71	2.71	2.69	2.68	2.65
45.0	2.64	2.74	2.81	2.86	2.89	2.90	2.88	2.87	2.85
50.0		2.91	3.00	3.07	3.11	3.12	3.11	3.11	3.09
55.0			3.23	3.30	3.36	3.38	3.39	3.38	3.36
60.0				3.58	3.65	3.69	3.70	3.70	3.69

50 Hz

ZS13KAE-TFD

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	13.40	16.60	20.50	25.10					
15.0	13.35	16.60	20.50	25.10	30.50				
20.0	13.30	16.55	20.50	25.00	30.40	36.70			
25.0	13.25	16.50	20.40	25.00	30.40	36.70	44.00		
30.0	13.15	16.40	20.30	24.90	30.20	36.50	43.90	47.20	52.50
35.0	13.05	16.30	20.20	24.70	30.10	36.40	43.70	47.00	52.40
40.0	12.90	16.15	19.95	24.50	29.80	36.10	43.50	46.80	52.20
45.0	12.70	15.95	19.75	24.20	29.50	35.80	43.20	46.50	52.00
50.0		15.70	19.45	23.90	29.20	35.40	42.90	46.20	51.70
55.0			19.10	23.50	28.80	35.00	42.50	45.90	51.50
60.0				23.20	28.40	34.70	42.30	45.80	51.60

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	5.04
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	59
Sound Power (MT), dBA	70
Sound Power with Sound Shell (MT), dBA	62
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
Max. Internal Free Volume, l	2.00
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	4
Locked Rotor Current, A	29
Default Enclosure Class	IP 66

ACCESSORIES INCLUDED

Mounting Grommets	Standard
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ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Crankcase Heater	40 W External
Discharge Temperature Protection	Discharge line thermostat
Enclosure Class	IP66 With Molded Plug
Rotalock valves	suction and discharge

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
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09