



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Superheat 10.0K

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	12.5	15.0	20.0	25.0	
17.0	3.27	3.99	4.83											
20.0	3.26	3.99	4.82	5.78										
25.0	3.22	3.96	4.80	5.76	6.86	8.09								
30.0	3.17	3.91	4.75	5.71	6.80	8.03	9.42	10.00	10.95					
35.0	3.11	3.85	4.69	5.64	6.72	7.93	9.30	9.89	10.85	11.65	12.55			
40.0	3.05	3.78	4.61	5.54	6.60	7.79	9.14	9.72	10.65	11.45	12.30	14.20	16.25	
45.0	2.97	3.69	4.51	5.42	6.46	7.63	8.94	9.51	10.40	11.20	12.05	13.90	15.90	
50.0	2.90	3.60	4.39	5.28	6.29	7.43	8.71	9.26	10.15	10.90	11.75	13.55	15.50	
55.0	2.82	3.50	4.26	5.12	6.10	7.20	8.43	8.97	9.82	10.60	11.40	13.10	15.00	
60.0		3.39	4.12	4.95	5.88	6.93	8.12	8.64	9.46	10.20	10.95	12.65		
65.0			3.97	4.76	5.64	6.65	7.79	8.28	9.07	9.77	10.50			
67.0			3.91	4.68	5.54	6.53	7.64	8.13	8.90	9.59	10.30			

50 Hz

ZH09KVE-TFD

R407C Dew Point

Cond °C	Power, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
17.0	1.10	1.14	1.16										
20.0	1.18	1.22	1.25	1.26									
25.0	1.32	1.36	1.40	1.42	1.44	1.43							
30.0	1.47	1.52	1.56	1.60	1.62	1.63	1.62	1.61	1.58				
35.0	1.63	1.69	1.74	1.79	1.82	1.84	1.85	1.84	1.83	1.82	1.79		
40.0	1.82	1.88	1.94	2.00	2.04	2.07	2.09	2.09	2.09	2.08	2.07	2.02	1.94
45.0	2.02	2.09	2.16	2.22	2.28	2.32	2.35	2.36	2.37	2.37	2.36	2.33	2.27
50.0	2.25	2.32	2.40	2.47	2.54	2.60	2.64	2.65	2.67	2.68	2.68	2.67	2.63
55.0	2.51	2.59	2.67	2.75	2.83	2.90	2.95	2.97	3.00	3.01	3.02	3.03	3.01
60.0		2.89	2.97	3.06	3.15	3.22	3.29	3.32	3.35	3.37	3.39	3.41	
65.0			3.31	3.41	3.50	3.59	3.67	3.70	3.74	3.77	3.80		
67.0			3.46	3.56	3.66	3.75	3.83	3.86	3.91	3.94	3.97		

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	12.5	15.0	20.0	25.0
17.0	3.24	3.26	3.27										
20.0	3.29	3.32	3.33	3.34									
25.0	3.40	3.43	3.45	3.47	3.47	3.46							
30.0	3.52	3.56	3.60	3.62	3.64	3.64	3.64	3.63	3.61				
35.0	3.67	3.72	3.76	3.80	3.83	3.85	3.86	3.86	3.85	3.84	3.83		
40.0	3.85	3.91	3.96	4.01	4.06	4.09	4.11	4.12	4.12	4.12	4.12	4.11	4.07
45.0	4.06	4.13	4.20	4.26	4.32	4.37	4.41	4.42	4.44	4.45	4.45	4.46	4.45
50.0	4.31	4.39	4.48	4.55	4.62	4.69	4.75	4.77	4.79	4.81	4.83	4.85	4.87
55.0	4.60	4.70	4.79	4.88	4.97	5.06	5.13	5.16	5.20	5.23	5.25	5.30	5.33
60.0		5.05	5.16	5.27	5.37	5.47	5.56	5.60	5.65	5.69	5.73	5.80	
65.0			5.58	5.70	5.83	5.95	6.06	6.10	6.17	6.22	6.27		
67.0			5.76	5.90	6.03	6.15	6.27	6.32	6.39	6.45	6.50		

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	12.5	15.0	20.0	25.0	
17.0	14.65	18.30	22.60											
20.0	14.60	18.30	22.60	27.70										
25.0	14.50	18.25	22.60	27.70	33.60	40.40								
30.0	14.40	18.15	22.50	27.60	33.50	40.40	48.20	51.60	57.10					
35.0	14.25	18.00	22.40	27.50	33.40	40.20	47.90	51.30	56.80	61.60	66.80			
40.0	14.05	17.85	22.20	27.30	33.10	39.90	47.60	50.90	56.30	61.20	66.30	77.50	90.00	
45.0	13.90	17.65	22.00	27.00	32.80	39.40	47.10	50.40	55.70	60.50	65.60	76.70	89.10	
50.0	13.70	17.40	21.70	26.60	32.30	38.90	46.40	49.70	55.00	59.70	64.70	75.70	88.00	
55.0	13.55	17.15	21.30	26.20	31.80	38.30	45.70	48.90	54.10	58.70	63.70	74.50	86.60	
60.0		16.90	21.00	25.70	31.20	37.50	44.80	48.00	53.10	57.60	62.50	73.10		
65.0			20.60	25.20	30.60	36.70	43.80	46.90	51.90	56.40	61.20			
67.0			20.50	25.00	30.30	36.40	43.40	46.50	51.40	55.90	60.60			

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	8.00
Length/Width, mm	243/243
Height, mm	386
Net Weight, kg	29.9
Stub Suction, inch	3/4
Stub Discharge, inch	1/2
Oil Quantity, l	1.45
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 (HT), dBA	62
Sound Power (HT), dBA	73
Sound Power with Sound Shell (HT), dBA	63
Sound Conditions (HT, Temperatures:	-7 / 50 / 3 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Internal Free Volume, l	3.90
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
Low Side TS Max., °C	50
Refrigerant's GWP	1774
Refrigerant's classification	A1

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

Maximum Operating Current, A	6.5
Locked Rotor Current, A	40
Winding Resistance, ohm	4.68
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

ACCESSORIES OPTIONAL

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
TFM	380-420 V / 3~ / 50 Hz	400		Y	1.00
TFD	460 V / 3~ / 60 Hz	460		Y	1.04