



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
20.0	3.25	4.12	5.17	6.44	7.94	9.71							
25.0	3.07	3.91	4.93	6.14	7.59	9.30	11.30						
30.0	2.90	3.70	4.68	5.85	7.24	8.87	10.80	11.65	13.00				
35.0	2.72	3.50	4.43	5.55	6.88	8.45	10.30	11.10	12.40	13.60	14.90		
40.0	2.54	3.28	4.18	5.24	6.51	8.01	9.77	10.55	11.80	12.95	14.15	16.90	
45.0	2.36	3.07	3.92	4.93	6.14	7.57	9.24	9.99	11.20	12.30	13.45	16.05	19.00
50.0	2.18	2.86	3.66	4.62	5.76	7.12	8.71	9.43	10.60	11.60	12.75	15.20	18.05
55.0	2.00	2.64	3.40	4.30	5.38	6.66	8.18	8.85	9.94	10.95	12.00	14.35	17.10
60.0		2.42	3.13	3.98	4.99	6.20	7.63	8.27	9.30	10.25	11.25	13.50	16.10
65.0			2.86	3.65	4.60	5.73	7.07	7.67	8.65	9.54	10.50	12.65	15.10
70.0				3.32	4.20	5.25	6.50	7.07	7.98	8.82	9.72	11.75	
75.0				2.98	3.79	4.76	5.92	6.45	7.31	8.09	8.94		

50 Hz

ZH38K4E-TFD

R134a

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
20.0	1.26	1.30	1.34	1.38	1.40	1.44							
25.0	1.38	1.42	1.48	1.52	1.56	1.59	1.62						
30.0	1.50	1.56	1.62	1.66	1.72	1.76	1.80	1.81	1.83				
35.0	1.62	1.70	1.76	1.82	1.88	1.94	1.98	2.00	2.02	2.04	2.06		
40.0	1.76	1.84	1.92	1.99	2.06	2.12	2.18	2.20	2.24	2.26	2.28	2.33	
45.0	1.90	1.99	2.08	2.17	2.25	2.32	2.39	2.42	2.46	2.49	2.52	2.58	2.63
50.0	2.05	2.16	2.26	2.35	2.45	2.54	2.62	2.66	2.70	2.74	2.78	2.85	2.91
55.0	2.21	2.33	2.45	2.56	2.67	2.77	2.87	2.91	2.97	3.01	3.06	3.14	3.22
60.0		2.52	2.65	2.78	2.90	3.02	3.14	3.18	3.25	3.30	3.35	3.45	3.55
65.0			2.87	3.01	3.15	3.29	3.42	3.47	3.55	3.61	3.67	3.79	3.90
70.0				3.27	3.43	3.58	3.73	3.79	3.88	3.95	4.02	4.15	
75.0				3.55	3.72	3.89	4.06	4.13	4.23	4.31	4.38		

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
20.0	4.17	4.22	4.25	4.27	4.27	4.25							
25.0	4.19	4.25	4.30	4.34	4.36	4.37	4.34						
30.0	4.24	4.31	4.37	4.43	4.48	4.51	4.52	4.51	4.50				
35.0	4.33	4.40	4.47	4.55	4.62	4.67	4.71	4.72	4.72	4.72	4.71		
40.0	4.44	4.52	4.61	4.69	4.78	4.86	4.92	4.94	4.96	4.98	4.98	4.97	
45.0	4.59	4.68	4.77	4.87	4.97	5.07	5.15	5.19	5.23	5.26	5.28	5.31	5.30
50.0	4.78	4.86	4.96	5.07	5.19	5.30	5.41	5.45	5.51	5.55	5.59	5.66	5.69
55.0	5.00	5.08	5.19	5.30	5.43	5.56	5.69	5.74	5.81	5.87	5.93	6.02	6.09
60.0		5.34	5.44	5.56	5.70	5.85	5.99	6.05	6.14	6.21	6.28	6.40	6.51
65.0			5.73	5.85	6.00	6.16	6.32	6.39	6.49	6.57	6.65	6.80	6.94
70.0				6.17	6.33	6.49	6.67	6.75	6.86	6.95	7.04	7.22	
75.0				6.53	6.68	6.86	7.05	7.13	7.25	7.35	7.45		

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	
20.0	19.90	24.70	30.40	37.10	45.00	54.10								
25.0	19.70	24.50	30.30	37.00	44.80	53.90	64.30							
30.0	19.45	24.30	30.10	36.80	44.60	53.70	64.10	68.60	75.90					
35.0	19.20	24.10	29.90	36.60	44.40	53.50	63.80	68.40	75.60	82.10	88.90			
40.0	18.95	23.90	29.70	36.40	44.20	53.20	63.60	68.10	75.40	81.80	88.70	103.50		
45.0	18.65	23.70	29.50	36.20	44.00	53.00	63.30	67.90	75.10	81.60	88.40	103.50	120.00	
50.0	18.35	23.40	29.20	35.90	43.70	52.70	63.00	67.60	74.80	81.30	88.20	103.00	120.00	
55.0	18.00	23.10	28.90	35.60	43.40	52.40	62.70	67.20	74.50	81.00	87.90	103.00	120.00	
60.0		22.80	28.60	35.30	43.10	52.00	62.40	66.90	74.20	80.70	87.60	102.50	119.50	
65.0			28.30	35.00	42.70	51.70	62.00	66.50	73.80	80.30	87.30	102.50	119.50	
70.0				34.60	42.40	51.30	61.70	66.20	73.50	80.10	87.10	102.50		
75.0				34.30	42.00	51.00	61.40	65.90	73.30	79.90	87.00			

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	14.4
Length/Width, mm	247/241
Height, mm	438
Net Weight, kg	38
Gross Weight, kg	41
Stub Suction, inch	7/8
Stub Discharge, inch	1/2
Oil Quantity, l	1.89
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	63
Sound Power (HT), dBA	74
Sound Conditions (HT, Temperatures:	-7 / 50 / 3 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Low Side Internal Free Volume, l	6.0
Max. High Side Internal Free Volume, l	0.6
Max. Internal Free Volume, l	6.60
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
Low Side TS Max., °C	50
Refrigerant's GWP	1430
Refrigerant's classification	A1

50 Hz

ZH38K4E-TFD

R134a

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

Maximum Operating Current, A	10.1
Locked Rotor Current, A	64
Winding Resistance, ohm	2.47
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Mounting Grommets	Standard
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ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Discharge Temperature Protection	Discharge line thermostat

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
TFR	220-240 V / 3~ / 50 Hz	230		Y	1.73
TFD	460 V / 3~ / 60 Hz	460		Y	1.04