



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	19.25	23.50	28.50											
20.0	18.95	23.20	28.10	33.80										
25.0	18.45	22.60	27.50	33.10	39.50	46.70								
30.0	17.90	22.10	26.90	32.40	38.70	45.80	53.70	57.20	62.60					
35.0	17.40	21.50	26.20	31.60	37.80	44.80	52.60	56.00	61.40	66.10	71.10			
40.0	16.90	20.90	25.50	30.80	36.90	43.70	51.40	54.80	60.10	64.70	69.60	80.20	91.90	
45.0	16.45	20.30	24.80	29.90	35.90	42.60	50.10	53.40	58.60	63.20	68.00	78.40	89.90	
50.0	16.00	19.70	24.00	29.10	34.80	41.40	48.70	51.90	57.00	61.50	66.20	76.40	87.70	
55.0	15.60	19.15	23.30	28.20	33.70	40.10	47.20	50.40	55.30	59.70	64.30	74.30	85.30	
60.0		18.65	22.60	27.20	32.60	38.70	45.70	48.70	53.50	57.80	62.30	72.00		
65.0			21.90	26.30	31.40	37.30	44.10	47.00	51.60	55.80	60.10			
67.0			21.60	26.00	31.00	36.80	43.40	46.30	50.90	54.90	59.20			

50 Hz

ZH48KVE-TWD

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	6.21	6.40	6.64										
20.0	6.62	6.82	7.04	7.35									
25.0	7.31	7.54	7.75	8.01	8.39	8.94							
30.0	7.99	8.28	8.52	8.77	9.08	9.54	10.20	10.55	11.10				
35.0	8.67	9.07	9.37	9.63	9.92	10.30	10.85	11.15	11.65	12.15	12.70		
40.0	9.37	9.91	10.30	10.60	10.90	11.25	11.75	11.95	12.40	12.80	13.30	14.55	16.15
45.0	10.10	10.80	11.35	11.70	12.05	12.40	12.85	13.05	13.40	13.75	14.20	15.25	16.65
50.0	10.90	11.80	12.45	12.95	13.40	13.75	14.15	14.35	14.70	15.00	15.35	16.30	17.55
55.0	11.70	12.85	13.70	14.35	14.90	15.30	15.75	15.95	16.25	16.55	16.90	17.70	18.80
60.0		14.00	15.10	15.95	16.60	17.10	17.60	17.80	18.10	18.40	18.70	19.45	
65.0			16.65	17.70	18.50	19.15	19.75	19.95	20.30	20.60	20.90		
67.0			17.30	18.45	19.35	20.00	20.70	20.90	21.20	21.50	21.90		

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	15.30	15.46	15.68										
20.0	15.75	15.91	16.12	16.43									
25.0	16.47	16.68	16.89	17.15	17.55	18.16							
30.0	17.19	17.49	17.73	17.99	18.33	18.83	19.57	19.94	20.61				
35.0	17.93	18.36	18.68	18.97	19.29	19.73	20.35	20.67	21.24	21.80	22.46		
40.0	18.71	19.31	19.76	20.12	20.47	20.88	21.43	21.71	22.20	22.68	23.25	24.67	26.53
45.0	19.56	20.37	20.98	21.46	21.87	22.30	22.83	23.08	23.51	23.94	24.44	25.69	27.33
50.0	20.49	21.57	22.38	23.01	23.54	24.03	24.54	24.79	25.20	25.59	26.04	27.15	28.61
55.0	21.55	22.90	23.96	24.79	25.47	26.04	26.63	26.88	27.28	27.66	28.09	29.11	30.43
60.0		24.42	25.78	26.82	27.69	28.42	29.11	29.38	29.81	30.20	30.61	31.59	
65.0			27.82	29.18	30.25	31.17	31.99	32.30	32.78	33.19	33.62		
67.0			28.72	30.20	31.40	32.37	33.26	33.60	34.10	34.53	34.97		

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	87.70	109.50	134.50										
20.0	86.80	108.50	133.50	162.50									
25.0	85.30	106.50	131.50	160.50	194.00	232.00							
30.0	83.80	105.00	130.00	158.50	192.00	230.00	274.00	293.00	323.00				
35.0	82.40	103.50	128.00	156.50	189.50	228.00	271.00	290.00	321.00	348.00	376.00		
40.0	81.10	101.50	126.00	154.50	187.50	225.00	269.00	288.00	318.00	345.00	374.00	436.00	506.00
45.0	80.00	100.50	124.00	152.50	185.00	223.00	266.00	285.00	316.00	342.00	371.00	434.00	503.00
50.0	79.20	99.00	122.50	150.50	183.00	220.00	263.00	282.00	313.00	340.00	368.00	430.00	500.00
55.0	78.60	97.90	121.00	148.50	180.50	218.00	261.00	279.00	310.00	336.00	365.00	427.00	497.00
60.0		97.10	119.50	146.50	178.50	215.00	258.00	276.00	306.00	333.00	362.00	424.00	
65.0			118.50	145.00	176.50	213.00	255.00	274.00	303.00	330.00	358.00		
67.0			118.50	144.50	175.50	212.00	254.00	272.00	302.00	329.00	357.00		

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /h	42.8
Length/Width, mm	368/323
Height, mm	579
Net Weight, kg	112
Gross Weight, kg	119
Stub Suction, inch	1 5/8
Stub Discharge, inch	1 1/8
Oil Quantity, l	4.14
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	220 x 220 (8.5)
Sound Pressure @ 1m (HT), dBA	74
Sound Power (HT), dBA	85
Sound Power with Sound Shell (HT), dBA	73
Sound Conditions (HT, Temperatures:	-7 / 50 / 3 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	2
Max. Internal Free Volume, l	18.4
High Side PS gauge, bar	32
Low Side PS gauge, bar	22.6
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	1774
Refrigerant's classification	A1

50 Hz

ZH48KVE-TWD

R407C Dew Point

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

Maximum Operating Current, A	36
Locked Rotor Current, A	198
Winding Resistance, ohm	0.72
Default Enclosure Class	IP 54 (IEC 34)

### **ACCESSORIES INCLUDED**

### **ACCESSORIES OPTIONAL**

Sound Attenuation	Sound Shell (10dBA)
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### **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>
TWD	380-420 V / 3~ / 50 Hz	400		Y	1.00