



Minimum Evaporating Temp. With:

- 10 K Suction Superheat — 20 K Suction Superheat
- 10 K Suction Superheat OEM envelope — 20 K Suction Superheat OEM envelope
- Maximum Evaporating Temperature

Suction Superheat 11.1K

Liquid Subcooling 8.3K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW										
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	3.69	4.62	5.73	7.06	8.61	10.40					
15.0	3.49	4.41	5.51	6.80	8.32	10.10					
20.0	3.29	4.20	5.27	6.53	8.01	9.72	11.70				
25.0	3.09	3.98	5.02	6.25	7.68	9.34	11.25	13.45			
30.0	2.89	3.75	4.77	5.96	7.34	8.94	10.80	12.90	15.30	16.30	
35.0	2.68	3.53	4.51	5.65	6.98	8.52	10.30	12.30	14.65	15.65	17.25
40.0		3.30	4.24	5.34	6.62	8.09	9.79	11.75	13.95	14.90	16.45
45.0		3.07	3.98	5.02	6.24	7.65	9.27	11.15	13.25	14.20	15.65
50.0			3.71	4.70	5.86	7.19	8.74	10.50	12.55	13.40	14.85
55.0				4.38	5.47	6.73	8.19	9.87	11.80	12.65	14.00
60.0					5.07	6.26	7.63	9.22	11.05	11.85	13.15
65.0						5.78	7.06	8.55	10.25	11.05	12.25
70.0						5.30	6.49	7.88	9.49	10.20	11.35

Cond °C	Power, kW										
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	1.59	1.61	1.62	1.64	1.66	1.68					
15.0	1.70	1.72	1.75	1.78	1.80	1.83					
20.0	1.82	1.86	1.89	1.92	1.96	1.99	2.02				
25.0	1.96	2.00	2.04	2.08	2.12	2.16	2.21	2.25			
30.0	2.11	2.16	2.21	2.26	2.31	2.35	2.40	2.45	2.50	2.52	
35.0	2.29	2.34	2.40	2.45	2.51	2.56	2.61	2.67	2.72	2.74	2.78
40.0		2.54	2.60	2.66	2.72	2.78	2.84	2.90	2.96	2.99	3.02
45.0		2.77	2.83	2.90	2.96	3.03	3.09	3.16	3.22	3.25	3.29
50.0			3.08	3.15	3.22	3.29	3.36	3.43	3.50	3.53	3.57
55.0				3.43	3.50	3.58	3.65	3.73	3.80	3.83	3.88
60.0					3.81	3.89	3.96	4.04	4.12	4.15	4.20
65.0						4.22	4.30	4.38	4.46	4.50	4.55
70.0						4.58	4.66	4.75	4.83	4.87	4.92

Cond °C	Current at 400 V, A										
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	5.42	5.43	5.44	5.45	5.46	5.47					
15.0	5.49	5.51	5.52	5.54	5.56	5.58					
20.0	5.57	5.59	5.62	5.64	5.67	5.69	5.72				
25.0	5.67	5.70	5.73	5.76	5.79	5.83	5.86	5.89			
30.0	5.78	5.82	5.86	5.90	5.94	5.98	6.02	6.06	6.10	6.12	
35.0	5.92	5.97	6.01	6.06	6.11	6.16	6.21	6.26	6.31	6.33	6.36
40.0		6.14	6.20	6.25	6.31	6.36	6.42	6.48	6.53	6.56	6.59
45.0		6.34	6.41	6.47	6.53	6.60	6.66	6.73	6.79	6.82	6.86
50.0			6.65	6.72	6.79	6.86	6.94	7.01	7.09	7.12	7.16
55.0				7.01	7.09	7.17	7.25	7.33	7.42	7.45	7.50
60.0					7.43	7.52	7.61	7.70	7.79	7.83	7.88
65.0						7.90	8.00	8.10	8.20	8.24	8.31
70.0						8.34	8.45	8.56	8.67	8.71	8.78

Cond °C	Suction Mass Flow, g/s										
	-35.0	-30.0	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	10.65	13.10	15.95	19.30	23.20	27.60					
15.0	10.45	12.95	15.90	19.25	23.20	27.60					
20.0	10.25	12.80	15.80	19.20	23.10	27.60	32.60				
25.0	10.00	12.65	15.65	19.10	23.10	27.50	32.60	38.20			
30.0	9.78	12.45	15.50	19.00	22.90	27.40	32.50	38.10	44.40	47.10	
35.0	9.54	12.25	15.35	18.85	22.80	27.30	32.30	38.00	44.30	47.00	51.30
40.0		12.05	15.15	18.65	22.60	27.10	32.10	37.80	44.10	46.80	51.10
45.0		11.85	14.95	18.45	22.40	26.90	31.90	37.50	43.80	46.50	50.80
50.0			14.75	18.25	22.20	26.60	31.60	37.30	43.50	46.20	50.50
55.0				18.00	21.90	26.40	31.30	36.90	43.20	45.90	50.10
60.0					21.70	26.10	31.00	36.50	42.80	45.50	49.70
65.0						25.70	30.60	36.10	42.30	45.00	49.30
70.0						25.40	30.30	35.70	41.90	44.60	48.80

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	14.4
Length/Width, mm	254/266
Height, mm	442
Net Weight, kg	36.5
Gross Weight, kg	38.4
Stub Suction, inch	7/8
Stub Discharge, inch	1/2
Oil Quantity, l	1.89
Oil type (original charge)	POE Hatcol 4467
Oil type (approved oils)	POE Hatcol 4467
Base mounting (hole dia), mm	190 x 190 (19)
Sound Pressure @ 1m (HT), dBA	65
Sound Power (HT), dBA	76
Sound Conditions (HT, Temperatures:	-7 / 50 / 3 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	2
Max. Low Side Internal Free Volume, l	6.4
Max. High Side Internal Free Volume, l	0.6
Max. Internal Free Volume, l	7.00
High Side PS gauge, bar	28
Low Side PS gauge, bar	17
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
High Side TS Max., °C	150
High Side TS Min., °C	-35
Refrigerant's GWP	3
Refrigerant's classification	A3

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 54/65

ACCESSORIES INCLUDED

Mounting Grommets	Standard
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ACCESSORIES OPTIONAL

Crankcase Heater	55 W External
Discharge Temperature Protection	Discharge line thermostat

50 Hz

ZH11KCU-TFD

R290

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