



Minimum Evaporating Temp. With:	
■ 10 K Suction Superheat	■ 20 K Suction Superheat
■ 35 °C Suction Gas Return	■ 5 K Suction Superheat Wet Injection OEM envelope
■ 5 K Suction Superheat	■ Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW													
	-30.0	-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
10.0	10.15	12.20	14.60	17.30	20.40	23.70								
15.0	9.89	12.00	14.45	17.20	20.20	23.60	27.40							
20.0	9.57	11.75	14.20	16.95	20.00	23.40	27.20	31.20						
25.0	9.20	11.40	13.85	16.65	19.70	23.10	26.80	30.90	32.60	35.30				
30.0	8.79	11.00	13.45	16.25	19.30	22.70	26.40	30.40	32.10	34.70	37.00	39.40		
35.0	8.32	10.50	13.00	15.75	18.80	22.10	25.80	29.80	31.40	34.10	36.30	38.70	43.60	
40.0	7.82	10.00	12.45	15.20	18.20	21.50	25.10	29.00	30.70	33.20	35.50	37.80	42.70	47.90
45.0		9.44	11.85	14.55	17.50	20.70	24.30	28.10	29.70	32.30	34.50	36.70	41.50	46.70
50.0			11.20	13.85	16.75	19.90	23.30	27.10	28.70	31.20	33.30	35.50	40.20	45.20
55.0				13.05	15.85	18.95	22.30	25.90	27.50	29.90	32.00	34.10	38.70	43.50
60.0					14.90	17.90	21.10	24.70	26.10	28.50	30.50	32.60	36.90	41.70
65.0						16.75	19.85	23.20	24.60	26.90	28.80	30.80		
68.0							16.05	19.10	22.40	23.80	25.90	27.80		

50 Hz

ZHI27K1P-TFD

R410A Dew Point

Cond °C	Power, kW														
	-30.0	-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	
10.0	3.33	3.31	3.24	3.12	2.93	2.66									
15.0	3.76	3.76	3.72	3.64	3.50	3.29	2.98								
20.0	4.18	4.20	4.19	4.14	4.04	3.88	3.63	3.29							
25.0	4.63	4.66	4.67	4.65	4.58	4.46	4.26	3.98	3.84	3.60					
30.0	5.14	5.17	5.19	5.19	5.15	5.06	4.91	4.68	4.56	4.36	4.16	3.93			
35.0	5.73	5.76	5.78	5.79	5.78	5.72	5.60	5.41	5.31	5.14	4.97	4.77	4.30		
40.0	6.43	6.45	6.47	6.49	6.48	6.44	6.36	6.21	6.13	5.98	5.84	5.67	5.25	4.72	
45.0		7.28	7.29	7.30	7.30	7.28	7.21	7.09	7.02	6.90	6.78	6.63	6.27	5.80	
50.0			8.26	8.27	8.26	8.24	8.18	8.09	8.04	7.94	7.83	7.71	7.39	6.97	
55.0				9.41	9.40	9.37	9.32	9.24	9.19	9.10	9.02	8.91	8.63	8.26	
60.0					10.75	10.70	10.65	10.55	10.55	10.45	10.35	10.30	10.05	9.71	
65.0						12.25	12.20	12.15	12.10	12.00	11.95	11.85			
68.0						13.20	13.15	13.05	13.00	12.90	12.85				

Cond °C	Current at 400 V, A														
	-30.0	-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	
10.0	10.41	10.37	10.31	10.22	10.11	9.96									
15.0	10.63	10.61	10.56	10.49	10.39	10.25	10.08								
20.0	10.90	10.90	10.87	10.81	10.72	10.59	10.43	10.22							
25.0	11.25	11.27	11.25	11.21	11.13	11.01	10.85	10.65	10.56	10.40					
30.0	11.69	11.73	11.74	11.71	11.64	11.54	11.39	11.19	11.10	10.94	10.80	10.64			
35.0	12.27	12.33	12.35	12.34	12.29	12.19	12.05	11.86	11.77	11.62	11.48	11.32	10.97		
40.0	12.99	13.08	13.13	13.13	13.10	13.01	12.88	12.70	12.61	12.46	12.32	12.16	11.81	11.39	
45.0		14.02	14.09	14.10	14.08	14.01	13.89	13.71	13.63	13.48	13.34	13.19	12.84	12.42	
50.0			15.24	15.28	15.28	15.23	15.10	14.94	14.87	14.72	14.58	14.43	14.08	13.66	
55.0				16.71	16.72	16.67	16.57	16.41	16.33	16.19	16.07	15.92	15.56	15.14	
60.0					18.42	18.40	18.31	18.16	18.08	17.95	17.81	17.68	17.32	16.91	
65.0						20.45	20.37	20.25	20.17	20.03	19.89	19.74			
68.0						21.68	21.59	21.47	21.39	21.25	21.11				

Cond °C	Suction Mass Flow, g/s													
	-30.0	-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
10.0	45.00	55.40	67.70	82.10	98.90	118.00								
15.0	43.90	54.50	67.00	81.50	98.30	117.50	140.00							
20.0	42.70	53.40	66.00	80.60	97.40	117.00	139.00	164.00						
25.0	41.30	52.10	64.80	79.40	96.30	115.50	137.50	162.50	173.50	191.00				
30.0	39.70	50.60	63.30	78.00	94.90	114.00	136.00	161.00	172.00	189.50	205.00	222.00		
35.0	38.00	49.00	61.70	76.40	93.30	112.50	134.50	159.00	170.00	187.50	203.00	219.00	256.00	
40.0	36.10	47.10	59.90	74.60	91.40	110.50	132.50	157.00	168.00	185.00	201.00	217.00	253.00	294.00
45.0		45.10	57.90	72.50	89.30	108.50	130.00	155.00	165.50	182.50	198.00	214.00	250.00	291.00
50.0			55.70	70.30	87.00	106.00	127.50	152.00	163.00	180.00	195.50	212.00	248.00	289.00
55.0				67.80	84.40	103.50	125.00	149.50	160.00	177.00	192.50	209.00	245.00	286.00
60.0					81.60	100.50	122.00	146.50	157.00	174.00	189.50	206.00	242.00	284.00
65.0						97.30	118.50	143.00	154.00	171.00	186.50	203.00		
68.0							95.60	117.00	141.50	152.00	169.50	184.50		

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	16.8
Length/Width, mm	280/280
Height, mm	533
Net Weight, kg	63
Stub Suction, inch	1 3/8
Stub Discharge, inch	7/8
Stub Injection, inch	5/8
Oil Quantity, l	3.38
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF
Base mounting (hole dia), mm	190 x 190 (19)
Sound Pressure @ 1m (HT), dBA	66
Sound Power (HT), dBA	77
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	12.6
High Side PS gauge, bar	53
Low Side PS gauge, bar	29.5
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	2088
Refrigerant's classification	A1

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

Maximum Operating Current, A	21
Locked Rotor Current, A	118
Winding Resistance, ohm	1.24
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Enclosure Class	IP 54
Oil Charge	

ACCESSORIES OPTIONAL

Crankcase Heater	66 W External
Discharge Temp Protection	

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