



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 K Suction Superheat
- 5 K Suction Superheat
- 35 °C Suction Gas Return
- 5 K Suction Superheat Wet Injection OEM envelope
- Maximum Evaporating Temperature

Suction Superheat 11.1K

Liquid Subcooling 8.3K

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	10.25	12.35	14.75	17.50	20.60	24.00								
15.0	9.98	12.15	14.60	17.40	20.50	23.90	27.70							
20.0	9.67	11.85	14.35	17.15	20.30	23.70	27.50	31.70						
25.0	9.30	11.50	14.00	16.80	19.95	23.40	27.20	31.30	33.10	35.80				
30.0	8.88	11.10	13.60	16.40	19.55	23.00	26.70	30.80	32.50	35.30	37.60	40.10		
35.0	8.41	10.65	13.15	15.95	19.00	22.40	26.10	30.20	31.90	34.60	36.90	39.30	44.40	
40.0	7.91	10.10	12.60	15.35	18.45	21.80	25.50	29.40	31.10	33.80	36.10	38.40	43.50	48.80
45.0		9.56	12.00	14.75	17.75	21.00	24.70	28.60	30.20	32.80	35.10	37.40	42.30	47.60
50.0			11.35	14.05	17.00	20.20	23.80	27.60	29.20	31.80	34.00	36.20	41.10	46.20
55.0				13.30	16.15	19.30	22.80	26.50	28.10	30.60	32.70	34.90	39.70	44.70
60.0					15.25	18.35	21.70	25.40	26.90	29.30	31.40	33.60	38.20	43.10
65.0						17.30	20.60	24.10	25.60	28.00	30.00	32.10		
68.0							16.70	19.90	23.40	24.80	27.10	29.10		

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	3.27	3.25	3.20	3.09	2.91	2.65								
15.0	3.67	3.68	3.66	3.59	3.46	3.26	2.97							
20.0	4.07	4.10	4.10	4.06	3.98	3.82	3.59	3.27						
25.0	4.49	4.53	4.55	4.54	4.49	4.38	4.20	3.94	3.81	3.58				
30.0	4.97	5.01	5.04	5.05	5.03	4.95	4.82	4.60	4.50	4.30	4.12	3.90		
35.0	5.52	5.56	5.60	5.62	5.62	5.57	5.47	5.30	5.21	5.05	4.89	4.71	4.26	
40.0	6.18	6.21	6.24	6.27	6.28	6.26	6.19	6.06	5.98	5.85	5.72	5.56	5.17	4.67
45.0		6.97	7.00	7.03	7.05	7.04	6.99	6.89	6.83	6.73	6.62	6.49	6.15	5.71
50.0			7.90	7.93	7.94	7.94	7.91	7.84	7.79	7.71	7.61	7.50	7.22	6.83
55.0				8.98	8.99	8.99	8.97	8.92	8.88	8.81	8.74	8.64	8.40	8.07
60.0					10.20	10.20	10.20	10.15	10.15	10.10	10.00	9.94	9.72	9.43
65.0							11.65	11.65	11.60	11.55	11.55	11.45	11.40	
68.0							12.60	12.60	12.55	12.55	12.50	12.45		

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	10.20	10.19	10.16	10.11	10.04	9.95								
15.0	10.39	10.39	10.37	10.33	10.26	10.17	10.05							
20.0	10.62	10.64	10.63	10.60	10.54	10.45	10.33	10.17						
25.0	10.92	10.96	10.97	10.95	10.90	10.81	10.69	10.53	10.46	10.34				
30.0	11.31	11.37	11.40	11.40	11.36	11.28	11.17	11.01	10.94	10.81	10.69	10.57		
35.0	11.83	11.91	11.96	11.97	11.95	11.88	11.77	11.62	11.55	11.42	11.30	11.17	10.87	
40.0	12.48	12.59	12.66	12.69	12.68	12.63	12.53	12.39	12.31	12.19	12.07	11.94	11.64	11.28
45.0		13.43	13.52	13.58	13.59	13.55	13.47	13.33	13.26	13.14	13.02	12.89	12.59	12.22
50.0			14.58	14.66	14.69	14.67	14.60	14.48	14.41	14.29	14.18	14.05	13.75	13.39
55.0				15.94	16.00	16.00	15.95	15.84	15.78	15.67	15.56	15.44	15.14	14.78
60.0					17.55	17.58	17.55	17.47	17.41	17.31	17.21	17.09	16.79	16.43
65.0							19.43	19.42	19.35	19.31	19.21	19.12	19.01	
68.0							20.66	20.67	20.61	20.57	20.49	20.40		

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	44.80	55.10	67.30	81.60	98.30	117.50								
15.0	43.70	54.20	66.60	81.00	97.70	117.00	139.00							
20.0	42.50	53.10	65.60	80.10	96.90	116.00	138.00	163.00						
25.0	41.00	51.80	64.40	79.00	95.70	115.00	137.00	161.50	172.50	190.00				
30.0	39.50	50.30	63.00	77.60	94.40	113.50	135.50	160.00	171.00	188.00	204.00	220.00		
35.0	37.80	48.70	61.40	76.00	92.70	112.00	133.50	158.00	169.00	186.00	201.00	218.00	254.00	
40.0	35.90	46.90	59.60	74.20	90.90	110.00	131.50	156.00	167.00	184.00	199.00	215.00	251.00	292.00
45.0		44.90	57.60	72.10	88.80	108.00	129.50	153.50	164.50	181.50	196.50	213.00	248.00	289.00
50.0			55.40	69.90	86.50	105.50	127.00	151.00	162.00	178.50	194.00	210.00	246.00	286.00
55.0				67.40	83.90	102.50	124.00	148.50	159.00	176.00	191.00	207.00	243.00	284.00
60.0					81.20	99.90	121.00	145.50	156.00	173.00	188.00	204.00	240.00	281.00
65.0						96.80	118.00	142.00	153.00	170.00	185.00	201.00		
68.0							94.80	116.00	140.00	151.00	168.00	183.00		

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /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**

<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>
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