



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
— 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	15.10	18.20	21.80	25.90	30.60	35.70								
15.0	14.70	17.85	21.50	25.60	30.30	35.40	41.10							
20.0	14.30	17.45	21.10	25.20	29.90	35.00	40.60	46.80						
25.0	13.75	17.00	20.60	24.80	29.30	34.40	40.00	46.20	48.80	52.80				
30.0	13.20	16.40	20.10	24.20	28.70	33.80	39.30	45.40	47.90	52.00	55.50	59.10		
35.0	12.55	15.80	19.45	23.50	28.00	33.00	38.50	44.50	47.00	51.00	54.40	58.00	65.50	
40.0	11.85	15.10	18.70	22.80	27.20	32.20	37.60	43.40	45.90	49.80	53.20	56.70	64.10	72.10
45.0		14.30	17.90	21.90	26.30	31.20	36.40	42.20	44.70	48.50	51.80	55.30	62.50	70.40
50.0			17.00	20.90	25.30	30.00	35.20	40.90	43.30	47.00	50.30	53.60	60.70	68.40
55.0				19.90	24.20	28.80	33.90	39.40	41.80	45.40	48.60	51.90	58.80	66.30
60.0					22.90	27.50	32.40	37.80	40.10	43.60	46.70	49.90	56.60	63.80
65.0						25.90	30.70	35.90	38.10	41.60	44.50	47.60		
68.0							25.10	29.80	34.90	37.00	40.30	43.30		

50 Hz

ZHI40K1P-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	5.11	5.12	5.14	5.15	5.16	5.16								
15.0	5.78	5.79	5.80	5.82	5.84	5.85	5.85							
20.0	6.44	6.45	6.46	6.48	6.50	6.52	6.54	6.55						
25.0	7.13	7.14	7.15	7.17	7.20	7.22	7.25	7.27	7.28	7.28				
30.0	7.90	7.90	7.91	7.93	7.95	7.98	8.01	8.04	8.06	8.07	8.08	8.09		
35.0	8.76	8.76	8.76	8.78	8.80	8.84	8.87	8.91	8.93	8.95	8.97	8.98	9.01	
40.0	9.77	9.76	9.76	9.77	9.79	9.82	9.86	9.91	9.93	9.95	9.98	10.00	10.05	10.10
45.0		10.95	10.90	10.90	10.95	10.95	11.00	11.05	11.10	11.10	11.15	11.15	11.25	11.30
50.0			12.30	12.30	12.30	12.30	12.35	12.40	12.45	12.45	12.50	12.55	12.60	12.65
55.0				13.90	13.90	13.95	13.95	14.00	14.05	14.05	14.10	14.15	14.20	14.30
60.0					15.80	15.80	15.85	15.90	15.90	15.95	16.00	16.00	16.10	16.20
65.0						18.05	18.10	18.10	18.10	18.15	18.20	18.20		
68.0							19.40	19.40	19.45	19.45	19.45	19.50		

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	14.38	14.06	13.66	13.18	12.63	12.00								
15.0	16.82	16.63	16.37	16.04	15.64	15.17	14.64							
20.0	18.59	18.51	18.36	18.15	17.89	17.56	17.18	16.75						
25.0	19.85	19.85	19.80	19.70	19.54	19.34	19.09	18.80	18.67	18.46				
30.0	20.77	20.84	20.86	20.84	20.77	20.67	20.53	20.35	20.27	20.15	20.03	19.91		
35.0	21.52	21.64	21.71	21.75	21.75	21.72	21.67	21.59	21.55	21.48	21.42	21.36	21.22	
40.0	22.29	22.43	22.53	22.61	22.65	22.68	22.68	22.67	22.67	22.65	22.64	22.62	22.58	22.52
45.0		23.38	23.47	23.56	23.63	23.69	23.71	23.75	23.79	23.81	23.82	23.84	23.88	23.92
50.0			24.72	24.78	24.86	24.92	24.99	25.05	25.08	25.12	25.16	25.20	25.29	25.41
55.0				26.49	26.55	26.60	26.66	26.72	26.75	26.80	26.85	26.90	27.02	27.18
60.0					28.86	28.87	28.89	28.93	28.96	29.00	29.07	29.11	29.23	29.40
65.0						32.00	31.95	31.94	31.94	31.99	32.00	32.03		
68.0							34.06	33.96	33.90	33.88	33.86	33.90		

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	66.00	81.00	98.90	120.00	144.00	172.00								
15.0	64.60	79.80	97.80	119.00	143.00	171.00	203.00							
20.0	62.90	78.30	96.50	117.50	142.00	169.50	201.00	237.00						
25.0	61.00	76.60	94.80	116.00	140.00	168.00	199.50	236.00	251.00	276.00				
30.0	58.90	74.60	92.90	114.00	138.50	166.00	198.00	234.00	249.00	274.00	297.00	320.00		
35.0	56.50	72.30	90.70	112.00	136.00	164.00	195.50	231.00	247.00	272.00	294.00	318.00	370.00	
40.0	53.90	69.80	88.20	109.50	134.00	161.50	193.00	229.00	244.00	269.00	292.00	315.00	367.00	427.00
45.0		66.90	85.40	106.50	131.00	158.50	190.00	226.00	242.00	266.00	289.00	312.00	365.00	424.00
50.0			82.30	103.50	128.00	155.50	187.00	223.00	238.00	263.00	286.00	309.00	362.00	422.00
55.0				100.00	124.50	152.00	183.50	219.00	235.00	260.00	282.00	306.00	359.00	419.00
60.0					120.50	148.00	179.50	215.00	231.00	256.00	279.00	303.00	356.00	417.00
65.0						144.00	175.50	211.00	227.00	252.00	275.00	299.00		
68.0							141.50	173.00	209.00	225.00	250.00	273.00		

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	24.9
Length/Width, mm	284/280
Height, mm	568
Net Weight, kg	64
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	19.8
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

50 Hz

ZHI40K1P-TFD

R410A Dew Point

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

Maximum Operating Current, A	33
Locked Rotor Current, A	174
Winding Resistance, ohm	0.83
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