



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Return Temperature 18.3°C

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
10.0	6.05	6.66	7.54	8.69					
15.0	5.20	5.84	6.72	7.86	9.27				
20.0	4.52	5.19	6.07	7.19	8.54	10.15			
25.0	3.99	4.68	5.56	6.64	7.94	9.47	11.25		
30.0	3.57	4.27	5.14	6.19	7.42	8.87	10.50	11.25	12.40
35.0	3.23	3.94	4.79	5.79	6.96	8.31	9.85	10.50	11.60
40.0	2.94	3.65	4.47	5.43	6.52	7.77	9.19	9.80	10.80
45.0		3.37	4.16	5.06	6.07	7.22	8.50	9.05	9.93
50.0		3.06	3.82	4.66	5.58	6.61	7.76	8.25	9.03
55.0			3.41	4.18	5.01	5.93	6.92	7.35	8.03
60.0				3.61	4.34	5.12	5.97	6.33	6.90

Cond °C	Power, kW								
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0
10.0	1.25	1.24	1.22	1.20					
15.0	1.30	1.30	1.30	1.29	1.28				
20.0	1.37	1.39	1.40	1.40	1.40	1.38			
25.0	1.46	1.50	1.52	1.54	1.54	1.54	1.52		
30.0	1.58	1.62	1.66	1.69	1.70	1.70	1.70	1.68	1.67
35.0	1.72	1.78	1.83	1.86	1.89	1.90	1.90	1.89	1.88
40.0	1.88	1.96	2.02	2.06	2.10	2.12	2.12	2.12	2.11
45.0		2.15	2.23	2.29	2.33	2.36	2.37	2.37	2.36
50.0		2.38	2.47	2.53	2.59	2.62	2.64	2.64	2.64
55.0			2.73	2.81	2.87	2.91	2.93	2.94	2.94
60.0				3.11	3.18	3.23	3.26	3.26	3.26

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
10.0	2.93	2.94	2.94	2.96					
15.0	3.06	3.07	3.09	3.10	3.12				
20.0	3.20	3.22	3.24	3.25	3.27	3.30			
25.0	3.33	3.37	3.40	3.42	3.44	3.46	3.48		
30.0	3.48	3.53	3.57	3.60	3.62	3.64	3.66	3.67	3.68
35.0	3.64	3.71	3.77	3.81	3.84	3.86	3.87	3.88	3.88
40.0	3.82	3.91	3.98	4.04	4.08	4.10	4.12	4.12	4.13
45.0		4.14	4.23	4.30	4.35	4.39	4.41	4.41	4.41
50.0		4.40	4.51	4.60	4.67	4.71	4.74	4.74	4.75
55.0			4.83	4.94	5.02	5.08	5.12	5.13	5.13
60.0				5.33	5.43	5.50	5.55	5.56	5.57

50 Hz

ZBD21KCE-TFD

R404A Dew Point

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
10.0	34.30	38.00	43.20	50.20					
15.0	30.80	34.70	40.20	47.40	56.40				
20.0	28.00	32.30	38.00	45.40	54.40	65.40			
25.0	25.90	30.50	36.50	44.00	53.10	64.10	77.20		
30.0	24.40	29.40	35.60	43.20	52.40	63.30	76.30	82.10	91.50
35.0	23.40	28.70	35.10	42.80	52.00	62.90	75.80	81.50	90.80
40.0	22.60	28.20	34.90	42.70	52.00	62.70	75.40	81.00	90.20
45.0		27.90	34.70	42.70	51.90	62.60	75.00	80.50	89.50
50.0		27.30	34.40	42.50	51.60	62.10	74.30	79.70	88.50
55.0			33.60	41.70	50.80	61.10	72.90	78.20	86.70
60.0				40.10	49.00	59.10	70.50	75.60	83.80

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	8.35
Length/Width, mm	243/243
Height, mm	432
Net Weight, kg	30.2
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.24
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	190 x 190 (19)
Sound Pressure @ 1m (MT), dBA	58
Sound Power (MT), dBA	69
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	1
Max. Low Side Internal Free Volume, l	4.1
Max. High Side Internal Free Volume, l	0.5
Max. Internal Free Volume, l	4.60
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Refrigerant's GWP	3922
Refrigerant's classification	A1

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

Maximum Operating Current, A	6.7
Locked Rotor Current, A	40
Winding Resistance, ohm	4.83
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

Mounting Grommets	Standard
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ACCESSORIES OPTIONAL

Crankcase Heater	70 W External
Discharge Temperature Protection	Discharge line thermostat
Mounting Grommets	Hard Mounts for Paralleling
Solenoid valve	Standard
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Valve Coil	220V
Valve Coil	24V AC
Solenoid Valve Kit	220 V Ac 12" lead Length
Solenoid Valve Kit	24 V Ac 12" lead Length
Digital Tubing Kit	220 V 0.3m Rotalock
Digital Tubing Kit	24 V 0.3m Rotalock
Digital Control Kit	EC2-552
Digital Control Kit	EC3-652
Digital Driver	EC3-D13

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
TF5	200-220 V / 3~ / 50 Hz	200		Y	2.09
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09