



Minimum Evaporating Temp. With:

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

Suction Return Temperature 20.0°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	6.07	6.67	7.55	8.71					
15.0	5.21	5.85	6.74	7.88	9.28				
20.0	4.54	5.20	6.09	7.20	8.56	10.20			
25.0	4.01	4.69	5.57	6.66	7.96	9.49	11.25		
30.0	3.59	4.29	5.16	6.21	7.45	8.89	10.55	11.30	12.45
35.0	3.25	3.96	4.81	5.82	6.99	8.34	9.89	10.55	11.65
40.0	2.96	3.67	4.50	5.46	6.56	7.81	9.23	9.84	10.80
45.0		3.39	4.19	5.09	6.11	7.26	8.55	9.10	9.99
50.0		3.08	3.85	4.69	5.62	6.66	7.81	8.30	9.09
55.0			3.44	4.22	5.06	5.98	6.98	7.41	8.09
60.0				3.64	4.38	5.18	6.04	6.40	6.97

50 Hz

ZBD21KCE-TFD

R404A Dew Point

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	34.10	37.70	42.90	49.90					
15.0	30.60	34.50	40.00	47.10	55.90				
20.0	27.80	32.10	37.80	45.00	54.00	64.90			
25.0	25.70	30.30	36.30	43.70	52.70	63.60	76.40		
30.0	24.30	29.20	35.30	42.90	52.00	62.80	75.60	81.30	90.60
35.0	23.20	28.50	34.90	42.50	51.60	62.40	75.10	80.70	89.90
40.0	22.50	28.00	34.60	42.40	51.60	62.20	74.70	80.30	89.30
45.0		27.70	34.50	42.40	51.50	62.00	74.30	79.80	88.60
50.0		27.20	34.20	42.20	51.20	61.60	73.60	78.90	87.60
55.0			33.40	41.40	50.40	60.60	72.20	77.40	85.80
60.0				39.80	48.70	58.60	69.90	74.80	82.90

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 Power with Sound Shell (MT), dBA	59
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
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Valve Coil	220V
Solenoid Valve Kit	220 V Ac 12" lead Length
Digital Control Kit	EC2-552
Solenoid valve	Standard
Valve Coil	24V AC
Solenoid Valve Kit	24 V Ac 12" lead Length
Digital Control Kit	EC3-652
Digital Tubing Kit	24 V 0.3m Rotalock
Digital Driver	EC3-D13
Mounting Grommets	Hard Mounts for Paralleling
Digital Tubing Kit	220 V 0.3m Rotalock

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