

Rating Conditions

18.3 °C Return Gas
 0 K Subcooling
 35 °C Ambient Air Over
 50 Hz Operation

MEDIUM TEMPERATURE

Blue Area Restrictions: 11°C Max
 Superheat

ZB38KQE-TFD

HFC-404A
 COPELAND SCROLL®
 TFD 380/420-3-50

Condensing Temperature °C (Sat. Dew Pt. Pressure, bar) Evaporating Temperature °C (Sat. Dew Pt. Pressure, bar)

	-23.0 (2.7)	-20.0 (3)	-15.0 (3.6)	-10.0 (4.3)	-5.0 (5.1)	0.0 (6)	5.0 (7)	7.0 (7.5)
60.0 (28.7) C P A M E %					7,300	8,750	10,400	11,150
					5,950	5,900	5,850	5,850
					8.8	8.8	8.7	8.7
					82	100	122	133
					1.2	1.5	1.8	1.9
					54.0	58.2	62.2	63.7
55.0 (25.7) C P A M E %				6,900	8,350	9,950	11,850	12,700
				5,300	5,300	5,250	5,200	5,200
				8.1	8.0	8.0	8.0	7.9
				69	84	102	124	134
				1.3	1.6	1.9	2.3	2.5
				54.1	58.4	62.3	65.7	66.9
50.0 (23) C P A M E %			6,400	7,800	9,350	11,150	13,250	14,150
			4,740	4,720	4,700	4,670	4,630	4,610
			7.4	7.4	7.4	7.3	7.3	7.3
			58	71	86	105	127	136
			1.4	1.7	2.0	2.4	2.9	3.1
			54.0	58.5	62.6	66.1	68.8	69.6
45.0 (20.4) C P A M E %	5,100	5,800	7,100	8,600	10,300	12,300	14,600	15,600
	4,210	4,210	4,210	4,200	4,180	4,150	4,120	4,100
	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7
	42	48	59	72	88	106	128	138
	1.2	1.4	1.7	2.1	2.5	3.0	3.5	3.8
	50.3	53.5	58.3	62.7	66.4	69.2	71.0	71.3
40.0 (18.1) C P A M E %	5,550	6,350	7,750	9,350	11,250	13,400	15,900	17,000
	3,740	3,740	3,740	3,730	3,720	3,700	3,670	3,660
	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.2
	43	49	60	74	89	108	130	140
	1.5	1.7	2.1	2.5	3.0	3.6	4.3	4.6
	54.4	57.5	62.2	66.2	69.4	71.4	71.9	71.6
35.0 (16.1) C P A M E %	6,000	6,850	8,350	10,100	12,150	14,450	17,100	18,300
	3,320	3,330	3,330	3,320	3,310	3,290	3,270	3,260
	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
	43	50	61	75	91	109	131	141
	1.8	2.1	2.5	3.0	3.7	4.4	5.2	5.6
	58.2	61.1	65.5	69.0	71.3	72.1	71.1	70.1
25.0 (12.4) C P A M E %	6,850	7,750	9,500	11,500	13,800	16,500	19,500	
	2,630	2,630	2,640	2,630	2,630	2,620	2,610	
	5.2	5.3	5.3	5.3	5.3	5.3	5.2	
	44	50	62	76	92	111	133	
	2.6	2.9	3.6	4.4	5.3	6.3	7.5	
	63.9	66.3	69.5	71.1	70.7	68.0	62.4	
15.0 (9.4) C P A M E %	7,550	8,550	10,450	12,700	15,300			
	2,090	2,090	2,090	2,100	2,100			
	4.8	4.8	4.8	4.8	4.8			
	45	51	62	76	93			
	3.6	4.1	5.0	6.1	7.3			
	66.1	67.4	68.1	66.3	61.6			
10.0 (8.2) C P A M E %	7,850	8,900	10,900	13,250				
	1,860	1,860	1,860	1,870				
	4.6	4.6	4.6	4.6				
	45	51	62	76				
	4.2	4.8	5.9	7.1				
	65.5	65.9	64.7	60.5				

C: Capacity (W), P: Power (W), A: Current (Amps), M: Mass Flow (gm/s), E: COP, %: Isentropic Efficiency (%)

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 400 V

ZB38KQE-TFD

HFC, R-404A, 50 Hz, 3 - Phase, 380/420 V . [Also Available with Variable Frequency Drives](#)

Medium Temperature

Production Status: China Use Only

Performance			Mechanical	
Evaporator Temp. (°C)	-7	7	Displacement (cm ³ /Rev):	82.59
Condensing Temp. (°C)	49	54	Displacement (m ³ /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	257.05
Liquid Temp. (°C)	49	54	Overall Width (mm):	245.62
Capacity (Watts)	8997	12954	Overall Height (mm):	437.64
Power (W):	4590	5100	Mounting Length (mm):	190.50
Current (Amps):	7.3	7.9	Mounting Width (mm):	190.50
EER(BTU/Wh):	11.38	14.61	Mounting Height (mm):	456.69
Mass Flow (lbs/hr):	81.27	136.08	Suction Size (mm),Type:	177.80 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	25.40 / 50.80 Stub
Sound Power (dBA):	72 Avg	77 Max	Initial Oil Charge (ml):	2070.18
Vibration mils(peak-peak):	2.0 Avg	3.0 Max	Oil Recharge (ml):	1951.88
Record Date:	2011-06-27		Net Weight (kg):	37.42
			Internal Free Volume (cm ³):	4195.07
			Horse Power:	5.0
			*Overall compressor height on Copeland Brand Product's specified mounting grommets.	

Electrical		Capacitors					
		Type	Part No	Low MFD	High MFD	Volts	User Description
LRA High* (Amps):	65.5						
LRA Low*(Amps):	58.6	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	13.5						
Max Operating Current (Amps):	12.8						
RLA, MCC/1.4(use for contactor selection)(Amps):	9.6						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	8.7						
RPM:	2900						
Box IP :	21						
UL File No:							
UL File Date:							

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
R-404A HFC	460	3	60	Medium Temperature