

### 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

### ZB48KQE-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 %						9,380	11,250	13,400
						7,400	7,350	7,280
						12.4	12.3	12.2
						106	129	158
						1.3	1.5	1.8
					55.8	60.3	64.4	65.9
55.0 (25.7) C P A M E %				8,920	10,750	12,850	15,300	16,350
				6,620	6,580	6,540	6,480	6,450
				11.3	11.3	11.2	11.1	11.1
				89	108	132	160	173
				1.4	1.6	2.0	2.4	2.5
			55.9	60.4	64.5	68.0	69.2	
50.0 (23) C P A M E %			8,260	10,000	12,050	14,400	17,050	18,250
			5,900	5,880	5,850	5,820	5,770	5,740
			10.4	10.4	10.3	10.3	10.2	10.2
			74	91	111	135	163	176
			1.4	1.7	2.1	2.5	3.0	3.2
		55.9	60.6	64.8	68.4	71.2	72.0	
45.0 (20.4) C P A M E %	6,570	7,460	9,140	11,050	13,300	15,850	18,800	20,100
	5,240	5,240	5,240	5,230	5,210	5,170	5,130	5,110
	9.5	9.5	9.6	9.6	9.5	9.5	9.4	9.4
	54	62	76	93	113	137	165	178
	1.3	1.4	1.7	2.1	2.6	3.1	3.7	3.9
52.1	55.3	60.3	64.8	68.7	71.6	73.5	73.8	
40.0 (18.1) C P A M E %	7,180	8,150	9,970	12,050	14,500	17,300	20,500	21,900
	4,660	4,660	4,660	4,650	4,630	4,600	4,570	4,550
	8.8	8.9	8.9	8.9	8.8	8.8	8.8	8.8
	55	63	77	95	115	139	168	180
	1.5	1.8	2.1	2.6	3.1	3.8	4.5	4.8
56.3	59.5	64.4	68.5	71.8	73.8	74.4	74.1	
35.0 (16.1) C P A M E %	7,760	8,800	10,750	13,050	15,650	18,650	22,100	23,600
	4,140	4,140	4,140	4,140	4,120	4,100	4,070	4,060
	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.2
	56	64	79	96	117	141	169	182
	1.9	2.1	2.6	3.2	3.8	4.6	5.4	5.8
60.2	63.3	67.8	71.4	73.8	74.6	73.6	72.5	
25.0 (12.4) C P A M E %	8,810	9,990	12,200	14,800	17,800	21,200	25,100	
	3,280	3,280	3,280	3,280	3,280	3,270	3,250	
	7.4	7.4	7.4	7.4	7.4	7.4	7.4	
	57	65	80	98	119	143	172	
	2.7	3.0	3.7	4.5	5.4	6.5	7.7	
66.1	68.6	71.9	73.5	73.2	70.4	64.5		
15.0 (9.4) C P A M E %	9,730	11,050	13,500	16,350	19,700			
	2,600	2,600	2,610	2,610	2,610			
	6.7	6.7	6.7	6.7	6.7			
	58	65	81	98	120			
	3.7	4.2	5.2	6.3	7.5			
68.4	69.8	70.4	68.6	63.7				
10.0 (8.2) C P A M E %	10,150	11,500	14,050	17,100				
	2,310	2,320	2,320	2,330				
	6.5	6.5	6.5	6.5				
	57	65	80	98				
	4.4	5.0	6.1	7.3				
67.7	68.2	67.0	62.6					

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

**ZB48KQE-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 <sup>3</sup> /Rev):	107.83
Condensing Temp. (°C)	49	54	Displacement (m <sup>3</sup> /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	240.79
Liquid Temp. (°C)	49	54	Overall Width (mm):	246.63
Capacity (Watts)	11606	16676	Overall Height (mm):	455.93
Power (W):	5710	6370	Mounting Length (mm):	190.50
Current (Amps):	10.15	11	Mounting Width (mm):	190.50
EER(BTU/Wh):	11.81	15.21	Mounting Height (mm):	462.28
Mass Flow (lbs/hr):	105.33	176.40	Suction Size (mm),Type:	177.80 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	76.20 / 101.60 Stub
Sound Power (dBA):	73 Avg	78 Max	Initial Oil Charge (ml):	1774.44
Vibration mils(peak-peak):	2.0 Avg	3.0 Max	Oil Recharge (ml):	1656.14
Record Date:	2017-03-22		Net Weight (kg):	39.01
			Internal Free Volume (cm <sup>3</sup> ):	4227.85
			Horse Power:	6.5

\*Overall compressor height on Copeland Brand Product's specified mounting grommets.

Electrical		Capacitors					
LRA High* (Amps):	101.0	Type	Part No	Low MFD	High MFD	Volts	User Description
LRA Low*(Amps):	90.5	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	19.1						
Max Operating Current (Amps):	14.0						
RLA, MCC/1.4(use for contactor selection)(Amps):	13.6						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	12.2						
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