

### 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

### ZB76KQE-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 %					15,250	18,300	21,700	23,200
					11,450	11,450	11,450	11,400
					19.5	19.5	19.6	19.6
					172	210	255	275
					1.3	1.6	1.9	2.0
					58.7	63.0	66.4	67.5
55.0 (25.7) C P A M E %				14,400	17,450	20,800	24,600	26,300
				10,250	10,250	10,300	10,300	10,300
				17.8	17.9	17.9	18.0	18.0
				143	176	214	259	279
				1.4	1.7	2.0	2.4	2.6
				58.4	62.9	66.5	69.0	69.7
50.0 (23) C P A M E %			13,200	16,150	19,500	23,200	27,400	29,300
			9,120	9,160	9,210	9,260	9,300	9,310
			16.4	16.4	16.5	16.6	16.6	16.6
			119	147	180	217	262	282
			1.5	1.8	2.1	2.5	3.0	3.1
			57.8	62.7	66.6	69.3	70.9	71.2
45.0 (20.4) C P A M E %	10,250	11,800	14,600	17,800	21,400	25,500	30,100	32,100
	8,080	8,100	8,150	8,220	8,290	8,360	8,410	8,430
	15.0	15.0	15.1	15.2	15.3	15.4	15.5	15.5
	84	97	122	150	182	220	265	285
	1.3	1.5	1.8	2.2	2.6	3.1	3.6	3.8
	52.7	56.5	62.0	66.3	69.4	71.2	71.7	71.5
40.0 (18.1) C P A M E %	11,300	12,900	15,900	19,300	23,200	27,600	32,600	34,800
	7,200	7,230	7,310	7,390	7,480	7,560	7,620	7,640
	13.9	14.0	14.1	14.2	14.3	14.4	14.4	14.5
	87	99	124	152	184	222	267	287
	1.6	1.8	2.2	2.6	3.1	3.7	4.3	4.6
	57.3	60.7	65.4	68.9	71.1	71.9	71.1	70.3
35.0 (16.1) C P A M E %	12,250	13,950	17,100	20,700	24,900	29,700	35,100	37,400
	6,420	6,470	6,570	6,670	6,770	6,850	6,910	6,930
	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.6
	88	101	125	153	186	224	269	289
	1.9	2.2	2.6	3.1	3.7	4.3	5.1	5.4
	61.1	64.1	68.0	70.5	71.6	71.1	68.9	67.4
25.0 (12.4) C P A M E %	13,950	15,800	19,300	23,400	28,100	33,600	39,700	
	5,180	5,250	5,360	5,470	5,570	5,650	5,690	
	11.7	11.8	11.9	12.1	12.2	12.2	12.2	
	90	103	127	155	188	227	272	
	2.7	3.0	3.6	4.3	5.1	5.9	7.0	
	66.2	67.9	69.6	69.7	68.1	64.4	58.4	
15.0 (9.4) C P A M E %	15,500	17,500	21,400	25,900	31,200			
	4,250	4,320	4,430	4,530	4,600			
	10.8	10.9	11.1	11.2	11.2			
	92	104	127	156	189			
	3.7	4.1	4.8	5.7	6.8			
	66.8	66.8	65.7	62.6	57.2			
10.0 (8.2) C P A M E %	16,300	18,350	22,400	27,100				
	3,860	3,930	4,030	4,110				
	10.5	10.6	10.7	10.8				
	92	104	128	156				
	4.2	4.7	5.6	6.6				
	65.2	64.2	61.3	56.2				

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

**ZB76KQE-TFD**

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

**Medium Temperature**

**Production Status:** Non U.S. model with restricted sales - Contact your Emerson Climate Technologies Representative.

Performance			Mechanical	
Evaporator Temp. (°C)	-7	7	Displacement (cm <sup>3</sup> /Rev):	167.15
Condensing Temp. (°C)	49	54	Displacement (m <sup>3</sup> /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	263.65
Liquid Temp. (°C)	49	21	Overall Width (mm):	284.23
Capacity (Watts)	18727	26816	Overall Height (mm):	546.10
Power (W):	8980	10200	Mounting Length (mm):	190.50
Current (Amps):	16.15	17.85	Mounting Width (mm):	190.50
EER(BTU/Wh):	12.06	15.29	Mounting Height (mm):	552.45
Mass Flow (lbs/hr):	170.10	283.50	Suction Size (mm),Type:	330.20 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	177.80 / 203.20 Stub
Sound Power (dBA):	77 Avg	82 Max	Initial Oil Charge (ml):	3253.14
Vibration mils(peak-peak):	3.0 Avg	4.0 Max	Oil Recharge (ml):	3134.84
Record Date:	2009-02-13		Net Weight (kg):	61.24
			Internal Free Volume (cm <sup>3</sup> ):	13257.08
			Horse Power:	10.0

\*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):	118.0	No data available in table					
LRA Low*(Amps):	110.0						
LRA Half Winding (Amps):							
MCC (Amps):	28						
Max Operating Current (Amps):	20.4						
RLA, MCC/1.4(use for contactor selection)(Amps):	20.0						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	17.9						
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**

<b>Refrigerant</b>	<b>Voltage</b>	<b>Phase</b>	<b>Frequency</b>	<b>Application</b>
R-22 HCFC	380/420	3	50	High Temperature, Low Condensing
R-22 HCFC	460	3	60	High Temperature, Low Condensing
R-507 HFC	460	3	60	Medium Temp, Low Condensing
R-507 HFC	380/420	3	50	Medium Temp, Low Condensing