

ZB58KQE-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):	127.16
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)	14038	20251	Overall Height (mm):	477.52
Power (W):	6910	7790	Mounting Length (mm):	190.50
Current (Amps):	12.85	14	Mounting Width (mm):	190.50
EER(BTU/Wh):	11.72	15.12	Mounting Height (mm):	497.08
Mass Flow (lbs/hr):	127.26	214.20	Suction Size (mm),Type:	279.40 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	177.80 / 203.20 Stub
Sound Power (dBA):	79 Avg	84 Max	Initial Oil Charge (ml):	2513.79
Vibration mils(peak-peak):	3.0 Avg	4.0 Max	Oil Recharge (ml):	2395.49
Record Date:	2009-02-13		Net Weight (kg):	57.15
			Internal Free Volume (cm <sup>3</sup> ):	10471.29
			Horse Power:	8.0
			*Overall compressor height on Copeland Brand Product's specified mounting grommets.	

Electrical		Capacitors					
LRA High* (Amps):	95.0	Type	Part No	Low MFD	High MFD	Volts	User Description
LRA Low*(Amps):	86.0	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	23						
Max Operating Current (Amps):	15.9						
RLA, MCC/1.4(use for contactor selection)(Amps):	16.4						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	14.7						
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-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

### 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

### ZB58KQE-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 %					11,250	13,650	16,350	17,500
					8,900	8,850	8,800	8,780
					15.4	15.4	15.3	15.3
					127	157	192	208
					1.3	1.6	1.9	2.0
					55.6	60.8	64.8	66.2
55.0 (25.7) C P A M E %				10,550	13,000	15,650	18,600	19,850
				7,960	7,930	7,910	7,900	7,880
				14.2	14.2	14.1	14.1	14.1
				105	131	161	195	210
				1.3	1.6	2.0	2.4	2.5
				55.1	60.7	64.9	67.9	68.8
50.0 (23) C P A M E %			9,610	12,000	14,600	17,450	20,700	22,100
			7,120	7,080	7,090	7,100	7,100	7,090
			13.1	13.1	13.1	13.1	13.2	13.1
			86	109	135	164	198	213
			1.4	1.7	2.1	2.5	2.9	3.1
			53.9	60.2	64.9	68.0	70.1	70.6
45.0 (20.4) C P A M E %	7,120	8,450	10,800	13,300	16,050	19,150	22,700	24,200
	6,420	6,360	6,320	6,320	6,360	6,390	6,400	6,390
	12.3	12.2	12.1	12.2	12.2	12.3	12.3	12.3
	58	70	90	112	137	166	200	215
	1.1	1.3	1.7	2.1	2.5	3.0	3.6	3.8
	46.1	51.7	59.1	64.4	67.9	70.1	71.1	71.2
40.0 (18.1) C P A M E %	8,070	9,420	11,800	14,450	17,450	20,800	24,600	26,200
	5,660	5,630	5,630	5,670	5,720	5,770	5,770	5,760
	11.4	11.3	11.4	11.4	11.5	11.6	11.6	11.6
	62	73	92	114	138	167	201	216
	1.4	1.7	2.1	2.6	3.1	3.6	4.3	4.6
	52.1	57.0	63.2	67.4	69.8	70.9	70.7	70.3
35.0 (16.1) C P A M E %	8,910	10,300	12,750	15,550	18,700	22,300	26,400	28,200
	5,010	5,000	5,040	5,110	5,170	5,220	5,220	5,200
	10.7	10.7	10.7	10.8	10.9	11.0	11.0	11.0
	64	75	93	115	139	168	202	218
	1.8	2.1	2.5	3.1	3.6	4.3	5.1	5.4
	57.1	61.2	66.1	69.1	70.3	70.1	68.7	67.7
25.0 (12.4) C P A M E %	10,350	11,750	14,450	17,550	21,100	25,200	29,900	
	3,990	4,030	4,110	4,190	4,260	4,280	4,240	
	9.7	9.7	9.8	9.9	10.0	10.1	10.0	
	67	77	95	116	141	170	205	
	2.6	2.9	3.5	4.2	5.0	5.9	7.1	
	63.7	65.9	68.0	68.2	66.7	63.7	59.0	
15.0 (9.4) C P A M E %	11,550	13,100	15,950	19,350	23,300			
	3,250	3,300	3,390	3,470	3,500			
	9.1	9.2	9.3	9.4	9.4			
	68	78	95	116	142			
	3.6	4.0	4.7	5.6	6.7			
	65.1	65.3	64.1	61.1	56.3			
10.0 (8.2) C P A M E %	12,150	13,700	16,700	20,300				
	2,950	3,000	3,080	3,140				
	8.9	9.0	9.1	9.1				
	69	78	96	117				
	4.1	4.6	5.4	6.5				
	63.8	62.9	59.9	55.1				

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