

### Rating Conditions

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

### HIGH TEMPERATURE

Blue Area Restrictions: 8.3°C Min Superheat

### ZB88KQE-TFD

HCFC-22  
 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 (2.2)	-20.0 (2.5)	-15.0 (3)	-10.0 (3.5)	-5.0 (4.2)	0.0 (5)	5.0 (5.8)	7.0 (6.2)
<b>60.0</b> (24.3)								
C						23,000	27,800	29,800
P						11,400	11,400	11,400
A						18.5	18.6	18.6
M						163	199	215
E						2.0	2.4	2.6
%						63.5	67.5	68.8
<b>50.0</b> (19.4)								
C					22,000	26,800	32,000	34,500
P					9,050	9,100	9,150	9,200
A					15.2	15.3	15.4	15.4
M					141	172	209	225
E					2.4	3.0	3.5	3.7
%					67.6	71.5	73.6	73.9
<b>40.0</b> (15.3)								
C			16,500	20,400	24,900	30,000	36,000	38,000
P			7,050	7,150	7,200	7,300	7,400	7,450
A			12.5	12.7	12.8	12.9	13.0	13.1
M			96	119	147	178	214	229
E			2.3	2.9	3.5	4.1	4.8	5.1
%			65.8	70.2	73.7	75.2	74.1	72.7
<b>30.0</b> (11.9)								
C		14,700	18,300	22,600	27,500	33,000	39,000	41,500
P		5,500	5,600	5,700	5,750	5,900	6,100	6,200
A		10.6	10.7	10.8	11.0	11.1	11.4	11.6
M		79	99	123	150	181	216	230
E		2.7	3.3	4.0	4.8	5.6	6.4	6.7
%		67.7	71.4	74.2	74.9	72.4	66.3	62.8
<b>20.0</b> (9.1)								
C	14,200	16,200	20,100	24,500	29,600			
P	4,270	4,340	4,420	4,500	4,610			
A	9.1	9.2	9.3	9.5	9.6			
M	71	82	101	125	151			
E	3.3	3.7	4.5	5.5	6.4			
%	70.9	72.3	73.8	73.1	68.9			
<b>10.0</b> (6.8)								
C	15,600	17,700	21,600					
P	3,260	3,310	3,390					
A	8.1	8.1	8.2					
M	74	84	103					
E	4.8	5.3	6.4					
%	75.0	74.4	71.3					
<b>5.0</b> (5.8)								
C	16,300	18,400	22,300					
P	2,780	2,820	2,900					
A	7.6	7.6	7.8					
M	75	85	103					
E	5.9	6.5	7.7					
%	76.7	74.3	67.5					
<b>0.0</b> (5)								
C	17,000	19,000						
P	2,290	2,340						
A	7.1	7.1						
M	76	86						
E	7.4	8.2						
%	78.2	73.2						
<b>(4.0)</b> (4.4)								
C	17,500							
P	1,900							
A	6.7							
M	77							
E	9.2							
%	79.6							

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

ZB88KQE-TFD

HCFC, R-22, 50 Hz, 3 - Phase, 380/420 V [. Also Available with Variable Frequency Drives](#)

**High Temperature, Low Condensing**

**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):	190.91
Condensing Temp. (°C)	54	49	Displacement (m <sup>3</sup> /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	263.65
Liquid Temp. (°C)	54	49	Overall Width (mm):	284.23
Capacity (Watts)	32531	20955	Overall Height (mm):	546.10
Power (W):	10100	8800	Mounting Length (mm):	190.50
Current (Amps):	16.8	14.9	Mounting Width (mm):	190.50
EER(BTU/Wh):	18.69	13.76	Mounting Height (mm):	552.45
Mass Flow (lbs/hr):	221.76	131.04	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):	3.5 Avg	4.5 Max	Oil Recharge (ml):	3134.84
Record Date:	2006-04-18		Net Weight (kg):	61.24
			Internal Free Volume (cm <sup>3</sup> ):	13257.08
			Horse Power:	12.0
			*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):	31						
Max Operating Current (Amps):	23.0						
RLA, MCC/1.4(use for contactor selection)(Amps):	22.1						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	19.9						
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

Refrigerant	Voltage	Phase	Frequency	Application
R-22 HCFC	460	3	60	High Temperature, Low Condensing