

### 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

### ZB45KQE-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)
<b>60.0</b> (28.7)								
C					8,550	10,250	12,200	13,050
P					6,750	6,700	6,600	6,600
A					12.3	12.3	12.2	12.1
M					96	117	143	155
E					1.3	1.5	1.8	2.0
%					55.8	60.3	64.4	65.9
<b>55.0</b> (25.7)								
C				8,100	9,750	11,700	13,900	14,850
P				6,000	6,000	5,950	5,900	5,850
A				11.3	11.2	11.2	11.1	11.1
M				81	99	120	146	157
E				1.4	1.6	2.0	2.4	2.5
%				55.9	60.4	64.5	68.0	69.2
<b>50.0</b> (23)								
C			7,500	9,100	10,950	13,100	15,500	16,600
P			5,350	5,350	5,300	5,300	5,250	5,200
A			10.3	10.3	10.3	10.3	10.2	10.2
M			68	83	101	123	148	160
E			1.4	1.7	2.1	2.5	3.0	3.2
%			55.9	60.6	64.8	68.4	71.2	72.0
<b>45.0</b> (20.4)								
C	5,950	6,800	8,300	10,050	12,100	14,400	17,100	18,300
P	4,760	4,770	4,760	4,750	4,730	4,700	4,660	4,650
A	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.4
M	49	56	69	85	103	125	150	162
E	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
<b>40.0</b> (18.1)								
C	6,550	7,400	9,050	11,000	13,200	15,700	18,600	19,900
P	4,230	4,240	4,230	4,230	4,210	4,190	4,150	4,140
A	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.7
M	50	57	70	86	105	127	152	164
E	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
<b>35.0</b> (16.1)								
C	7,050	8,000	9,800	11,850	14,200	17,000	20,100	21,400
P	3,760	3,770	3,770	3,760	3,750	3,730	3,700	3,690
A	8.2	8.2	8.3	8.3	8.2	8.2	8.2	8.2
M	51	58	71	87	106	128	154	166
E	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
<b>25.0</b> (12.4)								
C	8,000	9,100	11,100	13,450	16,200	19,300	22,800	
P	2,980	2,980	2,980	2,980	2,980	2,970	2,960	
A	7.3	7.3	7.4	7.4	7.4	7.3	7.3	
M	52	59	73	89	108	130	156	
E	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	
<b>15.0</b> (9.4)								
C	8,850	10,050	12,250	14,900	17,900			
P	2,360	2,370	2,370	2,370	2,380			
A	6.7	6.7	6.7	6.7	6.7			
M	52	59	73	89	109			
E	3.7	4.2	5.2	6.3	7.5			
%	68.4	69.8	70.4	68.6	63.7			
<b>10.0</b> (8.2)								
C	9,200	10,450	12,800	15,500				
P	2,100	2,110	2,110	2,120				
A	6.5	6.5	6.5	6.5				
M	52	59	73	90				
E	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

**ZB45KQE-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):	97.99
Condensing Temp. (°C)	49	54	Displacement (m <sup>3</sup> /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	257.05
Liquid Temp. (°C)	49	54	Overall Width (mm):	245.62
Capacity (Watts)	10551	15240	Overall Height (mm):	437.64
Power (W):	5200	5800	Mounting Length (mm):	190.50
Current (Amps):	10.2	11	Mounting Width (mm):	190.50
EER(BTU/Wh):	11.72	15.12	Mounting Height (mm):	456.69
Mass Flow (lbs/hr):	95.76	160.02	Suction Size (mm),Type:	177.80 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	25.40 / 50.80 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:	2006-08-24		Net Weight (kg):	39.46
			Internal Free Volume (cm <sup>3</sup> ):	5932.09
			Horse Power:	6.0
			*Overall compressor height on Copeland Brand Product's specified mounting grommets.	

Electrical		Capacitors					
LRA High* (Amps):	74.0	Type	Part No	Low MFD	High MFD	Volts	User Description
LRA Low*(Amps):	67.0	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	14.2						
Max Operating Current (Amps):	13.1						
RLA, MCC/1.4(use for contactor selection)(Amps):	10.1						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	9.1						
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