

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

ZB30KQE-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 %					5,850	7,000	8,350	8,950
					4,760	4,720	4,680	4,660
					9.7	9.6	9.6	9.5
					66	80	98	106
					1.2	1.5	1.8	1.9
					54.0	58.3	62.3	63.7
55.0 (25.7) C P A M E %				5,550	6,700	8,000	9,500	10,150
				4,250	4,230	4,200	4,170	4,150
				8.8	8.8	8.8	8.7	8.7
				55	67	82	100	108
				1.3	1.6	1.9	2.3	2.5
			54.1	58.4	62.4	65.8	67.0	
50.0 (23) C P A M E %			5,150	6,250	7,500	8,950	10,600	11,350
			3,790	3,780	3,760	3,740	3,710	3,690
			8.1	8.1	8.1	8.0	8.0	8.0
			46	57	69	84	101	109
			1.4	1.7	2.0	2.4	2.9	3.1
		54.0	58.6	62.6	66.1	68.8	69.6	
45.0 (20.4) C P A M E %	4,100	4,650	5,700	6,900	8,250	9,850	11,700	12,500
	3,370	3,370	3,370	3,360	3,350	3,320	3,300	3,280
	7.5	7.5	7.5	7.5	7.4	7.4	7.4	7.4
	34	38	47	58	70	85	103	111
	1.2	1.4	1.7	2.1	2.5	3.0	3.5	3.8
50.4	53.5	58.3	62.7	66.4	69.3	71.0	71.4	
40.0 (18.1) C P A M E %	4,450	5,050	6,200	7,500	9,000	10,750	12,700	13,600
	2,990	2,990	2,990	2,990	2,980	2,960	2,940	2,930
	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8
	34	39	48	59	72	86	104	112
	1.5	1.7	2.1	2.5	3.0	3.6	4.3	4.6
54.5	57.6	62.2	66.3	69.4	71.4	71.9	71.7	
35.0 (16.1) C P A M E %	4,800	5,450	6,700	8,100	9,700	11,600	13,700	14,650
	2,660	2,660	2,660	2,660	2,650	2,640	2,620	2,610
	6.5	6.5	6.5	6.5	6.5	6.4	6.4	6.4
	35	40	49	60	72	88	105	113
	1.8	2.1	2.5	3.1	3.7	4.4	5.2	5.6
58.2	61.2	65.6	69.0	71.3	72.2	71.1	70.1	
25.0 (12.4) C P A M E %	5,500	6,200	7,600	9,200	11,050	13,150	15,600	
	2,110	2,110	2,110	2,110	2,110	2,100	2,090	
	5.8	5.8	5.8	5.8	5.8	5.8	5.8	
	36	40	50	61	74	89	107	
	2.6	2.9	3.6	4.4	5.3	6.3	7.5	
63.9	66.4	69.5	71.1	70.8	68.0	62.4		
15.0 (9.4) C P A M E %	6,050	6,850	8,400	10,150	12,250			
	1,670	1,670	1,680	1,680	1,680			
	5.3	5.3	5.3	5.3	5.3			
	36	41	50	61	74			
	3.6	4.1	5.0	6.1	7.3			
66.2	67.5	68.1	66.4	61.6				
10.0 (8.2) C P A M E %	6,300	7,150	8,750	10,600				
	1,490	1,490	1,490	1,500				
	5.1	5.1	5.1	5.1				
	36	41	50	61				
	4.2	4.8	5.9	7.1				
65.5	65.9	64.7	60.5					

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

ZB30KQE-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 ³ /Rev):	67.19
Condensing Temp. (°C)	49	54	Displacement (m ³ /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	257.05
Liquid Temp. (°C)	49	54	Overall Width (mm):	245.62
Capacity (Watts)	7210	10375	Overall Height (mm):	437.64
Power (W):	3670	4090	Mounting Length (mm):	190.50
Current (Amps):	8	8.6	Mounting Width (mm):	190.50
EER(BTU/Wh):	11.38	14.61	Mounting Height (mm):	456.69
Mass Flow (lbs/hr):	65.52	109.62	Suction Size (mm),Type:	177.80 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	25.40 / 50.80 Stub
Sound Power (dBA):	70 Avg	75 Max	Initial Oil Charge (ml):	2070.18
Vibration mils(peak-peak):	2.0 Avg	3.0 Max	Oil Recharge (ml):	1951.88
Record Date:	2006-08-23		Net Weight (kg):	35.38
			Internal Free Volume (cm ³):	4195.07
			Horse Power:	4.0
			*Overall compressor height on Copeland Brand Product's specified mounting grommets.	

Electrical		Capacitors					
LRA High* (Amps):	49.3	Type	Part No	Low MFD	High MFD	Volts	User Description
LRA Low*(Amps):	44.3	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	12						
Max Operating Current (Amps):	10.3						
RLA, MCC/1.4(use for contactor selection)(Amps):	8.6						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	7.7						
RPM:	290 0						
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