

ZP103KCE-TFD

HFC, R-410A, 50 Hz, 3 - Phase, 380/420 V . [Also Available with Variable Frequency Drives](#)

Air Conditioning

Production Status: Available for sale to all U.S. customers. Please check with your local Emerson Climate Technologies Representative for international availability.

Performance			Mechanical	
Evaporator Temp. (°C)	7	2	Displacement (cm ³ /Rev):	96.36
Condensing Temp. (°C)	54	49	Displacement (m ³ /Hr):	
Return Gas Temp. (°C)	18	13	Overall Length (mm):	263.65
Liquid Temp. (°C)	46	41	Overall Width (mm):	285.24
Capacity (Watts)	25204	22420	Overall Height (mm):	533.40
Power (W):	7800	6900	Mounting Length (mm):	190.50
Current (Amps):	14.4	13.2	Mounting Width (mm):	190.50
EER(BTU/Wh):	18.69	18.86	Mounting Height (mm):	552.45
Mass Flow (lbs/hr):	160.02	134.82	Suction Size (mm),Type:	330.20 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	177.80 / 203.20 Stub
Sound Power (dBA):	74 Avg	79 Max	Initial Oil Charge (ml):	3253.14
Vibration mils(peak-peak):	3.0 Avg	4.5 Max	Oil Recharge (ml):	3134.84
Record Date:	2019-11-15		Net Weight (kg):	61.24
			Internal Free Volume (cm ³):	13257.08
			Horse Power:	
			*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):	111.0	No data available in table					
LRA Low*(Amps):	100.0						
LRA Half Winding (Amps):							
MCC (Amps):	26						
Max Operating Current (Amps):	21.0						
RLA, MCC/1.4(use for contactor selection)(Amps):	18.6						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	16.7						
RPM:	2900						
Box IP :	21						
UL File No:	SA-2337						
UL File Date:	1996-09-27						

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

Rating Conditions

11.1 K Superheat
8.3 K Subcooling
35 °C Ambient Air Over

50 Hz Operation

AIR CONDITIONING

ZP103KCE-TFD

HFC-410A
COPELAND SCROLL®
TFD 380/420-3-50

Condensing Temperature °C
(Sat. Dew Pt. Pressure, bar)

Evaporating Temperature °C (Sat. Dew Pt. Pressure, bar)

	-28.9(2.8)	-23.3(3.5)	-17.8(4.3)	-12.2(5.3)	-6.7(6.4)	-1.1(7.7)	4.4(9.2)	10.0(10.8)	15.6(12.8)	21.1(14.9)	23.9(16)	26.7(17.3)
65.6 (43.3) C P A M E %							18,400 10,400 17.7 138 1.8 61.7	23,000 10,200 17.5 170 2.2 67.5	27,900 10,200 17.5 204 2.7 70.6			
60.0 (38.3) C P A M E %						16,500 9,100 16.0 115 1.8 60.7	20,700 8,950 15.8 142 2.3 67.3	25,400 8,950 15.8 172 2.9 71.4	30,500 9,000 15.9 205 3.4 72.5	36,500 9,200 16.2 241 3.9 70.5	39,500 9,400 16.4 260 4.2 68.4	43,000 9,600 16.7 281 4.5 65.5
54.4 (33.9) C P A M E %					14,400 8,000 14.6 94 1.8 59.2	18,400 7,900 14.4 119 2.3 66.7	22,800 7,800 14.4 145 2.9 71.7	27,700 7,850 14.4 174 3.5 73.9	33,000 7,950 14.6 207 4.2 72.9	39,500 8,250 14.9 242 4.8 68.7	42,500 8,450 15.2 262 5.1 65.4	46,000 8,650 15.5 282 5.3 61.3
48.9 (29.9) C P A M E %				12,400 7,050 13.4 77 1.8 57.1	16,000 6,950 13.3 98 2.3 65.1	20,200 6,900 13.2 122 2.9 71.1	24,700 6,900 13.2 147 3.6 74.4	29,800 6,950 13.3 176 4.3 74.7	35,500 7,100 13.5 208 5.0 71.5	42,000 7,400 13.9 244 5.7 64.9	45,500 7,650 14.2 263 6.0 60.4	49,500 7,900 14.5 284 6.3 55.0
43.3 (26.2) C P A M E %			10,400 6,200 12.4 62 1.7 54.5	13,800 6,150 12.3 80 2.2 63.1	17,500 6,100 12.2 101 2.9 69.6	21,700 6,050 12.2 124 3.6 73.9	26,500 6,050 12.2 149 4.4 75.4	32,000 6,150 12.4 177 5.2 73.5	38,000 6,350 12.6 210 6.0 67.8	45,000 6,700 13.0 246 6.7 58.7	49,000 6,900 13.3 266 7.1 52.8	
37.8 (22.9) C P A M E %		8,650 5,400 11.5 49 1.6 51.9	11,550 5,450 11.5 65 2.1 60.3	14,950 5,400 11.4 83 2.8 67.3	18,700 5,350 11.4 102 3.5 72.2	23,200 5,350 11.4 125 4.3 74.9	28,100 5,400 11.4 150 5.2 74.4	34,000 5,500 11.6 179 6.2 70.2	40,500 5,700 11.9 212 7.1 61.9			
26.7 (17.3) C P A M E %	7,950 4,060 10.0 42 2.0 56.3	10,450 4,160 10.2 54 2.5 61.9	13,350 4,200 10.2 68 3.2 66.9	16,900 4,200 10.2 85 4.0 70.7	21,000 4,180 10.1 104 5.0 72.6	25,800 4,170 10.1 127 6.2 71.5	31,500 4,210 10.2 152 7.5 66.4	38,000 4,300 10.3 182 8.8 56.4				
21.1 (14.9) C P A M E %	8,650 3,550 9.6 43 2.4 60.9	11,150 3,650 9.7 55 3.1 64.6	14,100 3,680 9.7 68 3.8 68.1	17,800 3,670 9.7 85 4.8 70.5	22,000 3,630 9.6 104 6.1 70.8	27,200 3,610 9.5 128 7.5 67.4	33,000 3,620 9.5 154 9.2 59.1					
10.0 (10.8) C P A M E %	9,650 2,630 8.8 44 3.7 67.3	12,200 2,680 8.8 55 4.6 68.3	15,400 2,650 8.8 69 5.8 69.6	19,400 2,570 8.6 86 7.6 69.4	24,200 2,460 8.4 106 9.8 65.2							

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 @ 380 V