

**ZR144KCE-TFD**

HFC, R-407C, 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 <sup>3</sup> /Rev):	190.91
Condensing Temp. (°C)	54	49	Displacement (m <sup>3</sup> /Hr):	
Return Gas Temp. (°C)	18	13	Overall Length (mm):	263.65
Liquid Temp. (°C)	46	41	Overall Width (mm):	285.24
Capacity (Watts)	34582	29893	Overall Height (mm):	533.40
Power (W):	10150	8870	Mounting Length (mm):	190.50
Current (Amps):	17.65	15.95	Mounting Width (mm):	190.50
EER(BTU/Wh):	19.71	19.54	Mounting Height (mm):	552.45
Mass Flow (lbs/hr):	216.09	179.55	Suction Size (mm),Type:	330.20 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	177.80 / 203.20 Stub
Sound Power (dBA):	75 Avg	80 Max	Initial Oil Charge (ml):	3253.14
Vibration mils(peak-peak):	3.0 Avg	4.5 Max	Oil Recharge (ml):	3134.84
Record Date:	2017-03-23		Net Weight (kg):	61.24
			Internal Free Volume (cm <sup>3</sup> ):	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):	118.0						
LRA Low*(Amps):	110.0	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	31						
Max Operating Current (Amps):	22.3						
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:	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

### ZR144KCE-TFD

HFC-407C - Dew Pt.

COPELAND SCROLL®

TFD 380/420-3-50

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

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

	-30.0 (1.4)	-25.0 (1.7)	-15.0 (2.6)	-10.0 (3.2)	-5.0 (3.9)	0.0 (4.6)	10.0 (6.4)	15.0 (7.6)	21.0 (9.1)
65.0 (28.4) C P A M E %							32,200	39,200	48,800
							13,100	13,100	13,050
							21.8	21.8	21.7
							226	270	329
							2.5	3.0	3.7
							66.2	70.3	73.3
60.0 (25.3) C P A M E %						23,000	35,300	42,600	52,700
						11,600	11,600	11,600	11,550
						19.7	19.7	19.7	19.7
						157	233	276	335
						2.0	3.0	3.7	4.6
					60.3	70.8	74.0	75.5	
50.0 (19.9) C P A M E %				17,000	22,000	27,500	40,800	48,700	59,700
				9,000	9,060	9,100	9,140	9,160	9,220
				16.1	16.2	16.3	16.3	16.4	16.4
				107	136	168	241	284	342
				1.9	2.4	3.0	4.5	5.3	6.5
			57.1	64.4	70.1	76.5	76.8	74.0	
45.0 (17.5) C P A M E %			14,200	18,700	23,800	29,400	43,100	51,400	62,800
			7,920	8,000	8,050	8,090	8,160	8,210	8,310
			14.7	14.8	14.9	14.9	15.0	15.1	15.2
			87	112	140	171	243	286	344
			1.8	2.3	3.0	3.6	5.3	6.3	7.6
		54.4	62.4	68.7	73.3	76.7	75.0	69.3	
40.0 (15.4) C P A M E %			15,650	20,200	25,300	31,100	45,200	53,800	65,600
			7,050	7,130	7,180	7,220	7,320	7,410	7,560
			13.6	13.7	13.8	13.8	13.9	14.0	14.2
			91	116	143	173	244	287	344
			2.2	2.8	3.5	4.3	6.2	7.3	8.7
		59.6	66.5	71.6	74.8	74.5	70.4	61.3	
30.0 (11.8) C P A M E %		10,300	17,950	22,500	27,700	33,700	48,600	57,700	
		5,440	5,630	5,690	5,750	5,820	6,030	6,190	
		11.8	12.0	12.0	12.1	12.2	12.4	12.6	
		57	96	119	144	173	242	284	
		1.9	3.2	4.0	4.8	5.8	8.1	9.3	
	52.0	66.1	70.0	71.9	71.3	61.5	51.5		
25.0 (10.2) C P A M E %		11,300	18,750	23,300	28,500	34,600	49,800		
		4,870	5,040	5,100	5,180	5,260	5,530		
		11.2	11.4	11.4	11.5	11.6	11.9		
		60	96	118	142	170	239		
		2.3	3.7	4.6	5.5	6.6	9.0		
	56.2	66.8	68.9	68.7	65.8	50.3			
20.0 (8.8) C P A M E %		12,100	19,300	23,800	29,100	35,200			
		4,340	4,500	4,580	4,670	4,780			
		10.7	10.9	10.9	11.0	11.1			
		61	95	116	140	167			
		2.8	4.3	5.2	6.2	7.4			
	58.9	65.6	65.7	63.2	57.6				
10.0 (6.4) C P A M E %		12,950	19,600	24,000	29,300				
		3,380	3,550	3,650	3,790				
		10.0	10.1	10.2	10.3				
		60	90	109	131				
		3.8	5.5	6.6	7.7				
	59.5	57.5	52.7	44.8					

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