

ZP120KCE-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):	113.56
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)	29307	26142	Overall Height (mm):	533.40
Power (W):	9110	8020	Mounting Length (mm):	190.50
Current (Amps):	16.6	15	Mounting Width (mm):	190.50
EER(BTU/Wh):	18.69	18.86	Mounting Height (mm):	552.45
Mass Flow (lbs/hr):	186.48	157.50	Suction Size (mm),Type:	330.20 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	177.80 / 203.20 Stub
Sound Power (dBA):	76 Avg	81 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				
LRA High* (Amps):	118.0	Type	Part No	Low MFD	High MFD	Volts User Description
LRA Low*(Amps):	110.0	No data available in table				
LRA Half Winding (Amps):						
MCC (Amps):	28					
Max Operating Current (Amps):	22.0					
RLA, MCC/1.4(use for contactor selection)(Amps):	20.0					
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	17.9					
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

ZP120KCE-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)								21,000	26,200	32,200		
C								12,050	11,900	11,800		
P								21.0	20.8	20.6		
A								158	194	235		
M								1.7	2.2	2.7		
E								60.3	66.1	70.6		
%												
60.0 (38.3)						19,050	23,800	29,400	35,800	43,000	46,900	51,100
C						10,600	10,500	10,400	10,300	10,300	10,350	10,400
P						18.8	18.6	18.5	18.4	18.3	18.3	18.4
A						133	164	199	240	285	310	336
M						1.8	2.3	2.8	3.5	4.2	4.5	4.9
E						60.2	66.2	71.0	73.9	74.5	73.8	72.3
%												
54.4 (33.9)					16,850	21,400	26,500	32,400	39,200	46,700	50,800	55,200
C					9,310	9,220	9,140	9,070	9,060	9,110	9,170	9,260
P					16.9	16.8	16.6	16.5	16.5	16.5	16.6	16.6
A					110	138	169	204	244	287	312	337
M					1.8	2.3	2.9	3.6	4.3	5.1	5.5	6.0
E					59.5	66.1	71.2	74.6	75.6	73.8	71.6	68.6
%												
48.9 (29.9)				14,600	18,700	23,500	28,900	35,100	42,200	50,000	54,300	58,800
C				8,180	8,120	8,050	8,000	7,980	8,010	8,130	8,220	8,350
P				15.2	15.2	15.1	15.0	15.0	15.0	15.1	15.1	15.2
A				91	115	142	172	207	246	289	313	338
M				1.8	2.3	2.9	3.6	4.4	5.3	6.2	6.6	7.0
E				58.2	65.3	71.1	75.0	76.5	75.0	70.3	66.5	61.8
%												
43.3 (26.2)			12,350	16,200	20,500	25,600	31,200	37,600	44,900	52,900	57,400	
C			7,150	7,120	7,080	7,030	7,010	7,030	7,120	7,300	7,430	
P			13.8	13.8	13.7	13.6	13.6	13.6	13.7	13.8	13.9	
A			73	95	118	145	175	209	247	289	312	
M			1.7	2.3	2.9	3.6	4.5	5.4	6.3	7.3	7.7	
E			56.1	64.0	70.3	74.8	76.9	76.0	71.5	63.4	57.8	
%												
37.8 (22.9)		10,250	13,650	17,650	22,200	27,400	33,200	39,800	47,300			
C		6,230	6,250	6,230	6,200	6,170	6,180	6,250	6,390			
P		12.6	12.6	12.5	12.5	12.5	12.5	12.6	12.7			
A		58	77	98	121	148	177	210	247			
M		1.6	2.2	2.8	3.6	4.4	5.4	6.4	7.4			
E		53.5	61.9	68.9	74.0	76.8	76.5	72.6	64.7			
%												
26.7 (17.3)	9,380	12,600	16,200	20,400	25,100	30,500	36,500	43,400				
C	4,690	4,740	4,740	4,740	4,740	4,760	4,840	4,990				
P	10.6	10.7	10.7	10.7	10.7	10.7	10.8	10.9				
A	49	65	82	102	124	149	177	208				
M	2.0	2.7	3.4	4.3	5.3	6.4	7.5	8.7				
E	57.4	65.5	71.7	75.6	76.5	73.9	67.0	55.6				
%												
21.1 (14.9)	10,550	13,750	17,400	21,600	26,300	31,700	37,800					
C	4,060	4,090	4,100	4,100	4,110	4,170	4,280					
P	9.9	9.9	9.9	9.9	9.9	10.0	10.1					
A	53	68	84	104	125	149	176					
M	2.6	3.4	4.2	5.3	6.4	7.6	8.8					
E	64.8	71.2	75.3	76.7	74.6	68.1	57.1					
%												
10.0 (10.8)	12,900	15,950	19,450	23,600	28,200							
C	2,900	2,910	2,910	2,920	2,970							
P	8.6	8.6	8.6	8.6	8.6							
A	59	72	87	104	123							
M	4.4	5.5	6.7	8.1	9.5							
E	81.4	82.4	80.4	74.1	63.0							
%												

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