ZP83KCE-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

Evaporator Temp. (°C)	7	7
Condensing Temp. (°C)	54	38
Return Gas Temp. (°C)	18	18
Liquid Temp. (°C)	46	29
Capacity (Watts)	19929	24618
Power (W):	6400	4400
Current (Amps):	11.7	9.1
EER(BTU/Wh):	18.01	32.28
Mass Flow (lbs/hr):	126.00	131.04
Sound Data @		
Sound Power (dBA):	72 Avg	77 Max
Vibration mils(peak-peak):	2.5 Avg	3.5 Max
Record Date:	2004-05-10	

Mechanical

Displacement (cm^3/Rev):	77.18
Displacement (m^3/Hr):	
Overall Length (mm):	246.13
Overall Width (mm):	246.13
Overall Height (mm):	454.91
Mounting Length (mm):	190.50
Mounting Width (mm):	190.50
Mounting Height (mm):	461.26
Suction Size (mm),Type:	177.80 / 203.20 Stub
Discharge Size (mm),Type:	25.40 / 50.80 Stub
Initial Oil Charge (ml):	1774.44
Oil Recharge (ml):	1656.14
Net Weight (kg):	39.46
Internal Free Volume (cm^3):	4334.36
Horse Power:	

*Overall compressor height on Copeland Brand Product's specified mounting grommets.

Electrical

LRA High* (Amps):	101.0
LRA Low*(Amps):	90.5
LRA Half Winding (Amps):	
MCC (Amps):	19
Max Operating Current (Amps):	15.0
RLA, MCC/1.4(use for contactor selection)(Amps):	13.6
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	12.2
RPM:	2900
Box IP :	21
UL File No:	
UL File Date:	1993-07-26

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

Capacitors

Type	Part No	Low MFD	High MFD	Volts	User Description
No data available in table					

Alternate Applications

Rating Conditions

11.1 K Superheat

8.3 K Subcooling

35 °C Ambient Air Over

50 Hz Operation

AIR CONDITIONING

ZP83KCE-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**							14,750	18,300	22,500			
	P							8,400	8,400	8,400			
	A							14.5	14.4	14.5			
	M							111	135	165			
	E							1.8	2.2	2.7			
	%							60.7	65.7	69.6			
60.0 (38.3)	**C**						13,200	16,400	20,200	24,700	29,800	32,500	36,000
	P						7,350	7,350	7,350	7,350	7,400	7,450	7,500
	A						13.0	13.0	13.0	13.0	13.1	13.2	13.3
	M						92	112	137	165	198	216	236
	E						1.8	2.2	2.8	3.4	4.0	4.4	4.8
	%						60.1	65.1	69.0	71.5	72.0	71.4	70.1
54.4 (33.9)	**C**					11,600	14,550	18,000	22,100	26,800	32,000	35,000	38,500
	P					6,400	6,400	6,400	6,450	6,500	6,550	6,650	6,700
	A					11.7	11.7	11.7	11.8	11.8	12.0	12.1	12.2
	M					76	94	114	139	167	198	216	235
	E					1.8	2.3	2.8	3.4	4.1	4.9	5.3	5.7
	%					59.5	64.8	68.9	71.6	72.2	70.5	68.6	66.0
48.9 (29.9)	**C**				10,050	12,750	15,900	19,500	23,800	28,700	34,500	37,500	41,000
	P				5,600	5,600	5,600	5,650	5,650	5,750	5,850	5,950	6,000
	A				10.6	10.6	10.6	10.7	10.7	10.8	11.0	11.1	11.2
	M				63	78	96	116	140	168	199	216	235
	E				1.8	2.3	2.8	3.5	4.2	5.0	5.9	6.3	6.8
	%				58.7	64.4	68.9	71.8	72.8	71.2	67.0	63.6	59.5
43.3 (26.2)	**C**			8,550	11,050	13,850	17,200	21,000	25,400	30,500	36,500	39,500	
	P			4,840	4,860	4,880	4,910	4,950	5,000	5,100	5,250	5,350	
	A			9.6	9.7	9.7	9.7	9.8	9.9	10.0	10.2	10.3	
	M			51	64	80	98	118	141	168	199	216	
	E			1.8	2.3	2.8	3.5	4.2	5.1	6.0	6.9	7.4	
	%			57.5	63.9	68.8	72.1	73.3	72.0	67.8	60.6	55.6	
37.8 (22.9)	**C**		7,150	9,350	11,950	14,900	18,400	22,300	26,900	32,500			
	P		4,180	4,220	4,240	4,270	4,310	4,370	4,450	4,570			
	A		8.8	8.9	8.9	8.9	9.0	9.0	9.1	9.3			
	M		41	52	66	81	99	119	142	169			
	E		1.7	2.2	2.8	3.5	4.3	5.1	6.1	7.1			
	%		55.5	62.7	68.4	72.1	73.8	72.9	69.0	61.8			
26.7 (17.3)	**C**	6,350	8,500	10,900	13,650	16,800	20,500	24,700	29,600				
	P	3,100	3,150	3,190	3,220	3,260	3,320	3,400	3,510				
	A	7.5	7.6	7.6	7.7	7.7	7.8	7.9	8.0				
	M	33	44	55	68	83	101	120	142				
	E	2.0	2.7	3.4	4.2	5.2	6.2	7.3	8.5				
	%	58.7	66.4	71.6	74.5	74.5	71.3	64.7	54.0				
21.1 (14.9)	**C**	6,950	9,150	11,600	14,450	17,700	21,500	25,800					
	P	2,670	2,710	2,750	2,780	2,830	2,890	2,970					
	A	7.1	7.1	7.2	7.2	7.2	7.3	7.4					
	M	35	45	56	69	84	101	120					
	E	2.6	3.4	4.2	5.2	6.3	7.4	8.7					
	%	65.0	71.4	75.0	75.6	73.0	66.5	56.0					
10.0 (10.8)	**C**	8,100	10,350	12,850	15,800	19,100							
	P	1,880	1,910	1,930	1,960	2,010							
	A	6.3	6.3	6.3	6.4	6.4							
	M	37	47	58	70	84							
	E	4.3	5.4	6.6	8.0	9.5							
	%	78.9	81.3	79.7	73.8	63.2							

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

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Autogenerated Compressor Performance

04-1071

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