ZR160KCE-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

Evaporator Temp. (°C)	7	2
Condensing Temp. (°C)	54	49
Return Gas Temp. (°C)	18	13
Liquid Temp. (°C)	46	41
Capacity (Watts)	37513	31945
Power (W):	11450	10050
Current (Amps):	20.45	18.7
EER(BTU/Wh):	19.03	18.52
Mass Flow (lbs/hr):	234.36	192.15
Sound Data @		
Sound Power (dBA):	78 Avg	83 Max
Vibration mils(peak-peak):	4.0 Avg	5.5 Max
Record Date:	2017-03-23	

Mechanical

Displacement (cm^3/Rev):	209.10
Displacement (m^3/Hr):	
Overall Length (mm):	263.65
Overall Width (mm):	285.24
Overall Height (mm):	551.69
Mounting Length (mm):	190.50
Mounting Width (mm):	190.50
Mounting Height (mm):	584.96
Suction Size (mm),Type:	330.20 / 203.20 Stub
Discharge Size (mm),Type:	177.80 / 203.20 Stub
Initial Oil Charge (ml):	3253.14
Oil Recharge (ml):	3134.84
Net Weight (kg):	64.86
Internal Free Volume (cm^3):	14027.27
Horse Power:	

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

Electrical

LRA High* (Amps):	140.0
LRA Low*(Amps):	133.0
LRA Half Winding (Amps):	
MCC (Amps):	35
Max Operating Current (Amps):	28.0
RLA, MCC/1.4(use for contactor selection)(Amps):	25.0
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	22.4
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.

Capacitors

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

Rating Conditions

11.1 K Superheat

8.3 K Subcooling

35 °C Ambient Air Over

50 Hz Operation

AIR CONDITIONING

ZR160KCE-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)											
		-29.0 (1.5)	**-23.0** (1.9)	**-18.0** (2.3)	**-12.0** (3)	**-7.0** (3.6)	**0.0** (4.6)	**5.0** (5.5)	**10.0** (6.4)	**13.0** (7.1)	**16.0** (7.8)	**18.0** (8.3)	**21.0** (9.1)
65.0 (28.4)	C								35,200	40,200	45,700	49,600	55,800
	P								14,650	14,600	14,550	14,500	14,450
	A								25.0	24.9	24.8	24.8	24.7
	M								247	279	314	338	376
	E								2.4	2.8	3.1	3.4	3.9
	%								64.7	68.3	71.5	73.3	75.6
60.0 (25.3)	C							30,800	38,600	43,800	49,500	53,600	60,100
	P							13,050	13,000	13,000	12,950	12,950	12,950
	A							22.7	22.6	22.6	22.5	22.5	22.4
	M							207	255	286	320	344	383
	E							2.4	3.0	3.4	3.8	4.1	4.7
	%							63.0	69.0	72.1	74.5	75.8	77.2
55.0 (22.5)	C						26,700	33,700	41,800	47,300	53,300	57,500	64,300
	P						11,600	11,600	11,600	11,600	11,600	11,600	11,600
	A						20.7	20.7	20.7	20.6	20.6	20.6	20.5
	M						172	213	261	292	326	350	388
	E						2.3	2.9	3.6	4.1	4.6	5.0	5.5
	%						61.1	67.4	72.5	74.7	76.3	76.9	77.1
49.0 (19.4)	C					21,000	29,600	37,000	45,600	51,300	57,600	62,000	69,100
	P					10,000	10,050	10,100	10,150	10,150	10,200	10,200	10,300
	A					18.6	18.7	18.7	18.8	18.7	18.7	18.7	18.7
	M					130	179	220	267	299	332	356	393
	E					2.1	2.9	3.7	4.5	5.1	5.7	6.1	6.7
	%					57.0	66.3	71.4	74.8	75.8	75.9	75.5	74.0
43.0 (16.7)	C				17,950	23,300	32,400	40,200	49,200	55,200	61,700	66,300	73,700
	P				8,650	8,710	8,780	8,840	8,910	8,970	9,030	9,080	9,160
	A				17.0	17.1	17.1	17.2	17.2	17.3	17.3	17.3	17.4
	M				107	136	185	226	273	303	337	360	397
	E				2.1	2.7	3.7	4.6	5.5	6.2	6.8	7.3	8.0
	%				55.6	62.6	70.1	73.4	74.5	73.9	72.3	70.6	67.0
38.0 (14.6)	C			14,050	19,650	25,200	34,600	42,700	52,000	58,200	64,900	69,700	77,300
	P			7,620	7,700	7,770	7,860	7,940	8,040	8,120	8,200	8,260	8,370
	A			15.8	15.9	16.0	16.1	16.1	16.2	16.3	16.3	16.4	16.5
	M			81	111	141	189	230	276	307	340	363	400
	E			1.9	2.6	3.3	4.4	5.4	6.5	7.2	7.9	8.4	9.2
	%			51.3	60.1	66.1	71.7	73.1	71.9	69.7	66.3	63.4	57.8
27.0 (10.8)	C		13,000	17,100	23,100	29,000	39,100	47,700	57,700				
	P		5,840	5,910	5,990	6,070	6,200	6,330	6,480				
	A		13.9	13.9	14.0	14.0	14.2	14.3	14.5				
	M		69	90	119	148	196	235	281				
	E		2.2	2.9	3.9	4.8	6.3	7.6	8.9				
	%		53.5	60.4	66.5	69.3	68.8	64.7	56.9				
21.0 (9.1)	C		14,350	18,600	24,700	30,900	41,300	50,200					
	P		5,070	5,130	5,210	5,290	5,430	5,570					
	A		13.0	13.0	13.0	13.1	13.3	13.5					
	M		73	93	122	151	198	237					
	E		2.8	3.6	4.7	5.8	7.6	9.0					
	%		57.9	63.5	67.4	67.7	62.8	54.7					
10.0 (6.4)	C		16,600	20,900	27,300	33,700							
	P		3,790	3,820	3,870	3,940							
	A		11.2	11.2	11.2	11.4							
	M		77	97	126	153							
	E		4.4	5.5	7.1	8.6							
	%		63.3	65.7	63.9	57.8							

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