ZR190KCE-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)	43961	38099
Power (W):	13650	12000
Current (Amps):	26.45	24.5
EER(BTU/Wh):	18.69	18.35
Mass Flow (lbs/hr):	274.68	228.69
Sound Data @		
Sound Power (dBA):	82 Avg	87 Max
Vibration mils(peak-peak):	4.0 Avg	5.5 Max
Record Date:	2017-03-23	

Mechanical

Displacement (cm^3/Rev):	249.08
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):	66.23
Internal Free Volume (cm^3):	14027.27
Horse Power:	

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

Electrical

LRA High* (Amps):	174.0
LRA Low*(Amps):	157.0
LRA Half Winding (Amps):	
MCC (Amps):	42
Max Operating Current (Amps):	34.0
RLA, MCC/1.4(use for contactor selection)(Amps):	30.0
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	26.9
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.

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

ZR190KCE-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								41,000	46,300	52,000	56,100	62,600
	P								17,400	17,400	17,400	17,450	17,500
	A								31.2	31.2	31.3	31.3	31.3
	M								288	321	357	382	421
	E								2.4	2.7	3.0	3.2	3.6
	%								63.4	65.9	67.9	69.0	70.0
60.0 (25.3)	C							36,500	44,900	50,500	56,500	60,800	67,600
	P							15,500	15,500	15,500	15,550	15,600	15,650
	A							28.7	28.8	28.8	28.8	28.9	28.9
	M							245	296	330	365	390	429
	E							2.4	2.9	3.3	3.6	3.9	4.3
	%							63.0	67.4	69.4	70.7	71.3	71.5
55.0 (22.5)	C						32,100	39,800	48,600	54,400	60,700	65,100	72,200
	P						13,750	13,800	13,850	13,900	13,950	14,000	14,100
	A						26.6	26.7	26.7	26.7	26.8	26.8	26.9
	M						207	252	303	336	371	396	435
	E						2.3	2.9	3.5	3.9	4.4	4.7	5.1
	%						62.1	67.0	70.4	71.7	72.2	72.1	71.2
49.0 (19.4)	C					25,800	35,400	43,500	52,600	58,700	65,300	70,000	77,400
	P					11,950	12,000	12,050	12,100	12,200	12,300	12,400	12,550
	A					24.5	24.6	24.6	24.6	24.7	24.8	24.8	25.0
	M					160	214	259	309	341	376	401	440
	E					2.2	3.0	3.6	4.3	4.8	5.3	5.7	6.2
	%					58.9	66.6	70.3	72.1	72.2	71.3	70.2	67.7
43.0 (16.7)	C				22,200	28,300	38,300	46,700	56,200	62,600	69,500	74,300	82,100
	P				10,400	10,450	10,500	10,550	10,700	10,800	11,000	11,100	11,350
	A				22.8	22.8	22.9	22.9	23.0	23.1	23.3	23.4	23.6
	M				132	165	219	262	312	344	379	403	442
	E				2.1	2.7	3.7	4.4	5.3	5.8	6.3	6.7	7.2
	%				57.3	63.4	69.4	71.4	71.0	69.5	66.9	64.6	60.1
38.0 (14.6)	C			17,550	24,000	30,200	40,400	49,000	58,900	65,500	72,500	77,600	85,600
	P			9,200	9,280	9,330	9,410	9,530	9,730	9,910	10,100	10,300	10,600
	A			21.6	21.7	21.7	21.8	21.8	22.0	22.2	22.3	22.5	22.8
	M			101	136	168	221	264	313	345	379	403	442
	E			1.9	2.6	3.2	4.3	5.1	6.1	6.6	7.2	7.5	8.1
	%			52.9	60.8	65.9	69.9	70.0	67.3	64.2	60.0	56.5	50.4
27.0 (10.8)	C		15,850	20,400	26,900	33,300	44,000	53,100	63,600				
	P		7,120	7,200	7,280	7,380	7,610	7,890	8,300				
	A		19.8	19.9	19.9	20.0	20.2	20.4	20.8				
	M		84	107	139	170	220	262	309				
	E		2.2	2.8	3.7	4.5	5.8	6.7	7.7				
	%		53.4	59.2	63.8	65.4	63.1	57.6	48.9				
21.0 (9.1)	C		17,000	21,500	28,000	34,400	45,300	54,600					
	P		6,220	6,310	6,430	6,590	6,950	7,340					
	A		19.2	19.2	19.3	19.5	19.8	20.2					
	M		86	108	139	168	217	258					
	E		2.7	3.4	4.4	5.2	6.5	7.4					
	%		55.9	59.8	61.8	60.7	53.9	45.1					
10.0 (6.4)	C		18,150	22,400	28,800	35,300							
	P		4,850	5,000	5,270	5,600							
	A		18.5	18.7	18.9	19.3							
	M		86	105	133	161							
	E		3.7	4.5	5.5	6.3							
	%		55.1	54.3	49.8	42.7							

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