Technical Datasheet

10/29/2019

Model: AVA5535EXN

Product Description

Type:	Reciprocating Compressors
Application:	HBP/AC - Air Conditioning
Refrigerant:	R-22
Voltage/Frequency:	208-230V ~ 60Hz 200-220V ~ 50Hz
Version:	N/A

Product Specifications

Performance

		Refrigeration Capacity			Input Power	(E) Efficiency							
Condition	Test Voltage	(R) Btu/h	(R) kcal/h	(R) W	(I) W	(E) Btu/Wh	(E) kcal/Wh	W/W	EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
ASHRAE (R-22)	230V ~ 60HZ	35200	8870	10314	3415	10.31	2.6	3.02	7.2°C (45°F)	54°C (130°F)	35°C (95°F)	35°C (95°F)	46°C (115°F)

General

Evaporating Temp. Range:	-23.3°C to 12.8°C (-10°F to 55°F)
Motor Torque:	Low Start Torque (LST)
Compressor Cooling:	Fan

Mechanical

Weight:	83
Weight Unit of Measure:	LB
Displacement (cc):	62.356
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	1624

Electrical

Voltage Range (50 Hz):	180-242
Voltage Range (60 Hz):	197-254
Locked Rotor Amps (LRA):	88
Rated Load Amps (RLA 50 Hz):	0
Rated Load Amps (RLA 60 Hz):	15.8
Max. Continuous Current (MCC in Amps):	27.4
Motor Resistance (Ohm) - Main:	.628

Motor Resistance (Ohm) - Start:	2.69
MotorType:	PSC

Overload Type:

Relay Type:

Agency Approval

cURus Recognized

Tecumseh

Performance Data Sheet

AVA5535EXN

General

Model	AVA5535EXN	**Unit of Measure**	Fahrenheit
Condition	ASHRAE	**Voltage/Frequency**	230V~60HZ
RETURN GAS	-6.7°C (20°F) SUPERHEAT	**MotorType**	PSC

Performance Information

EVAP TEMP (°F)		Condensing Temperature (°F)							
		80	**90**	**100**	**110**	**120**	**130**	**140**	**150**
-15	Btu/h	9340	7820						
	Watts	1800	1770						
	Amps	8.99	8.90						
	Lb/h	120	105						
-10	Btu/h	11500	9830	8230					
	Watts	1910	1910	1880					
	Amps	9.45	9.46	9.33					
	Lb/h	147	131	114					
-5	Btu/h	13800	12000	10300					
	Watts	2010	2030	2030					
	Amps	9.87	9.98	9.96					
	Lb/h	176	160	142					
0	Btu/h	16400	14500	12600	10700				
	Watts	2100	2150	2170	2150				
	Amps	10.2	10.4	10.5	10.5				
	Lb/h	208	191	173	154				
5	Btu/h	19200	17200	15100	13100	11100			
	Watts	2190	2250	2300	2310	2280			
	Amps	10.6	10.9	11.0	11.1	11.0			
	Lb/h	242	224	206	186	166			
10	Btu/h	22300	20100	17900	15700	13600	11500		
	Watts	2260	2350	2410	2450	2460	2420		
	Amps	10.9	11.2	11.5	11.7	11.7	11.5		
	Lb/h	279	261	241	221	200	178		
15	Btu/h	25600	23300	20900	18500	16200	14000	11800	
	Watts	2320	2430	2520	2590	2620	2620	2560	
	Amps	11.1	11.6	11.9	12.2	12.3	12.3	12.1	
	Lb/h	318	300	280	259	237	214	190	
20	Btu/h	29200	26700	24200	21700	19100	16700	14300	12000
	Watts	2380	2500	2620	2710	2770	2800	2780	2710
	Amps	11.3	11.9	12.3	12.7	12.9	13.0	13.0	12.7
	Lb/h	361	342	322	300	278	254	229	203
25	Btu/h	33100	30500	27800	25000	22300	19700	17100	14500
	Watts	2420	2570	2700	2820	2910	2970	2980	2950
	Amps	11.5	12.1	12.6	13.1	13.5	13.7	13.8	13.6

	Lb/h	406	387	367	345	322	297	272	245
30	Btu/h	37400	34500	31600	28700	25800	23000	20100	17400
	Watts	2460	2620	2780	2920	3030	3120	3170	3180
	Amps	11.7	12.3	12.9	13.5	13.9	14.3	14.5	14.5
	Lb/h	455	436	415	393	369	344	318	290
35	Btu/h	41900	38900	35800	32700	29600	26500	23500	20500
	Watts	2490	2670	2840	3010	3150	3270	3350	3390
	Amps	11.8	12.5	13.2	13.8	14.4	14.8	15.2	15.3
	Lb/h	508	489	467	445	421	395	368	339
40	Btu/h	46800	43600	40300	37000	33700	30400	27100	23900
	Watts	2510	2710	2900	3080	3250	3400	3510	3590
	Amps	11.9	12.6	13.4	14.1	14.8	15.3	15.8	16.1
	Lb/h	564	545	523	500	476	450	422	393
45	Btu/h	52100	48700	45200	41700	38100	34600	31100	27600
	Watts	2520	2730	2940	3150	3350	3520	3670	3780
	Amps	11.9	12.8	13.6	14.4	15.1	15.8	16.4	16.8
	Lb/h	624	604	583	560	535	508	480	450
50	Btu/h	57700	54100	50400	46700	42900	39100	35400	31700
	Watts	2530	2750	2980	3210	3430	3630	3800	3950
	Amps	12.0	12.9	13.7	14.6	15.4	16.2	16.9	17.4
	Lb/h	688	668	647	624	598	571	543	512
55	Btu/h	63700	59900	56000	52100	48100	44000	40000	36000
	Watts	2530	2760	3010	3260	3500	3730	3930	4110
	Amps	12.0	12.9	13.9	14.8	15.7	16.6	17.4	18.0
	Lb/h	756	736	715	691	666	639	609	578

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.945387E+04	1.763436E+03	7.719391E+00	3.086512E+02
C2	6.980001E+02	5.388401E+00	2.149533E-02	6.606763E+00
C3	-1.129263E+02	-5.187186E+00	9.500622E-03	-7.914497E-01
C4	5.847503E+00	-7.094611E-02	-1.505104E-04	4.005725E-02
C5	-1.305210E+00	-1.005943E-01	-4.369386E-04	8.367568E-03
C6	-9.246012E-01	2.211733E-01	6.366976E-04	-6.504070E-03
C7	1.924795E-02	2.721273E-04	3.041745E-06	2.157213E-04
C8	-1.288946E-02	-1.524189E-03	-8.937685E-06	1.230205E-04
C9	-8.690979E-03	3.145901E-03	1.309683E-05	-1.115742E-04
C10	3.680141E-03	-1.289612E-03	-4.508671E-06	8.163322E-06

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature
Tc = Condensing Temperature