

Model: AKA9442EXD

Product Description

Type:	Reciprocating Compressors
Application:	CBP - Commercial Back Pressure
Refrigerant:	R-22
Voltage/Frequency:	208-230V ~ 60Hz 200V ~ 50Hz
Version:	N/A



Product Specifications

Performance

Condition	Test Voltage	Refrigeration Capacity			Input Power (I) W	(E) Efficiency			EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
		(R) Btu/h	(R) kcal/h	(R) W		(E) Btu/Wh	(E) kcal/Wh	W/W					
ASHRAE (R-22)	230V ~ 60HZ	4200	1058	1231	760	5.53	1.39	1.62	-6.7°C (20°F)	54°C (130°F)	35°C (95°F)	35°C (95°F)	46°C (115°F)

General

Evaporating Temp. Range:	-17.8°C to 10°C (0°F to 50°F)
Motor Torque:	High Start Torque (HST)
Compressor Cooling:	Fan

Mechanical

Weight:	43
Weight Unit of Measure:	LB
Displacement (cc):	15.634
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	453

Electrical

Voltage Range (50 Hz):	180-220
Voltage Range (60 Hz):	187-254
Locked Rotor Amps (LRA):	31
Rated Load Amps (RLA 50 Hz):	0
Rated Load Amps (RLA 60 Hz):	4
Max. Continuous Current (MCC in Amps):	6.64
Motor Resistance (Ohm) - Main:	1.77

Motor Resistance (Ohm) - Start: 10.43
MotorType: CSR

Overload Type:

Relay Type:

Agency Approval

cURus Recognized

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General

Model	AKA9442EXD	Unit of Measure	Fahrenheit
Condition	ASHRAE	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)				
		100	110	120	130
0	Btu/h	3290			
	Watts	596			
	Amps	3.44			
	Lb/h	43.2			
5	Btu/h	3880	3450		
	Watts	611	624		
	Amps	3.50	3.56		
	Lb/h	51.1	47.3		
10	Btu/h	4490	4040	3560	
	Watts	641	660	661	
	Amps	3.59	3.67	3.66	
	Lb/h	59.3	55.7	51.3	
15	Btu/h	5170	4650	4170	3560
	Watts	674	695	710	705
	Amps	3.70	3.77	3.81	3.82
	Lb/h	68.6	64.4	60.3	54.0
20	Btu/h	5980	5340	4800	4200
	Watts	702	719	743	760
	Amps	3.79	3.85	3.92	4.00
	Lb/h	79.6	74.2	69.8	64.0

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.428542E+04	8.924062E+02	-6.747680E+00	4.833540E+02
C2	7.244832E+02	1.125210E+02	4.088864E-01	9.000788E+00
C3	-8.454563E+02	-2.899995E+01	1.979940E-01	-1.241760E+01
C4	9.968336E+00	1.604558E+00	4.114468E-03	1.329289E-01
C5	-1.271724E+01	-2.414896E+00	-8.358285E-03	-1.637185E-01
C6	8.047932E+00	4.728643E-01	-1.017322E-03	1.205486E-01
C7	7.397355E-02	-1.289372E-02	-3.590240E-05	1.073916E-03
C8	-1.074847E-01	-1.134985E-02	-2.777040E-05	-1.445030E-03
C9	6.677390E-02	1.300229E-02	4.319380E-05	8.996183E-04
C10	-2.693241E-02	-2.125064E-03	5.648572E-07	-4.039128E-04

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

Te = Evaporator Temperature

Tc = Condensing Temperature

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General

Model	AKA9442EXD	Unit of Measure	Fahrenheit
Condition	ASHRAE	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	18.3°C (65°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)				
		100	110	120	130
20	Btu/h	6020	5360	4880	4200
	Watts	701	723	745	760
	Amps	3.80	3.86	3.95	4.00
	Lb/h	80.1	74.5	70.8	64.0
25	Btu/h	6880	6170	5640	4940
	Watts	728	755	783	805
	Amps	3.89	3.98	4.09	4.16
	Lb/h	91.1	85.1	81.3	74.6
30	Btu/h	7810	7040	6470	5730
	Watts	749	782	816	845
	Amps	3.96	4.07	4.21	4.29
	Lb/h	103	96.5	92.6	85.9
35	Btu/h	8820	7980	7350	6570
	Watts	766	804	845	881
	Amps	4.01	4.15	4.31	4.41
	Lb/h	115	109	105	97.8
40	Btu/h	9910	9010	8320	7480
	Watts	779	824	872	915
	Amps	4.06	4.22	4.40	4.53
	Lb/h	129	122	117	111
45	Btu/h	11100	10100	9360	8480
	Watts	791	841	896	947
	Amps	4.10	4.29	4.50	4.65
	Lb/h	143	136	131	124
50	Btu/h	12400	11300	10500	9560
	Watts	801	858	920	979
	Amps	4.15	4.37	4.60	4.77
	Lb/h	159	151	146	139

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	9.336245E+04	1.996813E+03	2.013917E+01	1.289148E+03
C2	3.195227E+02	1.292645E+01	-3.817472E-03	3.707337E+00
C3	-2.333489E+03	-4.235420E+01	-4.513760E-01	-3.270738E+01
C4	1.568006E+00	-2.804499E-01	-1.490432E-03	1.007389E-02
C5	-3.014385E+00	-6.772678E-02	8.899004E-04	-3.446765E-02
C6	2.025628E+01	4.004015E-01	3.945648E-03	2.872581E-01

C7	1.362058E-02	1.573715E-03	1.040382E-05	1.688852E-04
C8	-1.257880E-02	4.845544E-04	2.134586E-06	-8.240018E-05
C9	1.197996E-02	7.262169E-04	-2.470369E-06	1.582110E-04
C10	-5.954681E-02	-1.252189E-03	-1.144388E-05	-8.497823E-04

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