

Model: AJA2419ZXA
Product Description

Type: Reciprocating Compressors
Application: LBP - Low Back Pressure
Refrigerant: R-404A/R-407A/R-448A/R-449A/R-452A
Voltage/Frequency: 115V ~ 60Hz 100V ~ 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					
ARI (R-407A)	115V ~ 60HZ	1734	437	508	514	3.37	.85	.99	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-452A)	115V ~ 60HZ	1711	432	502	560	3.05	.77	.9	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-448A)	115V ~ 60HZ	1898	479	556	534	3.55	.9	1.04	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-449A)	115V ~ 60HZ	1898	479	556	534	3.55	.9	1.04	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-404A)	115V ~ 60HZ	1865	470	546	600	3.11	.78	.91	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)

General

Evaporating Temp. Range: -40°C to -12.2°C (-40°F to 10°F)
Motor Torque: High Start Torque (HST)
Compressor Cooling: Fan

Mechanical

Weight: 53
Weight Unit of Measure: LB
Displacement (cc): 15.208
Oil Type: Polyolester
Viscosity (cSt): 32
Oil Charge (cc): 782

Electrical

Voltage Range (50 Hz): 90-110
Voltage Range (60 Hz): 103-127
Locked Rotor Amps (LRA): 68

Rated Load Amps (RLA 50 Hz):	0
Rated Load Amps (RLA 60 Hz):	6.7
Max. Continuous Current (MCC in Amps):	12.6
Motor Resistance (Ohm) - Main:	.48
Motor Resistance (Ohm) - Start:	3.06
Motor Type:	CSR
Overload Type:	
Relay Type:	

Agency Approval

cURus Recognized



Performance Data Sheet

AJA2419ZX

General

Model	AJA2419ZX	Unit of Measure	Fahrenheit
Condition	ARI (R-404A)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)					
		100	110	120	130	140
-40	Btu/h	708	532	361	201	55.4
	Watts	322	301	271	235	195
	Amps	4.84	4.74	4.59	4.38	4.12
	Lb/h	14.7	11.7	8.44	4.99	1.61
-35	Btu/h	952	737	528	332	153
	Watts	368	349	322	288	250
	Amps	5.10	5.00	4.85	4.65	4.40
	Lb/h	19.8	16.4	12.5	8.42	4.37
-30	Btu/h	1240	985	740	509	298
	Watts	415	400	375	345	310
	Amps	5.39	5.30	5.16	4.98	4.74
	Lb/h	25.9	22.0	17.7	13.1	8.48
-25	Btu/h	1560	1270	988	724	482
	Watts	463	451	431	404	374
	Amps	5.71	5.63	5.51	5.35	5.14
	Lb/h	32.7	28.5	23.8	18.8	13.7
-20	Btu/h	1900	1580	1260	968	696
	Watts	510	503	487	465	440
	Amps	6.03	5.98	5.89	5.76	5.58
	Lb/h	40.0	35.6	30.7	25.4	19.9
-15	Btu/h	2260	1900	1560	1230	934
	Watts	556	554	544	527	507
	Amps	6.36	6.34	6.29	6.20	6.07
	Lb/h	47.6	43.1	38.0	32.5	26.8
-10	Btu/h	2630	2240	1860	1510	1190
	Watts	600	604	600	590	576
	Amps	6.69	6.71	6.70	6.66	6.59
	Lb/h	55.2	50.8	45.6	40.1	34.2
-5	Btu/h	3000	2580	2170	1790	1440
	Watts	641	652	655	651	645
	Amps	7.01	7.08	7.12	7.14	7.13
	Lb/h	62.7	58.4	53.3	47.8	41.9
0	Btu/h	3360	2910	2480	2070	1700
	Watts	679	697	707	712	713
	Amps	7.30	7.43	7.54	7.63	7.69

	Lb/h	69.9	65.7	60.9	55.4	49.6
5	Btu/h	3710	3230	2770	2340	1940
	Watts	712	739	757	770	780
	Amps	7.58	7.77	7.95	8.11	8.25
	Lb/h	76.4	72.6	68.0	62.8	57.2
10	Btu/h	4020	3520	3040	2590	2170
	Watts	740	775	803	825	844
	Amps	7.82	8.09	8.35	8.59	8.82
	Lb/h	82.1	78.8	74.6	69.7	64.4

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.946647E+03	-5.191423E+02	5.087589E+00	2.194688E+01
C2	1.485688E+02	-7.812023E+00	-2.481855E-02	2.321733E-01
C3	-3.761918E+01	2.582235E+01	2.841325E-02	1.676313E+00
C4	-6.288817E-01	-2.398369E-01	-2.281162E-03	-3.307253E-02
C5	-9.674701E-01	1.403867E-01	4.147103E-04	1.665222E-02
C6	-1.629583E-01	-1.805252E-01	-4.250368E-05	-1.549866E-02
C7	-1.106197E-02	-1.093937E-03	-1.019816E-05	-2.887130E-04
C8	2.967933E-03	1.499412E-03	1.762278E-05	2.140365E-04
C9	1.892701E-03	8.511357E-05	4.064108E-06	-5.232538E-05
C10	8.059824E-04	4.210185E-04	-1.990644E-07	3.526381E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AJA2419ZXA

General

Model	AJA2419ZXA	Unit of Measure	Fahrenheit
Condition	ARI (R-407A)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	822	658				
	Watts	284	276				
	Amps	4.45	4.41				
	Lb/h	11.2	9.67				
-35	Btu/h	1090	885	685			
	Watts	321	315	299			
	Amps	4.70	4.65	4.56			
	Lb/h	14.9	13.1	10.8			
-30	Btu/h	1390	1150	915	688		
	Watts	359	355	342	321		
	Amps	4.96	4.92	4.84	4.71		
	Lb/h	19.2	17.1	14.5	11.6		
-25	Btu/h	1720	1450	1180	918	673	
	Watts	397	396	386	369	346	
	Amps	5.24	5.21	5.13	5.03	4.88	
	Lb/h	23.8	21.5	18.8	15.7	12.4	
-20	Btu/h	2080	1770	1470	1170	900	
	Watts	433	437	431	417	398	
	Amps	5.52	5.50	5.45	5.37	5.25	
	Lb/h	28.7	26.3	23.4	20.2	16.7	
-15	Btu/h	2450	2100	1770	1450	1150	
	Watts	468	476	475	466	451	
	Amps	5.79	5.80	5.78	5.73	5.65	
	Lb/h	33.7	31.3	28.4	25.0	21.4	
-10	Btu/h	2820	2450	2080	1730	1410	1100
	Watts	501	514	517	514	505	493
	Amps	6.06	6.10	6.12	6.11	6.07	6.01
	Lb/h	38.7	36.4	33.4	30.0	26.4	22.5
-5	Btu/h	3190	2790	2400	2020	1670	1340
	Watts	530	549	559	561	558	552
	Amps	6.30	6.39	6.45	6.49	6.51	6.50
	Lb/h	43.5	41.3	38.4	35.1	31.4	27.6
0	Btu/h	3560	3120	2700	2300	1930	1580
	Watts	556	581	597	606	610	610
	Amps	6.53	6.66	6.78	6.88	6.96	7.01

	Lb/h	48.0	46.0	43.3	40.1	36.5	32.7
5	Btu/h	3910	3440	3000	2570	2170	1810
	Watts	577	610	632	648	659	668
	Amps	6.72	6.91	7.09	7.25	7.40	7.53
	Lb/h	52.1	50.3	47.8	44.8	41.3	37.6
10	Btu/h	4230	3740	3270	2820	2400	2010
	Watts	593	633	664	688	706	723
	Amps	6.87	7.13	7.38	7.61	7.84	8.05
	Lb/h	55.5	54.1	51.9	49.1	45.9	42.4

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.386699E+03	-4.445117E+02	4.640201E+00	1.444453E+01
C2	1.381001E+02	-6.688987E+00	-2.263608E-02	1.528069E-01
C3	-3.496840E+01	2.211020E+01	2.591467E-02	1.103280E+00
C4	-5.845685E-01	-2.053586E-01	-2.080563E-03	-2.176698E-02
C5	-8.992988E-01	1.202051E-01	3.782419E-04	1.095981E-02
C6	-1.514757E-01	-1.545734E-01	-3.876603E-05	-1.020058E-02
C7	-1.028251E-02	-9.366755E-04	-9.301364E-06	-1.900190E-04
C8	2.758802E-03	1.283860E-03	1.607308E-05	1.408700E-04
C9	1.759335E-03	7.287786E-05	3.706722E-06	-3.443841E-05
C10	7.491901E-04	3.604940E-04	-1.815593E-07	2.320919E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AJA2419ZXA

General

Model	AJA2419ZXA	Unit of Measure	Fahrenheit
Condition	ARI (R-448A)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	900	720				
	Watts	295	287				
	Amps	4.65	4.61				
	Lb/h	12.3	10.6				
-35	Btu/h	1190	969	750			
	Watts	334	328	311			
	Amps	4.91	4.87	4.77			
	Lb/h	16.3	14.3	11.8			
-30	Btu/h	1520	1260	1000	753		
	Watts	373	370	356	334		
	Amps	5.19	5.15	5.06	4.92		
	Lb/h	21.0	18.7	15.9	12.7		
-25	Btu/h	1890	1590	1290	1010	737	
	Watts	413	412	402	384	360	
	Amps	5.48	5.44	5.37	5.26	5.10	
	Lb/h	26.0	23.5	20.5	17.1	13.5	
-20	Btu/h	2280	1940	1600	1290	986	
	Watts	451	454	448	434	414	
	Amps	5.77	5.75	5.70	5.62	5.49	
	Lb/h	31.4	28.8	25.6	22.1	18.3	
-15	Btu/h	2680	2300	1940	1590	1260	
	Watts	487	495	494	484	470	
	Amps	6.06	6.07	6.05	6.00	5.91	
	Lb/h	36.9	34.2	31.0	27.4	23.4	
-10	Btu/h	3090	2680	2280	1900	1540	1210
	Watts	521	535	538	534	525	513
	Amps	6.34	6.38	6.40	6.39	6.35	6.28
	Lb/h	42.3	39.7	36.5	32.8	28.8	24.6
-5	Btu/h	3500	3050	2620	2210	1830	1470
	Watts	552	571	581	583	580	574
	Amps	6.59	6.68	6.75	6.79	6.81	6.80
	Lb/h	47.6	45.1	42.0	38.4	34.4	30.1
0	Btu/h	3900	3420	2960	2520	2110	1730
	Watts	578	605	621	630	634	635
	Amps	6.83	6.97	7.09	7.19	7.27	7.33

	Lb/h	52.5	50.3	47.3	43.8	39.9	35.7
5	Btu/h	4280	3770	3280	2820	2380	1980
	Watts	601	634	658	674	686	694
	Amps	7.02	7.23	7.42	7.59	7.74	7.87
	Lb/h	56.9	55.0	52.3	49.0	45.2	41.2
10	Btu/h	4630	4100	3580	3090	2630	2210
	Watts	617	659	691	715	735	752
	Amps	7.18	7.45	7.72	7.96	8.20	8.42
	Lb/h	60.7	59.1	56.7	53.7	50.2	46.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	8.087951E+03	-4.623401E+02	4.852777E+00	1.579315E+01
C2	1.512106E+02	-6.957267E+00	-2.367308E-02	1.670737E-01
C3	-3.828811E+01	2.299698E+01	2.710187E-02	1.206288E+00
C4	-6.400642E-01	-2.135950E-01	-2.175878E-03	-2.379925E-02
C5	-9.846732E-01	1.250262E-01	3.955698E-04	1.198307E-02
C6	-1.658559E-01	-1.607729E-01	-4.054197E-05	-1.115296E-02
C7	-1.125867E-02	-9.742433E-04	-9.727476E-06	-2.077601E-04
C8	3.020707E-03	1.335353E-03	1.680942E-05	1.540223E-04
C9	1.926356E-03	7.580083E-05	3.876534E-06	-3.765375E-05
C10	8.203140E-04	3.749526E-04	-1.898768E-07	2.537611E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AJA2419ZXA

General

Model	AJA2419ZXA	Unit of Measure	Fahrenheit
Condition	ARI (R-449A)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	900	720				
	Watts	295	287				
	Amps	4.65	4.61				
	Lb/h	12.3	10.6				
-35	Btu/h	1190	969	750			
	Watts	334	328	311			
	Amps	4.91	4.87	4.77			
	Lb/h	16.3	14.3	11.8			
-30	Btu/h	1520	1260	1000	753		
	Watts	373	370	356	334		
	Amps	5.19	5.15	5.06	4.92		
	Lb/h	21.0	18.7	15.9	12.7		
-25	Btu/h	1890	1590	1290	1010	737	
	Watts	413	412	402	384	360	
	Amps	5.48	5.44	5.37	5.26	5.10	
	Lb/h	26.0	23.5	20.5	17.1	13.5	
-20	Btu/h	2280	1940	1600	1290	986	
	Watts	451	454	448	434	414	
	Amps	5.77	5.75	5.70	5.62	5.49	
	Lb/h	31.4	28.8	25.6	22.1	18.3	
-15	Btu/h	2680	2300	1940	1590	1260	
	Watts	487	495	494	484	470	
	Amps	6.06	6.07	6.05	6.00	5.91	
	Lb/h	36.9	34.2	31.0	27.4	23.4	
-10	Btu/h	3090	2680	2280	1900	1540	1210
	Watts	521	535	538	534	525	513
	Amps	6.34	6.38	6.40	6.39	6.35	6.28
	Lb/h	42.3	39.7	36.5	32.8	28.8	24.6
-5	Btu/h	3500	3050	2620	2210	1830	1470
	Watts	552	571	581	583	580	574
	Amps	6.59	6.68	6.75	6.79	6.81	6.80
	Lb/h	47.6	45.1	42.0	38.4	34.4	30.1
0	Btu/h	3900	3420	2960	2520	2110	1730
	Watts	578	605	621	630	634	635
	Amps	6.83	6.97	7.09	7.19	7.27	7.33

	Lb/h	52.5	50.3	47.3	43.8	39.9	35.7
5	Btu/h	4280	3770	3280	2820	2380	1980
	Watts	601	634	658	674	686	694
	Amps	7.02	7.23	7.42	7.59	7.74	7.87
	Lb/h	56.9	55.0	52.3	49.0	45.2	41.2
10	Btu/h	4630	4100	3580	3090	2630	2210
	Watts	617	659	691	715	735	752
	Amps	7.18	7.45	7.72	7.96	8.20	8.42
	Lb/h	60.7	59.1	56.7	53.7	50.2	46.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	8.087951E+03	-4.623401E+02	4.852777E+00	1.579315E+01
C2	1.512106E+02	-6.957267E+00	-2.367308E-02	1.670737E-01
C3	-3.828811E+01	2.299698E+01	2.710187E-02	1.206288E+00
C4	-6.400642E-01	-2.135950E-01	-2.175878E-03	-2.379925E-02
C5	-9.846732E-01	1.250262E-01	3.955698E-04	1.198307E-02
C6	-1.658559E-01	-1.607729E-01	-4.054197E-05	-1.115296E-02
C7	-1.125867E-02	-9.742433E-04	-9.727476E-06	-2.077601E-04
C8	3.020707E-03	1.335353E-03	1.680942E-05	1.540223E-04
C9	1.926356E-03	7.580083E-05	3.876534E-06	-3.765375E-05
C10	8.203140E-04	3.749526E-04	-1.898768E-07	2.537611E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AJA2419ZXA

General

Model	AJA2419ZXA	Unit of Measure	Fahrenheit
Condition	ARI (R-452A)	Voltage/Frequency	115V~60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	812	649				
	Watts	309	301				
	Amps	4.59	4.55				
	Lb/h	14.3	12.3				
-35	Btu/h	1070	874	676			
	Watts	350	344	326			
	Amps	4.84	4.80	4.70			
	Lb/h	19.0	16.6	13.7			
-30	Btu/h	1370	1140	903	679		
	Watts	392	388	373	350		
	Amps	5.12	5.07	4.98	4.85		
	Lb/h	24.3	21.6	18.4	14.8		
-25	Btu/h	1700	1430	1160	906	665	
	Watts	433	432	421	402	377	
	Amps	5.40	5.37	5.29	5.18	5.03	
	Lb/h	30.2	27.3	23.8	19.9	15.7	
-20	Btu/h	2050	1740	1450	1160	889	
	Watts	473	476	470	455	434	
	Amps	5.69	5.67	5.62	5.54	5.41	
	Lb/h	36.4	33.4	29.8	25.6	21.2	
-15	Btu/h	2410	2080	1750	1430	1130	
	Watts	511	519	518	508	492	
	Amps	5.97	5.98	5.96	5.91	5.83	
	Lb/h	42.8	39.7	36.0	31.7	27.2	
-10	Btu/h	2780	2410	2060	1710	1390	1090
	Watts	546	560	564	560	551	538
	Amps	6.25	6.29	6.31	6.30	6.26	6.19
	Lb/h	49.1	46.1	42.4	38.1	33.4	28.6
-5	Btu/h	3150	2750	2370	2000	1650	1320
	Watts	578	599	609	611	608	602
	Amps	6.50	6.59	6.65	6.70	6.71	6.70
	Lb/h	55.2	52.4	48.8	44.5	39.9	35.0
0	Btu/h	3510	3080	2670	2270	1900	1560
	Watts	607	634	651	661	665	666
	Amps	6.73	6.87	6.99	7.09	7.17	7.23

	Lb/h	60.9	58.3	54.9	50.8	46.3	41.4
5	Btu/h	3860	3400	2960	2540	2150	1780
	Watts	630	665	690	707	719	728
	Amps	6.92	7.12	7.31	7.48	7.63	7.76
	Lb/h	66.1	63.8	60.6	56.8	52.5	47.8
10	Btu/h	4170	3690	3230	2790	2370	1990
	Watts	647	691	724	750	770	788
	Amps	7.08	7.35	7.61	7.85	8.08	8.30
	Lb/h	70.5	68.6	65.8	62.3	58.2	53.8

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.291272E+03	-4.847837E+02	4.783852E+00	1.832757E+01
C2	1.363161E+02	-7.294997E+00	-2.333685E-02	1.938851E-01
C3	-3.451666E+01	2.411334E+01	2.671694E-02	1.399868E+00
C4	-5.770167E-01	-2.239637E-01	-2.144973E-03	-2.761846E-02
C5	-8.876811E-01	1.310954E-01	3.899515E-04	1.390606E-02
C6	-1.495188E-01	-1.685774E-01	-3.996615E-05	-1.294274E-02
C7	-1.014967E-02	-1.021537E-03	-9.589315E-06	-2.411007E-04
C8	2.723162E-03	1.400176E-03	1.657067E-05	1.787393E-04
C9	1.736606E-03	7.948047E-05	3.821475E-06	-4.369628E-05
C10	7.395115E-04	3.931541E-04	-1.871800E-07	2.944837E-05

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

Te = Evaporator Temperature

Tc = Condensing Temperature