



Performance Data Sheet

AE4450Y-AA1A

General

Model	AE4450Y-AA1A	Unit of Measure	Fahrenheit
Condition	ASHRAE(R-513A)	Voltage/Frequency	115V~60HZ
RETURN GAS	35°C (95°F) RETURN GAS	MotorType	CSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
		80	90	100	110	120	130	140	150
5	Btu/h	3190	2990	2780	2570	2350	2140	1940	1750
	Watts	393	410	428	445	459	472	481	486
	Amps	5.45	5.56	5.67	5.78	5.87	5.93	5.96	5.95
	Lb/h	38.6	37.9	36.9	35.8	34.7	33.5	32.3	31.3
10	Btu/h	3680	3440	3190	2940	2690	2450	2220	2000
	Watts	418	436	454	472	489	504	517	526
	Amps	5.61	5.71	5.82	5.93	6.04	6.13	6.20	6.23
	Lb/h	44.6	43.6	42.4	41.1	39.8	38.4	37.1	35.9
15	Btu/h	4210	3930	3640	3350	3070	2790	2520	2270
	Watts	445	462	480	500	519	537	554	569
	Amps	5.79	5.87	5.98	6.10	6.23	6.34	6.45	6.52
	Lb/h	51.2	50.0	48.6	47.0	45.5	43.9	42.5	41.2
20	Btu/h	4800	4470	4140	3810	3480	3170	2870	2580
	Watts	471	488	508	529	550	572	593	612
	Amps	5.98	6.05	6.16	6.28	6.43	6.57	6.71	6.83
	Lb/h	58.4	57.0	55.3	53.6	51.8	50.1	48.4	47.0
25	Btu/h	5430	5060	4680	4310	3940	3580	3240	2920
	Watts	498	515	535	558	582	607	632	656
	Amps	6.18	6.24	6.34	6.48	6.64	6.81	6.99	7.16
	Lb/h	66.3	64.6	62.7	60.7	58.7	56.8	55.0	53.4
30	Btu/h	6110	5680	5260	4840	4430	4030	3650	3290
	Watts	526	543	564	588	615	643	672	702
	Amps	6.39	6.44	6.54	6.69	6.86	7.07	7.28	7.50
	Lb/h	74.9	72.9	70.7	68.5	66.3	64.2	62.2	60.4
35	Btu/h	6830	6360	5880	5420	4960	4510	4090	3680
	Watts	553	570	592	619	648	680	713	748
	Amps	6.61	6.65	6.75	6.91	7.10	7.33	7.58	7.85
	Lb/h	84.1	81.9	79.5	77.0	74.6	72.3	70.1	68.1
40	Btu/h	7600	7070	6550	6030	5520	5030	4560	4110
	Watts	581	598	621	650	682	717	755	795
	Amps	6.84	6.87	6.97	7.14	7.35	7.61	7.90	8.22
	Lb/h	94.1	91.5	88.9	86.2	83.5	81.0	78.6	76.5
45	Btu/h	8420	7830	7250	6680	6120	5580	5060	4570
	Watts	608	626	651	681	716	755	798	843
	Amps	7.07	7.10	7.20	7.38	7.61	7.90	8.23	8.60

	Lb/h	105	102	99.0	96.0	93.2	90.4	87.8	85.5
50	Btu/h	9280	8640	8000	7370	6760	6160	5590	5050
	Watts	636	654	680	712	750	793	840	891
	Amps	7.32	7.34	7.44	7.63	7.88	8.20	8.57	8.99
	Lb/h	116	113	110	107	104	101	97.7	95.2
55	Btu/h	10200	9480	8780	8100	7430	6780	6160	5560
	Watts	663	682	709	744	785	832	884	940
	Amps	7.58	7.58	7.69	7.89	8.16	8.51	8.93	9.39
	Lb/h	128	125	121	118	115	111	108	106

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.114118E+03	2.740089E+02	5.123000E+00	2.142568E+01
C2	1.523940E+02	1.172194E+01	1.209011E-01	1.510179E+00
C3	1.128152E+01	-3.219898E-01	-1.807172E-02	4.017050E-01
C4	1.357984E+00	-1.401733E-03	1.884106E-04	1.274778E-02
C5	-9.943624E-01	-1.517367E-01	-1.932485E-03	-7.524975E-03
C6	-2.588141E-01	2.878802E-02	3.760513E-04	-4.037850E-03
C7	-5.334533E-04	-1.303033E-04	-7.173782E-07	2.119670E-05
C8	-4.766051E-03	2.081696E-04	1.001067E-06	-1.180709E-05
C9	1.603963E-03	8.341653E-04	9.775812E-06	1.672523E-05
C10	7.582193E-04	-1.265477E-04	-1.537523E-06	1.078998E-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

AE4450Y-AA1A

General

Model	AE4450Y-AA1A	Unit of Measure	Fahrenheit
Condition	EN12900(R-134a)	Voltage/Frequency	115V~60HZ
RETURN GAS	20°C (68°F) RETURN GAS	MotorType	CSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
		80	90	100	110	120	130	140	150
20	Btu/h	4120	3840	3550	3270	2990	2720	2460	2210
	Watts	444	460	478	498	518	538	558	576
	Amps	5.74	5.81	5.92	6.04	6.17	6.31	6.45	6.57
	Lb/h	52.9	51.6	50.1	48.5	46.9	45.3	43.9	42.5
25	Btu/h	4660	4340	4020	3690	3380	3070	2780	2500
	Watts	469	485	504	525	548	572	595	618
	Amps	5.93	5.99	6.09	6.23	6.38	6.54	6.71	6.88
	Lb/h	60.1	58.5	56.8	55.0	53.2	51.5	49.8	48.4
30	Btu/h	5240	4880	4510	4150	3800	3460	3130	2820
	Watts	495	511	531	554	579	606	633	661
	Amps	6.13	6.19	6.28	6.42	6.59	6.79	6.99	7.20
	Lb/h	67.8	66.0	64.1	62.1	60.1	58.2	56.4	54.7
35	Btu/h	5860	5450	5050	4650	4250	3870	3510	3160
	Watts	521	537	558	583	610	640	672	704
	Amps	6.35	6.39	6.49	6.63	6.82	7.04	7.29	7.54
	Lb/h	76.2	74.1	72.0	69.8	67.6	65.5	63.5	61.7
40	Btu/h	6520	6070	5620	5170	4740	4310	3910	3530
	Watts	547	563	585	612	642	675	711	749
	Amps	6.57	6.60	6.70	6.86	7.06	7.31	7.59	7.90
	Lb/h	85.2	82.9	80.5	78.1	75.7	73.4	71.2	69.3
45	Btu/h	7220	6720	6220	5730	5250	4790	4340	3920
	Watts	573	590	613	641	674	711	751	794
	Amps	6.80	6.82	6.92	7.09	7.31	7.59	7.91	8.26
	Lb/h	94.9	92.3	89.7	87.0	84.4	81.9	79.6	77.4
50	Btu/h	7960	7410	6860	6320	5800	5290	4800	4330
	Watts	599	616	640	671	706	747	791	839
	Amps	7.03	7.05	7.15	7.33	7.57	7.88	8.24	8.64
	Lb/h	105	102	99.5	96.6	93.8	91.1	88.5	86.3
55	Btu/h	8740	8130	7540	6950	6370	5820	5280	4770
	Watts	624	642	668	700	739	783	832	885
	Amps	7.28	7.29	7.39	7.58	7.84	8.18	8.58	9.02
	Lb/h	116	113	110	107	104	101	98.2	95.7

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.671794E+03	2.580402E+02	4.921971E+00	1.940680E+01
C2	1.307482E+02	1.103881E+01	1.161569E-01	1.367879E+00

C3	9.679116E+00	-3.032248E-01	-1.736258E-02	3.638536E-01
C4	1.165098E+00	-1.320043E-03	1.810173E-04	1.154660E-02
C5	-8.531248E-01	-1.428938E-01	-1.856653E-03	-6.815920E-03
C6	-2.220526E-01	2.711031E-02	3.612949E-04	-3.657376E-03
C7	-4.576825E-04	-1.227095E-04	-6.892279E-07	1.919940E-05
C8	-4.089089E-03	1.960379E-04	9.617843E-07	-1.069454E-05
C9	1.376139E-03	7.855517E-04	9.392204E-06	1.514926E-05
C10	6.505231E-04	-1.191727E-04	-1.477190E-06	9.773275E-06

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

Te = Evaporator Temperature

Tc = Condensing Temperature