

General

AE4430Y-AA1A

Model AE4430Y-AA1A Unit of Measure Celsius
 Condition ASHRAE(R-134a) Voltage/Frequency 115V ~ 60HZ
 RETURN GAS 35°C (95°F) RETURN GAS MotorType CSIR

Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
	30	35	40	45	50	55	60	65	
-15	Btu/h	1790	1710	1580	1410	1210	996	780	575
	Watts (Power)	231	240	247	254	259	262	262	259
	Amps	3.67	3.71	3.75	3.79	3.82	3.83	3.82	3.78
	Lb/h	20.4	20.3	19.4	17.9	15.9	13.8	11.6	9.70
-10	Btu/h	2270	2190	2050	1880	1690	1480	1270	1070
	Watts (Power)	253	263	274	283	291	297	301	302
	Amps	3.80	3.85	3.91	3.97	4.02	4.06	4.08	4.07
	Lb/h	25.5	25.8	25.2	24.1	22.6	20.8	19.1	17.5
-6.7	Btu/h	2630	2540	2390	2220	2010	1800	1580	1380
	Watts (Power)	267	279	291	302	312	321	327	331
	Amps	3.89	3.95	4.02	4.09	4.16	4.22	4.26	4.28
	Lb/h	29.3	29.7	29.3	28.4	27.0	25.4	23.9	22.5
-5	Btu/h	2830	2730	2580	2400	2190	1970	1750	1540
	Watts (Power)	274	287	299	312	323	333	341	346
	Amps	3.93	4.00	4.08	4.16	4.23	4.30	4.36	4.39
	Lb/h	31.4	31.9	31.6	30.7	29.4	27.9	26.4	25.1
0	Btu/h	3510	3370	3190	2980	2740	2490	2250	2020
	Watts (Power)	293	308	324	339	354	369	381	391
	Amps	4.05	4.14	4.24	4.35	4.46	4.56	4.65	4.73
	Lb/h	38.7	39.3	39.1	38.2	37.0	35.5	34.1	32.9
5	Btu/h	4320	4140	3910	3650	3370	3080	2790	2530
	Watts (Power)	308	326	345	364	384	402	420	435
	Amps	4.16	4.27	4.40	4.53	4.68	4.82	4.95	5.07
	Lb/h	48.0	48.5	48.2	47.2	45.9	44.4	42.9	41.6
7.2	Btu/h	4730	4520	4270	3980	3680	3360	3060	2770
	Watts (Power)	313	333	353	375	396	416	436	454
	Amps	4.20	4.32	4.46	4.61	4.77	4.93	5.08	5.22
	Lb/h	52.8	53.2	52.8	51.8	50.4	48.8	47.2	45.8
10	Btu/h	5300	5060	4760	4440	4100	3750	3410	3090
	Watts (Power)	318	340	363	386	410	433	456	477
	Amps	4.23	4.37	4.53	4.70	4.88	5.06	5.24	5.41
	Lb/h	59.8	60.0	59.4	58.3	56.7	55.0	53.2	51.7
15	Btu/h	6480	6150	5780	5380	4960	4540	4130	3740
	Watts (Power)	323	348	375	403	432	460	488	515
	Amps	4.26	4.43	4.62	4.84	5.06	5.29	5.52	5.74
	Lb/h	74.7	74.5	73.5	71.9	70.0	67.8	65.7	63.8

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.583125E+03	2.479343E+02	4.150421E+00	7.175646E+00
C2	2.062379E+02	1.493690E+00	1.296637E-02	1.673012E+00
C3	9.801685E+01	-6.287223E-01	-2.948873E-02	2.139280E+00
C4	4.677794E+00	-1.135634E-01	-8.434877E-04	5.778881E-02
C5	-2.147410E+00	2.027586E-02	-1.048982E-04	-1.501602E-03
C6	-2.756013E+00	9.403291E-02	1.121259E-03	-4.432431E-02
C7	3.459047E-02	-1.523832E-03	-1.537374E-05	7.473494E-04
C8	-6.279988E-02	1.470930E-03	1.523251E-05	-6.247140E-04
C9	7.335857E-03	1.438677E-03	1.480224E-05	1.433562E-05
C10	1.715869E-02	-7.767725E-04	-8.172001E-06	2.692302E-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

AE4430Y-AA1A

General

Performance Data Sheet

Model AE4430Y-AA1A **Unit of Measure** Fahrenheit
Condition ASHRAE(R-134a) **Voltage/Frequency** 115V ~ 60HZ
RETURN GAS 4.4°C (40°F) RETURN GAS **Motor Type** CSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
	80	90	100	110	120	130	140	150	
5	Btu/h	1720	1500	1340	1230	1130	1000	827	566
	Watts	234	245	255	264	271	274	272	264
	Amps	4.03	3.96	3.94	3.95	3.97	3.95	3.89	3.74
	Lb/h	24.7	21.9	20.5	19.8	19.4	18.4	16.2	12.2
10	Btu/h	1950	1710	1540	1420	1300	1170	984	714
	Watts	246	256	268	279	287	293	294	289
	Amps	4.07	4.00	3.99	4.00	4.03	4.02	3.97	3.84
	Lb/h	27.8	24.9	23.5	22.9	22.5	21.5	19.3	15.4
15	Btu/h	2210	1950	1770	1630	1500	1350	1150	869
	Watts	259	270	283	295	305	313	317	316
	Amps	4.14	4.07	4.07	4.10	4.13	4.14	4.11	4.00
	Lb/h	31.5	28.6	27.1	26.4	25.9	24.9	22.7	18.7
20	Btu/h	2510	2230	2020	1870	1720	1550	1330	1030
	Watts	274	285	298	311	323	333	340	341
	Amps	4.21	4.15	4.16	4.20	4.25	4.29	4.28	4.20
	Lb/h	35.7	32.7	31.1	30.3	29.7	28.6	26.3	22.3
25	Btu/h	2840	2530	2310	2120	1950	1760	1510	1190
	Watts	288	299	313	326	340	352	360	365
	Amps	4.26	4.21	4.24	4.30	4.37	4.43	4.45	4.39
	Lb/h	40.5	37.3	35.6	34.6	33.8	32.6	30.2	25.9
30	Btu/h	3200	2870	2610	2390	2190	1970	1700	1350
	Watts	300	311	325	339	354	367	378	385
	Amps	4.25	4.22	4.27	4.35	4.45	4.54	4.59	4.57
	Lb/h	45.9	42.4	40.4	39.3	38.3	36.8	34.2	29.8
35	Btu/h	3590	3220	2930	2680	2440	2190	1880	1500
	Watts	309	320	333	348	363	378	390	400
	Amps	4.17	4.16	4.23	4.35	4.48	4.60	4.68	4.70
	Lb/h	51.8	48.0	45.7	44.3	43.0	41.3	38.4	33.7
40	Btu/h	4010	3590	3260	2970	2700	2410	2070	1640
	Watts	314	323	336	351	367	383	397	408
	Amps	3.98	4.00	4.10	4.25	4.41	4.57	4.70	4.76
	Lb/h	58.2	54.1	51.4	49.7	48.1	46.0	42.8	37.8
45	Btu/h	4440	3980	3610	3270	2960	2620	2240	1780
	Watts	311	320	332	347	363	380	396	409
	Amps	3.66	3.72	3.85	4.03	4.24	4.44	4.61	4.72
	Lb/h	65.0	60.5	57.5	55.3	53.4	50.9	47.3	42.0
50	Btu/h	4890	4390	3960	3580	3210	2830	2400	1890
	Watts	302	309	320	335	351	368	385	400
	Amps	3.19	3.28	3.45	3.67	3.92	4.17	4.39	4.56
	Lb/h	72.4	67.4	63.9	61.3	58.9	56.0	52.0	46.2
55	Btu/h	5360	4800	4320	3880	3460	3030	2550	1990
	Watts	283	288	298	312	329	347	364	381
	Amps	2.53	2.66	2.88	3.15	3.45	3.75	4.02	4.24
	Lb/h	80.2	74.7	70.7	67.6	64.7	61.3	56.8	50.6

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	9.720597E+03	2.787547E+02	9.727442E+00	1.759980E+02	
C2	4.364565E+01	2.978153E+00	2.077653E-02	3.549930E-01	
C3	-2.113530E+02	-3.521181E+00	-1.608875E-01	-4.157640E+00	
C4	1.686502E+00	1.454287E-01	8.860667E-04	2.154985E-02	
C5	-2.044484E-01	-6.421290E-02	-5.991895E-04	4.903652E-04	
C6	1.786068E+00	5.214080E-02	1.484566E-03	3.667781E-02	
C7	-4.392345E-03	-1.938351E-03	-3.502113E-05	-2.260595E-05	
C8	-9.359608E-03	-4.753286E-04	8.914596E-06	-1.127825E-04	
C9	5.830457E-04	4.883689E-04	2.764105E-06	6.012262E-06	
C10	-5.266693E-03	-2.024314E-04	-4.525316E-06	-1.091260E-04	

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

Te = Evaporator Temperature

Tc = Condensing Temperature

AE4430Y-AA1A

General

Performance Data Sheet

Model AE4430Y-AA1A **Unit of Measure** Fahrenheit
Condition ASHRAE(R-134a) **Voltage/Frequency** 115V~ 60HZ
RETURN GAS 18.3°C (65°F) RETURN GAS **MotorType** CSIR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
	80	90	100	110	120	130	140	150	
5	Btu/h	1500	1560	1530	1420	1290	1160	1060	1050
	Watts	242	248	255	263	270	276	280	281
	Amps	3.93	3.94	3.97	4.00	4.04	4.06	4.07	4.06
	Lb/h	17.5	19.5	20.1	19.6	18.7	17.7	17.2	17.8
10	Btu/h	1740	1810	1770	1660	1510	1370	1260	1220
	Watts	254	261	269	278	287	294	300	303
	Amps	3.99	4.00	4.03	4.07	4.11	4.15	4.17	4.18
	Lb/h	20.4	22.7	23.3	22.9	22.0	21.0	20.4	20.8
15	Btu/h	2000	2070	2020	1900	1750	1590	1460	1400
	Watts	265	273	283	293	303	312	320	325
	Amps	4.04	4.06	4.09	4.14	4.19	4.24	4.28	4.30
	Lb/h	23.6	26.0	26.8	26.4	25.5	24.4	23.7	23.9
20	Btu/h	2280	2350	2300	2170	2000	1820	1670	1590
	Watts	276	285	295	307	319	330	340	347
	Amps	4.10	4.11	4.15	4.21	4.27	4.34	4.39	4.43
	Lb/h	27.0	29.6	30.5	30.2	29.2	28.1	27.3	27.3
25	Btu/h	2590	2650	2600	2460	2270	2070	1900	1790
	Watts	286	296	308	321	335	348	360	369
	Amps	4.15	4.17	4.21	4.28	4.36	4.43	4.51	4.57
	Lb/h	30.8	33.5	34.5	34.3	33.3	32.1	31.1	31.0
30	Btu/h	2940	2990	2920	2770	2560	2350	2150	2010
	Watts	295	306	320	335	350	365	379	391
	Amps	4.20	4.22	4.28	4.35	4.44	4.54	4.63	4.71
	Lb/h	35.0	37.8	38.9	38.7	37.7	36.4	35.3	35.0
35	Btu/h	3310	3350	3270	3100	2880	2640	2420	2240
	Watts	303	316	331	348	365	383	399	413
	Amps	4.24	4.27	4.34	4.42	4.53	4.64	4.75	4.86
	Lb/h	39.6	42.6	43.8	43.6	42.5	41.2	39.9	39.4
40	Btu/h	3720	3750	3660	3470	3230	2960	2710	2500
	Watts	310	325	342	361	380	400	419	435
	Amps	4.29	4.32	4.40	4.50	4.62	4.75	4.88	5.01
	Lb/h	44.7	47.9	49.1	49.0	47.9	46.4	45.0	44.2
45	Btu/h	4170	4190	4080	3870	3600	3310	3020	2780
	Watts	317	334	352	373	395	417	438	458
	Amps	4.33	4.37	4.46	4.57	4.71	4.86	5.01	5.17
	Lb/h	50.4	53.7	55.0	54.9	53.7	52.2	50.6	49.6
50	Btu/h	4660	4660	4530	4310	4010	3690	3370	3090
	Watts	323	341	362	385	409	434	457	480
	Amps	4.36	4.42	4.51	4.64	4.80	4.97	5.15	5.33
	Lb/h	56.7	60.1	61.5	61.4	60.2	58.5	56.8	55.6
55	Btu/h	5190	5180	5030	4780	4460	4100	3750	3430
	Watts	329	349	372	397	423	450	477	502
	Amps	4.40	4.46	4.57	4.72	4.89	5.08	5.29	5.50
	Lb/h	63.7	67.2	68.7	68.6	67.3	65.5	63.6	62.2

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-6.987532E+03	3.353125E+02	5.191012E+00	-1.130763E+02	
C2	7.939755E+00	2.539822E+00	3.514291E-02	-1.806368E-01	
C3	2.323385E+02	-3.955328E+00	-4.194573E-02	3.456561E+00	
C4	6.145737E-01	-3.114899E-02	-2.190373E-04	3.230602E-03	
C5	7.379179E-01	-1.279652E-02	-5.141699E-04	1.368965E-02	
C6	-2.084942E+00	4.433492E-02	4.246519E-04	-2.996647E-02	
C7	4.088823E-03	-6.318650E-06	-2.292465E-07	7.672337E-05	
C8	-4.067325E-03	2.166259E-04	2.301604E-06	-1.389786E-05	
C9	-3.767105E-03	1.659055E-04	2.844310E-06	-5.816999E-05	
C10	5.903930E-03	-1.422352E-04	-1.336463E-06	8.408253E-05	

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

Te = Evaporator Temperature

Tc = Condensing Temperature

AE4430Y-AA1A

General

Performance Data Sheet

Model AE4430Y-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	1570	1640	1600	1490	1350	1210	1110	1100
	Watts	262	268	275	284	292	298	302	304
	Amps	4.21	4.22	4.25	4.29	4.32	4.35	4.36	4.34
	Lb/h	18.8	21.0	21.6	21.1	20.1	19.0	18.5	19.1
10	Btu/h	1820	1890	1850	1730	1580	1430	1320	1280
	Watts	274	282	290	300	309	318	324	327
	Amps	4.27	4.28	4.31	4.36	4.40	4.44	4.47	4.47
	Lb/h	22.0	24.4	25.1	24.7	23.6	22.5	21.9	22.3
15	Btu/h	2090	2160	2120	1990	1830	1660	1530	1470
	Watts	286	295	305	316	327	337	345	351
	Amps	4.33	4.34	4.38	4.43	4.49	4.54	4.58	4.61
	Lb/h	25.4	27.9	28.8	28.4	27.4	26.2	25.5	25.7
20	Btu/h	2390	2460	2410	2270	2090	1910	1750	1660
	Watts	298	307	319	331	344	356	367	375
	Amps	4.39	4.40	4.45	4.51	4.57	4.64	4.70	4.75
	Lb/h	29.1	31.8	32.8	32.5	31.4	30.2	29.3	29.3
25	Btu/h	2720	2780	2720	2570	2380	2170	1990	1880
	Watts	308	319	332	347	361	375	388	398
	Amps	4.44	4.46	4.51	4.58	4.66	4.75	4.83	4.89
	Lb/h	33.1	36.0	37.1	36.8	35.8	34.5	33.5	33.3
30	Btu/h	3070	3130	3060	2900	2680	2460	2250	2100
	Watts	318	330	345	361	378	394	409	422
	Amps	4.49	4.52	4.58	4.66	4.75	4.86	4.96	5.04
	Lb/h	37.6	40.7	41.9	41.6	40.5	39.1	38.0	37.6
35	Btu/h	3460	3510	3430	3250	3020	2760	2530	2350
	Watts	327	341	357	376	394	413	431	446
	Amps	4.54	4.58	4.64	4.74	4.85	4.97	5.09	5.20
	Lb/h	42.6	45.8	47.1	46.9	45.8	44.3	42.9	42.3
40	Btu/h	3890	3930	3830	3630	3380	3100	2830	2620
	Watts	335	351	369	389	410	432	452	470
	Amps	4.59	4.63	4.71	4.81	4.94	5.08	5.23	5.37
	Lb/h	48.1	51.5	52.8	52.6	51.5	49.9	48.4	47.6
45	Btu/h	4360	4380	4270	4050	3770	3460	3160	2910
	Watts	342	360	380	403	426	450	473	494
	Amps	4.63	4.68	4.77	4.89	5.04	5.20	5.37	5.53
	Lb/h	54.2	57.7	59.2	59.0	57.8	56.1	54.4	53.4
50	Btu/h	4870	4880	4750	4510	4200	3860	3530	3240
	Watts	349	368	391	416	442	468	494	518
	Amps	4.67	4.73	4.83	4.97	5.14	5.32	5.51	5.71
	Lb/h	61.0	64.7	66.2	66.0	64.7	62.9	61.1	59.8
55	Btu/h	5430	5420	5270	5000	4670	4300	3930	3600
	Watts	355	376	401	428	457	486	514	542
	Amps	4.71	4.78	4.90	5.05	5.24	5.44	5.66	5.89
	Lb/h	68.5	72.3	73.9	73.7	72.4	70.5	68.4	66.9

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-7.314743E+03	3.618480E+02	5.558744E+00	-1.215895E+02	
C2	8.311556E+00	2.740815E+00	3.763244E-02	-1.942365E-01	
C3	2.432184E+02	-4.268340E+00	-4.491717E-02	3.716796E+00	
C4	6.433528E-01	-3.361402E-02	-2.345539E-04	3.473825E-03	
C5	7.724730E-01	-1.380919E-02	-5.505938E-04	1.472031E-02	
C6	-2.182575E+00	4.784344E-02	4.547343E-04	-3.222257E-02	
C7	4.280294E-03	-6.818687E-06	-2.454864E-07	8.249967E-05	
C8	-4.257789E-03	2.337690E-04	2.464650E-06	-1.494419E-05	
C9	-3.943510E-03	1.790347E-04	3.045801E-06	-6.254945E-05	
C10	6.180398E-03	-1.534912E-04	-1.431138E-06	9.041288E-05	

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

Te = Evaporator Temperature

Tc = Condensing Temperature