

General

AE4430E-DS1A

Model AE4430E-DS1A Unit of Measure Celsius  
 Condition ASHRAE(R-22) Voltage/Frequency 127V~ 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
-25	Btu/h	747	755				
	Watts (Power)	237	244				
	Amps	4.88	4.87				
-23.3	Lb/h	10.6	9.69				
	Btu/h	833	834				
	Watts (Power)	244	251				
-20	Amps	4.87	4.86				
	Lb/h	11.7	10.7				
	Btu/h	1020	1010	995	973		
-15	Watts (Power)	257	265	271	277		
	Amps	4.86	4.86	4.86	4.88		
	Lb/h	14.1	13.0	12.6	12.4		
-10	Btu/h	1350	1320	1290	1260	1210	1140
	Watts (Power)	274	284	293	300	307	314
	Amps	4.88	4.87	4.88	4.90	4.92	4.93
-6.7	Lb/h	18.4	17.1	16.5	16.2	15.9	15.3
	Btu/h	1740	1690	1650	1610	1550	1480
	Watts (Power)	288	301	312	321	330	339
-5	Amps	4.90	4.90	4.91	4.94	4.97	5.00
	Lb/h	23.5	22.1	21.4	21.0	20.5	19.8
	Btu/h	2040	1980	1930	1880	1810	1740
0	Watts (Power)	295	310	323	334	345	356
	Amps	4.93	4.93	4.95	4.98	5.02	5.05
	Lb/h	27.5	26.0	25.1	24.6	24.0	23.2
5	Btu/h	2200	2140	2080	2030	1960	1880
	Watts (Power)	298	314	328	341	352	364
	Amps	4.94	4.94	4.96	5.00	5.04	5.08
7.2	Lb/h	29.7	28.1	27.2	26.6	26.0	25.2
	Btu/h	2740	2660	2590	2520	2440	2360
	Watts (Power)	303	323	341	357	373	387
10	Amps	4.97	4.98	5.02	5.06	5.12	5.17
	Lb/h	37.0	35.2	34.1	33.3	32.6	31.6
	Btu/h	3360	3260	3180	3090	3010	2910
15	Watts (Power)	303	328	350	371	390	409
	Amps	4.99	5.01	5.06	5.12	5.20	5.27
	Lb/h	45.5	43.5	42.2	41.2	40.3	39.1
20	Btu/h	3660	3550	3460	3370	3280	3190
	Watts (Power)	301	328	353	376	397	417
	Amps	4.99	5.02	5.07	5.15	5.23	5.31
25	Lb/h	49.7	47.6	46.1	45.1	44.1	42.8
	Btu/h	4060	3950	3850	3750	3660	3560
	Watts (Power)	297	327	355	380	404	427
30	Amps	4.99	5.02	5.09	5.17	5.26	5.36
	Lb/h	55.4	53.1	51.5	50.3	49.2	47.9
	Btu/h	4860	4730	4610	4500	4400	4290
35	Watts (Power)	284	321	354	385	415	443
	Amps	4.95	5.00	5.09	5.19	5.31	5.42
	Lb/h	66.7	64.2	62.3	60.9	59.5	58.0

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.734058E+03	8.672781E+01	5.854537E+00	7.961345E+01	
C2	1.475324E+02	-5.750849E+00	-1.598222E-04	1.922081E+00	
C3	-5.712033E+01	1.085604E+01	-6.780761E-02	-2.777472E+00	
C4	1.630496E+00	-1.803300E-01	-6.131010E-04	2.748948E-02	
C5	-1.383576E+00	2.365316E-01	-1.103466E-05	-1.361156E-02	
C6	1.057059E+00	-1.506864E-01	1.605880E-03	5.793984E-02	
C7	7.237749E-03	-8.053282E-04	-1.342534E-05	1.483913E-04	
C8	-5.776550E-04	2.551351E-03	1.163327E-05	-9.310320E-05	
C9	1.050326E-02	-9.187553E-04	6.642292E-06	7.172077E-05	
C10	-8.611605E-03	9.577879E-04	-1.087796E-05	-4.240093E-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

# AE4430E-DS1A

## General

# Performance Data Sheet

**Model** AE4430E-DS1A      **Unit of Measure** Celsius  
**Condition** EN12900(R-22)      **Voltage/Frequency** 127V~ 60HZ  
**RETURN GAS** 20°C (68°F) RETURN GAS      **MotorType** CSIR

## Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
	30	35	40	45	50	55	60	65	
-15	Btu/h	1430	1350	1260	1170	1080	988	900	816
	Watts (Power)	285	287	289	291	293	293	291	286
	Amps	4.75	4.78	4.79	4.80	4.80	4.79	4.78	4.77
	Lb/h	17.9	17.5	17.0	16.4	15.7	15.0	14.4	13.8
-10	Btu/h	1840	1740	1630	1520	1400	1280	1170	1050
	Watts (Power)	296	302	308	315	322	328	333	335
	Amps	4.79	4.82	4.84	4.86	4.87	4.88	4.88	4.88
	Lb/h	23.1	22.6	22.0	21.3	20.5	19.6	18.7	17.9
-6.7	Btu/h	2160	2040	1910	1780	1650	1510	1380	1240
	Watts (Power)	301	309	318	328	338	348	356	363
	Amps	4.81	4.84	4.87	4.90	4.92	4.94	4.95	4.97
	Lb/h	27.1	26.6	25.9	25.1	24.2	23.2	22.2	21.2
-5	Btu/h	2330	2210	2070	1930	1790	1640	1500	1350
	Watts (Power)	304	312	323	334	345	357	367	376
	Amps	4.82	4.85	4.89	4.92	4.94	4.97	4.99	5.01
	Lb/h	29.3	28.8	28.1	27.3	26.3	25.3	24.2	23.1
0	Btu/h	2910	2760	2600	2430	2250	2070	1890	1710
	Watts (Power)	310	321	334	348	364	379	395	409
	Amps	4.83	4.88	4.93	4.98	5.02	5.06	5.10	5.15
	Lb/h	36.8	36.3	35.5	34.6	33.5	32.2	30.9	29.6
5	Btu/h	3580	3400	3210	3000	2790	2580	2360	2140
	Watts (Power)	315	328	343	360	378	398	418	437
	Amps	4.83	4.90	4.96	5.02	5.09	5.15	5.22	5.29
	Lb/h	45.7	45.1	44.2	43.2	41.9	40.5	39.0	37.5
7.2	Btu/h	3910	3710	3500	3280	3060	2820	2590	2350
	Watts (Power)	318	330	346	364	384	405	427	448
	Amps	4.83	4.90	4.97	5.04	5.12	5.19	5.27	5.35
	Lb/h	50.0	49.4	48.5	47.4	46.1	44.7	43.1	41.4
10	Btu/h	4350	4130	3900	3660	3410	3160	2900	2640
	Watts (Power)	321	334	351	370	391	414	437	461
	Amps	4.81	4.89	4.98	5.06	5.15	5.24	5.33	5.42
	Lb/h	56.0	55.3	54.4	53.3	51.9	50.3	48.6	46.8
15	Btu/h	5210	4950	4680	4400	4110	3810	3510	3200
	Watts (Power)	330	343	360	380	403	428	454	481
	Amps	4.77	4.87	4.97	5.08	5.19	5.31	5.43	5.55
	Lb/h	67.8	67.2	66.2	64.9	63.4	61.7	59.8	57.8

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.499907E+03	3.261265E+02	4.450402E+00	3.387083E+01	
C2	1.543977E+02	1.208423E+00	-6.192518E-03	1.549436E+00	
C3	-7.198367E+00	-3.752712E+00	1.590698E-02	3.267725E-01	
C4	2.206243E+00	7.552312E-02	-6.398328E-04	2.609786E-02	
C5	-8.152274E-01	-7.195870E-02	5.457434E-05	6.614457E-03	
C6	-4.961888E-01	1.323114E-01	-1.267973E-04	-8.907517E-03	
C7	4.035022E-03	1.869400E-03	-6.248358E-06	1.509613E-04	
C8	-1.367546E-02	-2.899071E-03	1.062998E-05	2.136753E-05	
C9	-5.375819E-03	2.258503E-03	7.167318E-06	-1.294819E-04	
C10	2.832977E-03	-8.448585E-04	7.233902E-07	4.413535E-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

# AE4430E-DS1A

## General

# Performance Data Sheet

**Model** AE4430E-DS1A **Unit of Measure** Fahrenheit  
**Condition** EN12900(R-22) **Voltage/Frequency** 127V~ 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	
5	Btu/h	1480	1390	1300	1200	1100	998	900	807
	Watts	284	285	288	291	293	293	291	286
	Amps	4.73	4.76	4.79	4.80	4.80	4.79	4.78	4.76
	Lb/h	18.1	17.7	17.2	16.6	15.9	15.1	14.4	13.7
10	Btu/h	1700	1610	1500	1390	1270	1160	1040	931
	Watts	289	293	298	304	309	313	315	314
	Amps	4.75	4.79	4.81	4.83	4.84	4.84	4.84	4.83
	Lb/h	20.8	20.5	19.9	19.2	18.4	17.5	16.7	15.8
15	Btu/h	1950	1840	1730	1600	1470	1330	1200	1070
	Watts	294	299	307	315	324	331	337	340
	Amps	4.77	4.81	4.84	4.86	4.88	4.89	4.89	4.90
	Lb/h	23.9	23.5	22.9	22.1	21.2	20.3	19.3	18.3
20	Btu/h	2230	2110	1970	1830	1680	1530	1380	1230
	Watts	298	305	314	325	336	347	356	364
	Amps	4.78	4.82	4.86	4.89	4.92	4.94	4.95	4.97
	Lb/h	27.3	26.9	26.3	25.4	24.5	23.4	22.2	21.1
25	Btu/h	2540	2400	2250	2090	1920	1750	1580	1410
	Watts	301	309	320	333	347	361	374	385
	Amps	4.79	4.84	4.88	4.92	4.96	4.99	5.02	5.04
	Lb/h	31.1	30.7	30.0	29.1	28.0	26.9	25.6	24.3
30	Btu/h	2870	2710	2550	2370	2180	1990	1800	1610
	Watts	303	313	326	341	357	373	389	404
	Amps	4.80	4.85	4.90	4.95	4.99	5.04	5.08	5.12
	Lb/h	35.3	34.9	34.1	33.2	32.0	30.7	29.3	27.9
35	Btu/h	3230	3060	2870	2670	2470	2260	2040	1830
	Watts	306	316	330	347	365	384	403	421
	Amps	4.80	4.86	4.92	4.98	5.03	5.09	5.14	5.20
	Lb/h	39.9	39.4	38.6	37.6	36.4	35.0	33.5	31.9
40	Btu/h	3620	3430	3220	3000	2780	2540	2300	2070
	Watts	308	320	335	353	373	394	415	436
	Amps	4.79	4.86	4.93	5.00	5.07	5.14	5.21	5.28
	Lb/h	44.9	44.4	43.6	42.5	41.2	39.7	38.1	36.3
45	Btu/h	4040	3830	3600	3360	3110	2850	2590	2330
	Watts	311	323	339	358	380	403	427	450
	Amps	4.78	4.86	4.94	5.02	5.10	5.18	5.27	5.36
	Lb/h	50.3	49.8	49.0	47.9	46.5	44.9	43.1	41.2
50	Btu/h	4490	4250	4000	3740	3470	3190	2900	2610
	Watts	315	327	343	363	386	411	437	463
	Amps	4.76	4.85	4.94	5.03	5.13	5.23	5.33	5.43
	Lb/h	56.2	55.7	54.9	53.7	52.2	50.5	48.6	46.6
55	Btu/h	4960	4710	4440	4150	3850	3540	3230	2910
	Watts	319	331	348	369	393	419	447	475
	Amps	4.73	4.83	4.94	5.04	5.15	5.26	5.38	5.51
	Lb/h	62.6	62.1	61.2	60.0	58.4	56.6	54.6	52.5

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.234293E+03	4.121444E+02	3.983702E+00	7.550783E+00
C2	4.662722E+01	2.534386E-01	1.035941E-02	3.442441E-01
C3	1.105708E+01	-4.148641E+00	1.556725E-02	2.736936E-01
C4	6.895558E-01	8.444697E-03	-1.529520E-04	5.452691E-03
C5	-4.254583E-02	-1.517992E-02	-1.784625E-04	3.227940E-03
C6	-1.702811E-01	4.235164E-02	-9.036947E-05	-2.765278E-03
C7	6.918762E-04	3.205419E-04	-1.071392E-06	2.588500E-05
C8	-2.344901E-03	-4.970973E-04	1.822699E-06	3.663842E-06
C9	-9.217796E-04	3.872605E-04	1.228964E-06	-2.220198E-05
C10	4.857642E-04	-1.448660E-04	1.240381E-07	7.567789E-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