



Tecumseh

Performance Data Sheet

AE4450Y-FZ1C

General Information

Model	AE4450Y-FZ1C	Refrigerant	R-134a
Test Condition	ASHRAE (R-513A)	Performance Test Voltage	220V ~ 50HZ
Return Gas	35°C (95°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	2720	2550	2370	2190	2010	1830	1660	1500
	Watts	303	316	330	343	354	364	371	374
	Amps	2.27	2.32	2.36	2.41	2.44	2.47	2.48	2.48
	Lb/h	33.0	32.3	31.5	30.6	29.6	28.6	27.6	26.7
10	Btu/h	3140	2930	2720	2510	2300	2090	1890	1710
	Watts	322	336	350	364	377	389	398	406
	Amps	2.34	2.38	2.42	2.47	2.52	2.55	2.58	2.59
	Lb/h	38.1	37.2	36.2	35.1	33.9	32.8	31.7	30.7
15	Btu/h	3590	3350	3110	2860	2620	2380	2150	1940
	Watts	343	356	370	385	400	414	427	438
	Amps	2.41	2.45	2.49	2.54	2.59	2.64	2.68	2.72
	Lb/h	43.7	42.6	41.4	40.1	38.8	37.5	36.2	35.1
20	Btu/h	4090	3810	3530	3250	2970	2700	2440	2200
	Watts	363	376	391	407	424	441	457	472
	Amps	2.49	2.52	2.56	2.62	2.68	2.74	2.79	2.85
	Lb/h	49.9	48.6	47.2	45.7	44.2	42.7	41.3	40.1
25	Btu/h	4630	4310	3990	3670	3360	3060	2760	2490
	Watts	384	397	413	430	449	468	487	506
	Amps	2.57	2.60	2.64	2.70	2.76	2.84	2.91	2.98
	Lb/h	56.6	55.1	53.5	51.8	50.1	48.5	46.9	45.5
30	Btu/h	5210	4850	4490	4130	3780	3440	3110	2800
	Watts	405	418	435	453	474	496	518	541
	Amps	2.66	2.68	2.72	2.78	2.86	2.94	3.03	3.12
	Lb/h	63.9	62.2	60.4	58.5	56.6	54.8	53.1	51.6
35	Btu/h	5830	5420	5020	4620	4230	3850	3490	3140
	Watts	426	440	457	477	499	524	550	576
	Amps	2.75	2.77	2.81	2.88	2.96	3.05	3.16	3.27
	Lb/h	71.8	69.8	67.8	65.7	63.7	61.7	59.8	58.1
40	Btu/h	6480	6030	5590	5140	4710	4290	3890	3510
	Watts	448	461	479	501	525	553	582	613
	Amps	2.85	2.86	2.90	2.97	3.06	3.17	3.29	3.42
	Lb/h	80.3	78.1	75.8	73.5	71.3	69.1	67.1	65.3

45	Btu/h	7180	6680	6190	5700	5220	4760	4320	3890
	Watts	469	483	502	525	552	582	615	650
	Amps	2.95	2.96	3.00	3.07	3.17	3.29	3.43	3.58
	Lb/h	89.4	87.0	84.5	82.0	79.5	77.1	74.9	73.0
50	Btu/h	7920	7370	6820	6290	5770	5260	4770	4310
	Watts	490	504	524	549	578	611	648	687
	Amps	3.05	3.06	3.10	3.18	3.28	3.42	3.57	3.74
	Lb/h	99.1	96.4	93.7	91.0	88.3	85.8	83.4	81.2
55	Btu/h	8690	8090	7490	6910	6340	5780	5250	4740
	Watts	511	526	547	573	605	641	681	725
	Amps	3.16	3.16	3.20	3.28	3.40	3.55	3.72	3.91
	Lb/h	109	107	104	101	97.8	95.0	92.5	90.1

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.656734E+03	2.112228E+02	2.133503E+00	1.828125E+01
C2	1.300112E+02	9.035988E+00	5.034996E-02	1.288545E+00
C3	9.624557E+00	-2.482093E-01	-7.526072E-03	3.427510E-01
C4	1.158531E+00	-1.080542E-03	7.846468E-05	1.087693E-02
C5	-8.483160E-01	-1.169679E-01	-8.047943E-04	-6.420613E-03
C6	-2.208009E-01	2.219156E-02	1.566087E-04	-3.445257E-03
C7	-4.551027E-04	-1.004458E-04	-2.987562E-07	1.808588E-05
C8	-4.066040E-03	1.604698E-04	4.168999E-07	-1.007428E-05
C9	1.368382E-03	6.430254E-04	4.071193E-06	1.427064E-05
C10	6.468563E-04	-9.755065E-05	-6.403103E-07	9.206449E-06

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

T_e = Evaporator Temperature

T_c = Condensing Temperature



Tecumseh

Performance Data Sheet

AE4450Y-FZ1C

General Information

Model	AE4450Y-FZ1C	Refrigerant	R-134a
Test Condition	EN12900	Performance Test Voltage	220V ~ 50HZ
Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)							
		30	35	40	45	50	55	60	65
-15	Btu/h	2180	2060	1930	1790	1630	1470	1290	1090
	Watts (Power)	302	313	325	338	349	359	365	366
	Amps	2.30	2.33	2.37	2.41	2.45	2.47	2.48	2.47
	Lb/h	28.7	28.3	27.7	26.8	25.7	24.3	22.8	21.1
-10	Btu/h	2760	2610	2450	2290	2120	1940	1750	1550
	Watts (Power)	333	344	359	374	390	404	416	423
	Amps	2.40	2.43	2.48	2.53	2.58	2.63	2.66	2.68
	Lb/h	36.3	36.0	35.4	34.6	33.6	32.4	31.0	29.4
-6.7	Btu/h	3210	3030	2850	2660	2470	2270	2060	1850
	Watts (Power)	353	366	382	399	417	435	450	462
	Amps	2.47	2.50	2.55	2.61	2.68	2.74	2.79	2.83
	Lb/h	42.2	41.8	41.2	40.3	39.3	38.1	36.7	35.3
-5	Btu/h	3460	3260	3070	2860	2660	2450	2230	2010
	Watts (Power)	364	377	394	412	432	451	468	483
	Amps	2.50	2.54	2.60	2.66	2.73	2.80	2.86	2.91
	Lb/h	45.6	45.1	44.4	43.5	42.4	41.2	39.8	38.4
0	Btu/h	4290	4040	3780	3520	3270	3010	2760	2500
	Watts (Power)	395	409	429	451	474	499	522	544
	Amps	2.61	2.66	2.72	2.80	2.89	2.98	3.07	3.15
	Lb/h	56.8	56.0	55.0	53.9	52.6	51.2	49.7	48.2
5	Btu/h	5280	4940	4620	4290	3970	3660	3350	3040
	Watts (Power)	425	441	463	489	517	547	577	605
	Amps	2.73	2.78	2.86	2.95	3.06	3.18	3.29	3.41
	Lb/h	70.3	69.0	67.7	66.1	64.5	62.8	61.1	59.2
7.2	Btu/h	5760	5390	5030	4670	4320	3970	3630	3300
	Watts (Power)	437	455	478	505	536	568	601	632
	Amps	2.77	2.83	2.91	3.02	3.14	3.26	3.39	3.52
	Lb/h	77.1	75.6	74.0	72.2	70.4	68.5	66.6	64.6
10	Btu/h	6430	6010	5590	5190	4790	4400	4020	3640
	Watts (Power)	453	471	496	526	559	594	631	667
	Amps	2.83	2.90	2.99	3.10	3.23	3.37	3.52	3.67
	Lb/h	86.5	84.6	82.7	80.7	78.5	76.4	74.2	71.9

15	Btu/h	7780	7250	6730	6220	5730	5250	4780	4330
	Watts (Power)	478	499	528	561	600	641	684	728
	Amps	2.94	3.01	3.11	3.25	3.40	3.57	3.75	3.93
	Lb/h	106	103	100	97.8	95.0	92.2	89.4	86.7

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	5.873371E+03	4.715201E+02	3.087080E+00	5.708904E+01
C2	2.815244E+02	7.746483E+00	3.187337E-02	3.047909E+00
C3	-5.413876E+01	-9.091459E+00	-4.517860E-02	1.402951E-01
C4	4.858409E+00	-5.100886E-02	-1.303371E-04	6.469206E-02
C5	-3.850921E+00	-1.612809E-01	-8.187300E-04	-2.367779E-02
C6	6.067104E-02	2.699770E-01	1.209126E-03	-5.677422E-03
C7	2.466111E-02	-9.680356E-04	-5.871238E-06	4.935508E-04
C8	-6.053167E-02	1.017799E-03	5.384875E-06	-6.064125E-04
C9	1.681672E-02	3.548789E-03	1.687843E-05	1.341484E-04
C10	-3.925883E-04	-1.739291E-03	-7.675903E-06	2.166424E-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



Tecumseh

Performance Data Sheet

AE4450Y-FZ1C

General Information

Model	AE4450Y-FZ1C	Refrigerant	R-134a
Test Condition	EN12900	Performance Test Voltage	220V ~ 50HZ
Return Gas	20°C (68°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	2250	2130	1990	1840	1670	1490	1290	1070
	Watts	296	306	319	333	347	358	365	366
	Amps	2.29	2.31	2.35	2.40	2.44	2.47	2.48	2.47
	Lb/h	28.8	28.6	28.0	27.1	26.0	24.5	22.8	20.9
10	Btu/h	2570	2430	2280	2110	1930	1740	1540	1320
	Watts	313	324	337	353	369	383	393	398
	Amps	2.34	2.37	2.41	2.46	2.51	2.55	2.58	2.58
	Lb/h	32.8	32.7	32.1	31.3	30.2	28.9	27.3	25.5
15	Btu/h	2930	2770	2590	2410	2210	2010	1800	1580
	Watts	330	341	356	373	391	408	422	431
	Amps	2.39	2.42	2.47	2.52	2.58	2.64	2.68	2.70
	Lb/h	37.4	37.2	36.6	35.8	34.7	33.4	31.9	30.2
20	Btu/h	3330	3130	2930	2730	2510	2290	2070	1830
	Watts	348	359	375	393	414	433	451	464
	Amps	2.45	2.48	2.53	2.59	2.66	2.73	2.79	2.83
	Lb/h	42.5	42.1	41.5	40.7	39.6	38.3	36.8	35.1
25	Btu/h	3770	3540	3310	3070	2830	2590	2340	2090
	Watts	365	376	393	414	437	459	480	498
	Amps	2.51	2.54	2.60	2.67	2.75	2.83	2.91	2.97
	Lb/h	48.1	47.7	46.9	46.0	44.8	43.5	41.9	40.3
30	Btu/h	4260	3990	3720	3450	3180	2910	2640	2360
	Watts	381	394	412	435	460	486	510	532
	Amps	2.57	2.60	2.66	2.74	2.84	2.93	3.02	3.10
	Lb/h	54.5	53.8	52.9	51.8	50.5	49.0	47.4	45.7
35	Btu/h	4790	4480	4170	3860	3550	3250	2950	2650
	Watts	398	411	431	455	483	512	540	567
	Amps	2.63	2.67	2.73	2.82	2.93	3.04	3.14	3.24
	Lb/h	61.5	60.6	59.5	58.2	56.7	55.1	53.3	51.5
40	Btu/h	5380	5020	4660	4310	3960	3620	3280	2940
	Watts	414	428	449	476	506	538	571	601
	Amps	2.69	2.73	2.80	2.90	3.02	3.14	3.27	3.39
	Lb/h	69.4	68.1	66.7	65.2	63.5	61.6	59.7	57.7

45	Btu/h	6020	5600	5190	4790	4400	4010	3630	3260
	Watts	430	444	467	496	529	564	601	636
	Amps	2.75	2.80	2.87	2.98	3.11	3.25	3.39	3.53
	Lb/h	78.1	76.5	74.8	72.9	70.9	68.8	66.7	64.4
50	Btu/h	6720	6240	5780	5320	4870	4440	4020	3600
	Watts	444	460	485	516	551	590	631	671
	Amps	2.81	2.86	2.94	3.06	3.20	3.36	3.52	3.68
	Lb/h	87.7	85.7	83.6	81.3	79.0	76.6	74.2	71.7
55	Btu/h	7480	6940	6410	5890	5390	4900	4430	3970
	Watts	458	475	501	535	573	616	660	705
	Amps	2.87	2.92	3.01	3.14	3.29	3.46	3.65	3.83
	Lb/h	98.3	95.8	93.3	90.6	87.9	85.2	82.4	79.6

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.277814E+03	5.032162E+02	3.356836E+00	1.133672E+01
C2	9.315393E+01	7.374693E+00	3.013009E-02	7.198497E-01
C3	1.828587E+00	-8.282039E+00	-3.806762E-02	3.759873E-01
C4	1.425700E+00	-5.393362E-03	2.687176E-05	1.516976E-02
C5	-7.088307E-01	-9.989149E-02	-4.970105E-04	-2.125364E-03
C6	-6.708481E-02	9.248444E-02	4.069279E-04	-2.844972E-03
C7	4.228586E-03	-1.659869E-04	-1.006728E-06	8.462805E-05
C8	-1.037923E-02	1.745197E-04	9.233324E-07	-1.039802E-04
C9	2.883525E-03	6.085029E-04	2.894106E-06	2.300213E-05
C10	-6.731624E-05	-2.982324E-04	-1.316170E-06	3.714719E-06

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

T_e = Evaporator Temperature

T_c = Condensing Temperature



Tecumseh

Performance Data Sheet

AE4450Y-FZ1C

General Information

Model	AE4450Y-FZ1C	Refrigerant	R-134a
Test Condition	EN12900	Performance Test Voltage	240V ~ 50HZ
Return Gas	20°C (68°F) RETURN GAS	Motor Type	CSIR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)							
		30	35	40	45	50	55	60	65
-15	Watts (Capacity)	640	602	564	522	478	429	376	318
	Watts (Power)	302	314	326	338	349	358	365	367
	Amps	2.30	2.33	2.37	2.41	2.45	2.47	2.48	2.47
	Lb/h	13.0	12.8	12.5	12.1	11.7	11.1	10.3	9.49
-10	Watts (Capacity)	811	764	717	669	620	568	513	454
	Watts (Power)	332	345	360	375	390	404	415	423
	Amps	2.40	2.43	2.48	2.53	2.58	2.63	2.66	2.68
	Lb/h	16.5	16.3	16.0	15.6	15.2	14.7	14.1	13.4
-6.7	Watts (Capacity)	942	887	832	777	722	665	606	544
	Watts (Power)	352	367	383	400	418	435	450	462
	Amps	2.46	2.50	2.56	2.62	2.68	2.74	2.79	2.83
	Lb/h	19.2	18.9	18.6	18.2	17.8	17.3	16.7	16.0
-5	Watts (Capacity)	1020	956	896	837	778	717	655	591
	Watts (Power)	363	378	395	413	432	451	468	482
	Amps	2.50	2.54	2.60	2.66	2.73	2.80	2.86	2.91
	Lb/h	20.7	20.4	20.0	19.6	19.2	18.7	18.1	17.4
0	Watts (Capacity)	1260	1180	1110	1030	957	883	810	735
	Watts (Power)	392	409	430	452	475	499	522	543
	Amps	2.61	2.66	2.73	2.81	2.89	2.98	3.07	3.15
	Lb/h	25.9	25.4	24.9	24.3	23.8	23.2	22.6	21.9
5	Watts (Capacity)	1550	1450	1350	1260	1160	1070	982	892
	Watts (Power)	420	440	463	490	518	547	576	605
	Amps	2.71	2.77	2.86	2.95	3.06	3.18	3.29	3.40
	Lb/h	32.1	31.4	30.6	29.9	29.2	28.5	27.7	26.9
7.2	Watts (Capacity)	1700	1580	1470	1370	1260	1160	1060	967
	Watts (Power)	431	452	478	506	537	568	600	632

	Amps	2.76	2.83	2.91	3.02	3.14	3.26	3.39	3.52
	Lb/h	35.3	34.4	33.5	32.7	31.9	31.0	30.2	29.3
10	Watts (Capacity)	1900	1770	1640	1520	1400	1290	1180	1070
	Watts (Power)	445	468	495	526	560	595	631	666
	Amps	2.82	2.89	2.98	3.10	3.23	3.37	3.52	3.67
	Lb/h	39.7	38.6	37.6	36.5	35.6	34.6	33.6	32.6
15	Watts (Capacity)	2300	2140	1980	1830	1680	1540	1400	1270
	Watts (Power)	466	493	524	560	599	641	684	727
	Amps	2.91	3.00	3.11	3.24	3.40	3.57	3.75	3.93
	Lb/h	48.7	47.2	45.8	44.4	43.1	41.8	40.5	39.3

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.839412E+03	4.013707E+02	2.937104E+00	2.954764E+01
C2	8.539739E+01	5.851502E+00	2.778917E-02	1.500187E+00
C3	-2.310268E+01	-4.851415E+00	-3.612431E-02	-1.571599E-01
C4	1.493399E+00	-8.233340E-02	-1.954675E-04	3.147284E-02
C5	-1.236945E+00	-9.187459E-02	-6.694110E-04	-1.513040E-02
C6	1.585222E-01	1.881969E-01	1.034619E-03	1.650117E-03
C7	7.784860E-03	-1.149866E-03	-6.232476E-06	2.364577E-04
C8	-1.901063E-02	1.563903E-03	6.513961E-06	-3.122832E-04
C9	5.905217E-03	2.933815E-03	1.555722E-05	1.001890E-04
C10	-9.918053E-04	-1.231933E-03	-6.593673E-06	-1.612981E-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