

Model: AE4460Y-FZ3C

Product Description

Type:	Reciprocating Compressors
Application:	HBP - High Back Pressure
ProductDescription:	R-134a
Voltage/Frequency:	220-240V ~ 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					
ASHRAE (R-134a)	220V ~ 50HZ	5250	1323	1539	612	8.58	2.16	2.51	7.2°C (45°F)	54°C (130°F)	35°C (95°F)	35°C (95°F)	46°C (115°F)
ASHRAE (R-513A)	220V ~ 50HZ	5310	1338	1556	661	8.04	2.02	2.35	7.2°C (45°F)	54°C (130°F)	35°C (95°F)	35°C (95°F)	46°C (115°F)

General

Evaporating Temp. Range:	-15°C to 15°C (5°F to 59°F)
Motor Torque:	High Start Torque (HST)
Compressor Cooling:	Fan

Mechanical

Weight:	11
Weight Unit of Measure:	KG
Displacement (cc):	15.09
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	386.65

Electrical

Voltage Range (50 Hz):	198-253
Voltage Range (60 Hz):	
Locked Rotor Amps (LRA):	18.5
Rated Load Amps (RLA 50 Hz):	3.05
Rated Load Amps (RLA 60 Hz):	0
Max. Continuous Current (MCC in Amps):	0
Motor Resistance (Ohm) - Main:	4.09
Motor Resistance (Ohm) - Start:	20.81
Motor Type:	CSR
Overload Type:	
Relay Type:	

Agency Approval

CCC Listed, CE Listed, GOST RUSSIA Listed, GOST UKRAINE Listed, VDE Listed



Performance Data Sheet

AE4460Y-FZ3C

General

Model	AE4460Y-FZ3C	Unit of Measure	Fahrenheit
Condition	ASHRAE (R-513A)	Voltage/Frequency	220V ~ 50HZ
RETURN GAS	35°C (95°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
		80	90	100	110	120	130	140	150
5	Btu/h	2950	2770	2590	2390	2200	2010	1840	1670
	Watts	365	374	386	399	411	420	424	422
	Amps	2.06	2.09	2.14	2.19	2.24	2.28	2.29	2.26
	Lb/h	35.8	35.1	34.3	33.4	32.5	31.7	30.9	30.2
10	Btu/h	3370	3180	2970	2750	2530	2310	2100	1900
	Watts	386	395	408	423	436	448	456	458
	Amps	2.14	2.17	2.22	2.28	2.34	2.38	2.41	2.41
	Lb/h	40.9	40.2	39.3	38.4	37.3	36.3	35.2	34.3
15	Btu/h	3830	3610	3380	3140	2890	2640	2390	2160
	Watts	408	418	431	447	463	477	488	494
	Amps	2.23	2.25	2.31	2.37	2.44	2.49	2.54	2.56
	Lb/h	46.5	45.8	44.9	43.9	42.7	41.5	40.3	39.0
20	Btu/h	4310	4080	3830	3560	3290	3010	2720	2450
	Watts	432	442	456	472	490	506	520	530
	Amps	2.32	2.35	2.40	2.46	2.54	2.61	2.67	2.70
	Lb/h	52.5	51.9	51.1	50.0	48.7	47.4	45.9	44.4
25	Btu/h	4840	4590	4310	4020	3720	3400	3090	2770
	Watts	458	467	481	498	517	536	553	566
	Amps	2.43	2.45	2.50	2.57	2.65	2.73	2.80	2.85
	Lb/h	59.0	58.5	57.7	56.6	55.3	53.8	52.2	50.5
30	Btu/h	5390	5120	4830	4510	4180	3830	3480	3130
	Watts	484	493	507	525	545	566	586	602
	Amps	2.54	2.56	2.60	2.67	2.76	2.85	2.94	3.01
	Lb/h	65.9	65.5	64.8	63.8	62.5	60.9	59.2	57.3
35	Btu/h	5980	5690	5380	5030	4670	4300	3910	3520
	Watts	513	520	534	553	574	597	619	639
	Amps	2.67	2.67	2.72	2.79	2.88	2.98	3.08	3.16
	Lb/h	73.2	73.1	72.5	71.5	70.2	68.7	66.8	64.8
40	Btu/h	6610	6300	5960	5590	5200	4790	4370	3940
	Watts	543	549	563	582	604	629	653	676
	Amps	2.80	2.80	2.84	2.91	3.01	3.11	3.22	3.32
	Lb/h	81.0	81.1	80.6	79.8	78.6	77.0	75.1	73.0
45	Btu/h	7260	6930	6570	6170	5750	5310	4850	4380
	Watts	574	579	592	611	635	661	687	713
	Amps	2.95	2.94	2.97	3.04	3.14	3.25	3.37	3.49

	Lb/h	89.3	89.6	89.3	88.6	87.5	86.0	84.1	81.9
50	Btu/h	7940	7600	7210	6790	6340	5870	5370	4860
	Watts	607	611	623	642	666	694	722	750
	Amps	3.11	3.09	3.12	3.18	3.28	3.40	3.53	3.66
	Lb/h	98.0	98.6	98.6	98.1	97.0	95.6	93.7	91.5
55	Btu/h	8660	8290	7880	7440	6960	6450	5920	5370
	Watts	642	644	655	674	699	727	757	788
	Amps	3.28	3.25	3.27	3.33	3.43	3.55	3.69	3.83
	Lb/h	107	108	108	108	107	106	104	102

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.056509E+03	5.558556E+02	3.218357E+00	2.992193E+01
C2	7.740507E+01	8.028261E+00	4.201221E-02	5.922805E-01
C3	8.606527E+00	-7.979707E+00	-4.360815E-02	1.408729E-01
C4	7.702456E-01	5.435876E-02	3.068411E-04	2.960713E-03
C5	2.047186E-01	-1.052113E-01	-6.628730E-04	8.077422E-03
C6	-2.477332E-01	9.087050E-02	4.795196E-04	-2.153856E-03
C7	-8.152800E-04	5.896674E-05	6.517828E-07	3.079452E-06
C8	-4.683335E-04	-3.722143E-04	-2.021302E-06	7.127601E-05
C9	-3.265203E-03	6.653407E-04	3.837480E-06	-5.340851E-05
C10	8.025969E-04	-3.016160E-04	-1.584340E-06	7.200870E-06

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

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AE4460Y-FZ3C

General

Model	AE4460Y-FZ3C	Unit of Measure	Celsius
Condition	EN12900	Voltage/Frequency	240V ~ 50HZ
RETURN GAS	20°C (68°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
		30	35	40	45	50	55	60	65
-6.7	Watts (Capacity)	1120	1040	970	897	826	757	690	625
	Watts (Power)	400	409	421	435	450	466	480	492
	Amps	2.19	2.20	2.24	2.29	2.35	2.41	2.47	2.52
	Lb/h	23.5	22.6	21.8	21.1	20.4	19.7	19.0	18.4
-5	Watts (Capacity)	1200	1120	1040	966	890	815	743	673
	Watts (Power)	410	420	433	449	466	482	498	512
	Amps	2.23	2.25	2.29	2.34	2.41	2.48	2.55	2.60
	Lb/h	25.1	24.3	23.5	22.7	22.0	21.2	20.5	19.9
0	Watts (Capacity)	1460	1370	1280	1190	1100	1010	916	829
	Watts (Power)	439	452	469	488	509	531	552	572
	Amps	2.34	2.37	2.43	2.50	2.59	2.68	2.78	2.87
	Lb/h	30.5	29.6	28.8	28.0	27.2	26.4	25.5	24.7
5	Watts (Capacity)	1750	1650	1540	1440	1330	1220	1120	1010
	Watts (Power)	466	483	503	527	553	579	606	632
	Amps	2.45	2.50	2.57	2.67	2.78	2.89	3.01	3.13
	Lb/h	36.5	35.7	35.0	34.1	33.3	32.4	31.5	30.5
7.2	Watts (Capacity)	1890	1780	1670	1560	1440	1330	1210	1100
	Watts (Power)	478	496	518	544	572	601	630	658
	Amps	2.50	2.56	2.64	2.74	2.86	2.99	3.12	3.25
	Lb/h	39.4	38.7	37.9	37.1	36.3	35.4	34.4	33.4
10	Watts (Capacity)	2080	1960	1840	1720	1590	1470	1350	1220
	Watts (Power)	493	513	538	566	596	628	660	692
	Amps	2.57	2.63	2.72	2.84	2.97	3.11	3.26	3.40
	Lb/h	43.4	42.7	42.0	41.2	40.3	39.4	38.4	37.4
15	Watts (Capacity)	2440	2300	2170	2030	1890	1750	1610	1460
	Watts (Power)	520	544	572	605	640	677	716	754
	Amps	2.71	2.78	2.89	3.02	3.18	3.34	3.52	3.69
	Lb/h	51.2	50.6	50.0	49.3	48.4	47.5	46.5	45.4

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.008158E+03	4.910917E+02	3.005993E+00	3.588038E+01
C2	6.720631E+01	3.667990E+00	1.628085E-02	9.541223E-01
C3	-1.767698E+01	-6.965996E+00	-5.549956E-02	-1.998234E-01
C4	7.056037E-01	-4.563820E-02	1.300746E-05	1.023168E-02
C5	-3.091381E-01	1.160546E-02	-1.133733E-04	9.867937E-03
C6	-2.650290E-02	2.146215E-01	1.355630E-03	8.236090E-04

C7	1.573684E-03	7.586279E-04	8.847464E-06	1.265575E-04
C8	-2.573801E-03	7.173290E-04	7.344722E-07	1.402641E-04
C9	-3.125521E-03	1.778594E-03	1.027016E-05	-1.270046E-04
C10	2.973100E-04	-1.359462E-03	-8.230307E-06	-6.086406E-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



Performance Data Sheet

AE4460Y-FZ3C

General

Model	AE4460Y-FZ3C	Unit of Measure	Celsius
Condition	EN12900 (R-134a)	Voltage/Frequency	240V ~ 50HZ
RETURN GAS	20°C (68°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°C)	Condensing Temperature (°C)								
		30	35	40	45	50	55	60	65
-15	Btu/h	2630	2440	2260	2080	1910	1760	1620	1490
	Watts (Power)	346	351	358	366	374	382	387	390
	Amps	1.99	1.98	1.99	2.00	2.03	2.05	2.06	2.07
	Lb/h	16.2	15.5	14.8	14.2	13.7	13.3	13.0	12.7
-10	Btu/h	3320	3090	2860	2640	2430	2230	2030	1850
	Watts (Power)	379	387	397	408	421	433	443	452
	Amps	2.11	2.12	2.14	2.18	2.22	2.27	2.31	2.34
	Lb/h	20.4	19.6	18.8	18.1	17.5	16.9	16.4	15.9
-6.7	Btu/h	3830	3570	3310	3060	2820	2590	2360	2140
	Watts (Power)	400	409	421	435	450	466	480	492
	Amps	2.19	2.20	2.24	2.29	2.35	2.41	2.47	2.52
	Lb/h	23.5	22.6	21.8	21.1	20.4	19.7	19.0	18.4
-5	Btu/h	4100	3830	3560	3300	3040	2780	2540	2300
	Watts (Power)	410	420	433	449	466	482	498	512
	Amps	2.23	2.25	2.29	2.34	2.41	2.48	2.55	2.60
	Lb/h	25.1	24.3	23.5	22.7	22.0	21.2	20.5	19.9
0	Btu/h	4990	4680	4360	4050	3740	3430	3130	2830
	Watts (Power)	439	452	469	488	509	531	552	572
	Amps	2.34	2.37	2.43	2.50	2.59	2.68	2.78	2.87
	Lb/h	30.5	29.6	28.8	28.0	27.2	26.4	25.5	24.7
5	Btu/h	5990	5630	5270	4900	4540	4180	3820	3460
	Watts (Power)	466	483	503	527	553	579	606	632
	Amps	2.45	2.50	2.57	2.67	2.78	2.89	3.01	3.13
	Lb/h	36.5	35.7	35.0	34.1	33.3	32.4	31.5	30.5
7.2	Btu/h	6460	6080	5700	5310	4920	4540	4150	3760
	Watts (Power)	478	496	518	544	572	601	630	658
	Amps	2.50	2.56	2.64	2.74	2.86	2.99	3.12	3.25
	Lb/h	39.4	38.7	37.9	37.1	36.3	35.4	34.4	33.4
10	Btu/h	7100	6690	6280	5860	5440	5020	4600	4180
	Watts (Power)	493	513	538	566	596	628	660	692
	Amps	2.57	2.63	2.72	2.84	2.97	3.11	3.26	3.40
	Lb/h	43.4	42.7	42.0	41.2	40.3	39.4	38.4	37.4
15	Btu/h	8320	7860	7400	6930	6450	5970	5490	5000
	Watts (Power)	520	544	572	605	640	677	716	754
	Amps	2.71	2.78	2.89	3.02	3.18	3.34	3.52	3.69

	Lb/h	51.2	50.6	50.0	49.3	48.4	47.5	46.5	45.4
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COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	6.858219E+03	4.910917E+02	3.005993E+00	3.588038E+01
C2	2.295216E+02	3.667990E+00	1.628085E-02	9.541223E-01
C3	-6.037005E+01	-6.965996E+00	-5.549956E-02	-1.998234E-01
C4	2.409763E+00	-4.563820E-02	1.300746E-05	1.023168E-02
C5	-1.055762E+00	1.160546E-02	-1.133733E-04	9.867937E-03
C6	-9.051215E-02	2.146215E-01	1.355630E-03	8.236090E-04
C7	5.374413E-03	7.586279E-04	8.847464E-06	1.265575E-04
C8	-8.789991E-03	7.173290E-04	7.344722E-07	1.402641E-04
C9	-1.067421E-02	1.778594E-03	1.027016E-05	-1.270046E-04
C10	1.015367E-03	-1.359462E-03	-8.230307E-06	-6.086406E-06

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

Te = Evaporator Temperature

Tc = Condensing Temperature