

Model: AE4470E-FZ3C
Product Description

Type:	Reciprocating Compressors
Application:	HBP/CBP - High/Commercial Back Pressure
ProductDescription:	R-22
Voltage/Frequency:	220-240V ~ 50Hz
Version:	N/A


Product Specifications
Performance

		Refrigeration Capacity			Input Power	(E) Efficiency			EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
Condition	Test Voltage	(R) Btu/h	(R) kcal/h	(R) W	(I) W	(E) Btu/Wh	(E) kcal/Wh	W/W					
ASHRAE	220V ~ 50HZ	6700	1688	1964	816	8.21	2.07	2.41	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):	13.24
Oil Type:	Synthetic Alkylate
Viscosity (cSt):	32
Oil Charge (cc):	380

Electrical

Voltage Range (50 Hz):	198-253
Voltage Range (60 Hz):	
Locked Rotor Amps (LRA):	18.5
Rated Load Amps (RLA 50 Hz):	3.76
Rated Load Amps (RLA 60 Hz):	0
Max. Continuous Current (MCC in Amps):	0
Motor Resistance (Ohm) - Main:	5.69
Motor Resistance (Ohm) - Start:	10.93
Motor Type:	CSR
Overload Type:	
Relay Type:	

Agency Approval



Performance Data Sheet

AE4470E-FZ3C

General

Model	AE4470E-FZ3C	Unit of Measure	Celsius
Condition	EN12900	Voltage/Frequency	220V ~ 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	3460	3400	3220	2950	2650	2360	2120	1990
	Watts (Power)	478	496	515	534	552	567	580	588
	Amps	2.21	2.30	2.38	2.47	2.55	2.62	2.68	2.73
	Lb/h	43.6	42.7	41.6	40.5	39.3	38.2	37.1	36.2
-10	Btu/h	4310	4180	3950	3660	3360	3100	2910	2850
	Watts (Power)	506	528	550	574	597	619	638	655
	Amps	2.34	2.44	2.54	2.65	2.75	2.85	2.94	3.02
	Lb/h	54.5	53.5	52.3	50.9	49.4	47.9	46.4	44.9
-6.7	Btu/h	4950	4770	4500	4190	3890	3630	3460	3440
	Watts (Power)	524	547	573	600	626	652	677	698
	Amps	2.42	2.53	2.65	2.77	2.89	3.00	3.11	3.22
	Lb/h	62.8	61.7	60.4	58.8	57.1	55.3	53.5	51.7
-5	Btu/h	5310	5100	4810	4490	4170	3920	3760	3760
	Watts (Power)	532	557	584	613	641	670	696	721
	Amps	2.46	2.58	2.70	2.83	2.95	3.08	3.20	3.32
	Lb/h	67.4	66.3	64.9	63.2	61.4	59.5	57.5	55.5
0	Btu/h	6470	6170	5800	5430	5090	4830	4700	4740
	Watts (Power)	556	584	616	649	684	719	753	786
	Amps	2.57	2.70	2.84	3.00	3.15	3.31	3.46	3.62
	Lb/h	82.4	81.2	79.6	77.7	75.5	73.2	70.7	68.2
5	Btu/h	7820	7400	6950	6510	6130	5850	5720	5790
	Watts (Power)	577	609	645	684	725	767	809	850
	Amps	2.66	2.81	2.98	3.15	3.34	3.53	3.72	3.91
	Lb/h	99.7	98.3	96.5	94.3	91.9	89.1	86.2	83.1
7.2	Btu/h	8460	7990	7500	7030	6630	6340	6210	6280
	Watts (Power)	585	619	657	699	743	788	833	878
	Amps	2.70	2.86	3.03	3.22	3.42	3.62	3.83	4.04
	Lb/h	108	107	105	102	99.8	96.9	93.8	90.4
10	Btu/h	9350	8800	8250	7730	7300	6990	6850	6930
	Watts (Power)	595	631	672	717	764	813	863	913
	Amps	2.74	2.91	3.10	3.30	3.52	3.74	3.97	4.20
	Lb/h	119	118	116	113	111	107	104	100
15	Btu/h	11100	10400	9720	9110	8610	8250	8090	8180
	Watts (Power)	610	650	696	747	801	857	916	975
	Amps	2.80	2.99	3.21	3.44	3.68	3.94	4.21	4.48

	Lb/h	142	140	138	135	132	128	125	120
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COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	4.545756E+03	5.023610E+02	2.177688E+00	7.973679E+01
C2	4.743054E+02	3.293766E+00	1.156872E-02	3.081033E+00
C3	2.356920E+02	-2.858428E+00	-2.362968E-03	4.587692E-01
C4	5.232058E+00	-8.288673E-02	-4.979208E-04	4.634654E-02
C5	-1.027673E+01	-5.425331E-02	-9.890932E-05	1.319645E-02
C6	-7.545218E+00	1.923368E-01	6.348537E-04	-1.445394E-02
C7	1.476678E-02	-3.842355E-04	-2.686381E-06	2.224239E-04
C8	-5.663437E-02	9.530252E-04	6.883842E-06	-2.475168E-05
C9	9.388039E-02	3.123962E-03	1.276380E-05	-2.806778E-04
C10	6.098458E-02	-1.249376E-03	-3.971548E-06	7.180930E-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

AE4470E-FZ3C

General

Model	AE4470E-FZ3C	Unit of Measure	Fahrenheit
Condition	EN12900	Voltage/Frequency	220V ~ 50HZ
RETURN GAS	20°C (68°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)								
		80	90	100	110	120	130	140	150
5	Btu/h	3400	3450	3310	3050	2720	2390	2120	1980
	Watts	467	486	507	528	548	566	580	589
	Amps	2.16	2.25	2.35	2.44	2.53	2.61	2.68	2.73
	Lb/h	44.1	43.2	42.1	40.9	39.6	38.3	37.1	36.1
10	Btu/h	3890	3890	3710	3430	3100	2790	2550	2460
	Watts	482	503	526	549	573	594	612	626
	Amps	2.23	2.33	2.43	2.54	2.64	2.74	2.83	2.90
	Lb/h	50.0	49.0	47.8	46.5	45.0	43.5	42.1	40.7
15	Btu/h	4420	4370	4150	3850	3510	3210	3000	2950
	Watts	496	519	544	570	597	622	645	664
	Amps	2.29	2.40	2.52	2.63	2.75	2.87	2.97	3.06
	Lb/h	56.4	55.4	54.2	52.6	51.0	49.3	47.5	45.9
20	Btu/h	5000	4890	4640	4300	3960	3660	3470	3450
	Watts	510	534	562	591	621	650	677	701
	Amps	2.36	2.47	2.60	2.73	2.86	2.99	3.12	3.23
	Lb/h	63.5	62.4	61.1	59.4	57.6	55.6	53.6	51.6
25	Btu/h	5640	5460	5160	4800	4430	4140	3960	3980
	Watts	523	549	579	611	644	677	709	738
	Amps	2.42	2.54	2.68	2.82	2.97	3.12	3.26	3.40
	Lb/h	71.2	70.1	68.6	66.8	64.8	62.6	60.3	57.9
30	Btu/h	6330	6080	5730	5330	4950	4640	4480	4530
	Watts	535	563	595	630	667	705	741	775
	Amps	2.47	2.60	2.75	2.91	3.07	3.24	3.41	3.57
	Lb/h	79.5	78.4	76.8	74.9	72.7	70.2	67.6	64.9
35	Btu/h	7080	6760	6340	5900	5490	5180	5030	5100
	Watts	546	576	611	649	690	731	772	811
	Amps	2.52	2.66	2.82	3.00	3.18	3.36	3.55	3.73
	Lb/h	88.6	87.4	85.7	83.7	81.2	78.5	75.6	72.6
40	Btu/h	7880	7480	7010	6520	6080	5760	5600	5690
	Watts	556	588	626	667	712	757	803	848
	Amps	2.56	2.72	2.89	3.08	3.28	3.48	3.69	3.90
	Lb/h	98.3	97.1	95.4	93.1	90.5	87.6	84.4	81.0
45	Btu/h	8750	8270	7730	7190	6710	6370	6210	6310
	Watts	565	600	640	685	733	783	833	883
	Amps	2.60	2.77	2.96	3.16	3.37	3.60	3.83	4.06

	Lb/h	109	108	106	103	101	97.3	93.8	90.1
50	Btu/h	9680	9110	8490	7900	7380	7010	6850	6960
	Watts	574	610	653	702	753	808	863	919
	Amps	2.64	2.81	3.01	3.23	3.47	3.72	3.97	4.22
	Lb/h	120	119	117	114	111	108	104	100
55	Btu/h	10700	10000	9320	8660	8100	7700	7530	7640
	Watts	581	620	666	717	773	832	893	954
	Amps	2.66	2.85	3.07	3.31	3.56	3.83	4.10	4.38
	Lb/h	132	131	129	126	123	119	115	111

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-1.269034E+04	4.983381E+02	1.953063E+00	3.112024E+01
C2	2.660264E+02	4.683763E+00	2.048285E-02	7.250500E-01
C3	4.366270E+02	-4.245170E+00	-9.277308E-03	3.449615E-01
C4	1.682509E+00	-2.448668E-02	-1.472304E-04	1.077900E-02
C5	-3.580565E+00	-6.148545E-02	-2.461396E-04	7.424742E-03
C6	-3.847751E+00	6.278800E-02	1.912832E-04	-4.103070E-03
C7	2.532027E-03	-6.588400E-05	-4.606278E-07	3.813853E-05
C8	-9.710968E-03	1.634131E-04	1.180357E-06	-4.244116E-06
C9	1.609746E-02	5.356588E-04	2.188581E-06	-4.812719E-05
C10	1.045689E-02	-2.142277E-04	-6.809925E-07	1.231298E-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