

Model: AE4460U-FZ1C
Product Description

Type: Reciprocating Compressors
Application: HBP - High Back Pressure
ProductDescription: R-290
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 (R-290)	220V ~ 50HZ	5600	1411	1641	634	8.83	2.23	2.59	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: 10
Weight Unit of Measure: KG
Displacement (cc): 12.01
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): 17.5
Rated Load Amps (RLA 50 Hz): 3.66
Rated Load Amps (RLA 60 Hz): 0
Max. Continuous Current (MCC in Amps): 0
Motor Resistance (Ohm) - Main: 4.57
Motor Resistance (Ohm) - Start: 19.95
Motor Type: CSIR
Overload Type:
Relay Type:

Agency Approval



Performance Data Sheet

AE4460U-FZ1C

General

Model	AE4460U-FZ1C	Unit of Measure	Celsius
Condition	EN12900	Voltage/Frequency	240V ~ 50HZ
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
-6.7	Watts (Capacity)	1240	1160	1090	1020	946	870	785	686
	Watts (Power)	400	429	458	486	514	541	567	591
	Amps	2.76	2.84	2.93	3.04	3.14	3.24	3.34	3.42
	Lb/h	15.5	15.2	15.0	14.9	14.8	14.5	14.2	13.6
-5	Watts (Capacity)	1320	1240	1160	1090	1010	930	840	734
	Watts (Power)	405	436	466	496	526	555	583	610
	Amps	2.78	2.86	2.97	3.07	3.19	3.30	3.40	3.49
	Lb/h	16.4	16.1	15.9	15.8	15.6	15.4	15.0	14.4
0	Watts (Capacity)	1570	1480	1390	1310	1220	1120	1020	895
	Watts (Power)	416	452	487	523	559	594	628	661
	Amps	2.82	2.92	3.05	3.18	3.31	3.45	3.58	3.71
	Lb/h	19.1	18.8	18.7	18.6	18.4	18.2	17.7	17.0
5	Watts (Capacity)	1830	1730	1640	1550	1450	1340	1220	1080
	Watts (Power)	421	461	502	544	585	626	667	707
	Amps	2.84	2.96	3.10	3.26	3.42	3.58	3.75	3.90
	Lb/h	21.8	21.7	21.6	21.5	21.4	21.1	20.7	19.9
7.2	Watts (Capacity)	1950	1850	1750	1660	1550	1440	1310	1170
	Watts (Power)	420	463	506	550	594	638	682	725
	Amps	2.84	2.97	3.12	3.28	3.46	3.63	3.81	3.98
	Lb/h	23.0	22.9	22.9	22.8	22.7	22.5	22.0	21.3
10	Watts (Capacity)	2110	2000	1900	1800	1690	1570	1440	1280
	Watts (Power)	417	462	509	556	603	651	698	745
	Amps	2.84	2.97	3.13	3.31	3.50	3.69	3.88	4.07
	Lb/h	24.5	24.5	24.5	24.5	24.4	24.2	23.8	23.0
15	Watts (Capacity)	2380	2270	2170	2060	1940	1810	1670	1500
	Watts (Power)	402	453	505	558	612	666	720	774
	Amps	2.79	2.95	3.13	3.32	3.54	3.76	3.98	4.21
	Lb/h	27.1	27.2	27.4	27.5	27.5	27.3	26.9	26.2

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	2.501130E+03	2.296050E+02	2.829590E+00	2.591500E+01
C2	5.307470E+01	-3.170570E+00	-1.138900E-03	3.752210E-01
C3	-4.792590E+01	5.103000E+00	-2.573370E-02	-4.738970E-01
C4	1.173630E-01	-1.497320E-01	-4.936200E-04	-3.275550E-03
C5	1.304180E-01	1.242100E-01	-4.964620E-05	8.276610E-03
C6	7.406270E-01	4.942750E-02	1.057280E-03	1.077880E-02

C7	-6.865430E-03	-2.282980E-03	-1.051770E-05	-1.139070E-04
C8	5.593840E-03	5.020030E-04	1.625160E-06	1.378500E-04
C9	-6.342560E-03	1.160890E-03	1.081560E-05	-8.522810E-05
C10	-5.898600E-03	-3.965570E-04	-6.976520E-06	-8.596920E-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



Performance Data Sheet

AE4460U-FZ1C

General

Model	AE4460U-FZ1C	Unit of Measure	Celsius
Condition	EN12900 (R-290)	Voltage/Frequency	220V ~ 50HZ
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
-25	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-23.3	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-20	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-15	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-10	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-6.7	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
-5	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
0	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
5	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							

	Lb/h							
7.2	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
10	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							
15	Btu/h							
	Watts (Power)							
	Amps							
	Lb/h							

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.819816E+14	2.069276E+12	2.848129E+10	8.467984E+11
C2	7.000740E+12	-2.797078E+10	7.052582E+06	2.243583E+10
C3	-6.505713E+09	6.818882E+10	-2.405248E-02	-3.140944E+10
C4	7.299633E+10	-1.298461E-01	-4.467239E-04	2.575177E+08
C5	-1.808701E+10	1.031438E+09	-1.333265E-04	-3.625277E-02
C6	1.110345E+11	9.133999E+07	1.011068E+07	6.450659E+08
C7	-8.464952E-03	-1.689172E-03	-9.423129E-06	4.241336E+05
C8	-1.062496E-01	1.330705E+06	6.955596E+03	-1.875797E-04
C9	1.484690E+09	1.389158E+07	1.176366E+05	3.135721E+06
C10	-6.995329E-02	-8.840131E-05	-6.537409E-06	-4.515244E-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