Technical Data Sheet

2/16/2012

Model:AHC4531ZHZ (FH4531Z)

Product Description

Type: Reciprocating
Application: HBP - High Back Pressure
Refrigerant: R404A
Voltage/Frequency: 208-220V ~ 60Hz

Product Specifications

Performance

		Refrigeration Capacity			Input Power	Efficiency			EVAP TEMP	COND	AMBIENT	RETURN	LIQUID
Condition	Test Voltage	Btu/h	kcal/h	W	W	Btu/Wh	kcal/Wh	W/W		TEMP	TEMP	GAS	TEMP
EN12900 ASERCOM	220V ~ 60HZ	29696	7483	8701	3587	8.28	2.09	2.43	5°C (41°F)	45°C (113°F)	32°C (90°F)	15°C (59°F)	45°C (113°F)

General

Evaporating Temp. Range: -6.7°C to 12.8°C (20°F to 55°F)
Motor Torque: High Start Torque (HST)
Compressor Cooling: Fan

Mechanical

Weight: 36.53
Weight Unit of Measure: N/A
Displacement (cc): 56.65
Oil Type: Polyolester
Viscosity (cSt): 32
Oil Charge (cc): 1480
Sound Power dB(A): N/A

Electrical

Voltage Range (50 Hz): N/A
Voltage Range (60 Hz): 187-242
Locked Rotor Amps (LRA): 94
Rated Load Amps (RLA 50 Hz): 18.5
Rated Load Amps (RLA 60 Hz): 18.5
Max. Continuous Current (MCC in Amps): N/A
Motor Resitance (Ohm) - Main: 0.6
Motor Resitance (Ohm) - Start: 3
Motor Type: CSR
Overload Type: INTERNAL
Relay Type: Potential Relay

Agency Approval

CE Listed, GOST RUSSIA Listed

Performance Data Sheet

AHC4531ZHZ

General Information

Model	AHC4531ZHZ	**Refrigerant**	R404A
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	220V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)				
		30	40	50	60	70
-6.7	Watts (Capacity)	7690	6390	4980	3510	2010
	Watts (Power)	2540	2720	2900	3080	3260
	Amps	12.4	13.2	14.0	14.8	15.6
-5	Watts (Capacity)	8210	6860	5410	3890	2340
	Watts (Power)	2610	2810	3020	3230	3440
	Amps	12.8	13.7	14.6	15.5	16.4
0	Watts (Capacity)	9860	8320	6690	4990	3260
	Watts (Power)	2830	3110	3390	3680	3960
	Amps	14.1	15.3	16.5	17.7	18.9
5	Watts (Capacity)	11700	9950	8070	6120	4150
	Watts (Power)	3050	3410	3770	4130	4490
	Amps	15.4	16.9	18.4	19.9	21.4
7.2	Watts (Capacity)	12600	10700	8720	6650	4550
	Watts (Power)	3150	3540	3930	4330	4720
	Amps	16.1	17.7	19.3	20.9	22.5
10	Watts (Capacity)	13900	11800	9600	7340	5060
	Watts (Power)	3290	3710	4150	4580	5010
	Amps	16.9	18.7	20.4	22.2	24.0
15	Watts (Capacity)	16300	13900	11300	8690	6040
	Watts (Power)	3530	4020	4530	5030	5530
	Amps	18.4	20.5	22.5	24.5	26.6

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.344996E+04	2.058826E+03	1.055493E+01	
C2	4.798932E+02	-2.137048E+00	8.237287E-02	
C3	-8.696857E+01	2.304103E+01	1.138233E-01	

C4	8.346444E+00	3.520450E-01	2.711823E-03	
C5	-4.341984E+00	1.539615E+00	6.022161E-03	
C6	-1.286076E+00	1.061415E-01	1.435570E-04	
C7	6.542772E-02	0.000000E+00	0.000000E+00	
C8	-1.277124E-01	-5.818802E-03	-2.799370E-05	
C9	7.495404E-04	-9.220000E-05	-6.400000E-07	
C10	6.414108E-03	-6.670000E-04	-9.550000E-07	

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