

Technical Datasheet

4/26/2023

Model: FH4532Z-XC3A

Product Description

Type: Reciprocating Compressors
Application: HBP - High Back Pressure
ProductDescription: R-404A/R-448A/R-449A/R-452A
Voltage/Frequency: 220-240V ~ 50Hz
Version: N/A

Product Specifications

Performance

Condition Test Voltage	Refrigeration Capacity			Input Power (l) W	(E) Efficiency		EVAP W/W TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
	(R) Btu/h	(R) kcal/h	(R) W		(E) Btu/Wh	(E) kcal/Wh					

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: 0
Weight Unit of Measure:
Displacement (cc): 50.6
Oil Type: Polyolester
Viscosity (cSt): 32
Oil Charge (cc): 1140

Electrical

Voltage Range (50 Hz): 198-264
Voltage Range (60 Hz):
Locked Rotor Amps (LRA): 85
Rated Load Amps (RLA 50 Hz): 12.2
Rated Load Amps (RLA 60 Hz): 0
Max. Continuous Current (MCC in Amps): 21.5
Motor Resistance (Ohm) - Main: 0.83
Motor Resistance (Ohm) - Start: 2.52
MotorType: CSR
Overload Type:
Relay Type:

Agency Approval

CE Listed

FH4532Z-XC3A

General

Performance Data Sheet

Model FH4532Z-XC3A **Unit of Measure** Celsius
Condition EN12900(R-404A) **Voltage/Frequency** 220V~ 50HZ
RETURN GAS 20°C (68°F) RETURN GAS **MotorType** CSR

	COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.246761E+04	7.777401E+02	2.120875E+00		
C2	4.827837E+02	-9.865356E+00	-1.535944E-01		
C3	-1.522693E+02	4.393351E+01	2.525041E-01		
C4	6.926321E+00	-9.387085E-02	-2.448309E-03		
C5	-5.443329E+00	4.365945E-01	5.683110E-03		
C6	1.922442E-01	-2.829310E-01	-1.550904E-03		
C7	2.721364E-02	3.911820E-03	-9.596070E-08		
C8	-7.895156E-02	-7.770615E-03	4.082230E-07		
C9	3.941508E-03	6.121407E-03	3.389470E-07		
C10	-3.635170E-04	8.651500E-04	5.187870E-07		

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

Te = Evaporator Temperature

Tc = Condensing Temperature

FH4532Z-XC3A

General

Performance Data Sheet

Model FH4532Z-XC3A **Unit of Measure** Celsius
Condition EN12900(R-448A) **Voltage/Frequency** 220V~ 50HZ
RETURN GAS 20°C (68°F) RETURN GAS **MotorType** CSR

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.122483E+04	8.467415E+02	2.514989E+00	
C2	4.648538E+02	-2.733092E+00	-1.140725E-01	
C3	-1.253907E+02	2.889811E+01	1.832964E-01	
C4	6.923619E+00	-1.196165E-01	-2.466487E-03	
C5	-4.901642E+00	1.250211E-01	4.056359E-03	
C6	1.740755E-02	-1.103670E-02	-3.902510E-04	
C7	3.230793E-02	1.950599E-03	-7.932180E-06	
C8	-6.575776E-02	-6.221025E-03	6.113250E-06	
C9	7.786563E-03	9.821622E-03	1.837030E-05	
C10	1.619241E-03	-7.639220E-04	-5.784980E-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

FH4532Z-XC3A

General

Performance Data Sheet

Model FH4532Z-XC3A **Unit of Measure** Celsius
Condition EN12900(R-449A) **Voltage/Frequency** 220V~ 50HZ
RETURN GAS 20°C (68°F) RETURN GAS **MotorType** CSR

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.122483E+04	8.467415E+02	2.514989E+00	
C2	4.648538E+02	-2.733092E+00	-1.140725E-01	
C3	-1.253907E+02	2.889811E+01	1.832964E-01	
C4	6.923619E+00	-1.196165E-01	-2.466487E-03	
C5	-4.901642E+00	1.250211E-01	4.056359E-03	
C6	1.740755E-02	-1.103670E-02	-3.902510E-04	
C7	3.230793E-02	1.950599E-03	-7.932180E-06	
C8	-6.575776E-02	-6.221025E-03	6.113250E-06	
C9	7.786563E-03	9.821622E-03	1.837030E-05	
C10	1.619241E-03	-7.639220E-04	-5.784980E-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

FH4532Z-XC3A

General

Performance Data Sheet

Model FH4532Z-XC3A **Unit of Measure** Celsius
Condition EN12900(R-452A) **Voltage/Frequency** 220V~ 50HZ
RETURN GAS 20°C (68°F) RETURN GAS **MotorType** CSR

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1.211629E+04	9.655200E+02	2.828695E+00	
C2	4.698934E+02	6.005391E+00	-9.169108E-02	
C3	-1.465130E+02	2.644039E+01	1.864034E-01	
C4	6.828932E+00	2.473348E-01	-1.233516E-03	
C5	-4.967683E+00	-2.018276E-01	3.317204E-03	
C6	2.118909E-01	9.550183E-02	-1.873210E-04	
C7	2.943835E-02	6.371655E-03	7.694810E-06	
C8	-7.399601E-02	-1.420785E-02	-2.126760E-05	
C9	2.702300E-03	1.309456E-02	2.569350E-05	
C10	-4.908530E-04	-1.920864E-03	-9.283010E-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