

Bitzer 4FES-5-40S 4FC-5.2-40S Semi-Hermetic Chiller Reciprocating Compressor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Bitzer
- Certification: CE
- Model Number: 4FES-5-40S,4FC-5.2-40S
- Minimum Order Quantity: 1
- Price: Discussed
- Packaging Details: WOODEN CASE
- Delivery Time: 1 Month
- Payment Terms: Western Union,T/T
- Supply Ability: 10000Pcs/Year



Product Specification

- Cylinders: 4
- Displacement: 18.1 M3/hr
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Rated Power: 5HP
- Refrigerant: R22
- Highlight: **Bitzer semi-hermetic reciprocating compressor**, **4FES-5-40S chiller compressor**, **4FC-5.2-40S Bitzer compressor**



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Our Product Introduction

Product Description

Product Overview

The Bitzer 4FES-5-40S is the updated successor to the previous 4FC-5.2-40S model. It is a semi-hermetic, four-cylinder reciprocating compressor engineered for medium-temperature refrigeration equipment and air-conditioning chiller systems.

Key Features

Optimized Valve Plate & Efficient Compression

The optimized valve plate, efficient suction and discharge valve assemblies, and reduced clearance volume help minimize internal losses and improve gas exchange efficiency. These features support energy-conscious operation in medium-temperature refrigeration equipment and air-conditioning chiller systems.

Compact Four-Cylinder Design

The compact housing and four-cylinder configuration help reduce installation space requirements, making the semi-hermetic four-cylinder compressor easier to integrate into packaged chiller units and commercial refrigeration equipment. This space-saving arrangement gives equipment manufacturers greater flexibility in system layout.

Flexible Frequency Regulation

When paired with a compatible external frequency inverter, the 4FES-5 supports operation within a 25–70 Hz frequency range, subject to its operating limits. Variable-speed operation allows the BITZER reciprocating compressor to follow changing cooling demand more closely, improving part-load matching and reducing unnecessary full-load operation.

Flexible Electrical Integration

Three-phase delta/star connection options for 50 Hz and 60 Hz power supplies provide greater flexibility for different regional electrical systems. Matching the motor connection to the available power supply helps simplify equipment integration and electrical installation.

Product Image



Technical Specifications

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Model	4FES-5-40S
Old Model	4FC-5.2-40S
Rated Power	5 HP
Displacement (1450/min)	18.1 m³/hr
Oil Charge	2 L
Weight	86 KG
Capacity Regulation	50%
Voltage	220–240Δ/3/50, 265–290Δ/3/60, 380–420Y/3/50, 440–480Y/3/60
Max Operating Current	18.8/10.8 A
Max Power Consumption	5.8 kW

Model	Motor Version	Displace -ment (1450/min)	Cylinders	Oil charge	Weight	Pipe Connections				CR - Steps -	Motor connection	Electrical data	
						DL Dischargeline		SL Suction line				Max. operating current	Max. power consumption
		m3/h		L	kg	mm	pouce	mm	pouce	%	Volt	Amp.	kW
4FES-3(Y)	2	18.1	4	2	82	16	5/8	22	7/8	50	Δ / Y 220-240Δ/3/50 380-420Y/3/50 265-290Δ/3/60 440-480Y/3/60	16.5/9.5	5.3
4FES-5(Y)	1				86							18.8/10.8	5.8
4EES-4(Y)	2	22.7	4	2	84	16	5/8	28	1-1/8			21.2/12.2	6.9
4EES-6(Y)	1				86							23.7/13.6	7.6
4DES-5(Y)	2	26.8	4	2	86	22	7/8	28	1-1/8			25.2/14.5	8.1
4DES-7(Y)	1				89							28.7/16.5	8.9
4CES-6(Y)	2	32.5	4	2	91	22	7/8	28	1-1/8			30.8/17.7	9.7
4CES-9(Y)	1				91							35.1/20.2	11.3

Frequently Asked Questions

Q1: What information is needed to select a chiller reciprocating compressor?

A chiller reciprocating compressor should be selected according to the required cooling capacity, R22 refrigerant, evaporating temperature, condensing temperature, ambient conditions and power supply. These details help determine whether the compressor matches the actual project requirements.

Q2: Can the 4FES-5-40S operate with a frequency inverter?

Yes. The 4FES series supports external frequency-inverter operation within 25–70 Hz. The inverter configuration must also comply with motor temperature, maximum operating current, discharge temperature and compressor application limits.

Q3: What electrical information should be confirmed before ordering?

Confirm the available three-phase voltage, supply frequency and required delta/star connection. The selected electrical configuration should match the compressor nameplate and the system's starter arrangement before commissioning.

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