

Bitzer 4DES-7-40S 4DC-7.2-40S 7HP Semi Sealed Compressor for Air Conditioning

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Bitzer
- Certification: CE
- Model Number: 4DES-7-40S,4DC-7.2-40S
- 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
- Refrigerant: R22
- Rated Power: 7HP
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Displacement: 26.8 M3/hr
- Highlight: **Bitzer 4DES-7-40S semi sealed compressor**, **7HP Bitzer compressor for air conditioning**, **Bitzer 4DC-7.2-40S semi sealed compressor**



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Product Description

Product Overview

The Bitzer 4DES-7-40S is the updated successor to the previous 4DC-7.2-40S model. This 7HP semi-hermetic reciprocating compressor uses R22 refrigerant and is designed for medium-temperature refrigeration and air-conditioning applications, with a maximum condensing temperature of 62°C.

Key Features

Application Flexibility & Refrigerant Compatibility

The 4DES-7-40S is a suitable compressor for air-conditioning systems and medium-temperature refrigeration. It operates with R22 refrigerant and supports a maximum condensing temperature of 62°C, making it adaptable to a range of system designs.

Optimized Valve Plate & High Efficiency

This semi-hermetic reciprocating compressor features an optimized valve plate, efficient suction and discharge valve assemblies, and reduced clearance volume. These improvements help minimize internal losses and improve gas exchange efficiency. The ECOLINE series achieves up to 12% higher COP compared with previous product generations, helping reduce energy consumption under comparable operating conditions.

Compact Design for Space-Saving Installation

The compact housing requires less installation space, giving equipment manufacturers greater flexibility when designing refrigeration systems. This is particularly useful for commercial air-conditioning units and medium-temperature refrigeration equipment where installation space is limited.

Flexible Capacity & Frequency Regulation

The four-cylinder design supports an optional capacity-control head with 50% unloading, allowing cooling output to better match partial-load requirements. With a compatible frequency inverter, this semi-hermetic compressor can operate between 25 and 70 Hz, making it a flexible variable-frequency compressor solution for systems with changing cooling demands.

Product Image



Technical Specification

Model	4DES-7-40S
Old Model	4DC-7.2-40S
Rated Power	7HP
Displacement (1450/min)	26.8 m³/hr
Oil Charge	2L
Weight	89 KG
Capacity Regulation	50%
Voltage	220-240Δ/3/50, 265-290Δ/3/60, 380-420Y/3/50, 440-480Y/3/60
Max Operating Current	28.7/16.5 A
Max Power Consumption	8.9 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: Is the 4DES-7-40S suitable for commercial air conditioning and refrigeration applications?

Yes. This semi-hermetic compressor uses R22 and is intended for medium-temperature refrigeration and air-conditioning applications. Its maximum condensing temperature is 62°C according to the supplied product information, so actual operating conditions should be checked before selection.

Q2: Can the 4DES-7-40S adjust its cooling capacity according to system demand?

Yes. The optional capacity-control head provides 50% unloading, while compatible frequency-inverter operation allows the compressor speed to follow changing cooling loads. These options help reduce unnecessary full-capacity operation during periods of lower demand.

Q3: What should be considered when installing this compressor in an existing refrigeration system?

Check the refrigerant compatibility, electrical supply, suction and discharge piping, oil circuit and installation dimensions. For air-conditioning applications, also verify that the system's condensing temperature remains within the compressor's permitted operating range.

Q4: What operating information should I provide when requesting compressor selection?

Provide the required cooling capacity, refrigerant, evaporating temperature, condensing temperature, ambient conditions and power supply. For commercial refrigeration or air-conditioning projects, these details help determine whether the compressor matches the actual operating requirements.

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