

Bitzer 4VES-10-40S 4VCS-10.2-40S 10HP R22 Semi Hermetically Sealed Compressor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Bitzer
- Certification: CE
- Model Number: 4VES-10-40S,4VCS-10.2-40S
- 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

- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Refrigerant: R22
- Oil Charge: 2.6L
- Rated Power: 10HP
- Displacement: 34.7 M3/hr
- Cylinders: 4
- Highlight: **Bitzer 4VES-10-40S semi hermetic compressor**, **10HP R22 Bitzer compressor**, **Bitzer 4VCS-10.2-40S sealed compressor**



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Our Product Introduction

Product Description

Product Overview

The 4VES-10-40P is the updated successor to the previous 4VCS-10.2-40P model. This semi-hermetically sealed compressor uses R22 refrigerant and is designed for medium-temperature refrigeration and air-conditioning applications, with a maximum condensing temperature of 62°C. Typical applications include commercial cold rooms and air-conditioning chiller systems.

Key Features

Wide Application Range

Suitable for medium-temperature refrigeration and air-conditioning duties, including commercial cold-storage rooms and air-conditioning chillers, with condensing temperatures up to 62°C.

High-Efficiency Compression Design

The optimized valve plate, efficient suction and discharge valve assemblies, and reduced clearance volume help minimize internal compression 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.

Flexible Cooling Capacity Regulation

The four-cylinder design supports an optional capacity-control head with 50% unloading. This semi-hermetically sealed compressor can therefore adjust its cooling output to better match changing refrigeration loads, helping reduce unnecessary full-capacity operation and improve part-load efficiency.

Part-Winding Motor Configuration

The BITZER 4VES compressor features a part-winding (PW) motor connection in the 40P configuration. When paired with a compatible starter, this arrangement provides greater flexibility for electrical integration and equipment design.

Product Image



Technical Specifications

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Model	4VES-10-40S
Old Model	4VCS-10.2-40S
Rated Power	10 HP
Displacement (1450/min)	34.7 m³/hr
Oil Charge	2.6 L
Weight	139 KG
Capacity Regulation	50%
Voltage	380–420YY/3/50, 440–480YY/3/60
Max Operating Current	19.9 A
Max Power Consumption	12 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
4VES-6Y	3	34.7	4	2.6	129	22	7/8	28	1-1/8	50	PW 380-420YY/3/50 440-480YY/3/60	10	6
4VES-7(Y)	2				129							16.6	11
4VES-10(Y)	1				139							19.9	12
4TES-8Y	3	41.3	4	2.6	134	28	1-1/8	35	1-3/8			12.1	7
4TES-9(Y)	2				134							19.9	13
4TES-12(Y)	1				141							25.1	14
4PES-10Y	3	48.5	4	2.6	139	28	1-1/8	35	1-3/8			13.6	8
4PES-12(Y)	2				139			35	1-3/8			22.7	14
4PES-15(Y)	1				147			42	1-5/8			28.2	16
4NES-12Y	3	56.2	4	2.6	141	28	1-1/8	35	1-3/8			15.9	9
4NES-14(Y)	2				141			35	1-3/8			26.6	17
4NES-20(Y)	1				150			42	1-5/8			33.2	19
4JE-13Y	3	63.5	4	4	179	28	1-1/8	42	1-5/8			19.8	11
4JE-15(Y)	2				190							30.8	19
4JE-22(Y)	1				190							37.2	21
4HE-15Y	3	73.7	4	4	183	28	1-1/8	42	1-5/8			22.5	13
4HE-18(Y)	2				190			42	1-5/8			36.7	22
4HE-25(Y)	1				194			54	2-1/8			44	25
4GE-20Y	3	84.6	4	4.5	192	28	1-1/8	54	2-1/8			25.9	16
4GE-23(Y)	2				192							43.9	27
4GE-30(Y)	1				206							51.2	28
4FE-25Y	3	101.8	4	4.5	196	28	1-1/8	54	2-1/8			32.1	19
4FE-28(Y)	2				207							52.8	31
4FE-35(Y)	1				207							62.1	35

Frequently Asked Questions

Q1: Which refrigeration applications are suitable for the 4VES-10-40P?

This model uses R22 and is intended for medium-temperature refrigeration and air-conditioning applications, with condensing temperatures up to 62°C. Typical examples include commercial cold-storage rooms and air-conditioning chillers operating within its specified application range.

Q2: Can the compressor adjust its cooling capacity according to system demand?

Yes. An optional capacity-control head provides 50% unloading for the four-cylinder configuration. This helps match cooling output to changing loads, particularly in commercial refrigeration systems with fluctuating demand.

Q3: What should be considered when connecting the 40P electrical configuration?

Before commissioning the semi-hermetically sealed compressor, confirm the three-phase power supply, part-winding starter compatibility, motor connections and electrical protection settings. The starter and wiring arrangement should match the compressor's electrical specifications.

Q4: What information should be provided for compressor selection?

Provide the required cooling capacity, R22 refrigerant, evaporating temperature, condensing temperature, ambient conditions and electrical supply. These details help verify whether the compressor is suitable for the intended refrigeration or air-conditioning project.

Shenzhen Coolstart Refrigeration Equipment Co., Ltd

86-13922880636 info@coolstartcn.com coldroomunit.com

Room 1801, Building 1, Kangli city, No. 66 Pingji Road, Longgang District, Shenzhen, Guangdong,China