

2DES-3-40S 2DC-3.2-40S 3HP Refrigeration Semi Hermetic Bitzer Compressor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Bitzer
- Certification: CE
- Model Number: 2DES-3-40S,2DC-3.2-40S
- 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

- Displacement: 13.4 M3/hr
- Cylinders: 2
- Refrigerant: R22
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Rated Power: 3HP
- Highlight: **3HP Bitzer semi hermetic compressor**, **2DES-3-40S refrigeration compressor**, **2DC-3.2-40S Bitzer compressor**



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Our Product Introduction

Product Description

Product Overview

The 2DES-3-40S is the updated successor to the previous 2DC-3.2-40S model. This semi-hermetic Bitzer compressor is engineered for reliable commercial refrigeration performance, combining an optimized valve plate design with durable drive components and low-vibration operation.

Key Features

Efficient Valve Plate Design

The 2DES-3-40S features an optimized valve plate and efficient suction and discharge valve assemblies. These help reduce internal losses and clearance volume, improving gas exchange and overall energy efficiency.

Compact Two-Cylinder Construction

The two-cylinder reciprocating compressor uses a compact mechanical arrangement that simplifies integration into refrigeration equipment. Its space-efficient configuration gives equipment manufacturers greater flexibility when designing commercial refrigeration systems.

Wear-Resistant Drive Components

The semi-hermetic Bitzer compressor incorporates a surface-hardened crankshaft, low-friction bearings, aluminum pistons and high-hardness alloy piston rings. These components help minimize friction and mechanical wear, supporting durable operation and consistent performance.

Low Noise & Reduced Vibration

Balanced compressor mass distribution and a specially designed discharge valve cover help reduce exhaust pulsation and operating vibration. This contributes to quieter operation and a more comfortable working environment around refrigeration equipment.

Product Image



Technical Specification

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Model	2DES-3-40S
Old Model	2DC-3.2-40S
Rated Power	3 HP
Displacement (1450/min)	13.4 m³/hr
Oil Charge	1.5 L
Weight	71 KG
Capacity Regulation	–
Voltage	220-240Δ/3/50, 265-290Δ/3/60, 380-420Y/3/50, 440-480Y/3/60
Max Operating Current	15/8.6 A
Max Power Consumption	4.6 kW

Model	Motor Version	Displace -ment (1450/min)	Cylinders	Oil charge	Weight	Pipe Connections				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
2KES-05(Y)	1	4.06	2	1	43	12	1/2	16	5/8	Δ / Y 220-240Δ/3/50 380-420Y/3/50 265-290Δ/3/60 440-480Y/3/60	4.9/2.8	1.5
2JES-07(Y)	1	5.21	2	1	43	12	1/2	16	5/8		6.4/3.7	1.9
2HES-1(Y)	2	6.51	2	1	44	12	1/2	16	5/8		6.7/3.8	2
2HES-2(Y)	1				45						7.8/4.5	2.4
2GES-2(Y)	1	7.58	2	1	45	12	1/2	16	5/8		8.7/5.0	2.7
2FES-2(Y)	2	9.54	2	1	45	12	1/2	16	5/8		9.2/5.3	2.9
2FES-3(Y)	1				47						10.7/6.1	3.4
2EES-2(Y)	2	11.4	2	1.5	68	16	5/8	22	7/8		10.4/6.0	3.3
2EES-3(Y)	1				71						13.4/7.5	3.8
2DES-2(Y)	2	13.4	2	1.5	68	16	5/8	22	7/8		13.4/7.5	4
2DES-3(Y)	1				71						15.0/8.6	4.6
2CES-3(Y)	2	16.2	2	1.5	70	16	5/8	22	7/8		15.8/9.1	5
2CES-4(Y)	1				70						17.4/10.0	5.6

Frequently Asked Questions

Q1: Which refrigerant is used in the 2DES-3-40S?

The 2DES-3-40S uses R22 refrigerant. It should be matched with a refrigeration system designed for the same refrigerant and compatible lubricant.

Q2: What information is required when selecting this compressor?

For this semi-hermetic Bitzer compressor, provide the required cooling capacity, evaporating temperature, condensing temperature, ambient conditions and power supply. These details help determine whether the compressor is suitable for the intended refrigeration application.

Q3: What should be checked before initial startup?

Check the motor voltage, frequency, electrical connections, suction and discharge piping, oil charge and system cleanliness. Confirm that the electrical protection and operating conditions meet the compressor's requirements before commissioning.

Q4: How can operators maintain reliable compressor operation?

Regularly inspect lubrication conditions, operating pressures, discharge temperature and electrical connections. Pay attention to unusual noise or vibration so that potential mechanical problems can be identified early.

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