



Refcomp SP4HF1200 SP4HF120E Reciprocating Chiller Compressor for Rooftop AC Unit

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Refcomp
- Certification: CE
- Model Number: SP4HF1200, SP4HF120E
- Minimum Order Quantity: 1
- Price: Discussed
- Packaging Details: WOODEN CASE
- Delivery Time: 1 Month
- Payment Terms: Western Union, T/T
- Supply Ability: 100000Pcs/Year



Product Specification

- Oil Charge: 2.6L
- Displacement 50/60Hz: 42/50.4 M3/hr
- Refrigerant: R22, R407C, R134a, R404A, R507
- Weight: 146KG
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Rated Power: 12HP/8.9KW
- Highlight: Refcomp SP4HF1200 reciprocating chiller compressor, SP4HF120E rooftop AC compressor, semi hermetic chiller compressor with warranty



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Product Description

Refcomp SP4HF1200 SP4HF120E Reciprocating Chiller Compressor for Rooftop AC Unit

Product Overview

The SP4HF1200 reciprocating chiller compressor is a 4-cylinder semi-hermetic unit engineered for high-temperature commercial refrigeration and HVAC liquid chilling applications.

Flexible Capacity Control (100% / 50%)

Equipped with a 2-stage capacity regulation mechanism (100% and 50%), this reciprocating chiller compressor enables precise output adjustment based on changing cooling demands. This step-control functionality reduces unnecessary energy consumption during partial-load operation in chiller systems.

Dynamic Balance Mechanics

Built with a custom-balanced crankshaft, durable connecting rods, and optimized pistons, the assembly delivers smooth rotational balance with reduced vibration and low operational noise. Pin bushings featuring high wear resistance support continuous duty and extend total service life.

Heavy-Duty Bearing System

The internal structure combines precision sliding bearings with integrated thrust washers to effectively absorb radial and axial mechanical loads. Supported by a continuous lubrication oil film, the bearing assembly is designed for long-term stability with a calculated lifespan of 60,000 to 80,000 hours.

High-Efficiency Motor & INT6982 Protection

Driven by a multi-voltage motor supporting part-winding start, the reciprocating chiller compressor incorporates a built-in INT6982 protection module to prevent motor overheating and electrical overload. The motor insulation and seal materials offer broad compatibility with R22, R134a, R407C, and R404A refrigerants.

Application Areas

Commercial Water Chillers: Suitable for centralized liquid chillers and HVAC air-conditioning systems operating under high-temperature conditions.

Industrial Process Cooling: Designed for industrial fluid chillers and process cooling systems requiring continuous, heavy-duty operation.

Commercial Cold Storage: Ideal for medium-to-high temperature food holding rooms, agricultural post-harvest storage, and distribution centers.

Supermarket Refrigeration Racks: Applicable to multi-compressor parallel rack systems feeding commercial display cases and walk-in coolers.

Product Image



Technical Specifications

Model	SP4HF1200, SP4HF120E
Rated Power	12HP/8.9KW
Exhaust Volume (50Hz/60Hz)	42/50.4 m³/hr
Refrigerant Type	R22, R407C, R134a, R404A, R507
Weight	146KG
Oil Charge	2.6L
Energy Regulation	100%, 50%
Standard Motor	400V/3/50Hz, 460V/3/60Hz PW
Oil Lubrication Method	Pressure Lubrication

Model SP		H (High-Temp Compressor)							
		SP4HF/SP4HN				SP4H			
		1000	1200	1500	2000	2200	2500	3000	3500
		100E	120E	150E	200E	220E	250E	300E	350E
Rated power	Hp/kW	10/7.5	12/8.9	15/11.2	20/14.9	22/16.4	25/18.7	30/22.4	35/26.1
Exhaust volume 50/60Hz	m³/hr	35/42	42/50.4	49/58.8	56/67.2	64.7/77.6	75/90	86.1/103.3	102.9/123.5
Cylinders		4	4	4	4	4	4	4	4
Weight	Kg	143	146	152	155	193	206	209	238
Oil Charge	dm³	2.6	2.6	2.6	2.6	3.7	3.7	3.7	3.7
Crankcase heater		230V~220W~50/60Hz				230V~150W~50/60Hz			
Exhaust pipe inner diameter Φ	mm/inches	22/7/8"	28/1-1/8"	28/1-1/8"	28/1-1/8"	28/1-1/8"	28/1-1/8"	28/1-1/8"	35/1-3/8"
Suction pipe inner diameter Φ	mm/inches	28/1-1/8"	35/1-3/8"	42/1-5/8"	42/1-5/8"	42/1-5/8"	54/2-1/8"	54/2-1/8"	54/2-1/8"
Energy regulation		100,50%	100,50%	100,50%	100,50%	100,50%	100,50%	100,50%	100,50%
Standard motor		400V/3/50Hz 460V/3/60Hz PW				400V/3/50Hz ~460V/3/60Hz PW			
Starting current PW/DOL	A	71/110	75/125	86/144	106/168	102/170	123/201	150/243	178/290
Starting current Y/D	A	—	—	—	—	—	—	—	—
Max operating current	A	24	27	33	40	37	43	52	56

Company Introduction

Coolstart is a modern, large-scale refrigeration enterprise with over 20 years of technical expertise in the cooling industry. Specializing in reciprocating, scroll, screw, semi-hermetic, and rotary compressors, as well as cold storage and ice-making equipment, Coolstart delivers full OEM/ODM customization services to global partners. Our products are exported to numerous international markets, including Russia, the United States, the United Kingdom, the United Arab Emirates, and Saudi Arabia, earning widespread recognition for engineering quality and cost-effectiveness.



Frequently Asked Questions

How do I confirm if the SP4HF1200 model matches my chiller load requirements?

You can evaluate model suitability by comparing your system's required cooling load, operating temperature range, and refrigerant type against the compressor's displacement rate (42.0 m³/h at 50Hz / 50.4 m³/h at 60Hz). Providing these system parameters allows technical teams to verify precise capacity alignment.

What factors should be considered when integrating this unit into a multi-compressor rack?

When installing in a parallel rack configuration, ensure adequate oil level balancing, correct suction manifold sizing, and appropriate control logic settings to support smooth 50% and 100% capacity step switching.

What pre-commissioning checks should be conducted regarding compressor lubrication?

Before initial startup, verify that the crankcase heater (230V/220W) has been energized for the recommended pre-heating period, check that the oil charge (2.6 dm³) is properly visible in the sight glass, and confirm suction filter cleanliness.

What warranty coverage does Coolstart provide for semi-hermetic compressors?

Coolstart provides a standard 1-year warranty across all compressor product lines, covering manufacturing defects under standard operating conditions.

What are the typical lead times and export packaging arrangements?

Sample units in stock ship within 3 business days, while standard production orders are delivered in 10 to 15 working days. All export compressors are secured in wooden cases for sea or air freight.

Request a Technical Quotation

Coolstart provides professional refrigeration technical support and competitive wholesale pricing for global B2B buyers. Contact our engineering team today to receive a formal technical quotation within 8 hours. Please specify your required **Model, Quantity, Refrigerant, Voltage/Frequency, Operating Conditions**, and **Project Requirements** when submitting your inquiry.



Coolstart 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