

Refcomp SW3H-21000 R134a R407C Cold Room HVAC Screw Refrigeration Compressor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Refcomp
- Certification: CE
- Model Number: SW3H-21000
- 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: 562/674 M3/hr
- Refrigerant: R22, R134a, R507, R404A, R407C, R410a
- Rated Power: 220HP/164KW
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Voltage: 400V/3/50Hz, 460/3/60Hz
- Highlight: **Refcomp SW3H-21000 screw compressor**, **R134a R407C refrigeration compressor**, **semi hermetic cold room compressor**



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Our Product Introduction

Product Description

Product Overview

The Refcomp SW3H-21000 is a semi-hermetic screw refrigeration compressor engineered for cold room, HVAC and process cooling applications using R134a and R407C refrigerants. Its asymmetric rotor profile, precision multi-bearing support and integrated filtration deliver stable, efficient compression across demanding operating conditions.

Key Design Features

Optimized Asymmetric Rotor Design

The SW3H-21000 HVAC screw compressor features RefComp's asymmetric 5/6-tooth rotor profile with optimized geometry. This design promotes smooth rotor engagement, reduces vibration and supports efficient compression under changing operating conditions.

Precision Multi-Bearing Support

This semi-hermetic screw compressor uses a multi-bearing arrangement to handle axial and radial loads, helping maintain stable rotor alignment. Precision fitting and effective lubrication reduce mechanical friction and noise, supporting smooth operation and limiting component wear.

High-Precision Suction Filtration

The integrated 100 µm suction filter captures impurities from incoming refrigerant gas before they reach the motor. This helps protect internal components from contamination, reducing the risk of damage caused by foreign particles.

Flexible Piping & Backflow Protection

The 360° rotatable suction and discharge shut-off valves allow flexible pipe routing, making installation easier in different equipment layouts. An integrated discharge check valve also helps prevent refrigerant backflow during shutdown.

Product Image



Technical Specification

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Model	SW3H-21000
Rated power	220HP / 164KW
Displacement 50/60Hz	562 / 674 m³/hr
Weight	1030 KG
Capacity Regulation	25%, 50%, 75%, 100% 4-step; 25%–100% stepless
Standard Motor	Y/△ – 400V/3/50Hz – 460/3/60Hz
Star/Delta Start Current	543 / 1645A
Max operating current	335A

Model		SW3H(High Temperature)					
		14000	16000	19000	21000	24000	25000
Nominal Power	HP/KW	150/112	170/127	200/149	220/164	240/179	240/179
Displacement 50/60Hz	m^3/hr	402/482	445/534	510/612	562/674	600/720	700/840
Weight	Kg	665	675	710	1030	1050	980
Discharge Pipe Inner Diameter	mm / in	80/ (3-1/8")	80/ (3-1/8")	80/ (3-1/8")	80/ (3-1/8")	80/ (3-1/8")	80/ (3-1/8")
Suction Pipe Inner Diameter	mm / in	92/ (3-5/8")	92/ (3-5/8")	92/ (3-5/8")	104.8/ (4-1/8")	104.8/ (4-1/8")	104.8/ (4-1/8")
Oil Line Connector	mm / in	Φ16mm / (5/8")SAE					
Capacity Regulation		25%, 50%, 75%, 100% 4-step regulation or 25%~100% stepless regulation					
Protection Module		INT69 SNY					
Standard Motor		Y/△ - 400V/3/50Hz - 460/3/60Hz					
Star/Delta Start Current	A	354/1155	374/1155	453/1333	543/1645	595/1802	595/1802
Max Operating Current	A	249	270	305	335	360	410

Frequently Asked Questions

Q1: How do I determine whether the SW3H-21000 is suitable for my HVAC system?

When selecting an HVAC screw compressor, provide the required cooling capacity, refrigerant, evaporating and condensing temperatures, power supply and expected load conditions. These details help verify whether the compressor matches the system's actual operating requirements.

Q2: Which capacity control method is better for changing cooling loads?

For an air conditioning screw compressor, four-step regulation suits systems with defined load stages, while stepless regulation allows finer output adjustment. Choose the option according to load variation and controller compatibility, and confirm the configuration before ordering.

Q3: What electrical checks are necessary before commissioning?

Before starting this 220 HP screw compressor, verify that the site power supply matches the motor specifications. Check the star-delta starter wiring, phase sequence and INT69 SNY protection connections against the manufacturer's electrical diagram.

Q4: What should I do if the motor protection module reports a fault?

If the HVAC screw compressor stops following a protection alarm, check the motor temperature, phase sequence, phase loss and protection wiring. Identify and correct the underlying cause before restarting the compressor.

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