

Refcomp SW3L-4000 40HP 460V Commercial AC Refrigeration Semi-Hermetic Screw Compressor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Refcomp
- Certification: CE
- Model Number: SW3L-4000
- 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: 150/180 M3/hr
- Application: HVAC, Condensing Unit, Cold Room, Rack System
- Voltage: 400V/3/50Hz, 460/3/60Hz
- Rated Power: 40HP/30KW
- Refrigerant: R22, R134a, R507, R404A, R407C, R410a
- Highlight: **SW3L-4000 semi-hermetic screw compressor**, **40HP 460V refrigeration compressor**, **commercial AC semi-hermetic compressor**



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Our Product Introduction

Product Description

Product Overview

The Refcomp SW3L-4000 is a 40HP (30kW) semi-hermetic screw compressor engineered for commercial air-conditioning and refrigeration applications. It combines an optimized asymmetric rotor profile, a compact integrated housing, and high-precision suction filtration to deliver efficient, stable, and low-vibration compression performance.

Key Features

Optimized Asymmetric Rotor Design

The SW3L-4000 AC screw compressor uses RefComp's asymmetric 5/6-tooth rotor profile for smooth rotor engagement and reduced vibration. Its optimized geometry helps improve compression efficiency while supporting quieter, more stable mechanical operation.

Compact Housing & Improved Gas Flow

This RefComp screw compressor features optimized internal gas passages that help reduce suction resistance and flow losses. The compact housing integrates key components, simplifying equipment layout and making system installation more convenient.

High-Precision Suction Filtration

The semi-hermetic screw compressor includes a built-in 100 µm suction filter that captures impurities from incoming refrigerant gas before they reach the motor. This helps protect internal components from contamination and reduces the risk of damage caused by foreign particles.

Flexible Valve Connections & Backflow Protection

The suction and discharge shut-off valves can rotate through 360°, allowing flexible pipe routing in different equipment layouts. An integrated discharge check valve helps prevent refrigerant backflow during shutdown, providing additional system protection.

Product Image



Technical Specification

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Model	SW3L-4000
Rated power	40HP / 30KW
Displacement 50/60Hz	150 / 180 m³/hr
Weight	255 KG
Capacity Regulation	25%, 50%, 75%, 100% 4-step; 25%–100% stepless
Standard Motor	Y/△ – 400V/3/50Hz – 460V/3/60Hz
Star/Delta Start Current	131 / 398 A
Max operating current	80 A

Model		SW3L(Low Temperature)						
		3000	4000	5000	6000	7000	8000	9500
Nominal Power	HP/KW	30/22	40/30	50/37	60/45	70/52	80/60	95/71
Displacement 50/60Hz	m^3/hr	118/142	150/180	175/210	205/246	237/284	286/343	318/382
Weight	Kg	245	255	265	410	420	520	525
Discharge Pipe Inner Diameter	mm / in	42/(1-5/8")	42/(1-5/8")	42/(1-5/8")	54/(2-1/8")	54/(2-1/8")	54/(2-1/8")	54/(2-1/8")
Suction Pipe Inner Diameter	mm / in	54/(2-1/8")	54/(2-1/8")	54/(2-1/8")	67/(2-5/8")	67/(2-5/8")	80/(3-1/8")	80/(3-1/8")
Oil Line Connector	mm / in	Φ16mm / (5/8")SAE						
Capacity Regulation		25%, 50%, 75%, full load 4-step regulation or 25%~full load stepless regulation						
Protection Module		INT69 SNY						
Standard Motor		Y/△ - 400V/3/50Hz - 460/3/60Hz						
Star/Delta Start Current	A	110/331	131/398	134/406	139/422	139/459	223/670	318/953
Max Operating Current	A	65	80	88	103	117	139	154

Frequently Asked Questions

Q1: Can the SW3L-4000 be used in an air-conditioning system?

When evaluating the SW3L-4000 as an AC screw compressor, confirm that its approved operating range matches the required refrigerant and evaporating and condensing temperatures. The SW3L series is primarily intended for low-temperature refrigeration and process cooling, so application compatibility should be verified before selection.

Q2: What electrical requirements should be checked before commissioning?

The SW3L-4000 uses partial-winding motor starting, which helps manage starting current. Verify that the power supply, starter wiring, phase sequence and INT69 SNY protection circuit match the manufacturer's electrical specifications before operation.

Q3: How should the oil circuit be prepared before initial startup?

As a low-temperature screw compressor without an integrated oil separator, the SW3L-4000 requires a properly matched external oil separation and return arrangement. Check the oil circuit, filtration and flow-protection devices according to the installation documentation to support reliable lubrication.

Q4: What should be considered when replacing an existing compressor?

When replacing an AC screw compressor, compare the required cooling duty, approved operating range, mounting dimensions, piping connections and controller compatibility. These checks help avoid installation difficulties and ensure the replacement is correctly matched to the system.

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