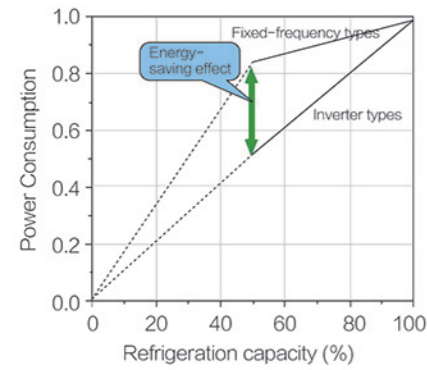


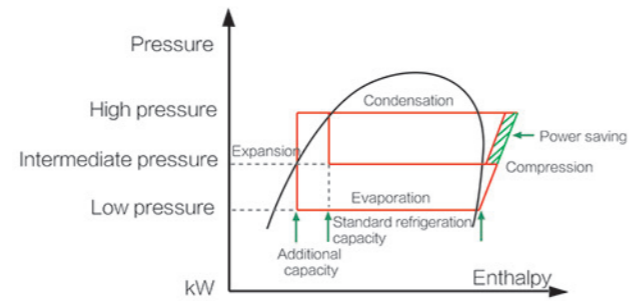
Energy-saving Analysis

Frequency conversion control



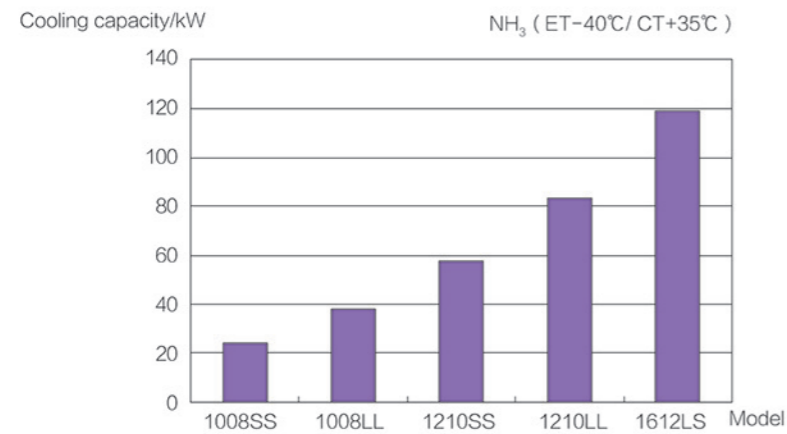
Vector frequency control is applied to reasonably distribute motor rotational torque to improve energy efficiency and save up to 38 % energy under some loaded conditions.

Two-stage compression



Under the working condition of high compression ratio, two-stage compression makes it possible to reduce power consumption, improve system COP, and obtain lower evaporating temperature.

Unit Refrigeration Capacity



Note: Refrigeration capacity at the rotational speed of 2,960 rpm and suction superheat of 5 °C, with an intercooler.

Technical Parameters

| Item | Unit | 1008 Series | | | | 1210 Series | | | | 1612 Series | | | | | | | |
|--------------------------|---|---|------|------------|------|-------------|-------|------------|-----|-------------|------|------------|-------|------|-----|-------|-----|
| | | Model | | Model | | Model | | Model | | | | | | | | | |
| Compressor | Model | SRS-1008SS | | SRS-1008LL | | SRS-1210SS | | SRS-1210LL | | SRS-1612LS | | SRS-1612LS | | | | | |
| | Theoretical displacement at low pressure stage | m ³ /h | | 221 | | 332 | | 463 | | 652 | | 652 | | | | | |
| | Theoretical displacement at high pressure stage | m ³ /h | | 82 | | 123 | | 166 | | 215 | | 215 | | | | | |
| Way of energy regulation | | Stepless energy regulation: 10 ~ 100% / stepped energy regulation | | | | | | | | | | | | | | | |
| Refrigerant | Type | R717 | R22 | R507A | R717 | R22 | R507A | R717 | R22 | R507A | R717 | R22 | R507A | R717 | R22 | R507A | |
| Refrigeration capacity | Low temperature working condition | kW | 24 | 29 | 34 | 38 | 46 | 53 | 58 | 70 | 82 | 83 | 100 | 117 | 119 | 143 | 167 |
| | Low temperature working condition | kW | 22 | 22 | 37 | 30 | 45 | 55 | 45 | 55 | 90 | 75 | 75 | 110 | 90 | 110 | 160 |
| Motor | Power supply | 380V/3P/50Hz | | | | | | | | | | | | | | | |
| | Rated rotation speed | rpm | 2960 | | | | | | | | | | | | | | |



Semi-hermetic Compound Two-stage Refrigeration Screw Compressor Unit

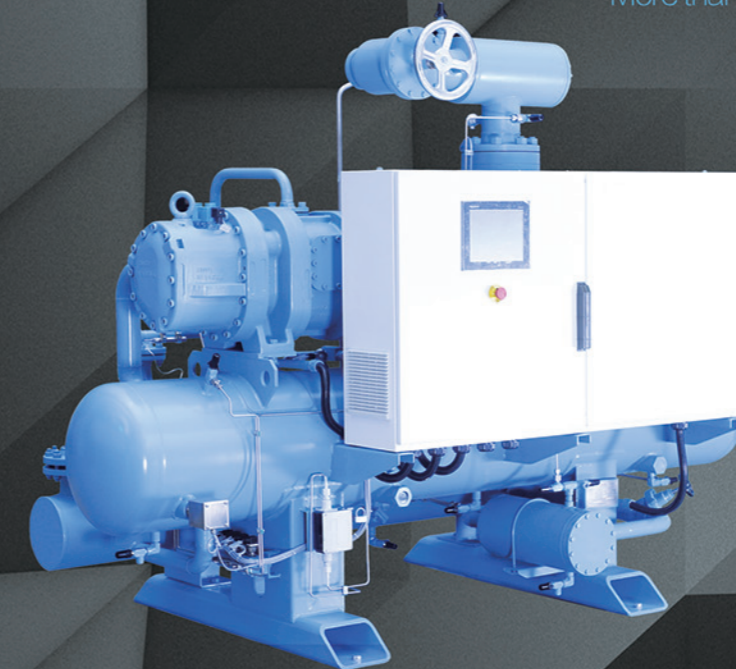
SRM Sweden
Wholly-owned subsidiary of Snowman

The inventor and leader of screw compressor
100-year legacy of technical quality & energy efficiency



Focus on screw technology for one hundred years

More than 3 million screw compressors all over the world
are technologically licensed by SRM



Fujian Snowman Co., Ltd.

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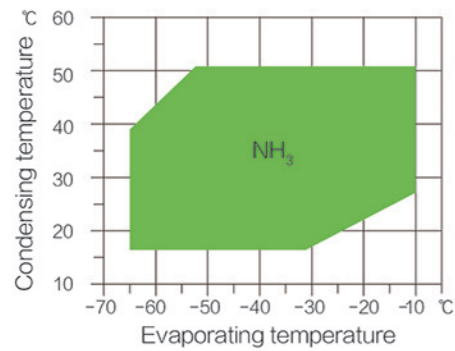
Unit Application

SRMTEC semi-hermetic compound two-stage screw compressor unit covers 5 models, with the displacement of 141 ~ 652 m³/h. The unit semi-hermetic compound two-stage screw compressor applies to the conditions of large pressure ratio in particular. The unit is applicable to various natural refrigerants and environmentally friendly media such as R717, R507A, R404A, etc. The unit is equipped with: compressor, control center, oil separator, intercooler, oil cooler, large-capacity filter, automatic components, etc.

Working conditions

| Item | Range |
|-------------------------------|---------|
| Evaporating temperature (°C) | -65~-10 |
| Displacement temperature (°C) | ≤ 110 |
| Oil supply temperature (°C) | 40~60 |

Applicable temperature range



Nominal condition

Working condition of low temperature: -40°C / 35 °C

Applications

- Food industry
Systemes for dumpling, rice dumpling, pasta, fish ball, cooked food, margarine ,etc.;
- Fishing industry
Systemes for fish, shrimp, shellfish, etc.;
- Dairy industry
Cold drying;
- Cold drink industry
Quick-freezing of coffee and ice cream;
- Butchery and processing industry
Quick-freezing and cold storage of chicken, duck, pork, beef, lamp, etc;
- Cryogenic storage and logistics
Large/medium/small cold storage, ultra low temperature cold storage, fresh keeping house and constant temperature storage of chemicals
- Chemical and pharmaceutical industry
Temperature control in chemical process, freeze drying of medicine and temperature control in pharmaceutical process.

Intermediate cooler

The unit is equipped with intermediate cooler to make the high pressure liquid from the condenser achieve relatively large overcooling degree and improve the system' s COP.

World leading compressor

- SRM "i" type patented profile with 5+7 best gear ratio combo, of high efficiency and steady operation;
- Selectable intelligent stepless energy regulation or stepped energy regulation on the basis of optimization;
- Selectable VI, operation of high efficiency under various working conditions;
- Highly efficient permanent magnet synchronous motor made of special customized material, compatible with various refrigerant, such as R717, R404A, R507A, R410A, etc.. Either ammonia or freon can be utilized (asynchronous motor is optional for freon application);
- Rotor manufactured with quality forged steel is of high strength and wear resistance;
- Innovative shaft seal structure with high sealing and wearability , available of a rotation speed of 10,000 rpm;
- High-strength housing design of nodular cast iron, with working pressure of up to 2.8 Mpa; the special low- temperature- resistant castings guarantee the steady operation under low temperature conditions;
- The integration of motor and compressor, compact in structure and efficient, preventing the risk of shaft seal leakage;
- Optimized design of runner leads to a smooth air circulation and less energy consumption; the unit operates safely and reliably with well-distributed temperature field;
- Surrounding cooling with refrigeration oil and cooling by spraying refrigerant are employed as double cooling with high efficiency, to ensure long, stable and efficient operation of the motor.

Advanced control center

- User-friendly interface, startup with "one-push" button, easy operation and intelligent control;
- Real-time monitoring of the unit, touch panel capable of displaying system pressure, energy regulation load position, run time, operation mode, operating condition, etc. and capable of storing historical information;
- The center is equipped with a preventive safety device system which allows unattended operation to be safe and reliable;
- Automatic energy regulation allows the unit to operate effectively under different working conditions;
- Automatic management of oil temperature limits the oil temperature in a certain range, ensuring the efficient and stable operation of the unit;
- Automatic control of pressure ensuring the exhaust pressure, suction pressure, etc. are within the setting ranges;
- With vector frequency conversion control, the unit is capable of adjusting the rotational speed according to the conditions and reasonably distribute motor rotational torque, allowing energy-saving efficient operation and low cost;
- Adopting remote operation, local operation and other operation modes are available for the system to turn on and turn off the equipment.

Modular design

Optimized structure design, highly integrated unit, small floor space, easy transportation & installation and short installation period.

Precise detachable filter

To keep the system clean, the unit is equipped with precise oil filter of big volume and precise intake filter for filtering the extraneous matters possibly generated during the installation and operation of the refrigeration system, to ensure the efficient and stable operation of the unit. The filter is easy to use and maintain, and is detachable for cleaning.

Reliable precise elements

All the elements in the system are produced by well-known manufacturers and with high reliability and quality assurance.

Efficient oil supply system

- The oil separator utilizes the four-level oil separating system ,with oil separating efficiency of up to 3~5 ppm through impact, gravity, packing and efficient molecular sieve, effectively reducing the lubricant from entering into the refrigeration system to improve the operation efficiency;
- Equipped with efficient oil cooler, with water cooling and refrigerant cooling for option;
- The lubrication system achieves oil supply by differential pressure, and operates stably, simply and reliably.

