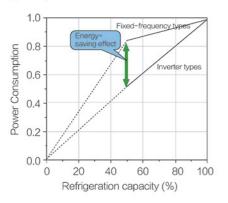
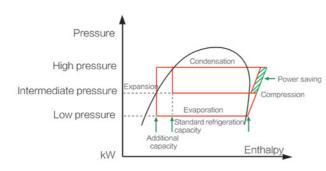
Energy-saving Analysis

Frequency conversion control



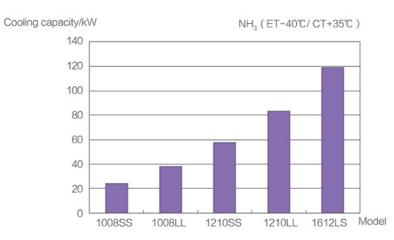
Vector frequency control is applied to reasonably distribute motor rotational torque to improve energy efficiency and save up to 38 % energy under some loaded conditions.

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



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

Technical Parameters

	Item	Unit			1008	Series			1210 Series						1612 Series		
Compressor	Model		SRS-1008SS			SRS-1008LL			SRS-1210SS			SRS-1210LL			SRS-1612LS		
	Theoretical displacement at low pressure stage	m³/h	141			221			332			463			652		
	Theoretical displacement at high pressure stage	m³/h	52			82			123		166		215				
	Way of energy regulation		Stepless energy regulation: 10 ~ 100% / stepped energy regulation														
Refrigerant	Туре		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
Motor	Low temperature working condition	kW	22	22	37	30	45	55	45	55	90	75	75	110	90	110	160
	Power supply		380V/3P/50Hz														
	Rated rotation speed	rpm	2960														



Semi-hermetic Compound Two-stage Refrigeration Screw Compressor Unit





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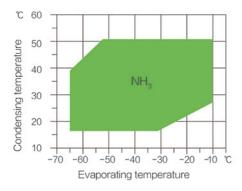
Unit Application

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 (℃)	-65~-10					
Displacement temperature (℃)	≤110					
Oil supply temperature (℃)	40~60					

Applicable temperature range



Nominal condition

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

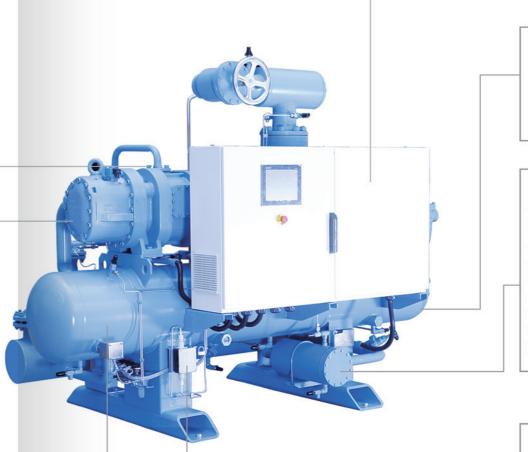
• The unit is equipped with intermediate cooler to make the high pressure liquid from the condenser achieve relatively large overcooling degree and improve the system's COP.

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 (asychronous 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 nodnlarcast iron, with working pressure of up to 2.8 Mpa; the special lowtemperature-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 refrigerantion 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

 ptimized 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 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;
- Equiped 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.