

Technical Parameters

Item		Unit	1612 Series								
Compressor	Model		SRM-1612MS			SRM-1612LS			SRM-1612LL		
	Theoretical displacement at low pressure stage	m³/h	544			652			652		
	Theoretical displacement at high pressure stage	m³/h	215			215			310		
	Adjustable range		Stepless energy regulation: 10~100%								
Refrigerant	Type		R717	R22	R507A	R717	R22	R507A	R717	R22	R507A
Refrigeration capacity	Low temperature working condition	kW	107	126	143	128	152	171	133	153	174
Motor	Low temperature working condition	kW	90	90	110	110	110	132	110	110	132
	Power supply		3P/ 380V/ 50Hz								
	Rated rotation speed	r/min	2960								
	Steering		It runs anticlockwise when facing the motor shaft.								
Oil pump	Model		GG4195			GG4195			GG4195		
	Motor power	kW	0.75			0.75			0.75		

Item		Unit	2016 Series								
Compressor	Model		SRM-2016MS			SRM-2016LS			SRM-2016LL		
	Theoretical displacement at low pressure stage	m³/h	1100			1270			1270		
	Theoretical displacement at high pressure stage	m³/h	435			435			652		
	Adjustable range		Stepless energy regulation: 10~100%								
Refrigerant	Type		R717	R22	R507A	R717	R22	R507A	R717	R22	R507A
Refrigeration capacity	Low temperature working condition	kW	224	266	303	259	308	349	259	314	353
Motor	Low temperature working condition	kW	160	200	200	200	200	220	200	220	250
	Power supply		380V/ 3P/ 50Hz								
	Rated rotation speed	r/min	2960								
	Steering		It runs anticlockwise when facing the motor shaft.								
Oil pump	Model		GG4195			GG4195			GG4195		
	Motor power	kW	0.75			0.75			0.75		

Item		Unit	2620 Series								
Compressor	Model		SRM-2620MS			SRM-2620LS			SRM-2620LL		
	Theoretical displacement at low pressure stage	m³/h	2075			2478			2478		
	Theoretical displacement at high pressure stage	m³/h	850			850			1270		
	Adjustable range		Stepless energy regulation: 10~100%								
Refrigerant	Type		R717	R22	R507A	R717	R22	R507A	R717	R22	R507A
Refrigeration capacity	Low temperature working condition	kW	431	522	583	515	617	676	514	612	698
Motor	Low temperature working condition	kW	315	315	355	315	355	450	355	400	500
	Power supply		380V/ 3P/ 50Hz (Optional high voltage power supply: 6kV/10kV/ 3P/ 50Hz)								
	Rated rotation speed	r/min	2960								
	Steering		It runs anticlockwise when facing the motor shaft.								
Oil pump	Model		HJ4195			HJ4195			HJ4195		
	Motor power	kW	1.5			1.5			1.5		

Item		Unit	3426 Series								
Compressor	Model		SRM-3426MS			SRM-3426LS			SRM-3426LL		
	Theoretical displacement at low pressure stage	m³/h	4280			5084			5084		
	Theoretical displacement at high pressure stage	m³/h	1659			1659			2478		
	Adjustable range		Stepless energy regulation: 10~100%								
Refrigerant	Type		R717	R22	R507A	R717	R22	R507A	R717	R22	R507A
Refrigeration capacity	Low temperature working condition	kW	684	860	1010	802	999	1170	804	1018	1176
Motor	Low temperature working condition	kW	560	630	800	630	710	900	710	800	1000
	Power supply		High voltage power supply: 6kV/10kV/ 3P/ 50Hz								
	Rated rotation speed	r/min	2960								
	Steering		It runs anticlockwise when facing the motor shaft.								
Oil pump	Model		HJ4195			HJ4195			HJ4195		
	Motor power	kW	1.5			1.5			1.5		

SRMTEC

Open-type Compound Two-stage Refrigeration Screw Compressor Unit



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



100 YEARS OF 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



SRMTEC

Fujian Snowman Co., Ltd.

Address: West Dongshan Road, Minjiangkou Industrial Zone of Fuzhou, Fujian, China
Tel: 0086-591-28701111 Fax: 0086-591-28709222
Http: //www.snowkey.com E-mail: info@snowkey.com



Unit Application

SRMTEC open-type compound two-stage screw compressor unit covers 12 models in 4 series, with displacement of 544 ~5,084 m³/h. The compound two-stage compressor unit applies to the condition of large pressure ratio in particular. The unit is equipped with: compressor, open-type motor, control center, oil separator, intercooler, oil cooler, large-capacity filter, pre-lubricating oil pump, automatic components, etc..

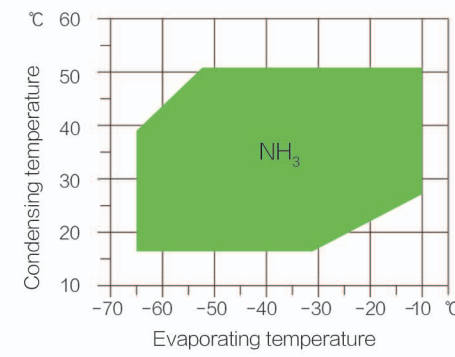
Applicable refrigerants

The unit is applicable to various natural refrigerants and environmentally-friendly media such as R717, R507A, R22, R404A, R134a and R407C.

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
Systems for dumplings, rice dumplings, pasta, fish balls, cooked food, margarine, etc.;
- Fishing industry
Systems 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, lamb, 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 an intermediate cooler to make the high pressure liquid from the condenser achieve relatively large overcooling degree and improve the system's COP.

Leading compressor in the world

- SRM "I" type patented profile with 5 + 7 best gear ratio combo, of high efficiency and steady operation;
- It supports 10% ~100% stepless energy regulation, with highly sensitive adjustable structure;
- Selectable VI, operation of high efficiency under various working conditions;
- Rotor manufactured with quality forged steel is of high strength and wear resistance;
- Precise and highly wear-resistant rolling bearing with a design service life of 100,000h;
- Innovative shaft seal structure with high sealing and wear-resistant performance, applicable to speeds of up to 10,000 rpm;
- High-strength housing design of nodular cast iron, with working pressure up to 2.8 Mpa; the special low-temperature-resistant castings guarantee the steady operation under low temperature conditions;
- Optimized runner design leads to a smooth air circulation and less energy consumption; with well-distributed temperature field, it may operate safely and reliably.

Reliable precise elements

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

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.

Efficient and reliable motor

- With an open-type asynchronous motor, the unit may operate effectively and generate low noise; a permanent magnet synchronous motor is also available for option;
- Low voltage motor of 380V and other special voltage motors like 6kV, 10kV, etc., are applicable.

Flexible coupling

- Flexible couplings are used to connect the compressor and motor;
- Adaptors may be mounted to integrate the compressor and motor, to achieve more stable operation.

Efficient oil supply system

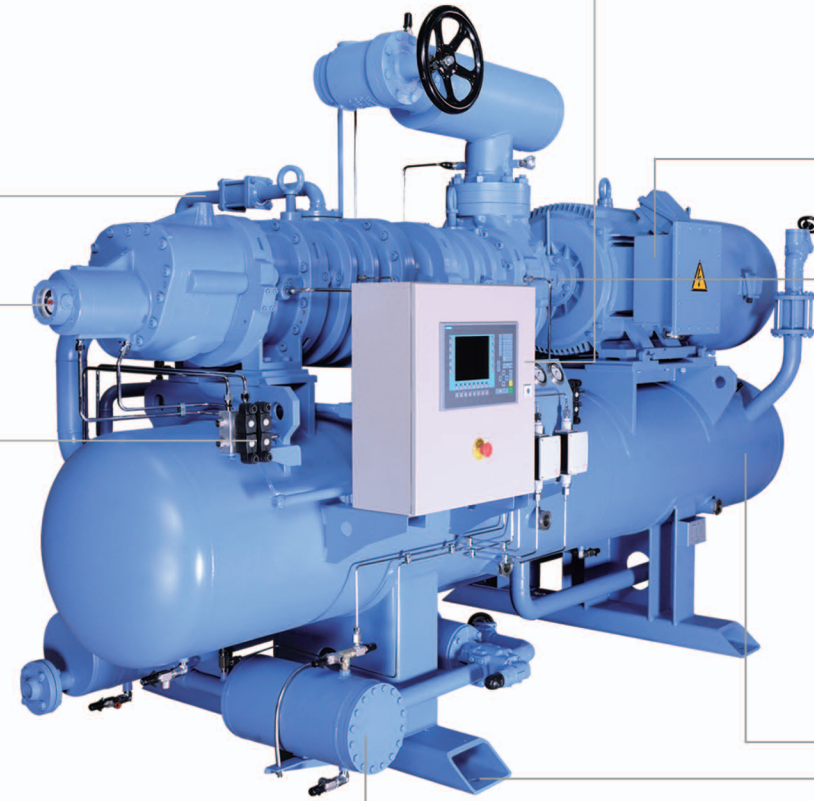
- The oil separator utilizes four-level oil separating system of an oil separating efficiency of up to 3~5ppm through impact, gravity, packing and efficient molecular sieve, effectively reducing the lubricant from entering into the refrigeration system to improve the operation efficiency;
- Equipped with an efficient oil cooler, and option water cooling and refrigerant cooling for;
- A reliable and power-saving system by pre-lubricating with a small oil pump and supplying oil by differential pressure after stable operation;
- With multi-point oil spray cooling system, the compressor may keep efficient and reliable operating.

Precise detachable filter

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

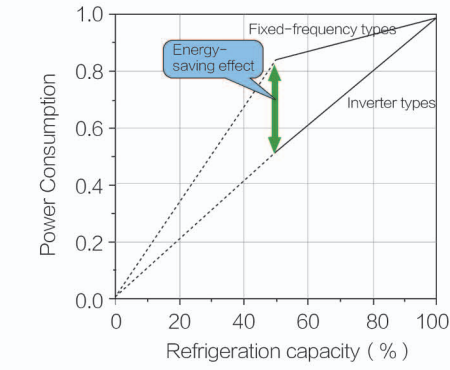
Modular design

Optimized structure design, highly integrated, small size, easy transportation & installation and short installation period.



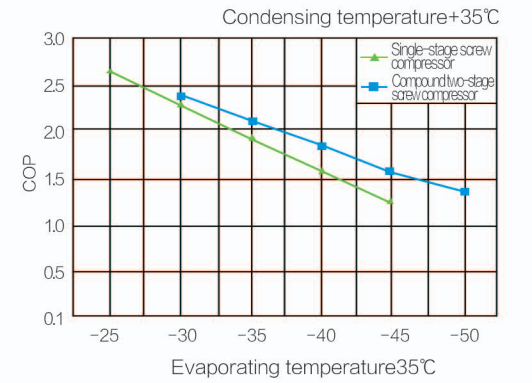
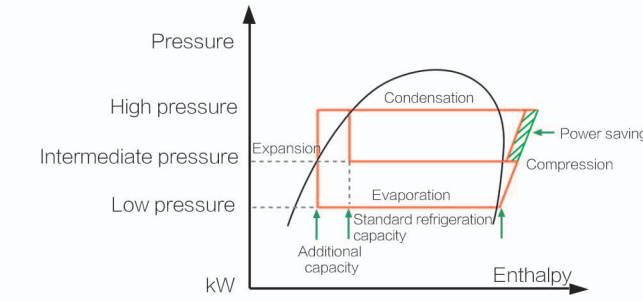
Energy-saving Analysis

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 load conditions.

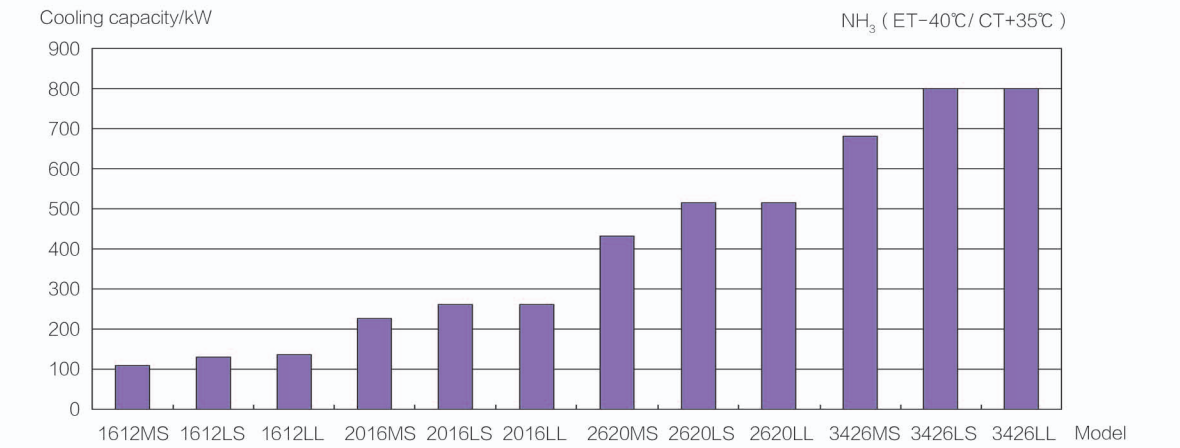
Two-stage compression



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

Compared with single-stage compressor, the compound two-stage screw compressor is more advantageous in the energy efficiency under low temperature conditions, and reducing the operation cost.

Unit Refrigeration Capacity



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