



**INNOVATIVE
ENERGY SAVING
SCREW COMPRESSOR**

SHANGHAI SCREW COMPRESSOR CO., LTD.

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SUPER EFFICIENCY SCREW AIR COMPRESSOR

TWO STAGE SERIES

55KW-315KW



SHANGHAI SCREW COMPRESSOR CO., LTD.



SHANGHAI SCREW COMPRESSOR CO.,LTD is a high tech Japanese joint venture with independent intellectual property, founded in 2000. SCR together with Anest Iwata focus on air compressor research and development, covering all aspects from manufacturing through to sales, service and technical support. SCR supply a complete range of products such as high efficiency permanent magnet variable speed air compressors, oil free screw compressors, oil free scroll compressors, bearing free and magnetic centrifugal blowers. The global sales and service network provide our customers with high-quality, energy efficient and environmentally friendly compressed air solutions.

SCR's statement of "power starts dreams" signifies the close relationship with their global partners, and suppliers. SCR is committed to building an industrial world with continuous improvement for both its customers, the environment and its employees.

 100000m² Square meters factory	 83 Country exported	 50000 Global customers
 35 Professional certifications	 35 Sino-Japanese R&D team member	 500 Global sales and service agents
 91 National patents	 10 Industry standards	 21 Years of R&D
 8% Annual sales re-invested into R&D	 140000 Production volume from 2000	



H/HV/LHPM SERIES

H/HV SERIES

MOTOR POWER:90-315KW
DISCHARGE AIRFLOW:21~68M³/MIN
PRESSURE:7/8/10/12.5BAR

LHPM SERIES

MOTOR POWER:55-250KW
DISCHARGE AIRFLOW:15~62M³/MIN
PRESSURE:4.5/5.5BAR



Ultimate efficient inverter model

SCR COMPRESSOR pushes the boundaries of compressed air efficiency once again with its latest generation of TWO STAGE SERIES screw air compressors. SCR TWO STAGE has not only achieved the class-leading Specific energy consumption by technology innovation and drastically energy loss reduction. But they also combine ease of use and maintenance with exceptional versatility and environmentally responsible design.

Energy saving Inverter control (option)	Wide range control	Different Working pressure
Super efficiency	<3ppm oil carryover	Up to 45°C Ambient condition

TYPICAL APPLICATIONS

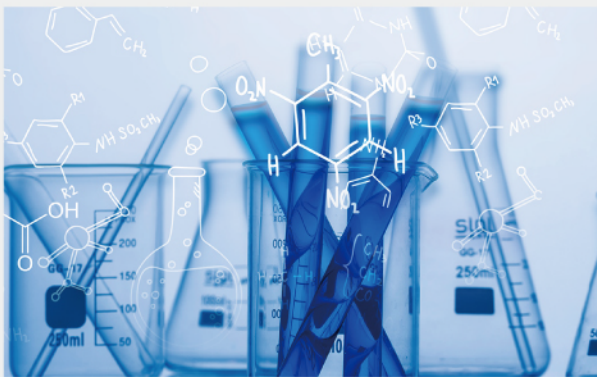
Mining Industry



Steel Industry



Chemical Industry



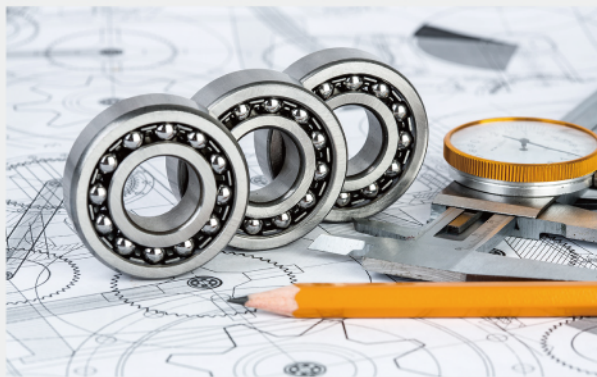
Metal Industry

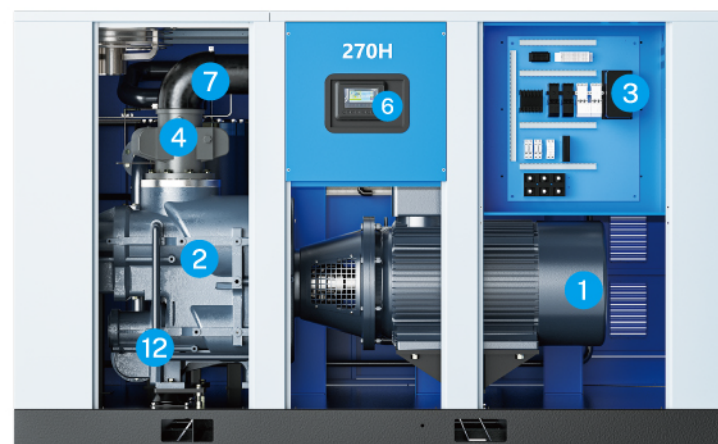


Textile Industry



Bearing Industry





01-TEFC motor(PM motor is option)

- IE3 efficiency standards;
- IP55 protection grade;
- F Insulation Grade.

02-Two Stage Airend

- Latest patented profile;
- Optimum compression and bearing design leads to a typical service life of 100,000 hours;
- Low noise, low vibration, operation reliable;
- High compression ratio;
- No Air slippage leads to very high efficiency.

03-Inlet filter

- Nano scale heavy duty;
- Filtration accuracy upto 99.9%;
- Captures dust particles below 0.3 micron;
- Pressure drop indicator;
- 2,000 hours service intervals;
- Designed for extremely dusty environments.

04-Inlet Valve

- Optimizes the inlet flow of the air end;
- No blow down losses;
- Maintenance free pipe design;
- High vacuum degree: 700mmHg;
- Large suction area, special design for low pressure application;
- Prevents unloading and shutdown oil injection;
- Fluoro rubber for improved valve seal.

05-Innovative flux sector inverter(option)

- CE/UL certification;
- Wide voltage design;
- Meet EMC C3 and C2 requirements;
- Built-in DC reactor;
- Independent cooling air duct design;
- Robust enclosure to trouble-free operation even in the harshest of conditions.

06-SCR 9000 touch controller

- 7" Full colour touch screen controller;
- Real-time operation/ maintenance/ alarm information;
- Full graphical Flow diagram;
- Operation record/ chart display;
- Multiple languages;
- Weekly and daily scheduling, service history and planning;
- On board RS485 interface, modbus RTU.

07-Electrical control cabinet

- Siemens core electrical components are used to further enhance reliability.

08-Centrifugal fan (up to 300HP)

- VSD control;
- Compact;
- Low noise level;
- High capacity for optimized cooling;
- Low power consumption.

09-Classic cooler design

- oil and after cooler is separate;
- Easy access for maintenance;
- Anti corrosion surface coatings;
- 20% oversized cooler design.

10-Oil filter

- High efficiency oil filter removes reliably removed contaminants from the oil;
- Oil particles can be controlled at 0.1 micron;
- Ensures a smooth and well-lubricated oil system;
- Multiple oil filter combination, enhance stable operation.

11-Gas tank & built-in separation system

- Oversized air and oil tank improves the cyclone effect maximising the separation process;
- The high efficiency oil separator ensures that the oil carry over is less than 3ppm;
- System pressure loss is less than 0.2 BAR;
- The rotating oil tank lid makes maintenance convenient and straight forward reducing maintenance down time.

12-All-steel internal pipe system

- All steel internal pipe work and compression joints are used to prevent leakage and premature ageing often seen with flexible pipes;
- Reduced friction losses.

TWO STAGE SERIES
EVEN MORE EFFICIENT

SUPER PREMIUM EFFICIENCY MAIN MOTOR

- > Standard TEFC motor
- > IE3 Motor Efficiency
- > F insulation grade
- > IP 55 protection grade
- > SKF bearing
- > Automatic Grease Replacement(Optional)
- > Bearing Temp Monitoring(Optional)
- > PM motor For VSD is Option



VSD control(option)

> Inverter Control

SCR TWO STAGE SERIES compressors have a wide operating speed range leading to stable constant pressure control further reducing power consumption. SCR's exclusive inverter and Energy Saving Logic control can get optimized energy savings, regardless of the load condition. They can react to pressure changes quickly maintaining pressure fluctuation to ± 0.01 MPa.

Dynamic motor
speed control

Optimized
capacity control
+
Constant
pressure control

Complete
energy control

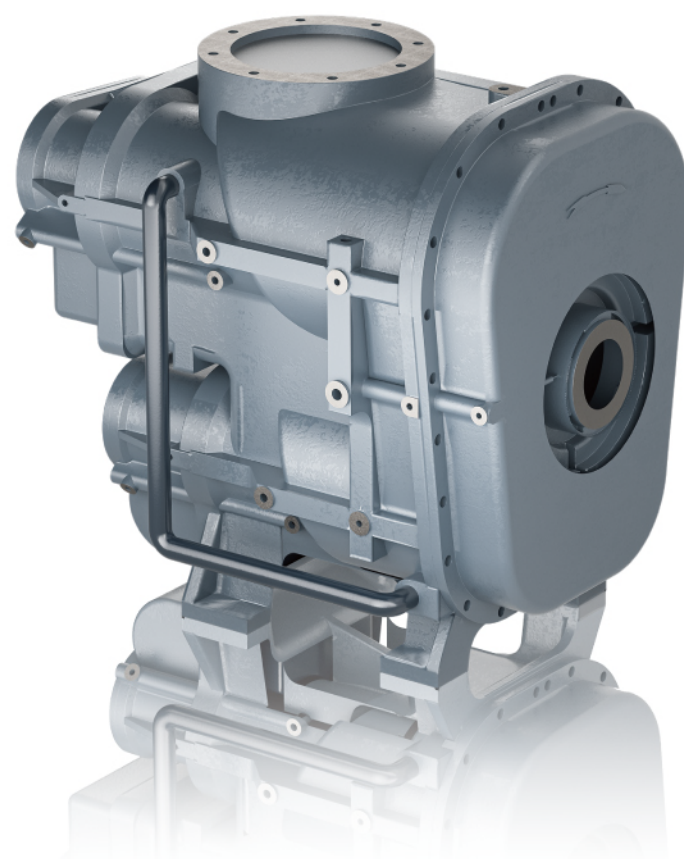
Seven major characteristics

-  On Board RS485 communication
-  Intelligent PID flow regulation mode
-  Accurate torque control
-  Fast response speed for system pressure
-  Fast acceleration and deceleration characteristics
-  Closed loop dynamic control and high precision control
-  Constant pressure control avoids over generating site air pressure



TWO STAGE AIREND FEATURES

- > The rotors are meshed and sealed with an oil film belt to reduce wear
- > R&D in Japan
- > Reduces the compression ratio with each compression
- > Reduces Energy Consumption
- > Low differential pressures
- > Improved volumetric efficiency
- > Low thermal load
- > Longer life span of bearing



WHY TWO STAGE COMPRESSION SAVES MORE ENERGY

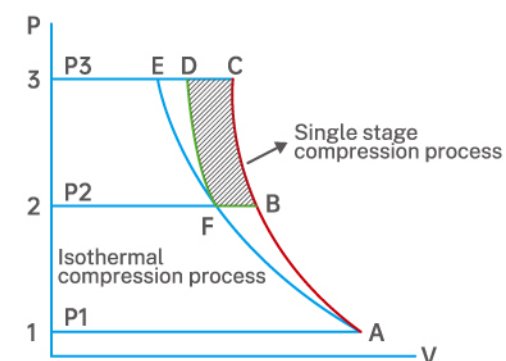
Isothermal Compression saves the most energy

AFE31 is area of isothermal compression

AC31 is area of standard compression

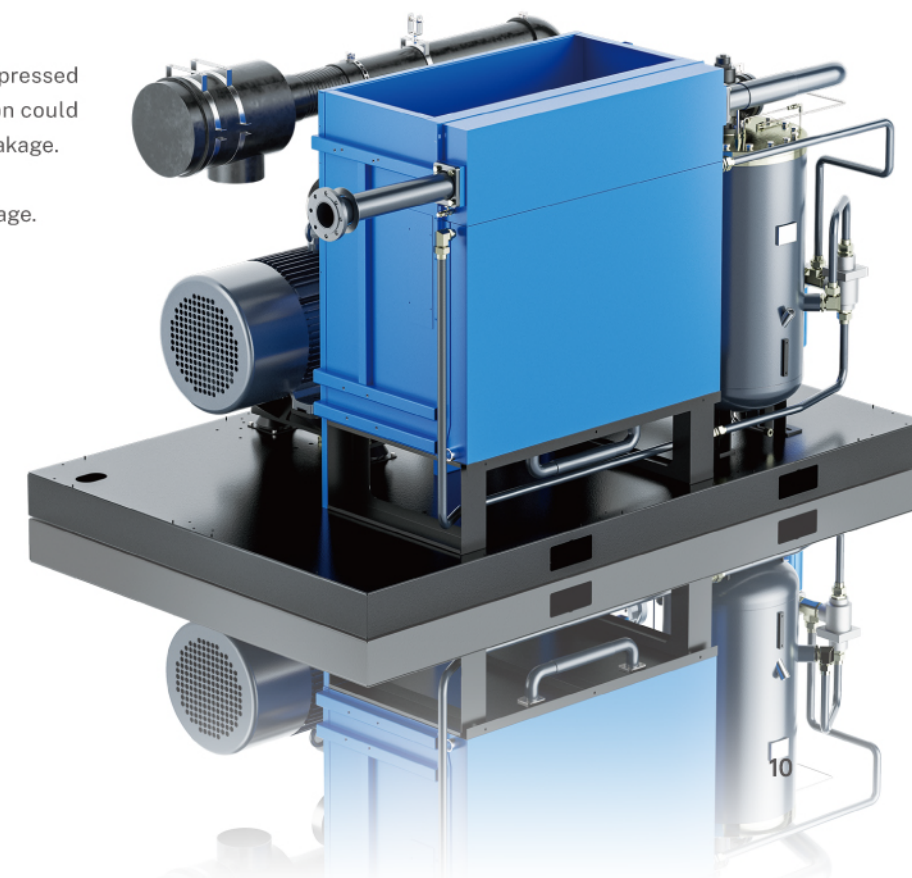
AB,BF,FD,31 is area of two stage compression

Two stage compression saving area is BCDF comparison with standard compression



After first grade compression, the volume of compressed air become smaller, then the second compression could use smaller rotor, which reduce the compression leakage.

This reduces compression ratio which reduces leakage.



AIR INLET SYSTEM

Air inlet system



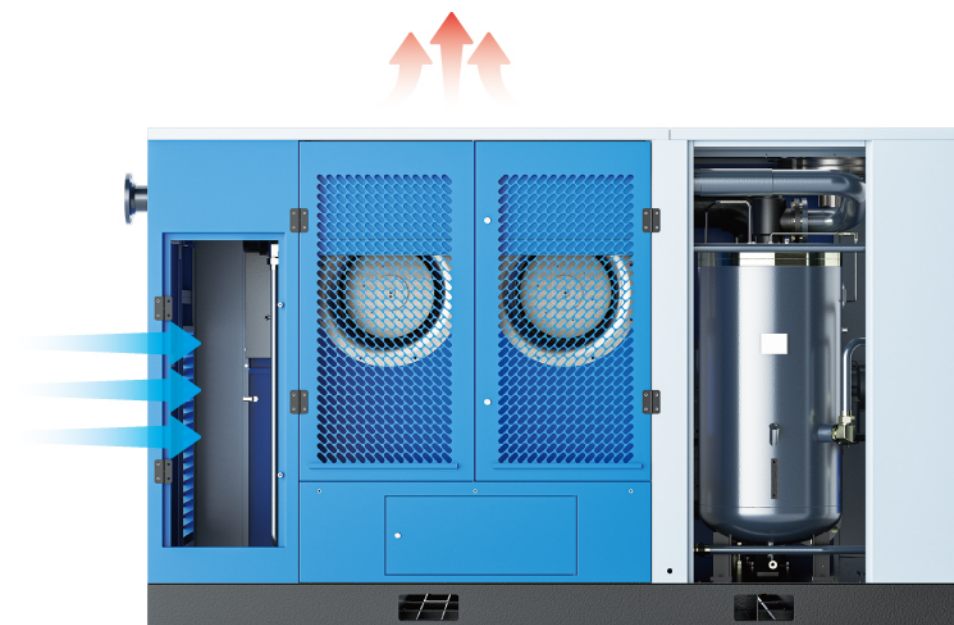
Large capacity air filter

More than 30% margin of air filter capacity
Efficiency is improved more than 0.5%

Inlet valve



Optimizes the inlet flow of the air end
Efficiency is improved more than 0.5%
Special Inlet Valve designed for low pressure application



> 30% oversized cooler design

> Inverter & electrical cabinet cooling

> VSD centrifugal fan

Centrifugal fan VSD operation according ambient
1~2% energy efficiency improvement

> Side air inlet and top air outlet

> Magnetic panel filters

Helps reduce the ingress of foreign matter preventing the cooler from blocking
Extend the service life of the compressor

OIL SYSTEM

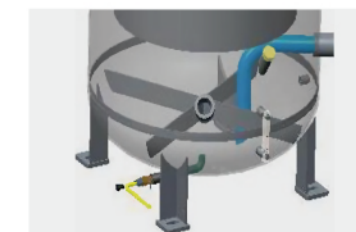
> Gas tank & built-in separation system

The flow guide plate changes flow direction, and the cross collision makes the small oil particles combine into large oil particles to separate, reduce the burden on the oil-gas separator layer, and extend the life of oil separator

Reserved more than 30% margin of oil-separator

Efficiency is increased by 1~2%

Vertical tangential structure separator



> Oil Filter

High efficiency oil filter removes reliably removed contaminants from the oil

Oil particles can be controlled at 0.1 micron

Ensures a smooth and well-lubricated oil system

Multiple oil filter combination, enhance stable operation



Canopy structure (300HP & below)

Full Enclosed Canopy, low noise level

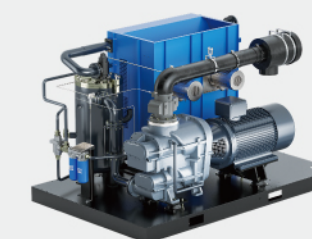
Independent lubrication system ensures efficient lubrication and sealing of the air end and bearings.

Independent air filter and motor cooling inlet path

Independent Inverter box and starter box

All steel internal pipe work and compression joints are used to prevent leakage and premature ageing often seen with flexible pipes

Less pipe friction losses



Compressor interior



Compressor Appearance

STATE-OF-THE-ART TOUCH CONTROLLER



SUPPORTS UP TO 16 MACHINES

- Improved user friendly design
- Parameters can be modified without stopping compressor
- 7 " touch screen plc
- Modbus RTU protected
- RS485 interface
- Multiple warning and protection function
- Energy saving logic
- Overload/ Over current/ phaseloss/unbalance protection
- Pre-alarm system to avoid sudden failure
- Multiple compressor sequencing capability
- Remote monitoring capability
- Programmable start stop schedules
- Power consumption data is stored inside PLC

Low Noise

Large rotor low speed effectively reduces airend vibration and noise

VSD air compressor starts and runs steadily without frequent loading and unloading of normal screw compressor

Double VSD control (main motor and fan motor double VSD) can reduce the noise of airend and coling fan

Acoustic sound deadening and new cooling system decreases overall noise level

Low noise operation means conversations can take place right beside the running compressor

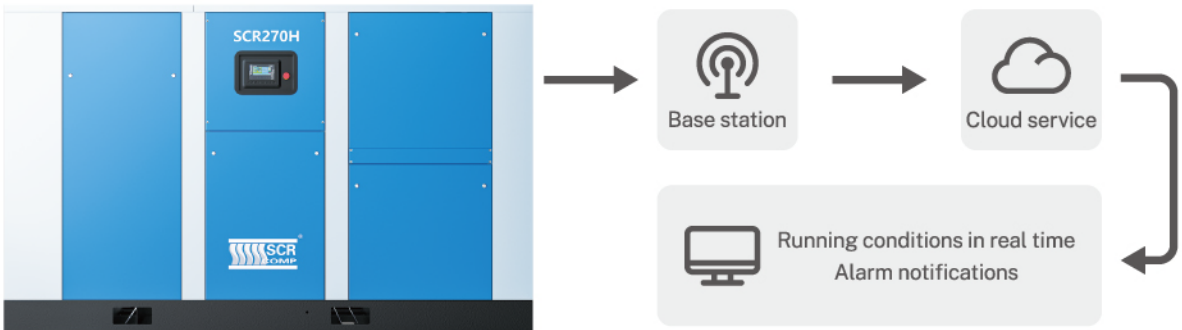


SCR'S CLOUD SERVICE OPTION

New air solution program with advanced IOT technology

Anytime, Anywhere

Customers can monitor the live running conditions of SCR compressors anytime, anywhere and can be accessed through a Cloud service in real time. Moreover, alarm notifications will help prevent any unplanned down time.



Reliable Security

VPN (Virtual private network) ensures the same reliable security level as the private network.

User friendly Cloud service.

Practical Use Of Cloud Service

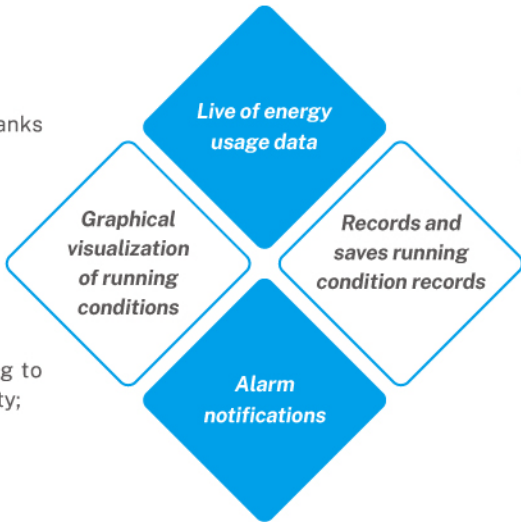
Easy maintenance

Maintenance will become easier thanks to remote monitoring system.

Stable-operation

Preventive maintenance according to alarm notifications increases reliability;

Live of energy usage data.



Energy saving

Monitoring the compressors actual conditions will help to improve energy use.

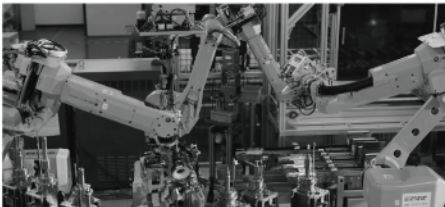
Trouble shooting

Remote monitoring prevents any unexpected maintenance issues reduces unplanned downtime.

PREMIUM QUALITY , PRECISION MACHINED

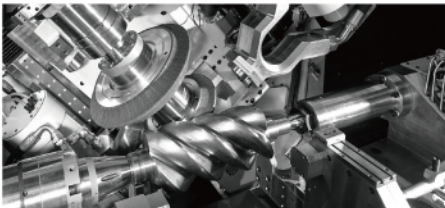
Meticulous assembly

All airends and compressor packages are assembled to the highest standards by SCR ' s qualified specialists in accordance with Japanese Quality Management System.



Performance testing

Each air compressor must undergo an operational inspection before leaving the factory to verify the performance of the compressor.



Precision milling and grinding

The new profiles rotors are machined on CNC profile grinders to micron accuracy.



Flexible machining centres

Rotors and casings for SCR airends are produced in a state of the art, climate controlled machining centres. Japanese quality management ensures unrivalled product quality.



Model	KW	Capacity (m³/min)	Pressure (BAR)	Dimension (mm)	Weight (KG)	Size
SCR530LHPM	55	4.5 -15	4.5/5.5	2400*1650*1700	2700	DN80
SCR830LHPM	90	7.1 -23.7	4.5/5.5	2900*1850*1950	3570	DN100
SCR950LHPM	110	8.5 - 28.2	4.5/5.5	2900*1850*1950	3650	DN100
SCR1200LHPM	132	10.3 -34.2	4.5/5.5	3000*2050*2100	4300	DN125
SCR1300LHPM	160	12.5 -41.6	4.5/5.5	3000*2050*2100	4500	DN125
SCR1500LHPM	185	14.1 -46.9	4.5/5.5	3300*2200*2250	5500	DN150
SCR1900LHPM	200	15.0 -50.0	4.5/5.5	3300*2200*2250	5800	DN150
SCR2200LHPM	250	18.6 -62.0	4.5/5.5	3580*2200*2300	6500	DN200

Model	KW	HP	Capacity (m³/min)	Pressure (BAR)	Dimension (mm)	Weight (KG)	Size
SCR125H-7	90	125	21	7	2800*1750*1700	3200	DN65
SCR125H-8			19.4	8			
SCR125H-10			17.5	10			
SCR125H-12.5			14	12.5			
SCR150H-7	110	150	25	7	2800*1750*1700	3500	DN65
SCR150H-8			23.6	8			
SCR150H-10			20	10			
SCR150H-12.5			17	12.5			
SCR180H-7	132	180	28.5	7	3400*2100*2000	4700	DN80
SCR180H-8			28	8			
SCR180H-10			22.5	10			
SCR180H-12.5			18.5	12.5			
SCR220H-7	160	220	33	7	3400*2100*2000	4900	DN80
SCR220H-8			32.8	8			
SCR220H-10			27.5	10			
SCR220H-12.5			23	12.5			
SCR250H-7	185	250	39	7	3400*2200*2100	5800	DN100
SCR250H-8			38.5	8			
SCR250H-10			34	10			
SCR250H-12.5			29	12.5			
SCR270H-7	200	270	43	7	3400*2200*2100	6000	DN100
SCR270H-8			42	8			
SCR270H-10			39	10			
SCR270H-12.5			33	12.5			
SCR300H-7	220	300	45.8	7	3400*2200*2100	6600	DN100
SCR300H-8			45.5	8			
SCR300H-10			42	10			
SCR300H-12.5			37.5	12.5			
SCR340H-7	250	340	51.5	7	4000*2150*2300	7000	DN125
SCR340H-8			51	8			
SCR340H-10			46	10			
SCR340H-12.5			40.5	12.5			
SCR375H-7	280	375	62	7	4000*2150*2300	7400	DN125
SCR375H-8			61	8			
SCR375H-10			53	10			
SCR375H-12.5			46	12.5			
SCR400H-7	315	400	68	7	4000*2150*2300	7900	DN125
SCR400H-8			67	8			
SCR400H-10			61	10			
SCR400H-12.5			51	12.5			

NOTE:

The capacity is measured as GB3853 standard.(equivalent to ISO1217 Annex C)

Standard voltage is 380V/50HZ/3P, other voltage is available.

The recommended best capacity range is 60%-100%.

Alpine/high altitude, high temperature, high humidity, high dust loads or other adverse working conditions will require specialized custom designs. These are available on special request.

We reserve the right to make changes and improvements to the design and appearance. Specifications may change without prior notice.



WORLDWIDE DISTRIBUTION CHANNELS

- LEGEND:
- Headquarters
 - Major global sales outlets

