FUSHENG

# SA+III Series

Two Stage Rotary
Screw Air Compressor


FUSHENG

Pursuing Excellence,
Enriching Life

eCOOL TECHNOLOGY

Fusheng has the final interpretation for the contents of the catalogue

SA+III-112A000-202512-E1


# Fusheng EMS

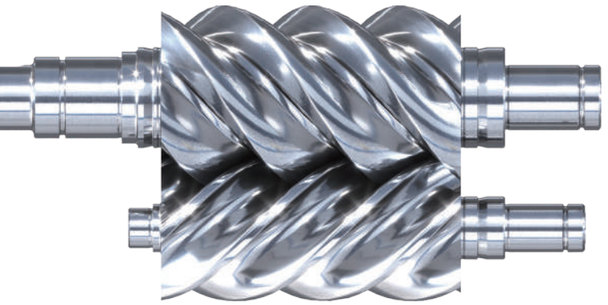
Smart integrated control system

Analyze key data

Compliant with ISO 50001 requirements

Enables precise management decisions

## Applications



More energy-saving.

More reliable.

More efficient.



**A key management tool for**

## Fusheng EMS Air Compressors, HVAC, and Energy-Consuming Equipment

We take pride not only in our technologies and systems that have achieved higher energy efficiency certifications, but also in our proven expertise as an energy-saving specialist for air compressors, HVAC, and cold chain systems.

With over 70 years of experience in software and hardware integration, Fusheng leverages its extensive industry knowledge and technical strength to bring innovation into every product and service we offer.

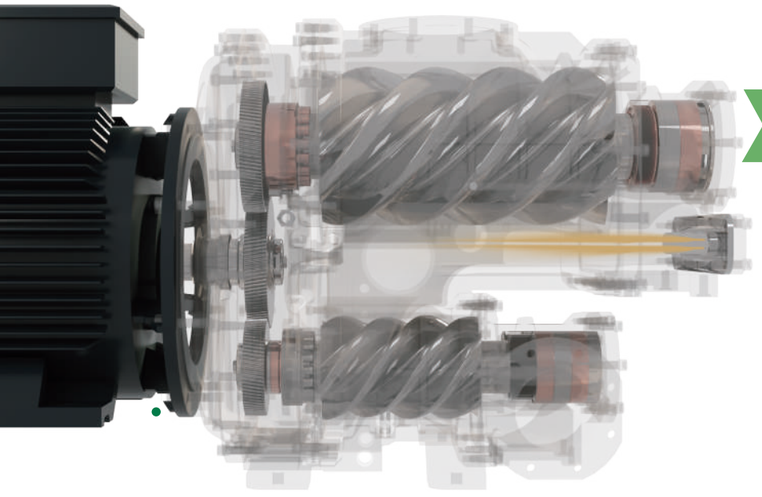
Real-time monitoring across all plant equipment simplifies complex data into smart, visual insights—unlocking hidden energy savings and cutting both operational and management costs.

### Born for Corporate Energy Efficiency

### A Comprehensive Equipment Management Solution

- Abnormal Alarm / Real-Time Maintenance Notifications
- Intelligent Control Mechanism
- Historical Trend Analysis
- Power Consumption Overview for Equipment Groups
- Smart Demand Management
- Automated Periodic Reports
- Intuitive HMI Interface

# Pursuing Excellence · Upgraded for Energy Savings



**Airend Interstage Lubrication** Certified Patent No. CN 216842129 U

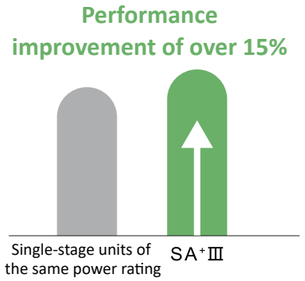
- The optimized interstage lubrication design creates a smoother cooling flow field, achieving superior compression efficiency.
- The coaxial design of the motor and gear ensures higher transmission efficiency while significantly reducing the footprint.

## Significantly Enhanced Performance

- With upgrades focused on every design detail of the airend, the SA+ series achieves outstanding energy efficiency. This next-generation airend serves as the powerful heart of the system, delivering a remarkable boost in overall performance.

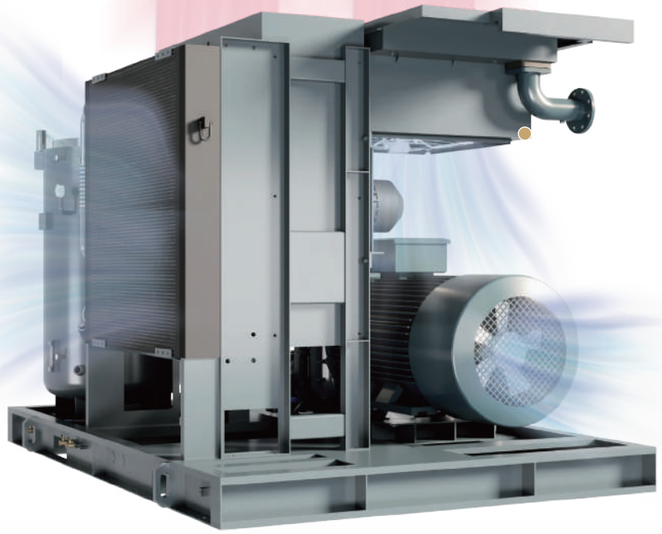
## Upgrade for Higher Energy Efficiency

- The optimized oil injection design reduces fluid resistance while enhancing the cooling effectiveness of the lubricant. Combined with a high-efficiency motor, the entire compressor unit delivers improved specific power performance.




## Up to 20% Smaller Footprint

- With a smarter and more efficient layout, the footprint is significantly reduced compared to previous models—while still allowing sample space for maintenance and service access.

**Separated Cooler** Certified Patent No. CN 219605535 U

- Breaking the limitations of single coolers, this design optimizes oil temperature while achieving lower compressed air outlet temperatures.
- The air-cooled model uses a centrifugal fan to directly draw in cooler external air and forcibly expel hot air inside the unit, maintaining a lower internal temperature.
- The water-cooled model features a robust shell-and-tube cooler with a straight-through tube design, resulting in lower pressure drop and easier cleaning.

## Independent Bearing Lubrication Circuit

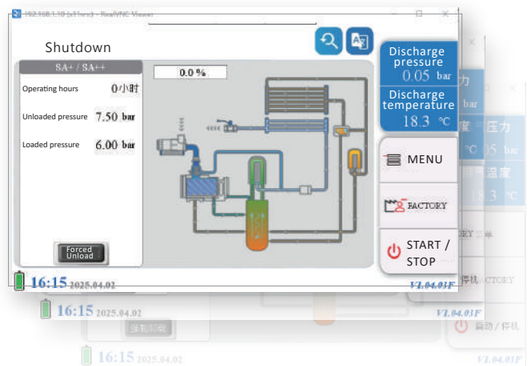
- The bearings are lubricated through a dedicated oil circuit, ensuring more efficient lubrication and cooling.
- An individual oil filter is equipped to maintain the cleanliness of the lubrication oil.

**Multi-layer Temperature Protection** Certified Patent No. CN 212615255 U

- Multi-layer temperature protection ensures greater reliability, reduces maintenance costs, and speeds up repair times.
- Fusheng's specially designed shaft barrel cover allows quick replacement of the oil fine separator element.

## Intelligent Controller

- Intuitive and multilingual user interface for effortless operation
- Enhanced anti-interference performance ensures stable control
- Remote start/stop capability for flexible system management
- Built-in CAN bus communication interface for seamless integration




Enables smart IoT control for real-time monitoring of compressor operation

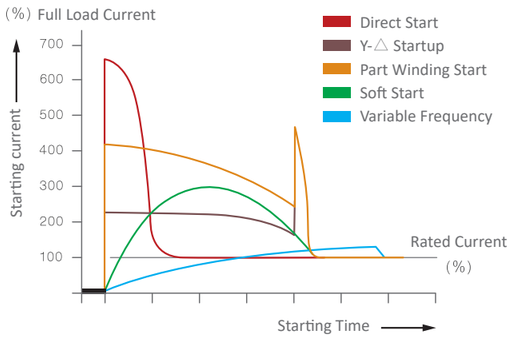
Large color touchscreen design with a user-friendly HMI interface

Intelligent monitoring of key components (motor/inverter)

Standard RS485 communication interface enables sequential control of multiple compressors

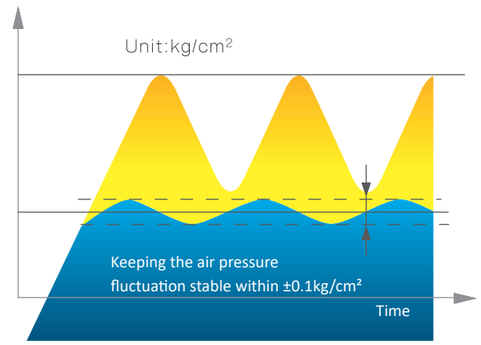
### Variable frequency startup

Soft startup with variable frequency, smooth linear operation without the high current of traditional direct startup or star-delta startup. Reduces impact on electrical circuits, significantly extending the service life of electromagnetic contactors, motors, and compressor airend.




### Constant pressure air supply

Variable frequency control responds instantly to changes in air demand, maintaining stable discharge pressure. Unlike traditional compressors that require a 1–2 kg/cm² pressure differential for load/unload operation, this significantly reduces energy consumption.




## SA+ Series two-stage screw air compressor (Air-cooled model)

| Model | Delivery | Working pressure | Motor power | Length | Width | Height | Weight | Air outlet size |
|---|---|---|---|---|---|---|---|---|
| | m³/min | MPa | kW | mm | mm | mm | kg | |
| SA⁺55AIII | 10.5 | 0.8 | 55 | 2200 | 1480 | 1800 | 2400 | DN50 |
| SA⁺75AIII | 14.0 | 0.8 | 75 | 2200 | 1480 | 1800 | 2450 | DN50 |
| SA⁺90AIII | 17.5 | 0.8 | 90 | 2400 | 1800 | 2000 | 3700 | DN80 |
| SA⁺110AIII | 20.8 | 0.8 | 110 | 2400 | 1800 | 2000 | 3800 | DN80 |
| SA⁺132AIII | 25.5 | 0.8 | 132 | 2800 | 2000 | 2000 | 4300 | DN100 |
| SA⁺160AIII | 31.0 | 0.8 | 160 | 2800 | 2000 | 2000 | 4500 | DN100 |
| SA⁺200AIII | 41.0 | 0.8 | 200 | 3200 | 2100 | 2100 | 6800 | DN100 |
| SA⁺250AIII | 52.5 | 0.8 | 250 | 3200 | 2100 | 2100 | 7000 | DN100 |

## SA+ Series two-stage screw air compressor (Water-cooled model)

| Model | Delivery | Working pressure | Motor power | Cooling water flow rate | Length | Width | Height | Weight | Air outlet size |
|---|---|---|---|---|---|---|---|---|---|
| | m³/min | MPa | kW | m³/h | mm | mm | mm | kg | |
| SA⁺55WIII | 10.5 | 0.8 | 55 | 12.0 | 2200 | 1480 | 1800 | 2350 | DN50 |
| SA⁺75WIII | 14.0 | 0.8 | 75 | 14.0 | 2200 | 1480 | 1800 | 2400 | DN50 |
| SA⁺90WIII | 17.5 | 0.8 | 90 | 20.0 | 2400 | 1800 | 2000 | 3600 | DN80 |
| SA⁺110WIII | 20.8 | 0.8 | 110 | 20.5 | 2400 | 1800 | 2000 | 3700 | DN80 |
| SA⁺132WIII | 25.5 | 0.8 | 132 | 21.0 | 2800 | 2000 | 2000 | 4100 | DN100 |
| SA⁺160WIII | 31.0 | 0.8 | 160 | 21.5 | 2800 | 2000 | 2000 | 4300 | DN100 |
| SA⁺200WIII | 41.0 | 0.8 | 200 | 23.0 | 3200 | 2100 | 2100 | 6400 | DN100 |
| SA⁺250WIII | 52.5 | 0.8 | 250 | 27.0 | 3200 | 2100 | 2100 | 6600 | DN100 |

## SAV+ Series permanent magnet variable frequency two-stage screw air compressor (Air-cooled model)

| Model | Delivery | Working pressure | Motor power | Length | Width | Height | Weight | Air outlet size |
|---|---|---|---|---|---|---|---|---|
| | m³/min | MPa | kW | mm | mm | mm | kg | |
| SAV⁺55AIII | 4.20~10.5 | 0.8 | 55 | 2200 | 1480 | 1800 | 2500 | DN50 |
| SAV⁺75AIII | 5.60~14.0 | 0.8 | 75 | 2200 | 1480 | 1800 | 2600 | DN50 |
| SAV⁺90AIII | 7.00~17.5 | 0.8 | 90 | 2400 | 1800 | 2000 | 3800 | DN80 |
| SAV⁺110AIII | 8.30~20.8 | 0.8 | 110 | 2400 | 1800 | 2000 | 3900 | DN80 |
| SAV⁺132AIII | 10.2~25.5 | 0.8 | 132 | 2800 | 2000 | 2000 | 4400 | DN100 |
| SAV⁺160AIII | 12.4~31.0 | 0.8 | 160 | 2800 | 2000 | 2000 | 4600 | DN100 |
| SAV⁺200AIII | 16.4~41.0 | 0.8 | 200 | 3200 | 2100 | 2100 | 7250 | DN100 |
| SAV⁺250AIII | 21.0~52.5 | 0.8 | 250 | 3200 | 2100 | 2100 | 7550 | DN100 |

## SAV+ Series permanent magnet variable frequency two-stage screw air compressor (Water-cooled model)

| Model | Delivery | Working pressure | Motor power | Cooling water flow rate | Length | Width | Height | Weight | Air outlet size |
|---|---|---|---|---|---|---|---|---|---|
| | m³/min | MPa | kW | m³/h | mm | mm | mm | kg | |
| SAV⁺55WIII | 4.20~10.5 | 0.8 | 55 | 12.0 | 2200 | 1480 | 1800 | 2450 | DN50 |
| SAV⁺75WIII | 5.60~14.0 | 0.8 | 75 | 14.0 | 2200 | 1480 | 1800 | 2500 | DN50 |
| SAV⁺90WIII | 7.00~17.5 | 0.8 | 90 | 20.0 | 2400 | 1800 | 2000 | 3700 | DN80 |
| SAV⁺110WIII | 8.30~20.8 | 0.8 | 110 | 20.5 | 2400 | 1800 | 2000 | 3800 | DN80 |
| SAV⁺132WIII | 10.2~25.5 | 0.8 | 132 | 21.0 | 2800 | 2000 | 2000 | 4200 | DN100 |
| SAV⁺160WIII | 12.4~31.0 | 0.8 | 160 | 21.5 | 2800 | 2000 | 2000 | 4400 | DN100 |
| SAV⁺200WIII | 16.4~41.0 | 0.8 | 200 | 23.0 | 3200 | 2100 | 2100 | 6850 | DN100 |
| SAV⁺250WIII | 21.0~52.5 | 0.8 | 250 | 27.0 | 3200 | 2100 | 2100 | 7150 | DN100 |