

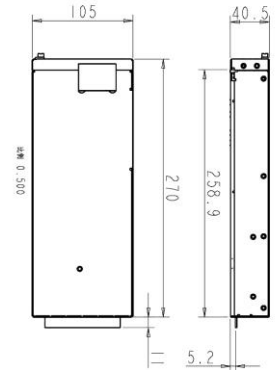
SR4850x-1U series 1U 50A Rectifier Input/Output : 90~300Vac / 42~58Vdc

SR4850x-1U series, a 1U high power rectifier, is an ideal design for applications requiring 53.5Vdc power. It can provide up to 2900 watts of power and the efficiency is up to 96%.

The rectifier is designed to operate as an integral component in telecommunication power system as well as a stand-alone module. It is increasingly used in wireless communications, enterprise and broadband access equipment. The design with power conversion and output integration makes it easier to be installed.

Features

- Small footprint-1U
- Universal AC input range(90~300Vac)
- Operating temperature range from -40°C to +75°C
- Active load sharing
- Advanced internal monitoring



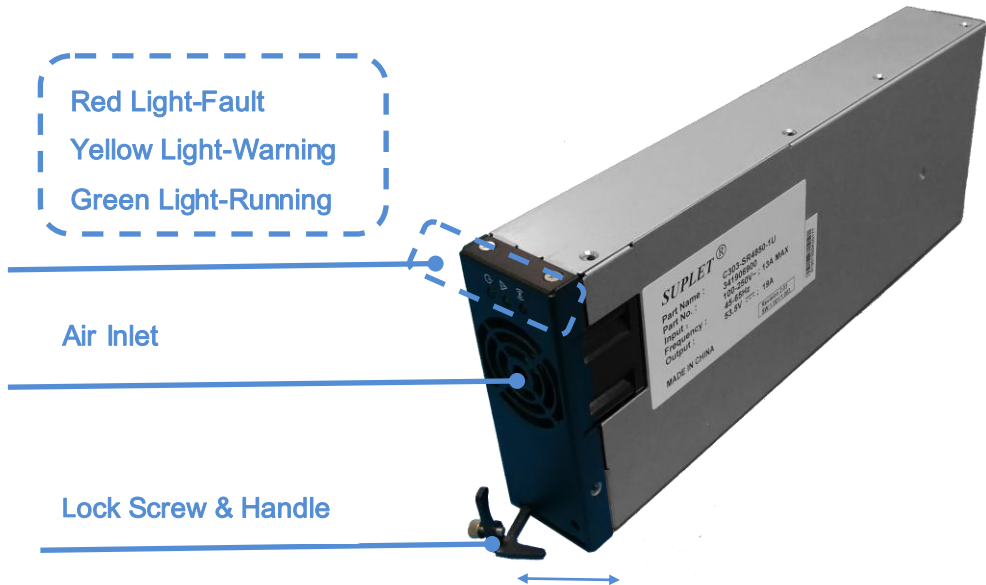
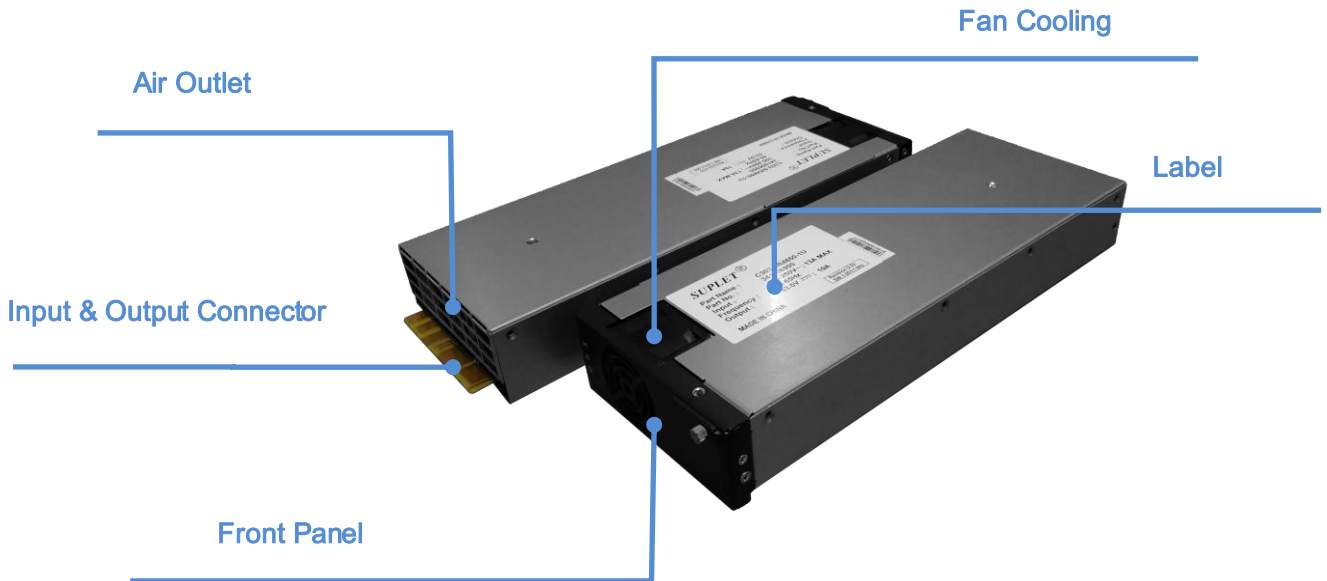
| Input characteristics | | Output characteristics | |
|-----------------------|--|--------------------------------|-------------------------|
| Input voltage | 176 ~ 300Vac full load | Vo set point(min/typ/max) | 42/53.5/58(Vdc) |
| | 90 ~ 176Vac De-rating | Vo Regulation(min/max) | -0.5/0.5(%) |
| Rated input voltage | 200 ~ 250Vac | Output noise | <200mV(Bandwidth 20MHz) |
| Input voltage(max) | 300Vac. | Psophometric | <2mV |
| Input frequency(min) | 45Hz | Dynamic response | 5% |
| Input frequency(max) | 65Hz | Turn-on delay | <10s |
| Inrush current | ≤150% the rated input steady-state peak value (excludes Xcaps in the EMC input filter) | Hold-up time | >10ms |
| | | Output over voltage protection | 59(Vdc) |
| Power factor | ≥0.99 | Load Sharing((min/max)) | -5/+5(%) |
| THD | <5% | | |

| Environmental characteristics | | | | | |
|---|---|-----|------|-------|--|
| Parameters | Min | Typ | Max | Unit | Note |
| Storage temperature | -40 | | 85 | °C | |
| Operating temperature(internal cooling) | -40 | | 75 | °C | -40°C to +50°C with full performance; de-rating from 50°C to 75°C. |
| Humidity | 5 | | 90 | % | Non-condensing |
| Altitude | -100 | | 2000 | m | De-rating from 2000m |
| MTBF | 10 ⁵ | | | hours | |
| Insulation resistance | 20MΩ | | | | AC-Enclosure |
| | 20MΩ | | | | AC-DC |
| | 20MΩ | | | | DC- Enclosure |
| Dielectric strength | | | 2121 | VDC | AC-Enclosure |
| | | | 4242 | | AC-DC |
| | | | 707 | | DC- Enclosure |
| Cooling | Horizontal direction, forced air coding | | | | |
| Audible noise | <55dBA | | | | |

| Parameters | Typ. | Unit |
|------------|------|------|
| Length | 281 | mm |
| Width | 105 | mm |
| Height | 40.5 | mm |
| Weight | 2.5 | kg |

SR4850x-1U Series

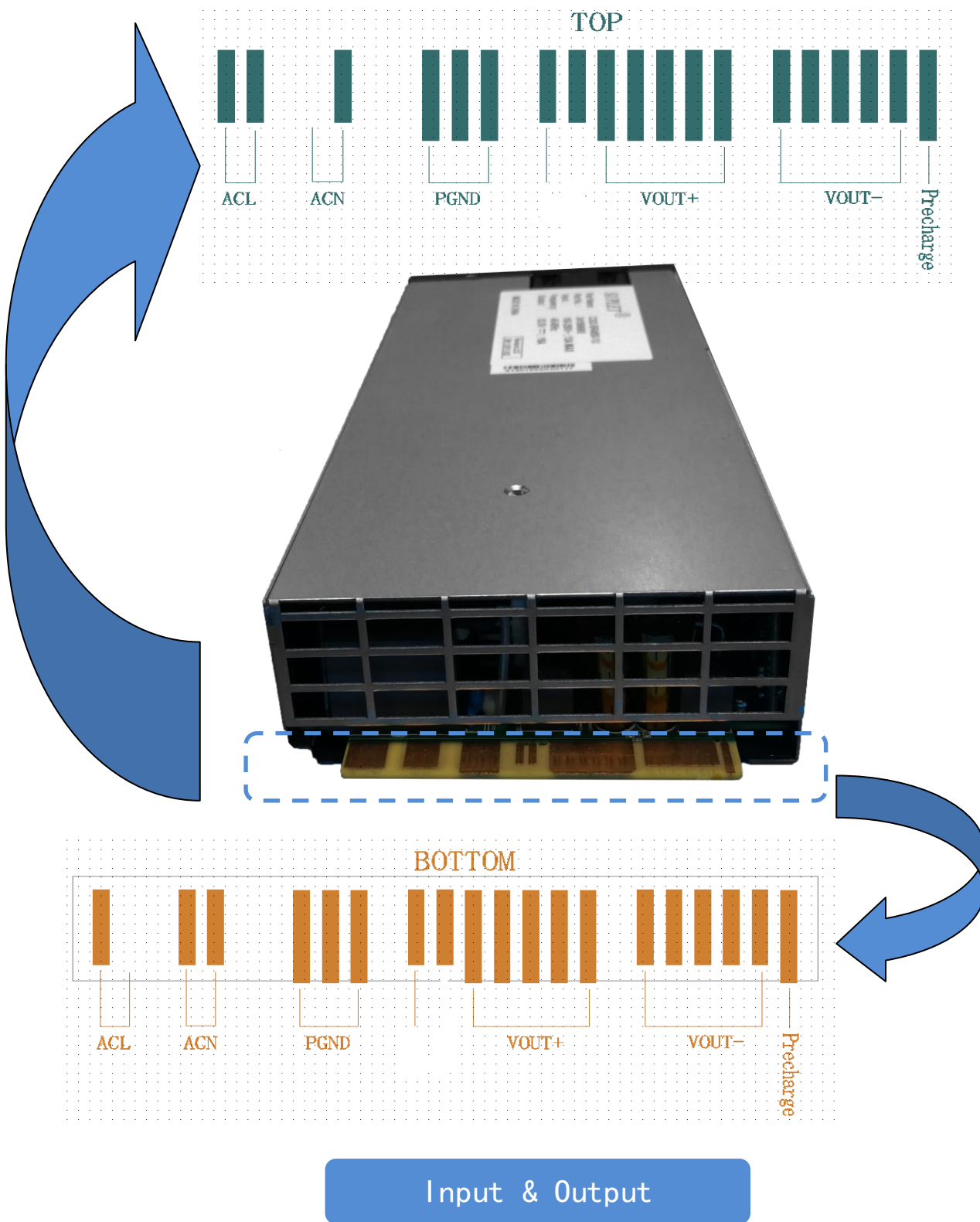
1U 50A Rectifier



Product Appearance

SR4850x-1U Series

1U 50A Rectifier





Connector and Signal Definition

1 Input

ACL/ACN/PGND are connected with AC input through backplane board

2 Output

Positive output (Vout+) and Negative output (Vout-) Vout is connected with output through backplane board.

3 CAN Communication

CAN Communication between rectifier and controller

Monitor : AC status , Rectifier status , Temperature status, DC status, Fan Status etc.

Control : On/off control, output voltage adjustment

The rectifier can operate without controllers and communication ports can be using for something else.

| Protection characteristics | | | | | |
|--------------------------------|-----|-----|-----|------|----------------------------|
| | Min | Typ | Max | Unit | Note |
| Over temperature protection | | | 75 | °C | |
| Input over voltage protection | | 300 | | Vac | Module stop working |
| Input under voltage protection | | 80 | | | Module stop working |
| output over voltage protection | | 59 | | Vdc | |
| Short circuit protection | | | | | No damage within long time |

Order information

| MPN | Input voltage (Vac) | Maximum input current (A) | Output voltage (Vdc) | Output current (@53.5Vdc) | Current limit (A) | Power (W) | Efficiency |
|------------|-----------------------|-----------------------------|----------------------|---------------------------|---------------------|-------------|------------|
| SR4850-1U | 90-300 | 19 | 42~58 | 54.2A | 55 | 2900 | 92% |
| SR4850M-1U | 90-300 | 18 | 42~58 | 54.2A | 55 | 2900 | 95% |
| SR4850H-1U | 90-300 | 18 | 42~58 | 54.2A | 60.417 | 2900 | 96% |

Note: All information contained in this datasheet is subject to change without notice, please visit our official website www.suplet.com for the latest information and refer to the user manual for more details.