

SR4850x-1U 1U High Power Rectifier

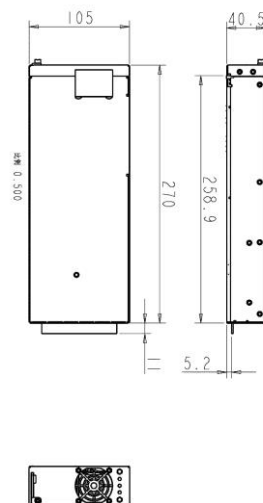
Output : 42~58Vdc/50A

SR4850x-1U series, 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

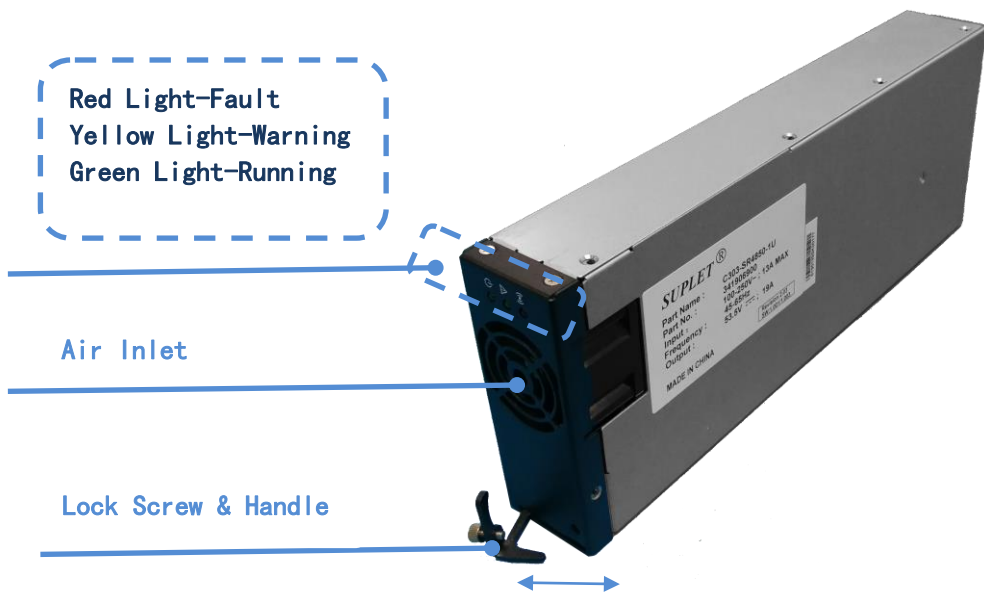
- Small footprint-1U
- Universal AC input range(90~300Vac)
- Operating temperature range from -40°C to +75°C
- Active load sharing
- Advanced internal monitoring



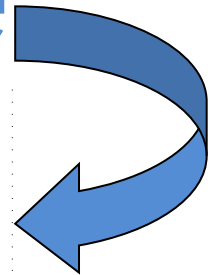
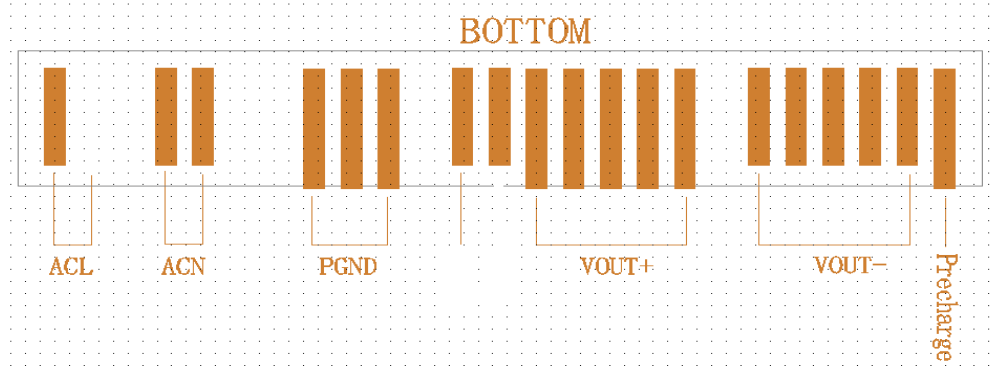
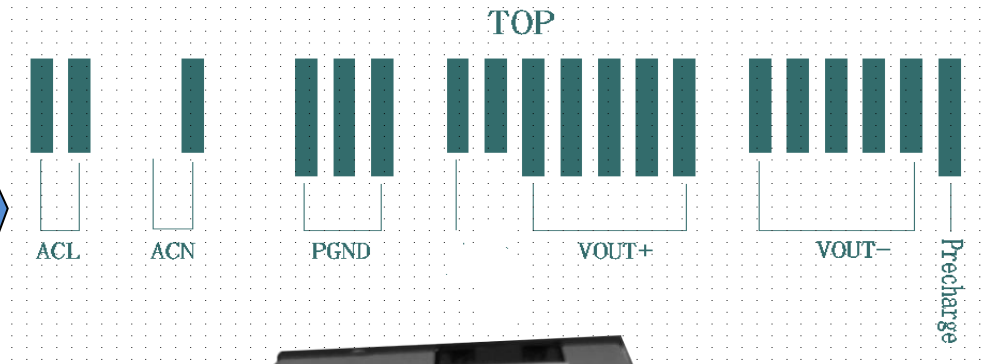
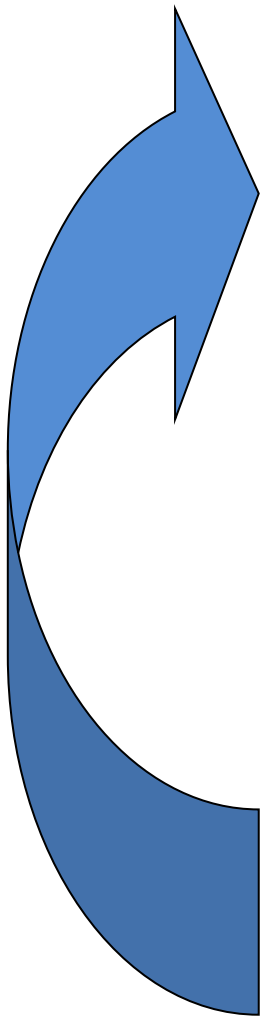
Input characteristics		Output characteristics	
Input voltage	176 ~ 300Vac full load	Vo set point(min/typ/max)	42/53.5/58(Vdc)
	90 ~ 176Vac De-rating	Vo Regulation(min/max)	-0.5/0.5(%)
Rated input voltage	200 ~ 250Vac	Output noise	<200mV(Bandwidth 20MHz)
Input voltage(max)	300Vac.	Psophometric	<2mV
Input 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 X caps 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 cooling				
Audible noise	<55dBA				

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



Product Appearance



Input & Output



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.