LP-PSOLT-90A Rectifier

Input:90-300Vac, Output:42-58Vdc

Discription

For this compact rectifier LP-PSOLT-90A, its rated output voltage of is 53.5V, MAX rated capacity is 1800W, and MAX efficiency is more than 92%.

The rectifier can be applied as a stand-alone module, and also can be an integral component in telecommunication power system. It is extremely flexible and used widely in telecommunication networks, broadcasting and railway networks, and , enterprise networks. Power convertion and output compact design simplify the installation and operation.



Features

- 1U height
- Wide single phase input range (90VAC-300VAC)
- High efficiency: >92%
- Operation temperature range: -40°C to +75°C
- Active load sharing
- Intelligent control

Applications

- Telecommunication networks
- Broadband networks
- Broadcasting, electrical and railway networks
- Enterprise networks

Electrical Features

LP-PSOLT-90A rectifier

Input Specifications

Model	48VDC
	LP-PSOLT-90A
Input Voltage	110V Vac input above full load
	90 ~ 110Vac De-rating
Rated Input Vol	100 ~ 300Vac
Max Input Vol	300Vac.
Min Input Vol	45 Hz
Max Input Frequency	65 Hz
Max Input Current	18A
Inrush Current	≤150% the rated input current (Excludes X caps in the EMC
Power Factor	≥0.99
Efficiency	>92%
THD	<5%

Onput Specification

Model	48VDC
	SR4830
Output Voltage Range	42/53.5/58 (Vdc)
Output Current	30A @53.5Vdc
Voltage Regulation	-0.5/0.5 (%)
Output Power	1800W
Max Current Limit	32.5A
Output Noise	<200 mV (bandwidth 20MHz)
Psophometic Noise	< 2 mV
Max Dynamic Response	5%
Star-up Time	<10
Hold-up Time	> 10ms
Over Voltage Protection	59(Vdc)
Load Sharing	-5/+5 (%)

LP-PSOLT-90A rectifier

Protection Characteristics

	Min	Typical	Max	Unit	Notes
Over Temperature Protection				ºC	
Input Over Voltage Protction		300		Vac	Modules stop work
Input Under Voltage Protection		80			Modules stop work
Output Over Voltage Protction		59		Vdc	
Short Circuit Protection					No damage within long time

Protection Characteristics

Input Voltage	90 VAC	110 VAC
Output Power	1250W	1800W

Temperature Limited Capacity

Temperature	-40C	50C	60C	75C
Output Power	1800W	1800W	1520W	1000W

Note: rectifier will shut down above 75C-80C

Display

Display	Content
Green Light (Running)	Constant: Modules are running smoothly Flash: Rectifier modules are running normal, and controller is monitoring
Yellow Light (Warning)	Constant: Derating with input voltage and temperature
Red Light(Fault)	Constant: EEPROM Fault Low Input Fault High Input Fault Low Output Fault High Output Shutdown Fault Over Ambient Temperature Fault Low Ambient Temperature Fault DCDC Over Temperature PFC Over Temperature Communication Fault Between Primary and Secondary Side High Input Voltage Disconnect Fault CAN BUS Fault Flash: Fan Fault

LP-PSOLT-90A rectifier

Protection Characteristics

Parameter	Min	Typ	Max	Unit	Notes
Storage Temperature	**-40**		**85**	**ºC**	
Operating Temperature (Internal Cooling)	-40		75	ºC	-40ºC to +50ºC with full performance, derating from 50ºC to 75ºC
Humidity	5		90	%	Non Condensing
Altitude	-100		2000	m	>2000m Derating
MTBF	10^5			hours	
Insulation Resistance	20MΩ				AC-Enclosure
	20M**Ω**				AC-DC
	20MΩ				DC-Enclosure
Dielectric Strength			2121	VDC	AC-Enclosure
			4242		AC-DC
			707		DC-Enclosure
Cooling	Horizontal forced cooling				
Audible Noise	< 55 dBA				

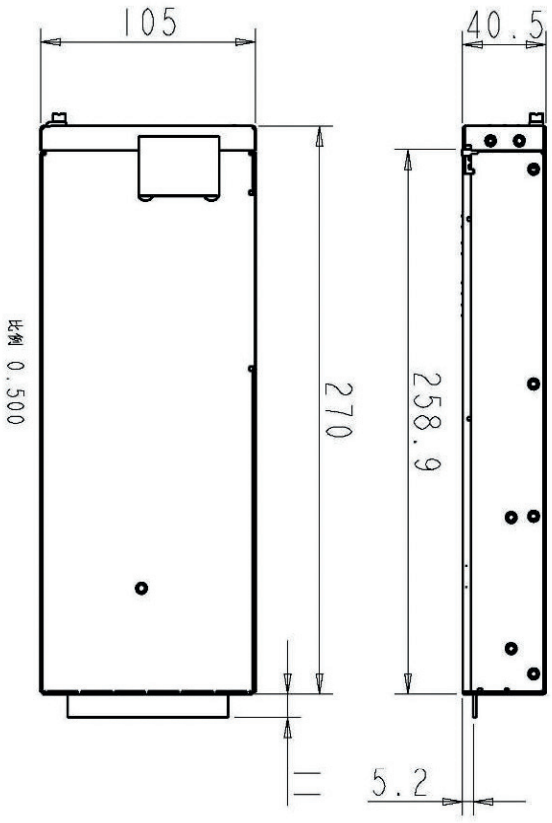
Applicable Standards

EN55022	Conducted Emission/ Radiated Emission
EN61000-3-2	Limits for harmonic current emissions for class D equipment
EN61000-3-3	Limits for voltage fluctuations and flicker in low-voltage systems
EN61000-4-2	Elctrostatic discharge immunity test
EN61000-4-3	Radiated, radio-frequency, electromagnetic field immunity test
EN61000-4-4	Elctrical fast transient/burst immunity test
EN61000-4-5	Surge immunity test
EN61000-4-6	RF common mode
EN61000-4-8	Magnetic field
EN61000-4-11	Voltage dips, short interruptions and voltage variations
IEC68-2-27	Shock
IEC68-2-64	Vibration

LP-PSOLT-90A rectifier

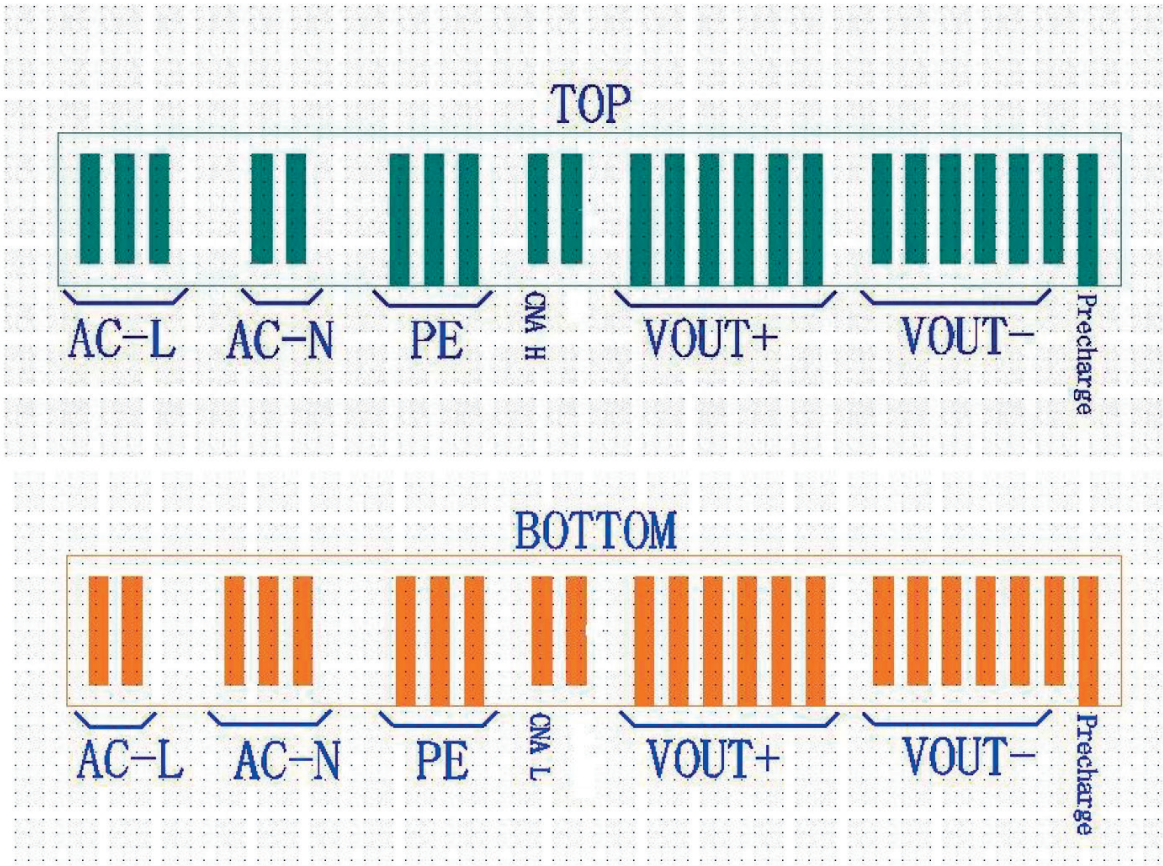
Applicable Standards

Parameter	Min	Typ	Max	Unit	Notes
Depth		**281**		**mm**	
Width		105		mm	
Height		40.5		mm	
Weight		2.5		kg	





Applicable Standards



Input

L/N/PE are connected with AC input through backplane board

output

Vout is connected with output through backplane board

Precharge Pin is connected with Vout- in backplane board

Communication

CAN Communication between rectifier and controller.

monitor: AC status□Rectifier status, Fan Status etc.

control: On/off control, output voltage adjustmentn.