

# IP 20 LED POWER SUPPLY



## Features

- European AC input (198-264VAC)
- Built-in active PFC function
- IP20
- Suitable for dry environment
- Protections: Short circuit / Over voltage / Over temperature
- Adopt plastic case and internal glue potting
- Built-in lightning protection device, it can satisfy DM 1kV
- Comply with the world lighting equipment safety standards.



## Description

SL100 series is an indoor constant voltage LED power supply, rated input voltage AC 198-264Vac, with a maximum conversion efficiency of 94% and fan-free design, works in a temperature range of -20 °C to +45 °C under free air convection, and has ultra-high power factor, ultra-low THD, low standby power consumption, all-round protection function, not only greatly improves the reliability of products, but also ensures the life cycle of products. This series is for LED lighting design, applied to indoor lighting design. Suitable for almost any indoor location where LED lighting can be installed in a variety of applications. Comply with the world lighting equipment safety specifications, also ensure the safety of users and lighting systems during installation.

## Model

Model	Output Voltage	Output Current	Max. Output Power	Output Current Precision	Power Factor (Typ.)	Efficiency (Typ.)	Model
SL100-12VF-1	12V	0-8.33A	100W	±5%	4%	0.95	94%
SL100-24VF-1	24V	0-4.17A	100W	±5%	4%	0.95	93%

Remark: All the parameters are measured at 230VAC input, full load and 25 °C of ambient temperature if they are not specially mentioned.

## Input

Parameter	Min Value	Typical Value	Max. Value	Note
Rated input voltage	220 Vac		240Vac	Derating curve is shown in figure.
Input voltage	198 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max. Input current			0.7A	230Vac, Full Load
Input inrush current			60A	30Vac/50Hz, cold start
Power factor	0.96	0.97		230Vac, Full Load
Total harmonic input		4%	5%	230Vac, Full Load
Leakage current			0.7mA	230Vac/50Hz, Full Load
Stand-by power consumption		0.4W	0.5W	230Vac/50Hz, No Load

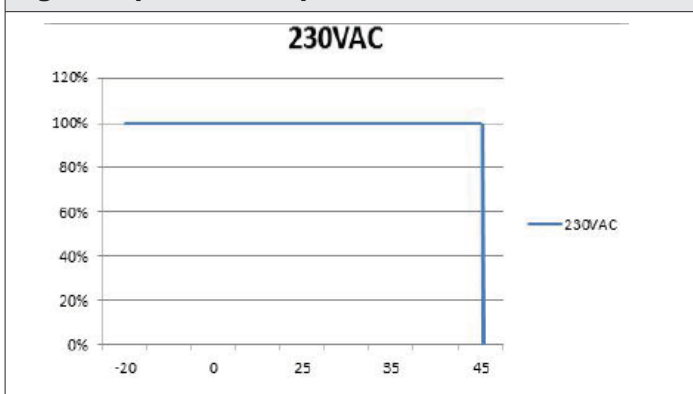
# SL100-VF

## Output

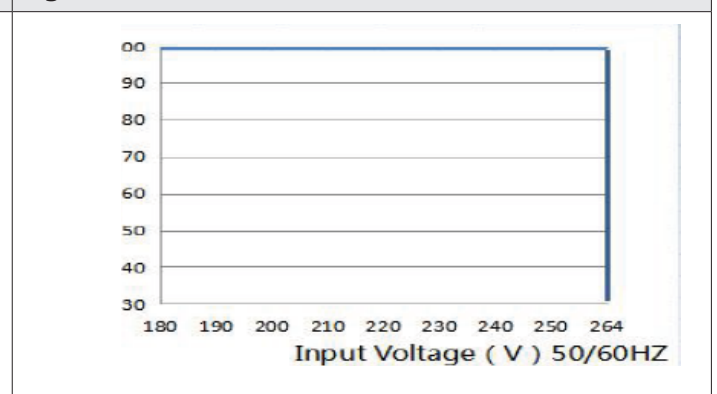
Parameter	SL100-12VF-1	SL100-24VF-1	Note
Output voltage	12.0VDC	24.0VDC	
Rated output current	8.33A	4.17A	
Output current	0-8.33A	0-4.17A	
Rated output power	100W	100W	
Rated output efficiency	94%	93%	230Vac
Output voltage precision	±5%		
Output voltage ripple (PK-PK)	±3%		Full load (Test under 20M bandwidth)
Output current ripple (PK-PK)	---		Full load (Test under 20M bandwidth) 230Vac
Rise time	100mS		
Startup time	300mS		230Vac
Line regulation	±1%		full load
Load regulation	±1%		

## Characteristics Curve

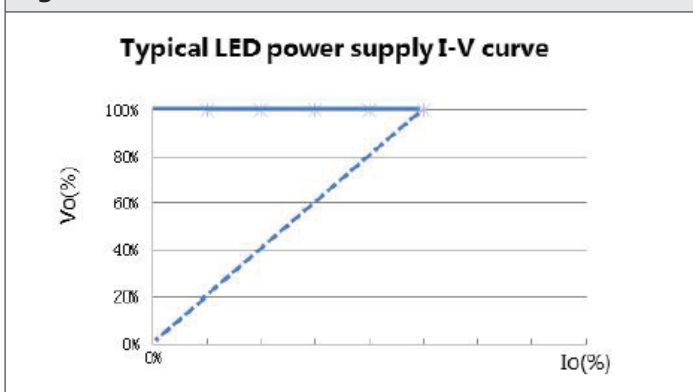
**Fig. 1 Output load-Temperature curve**



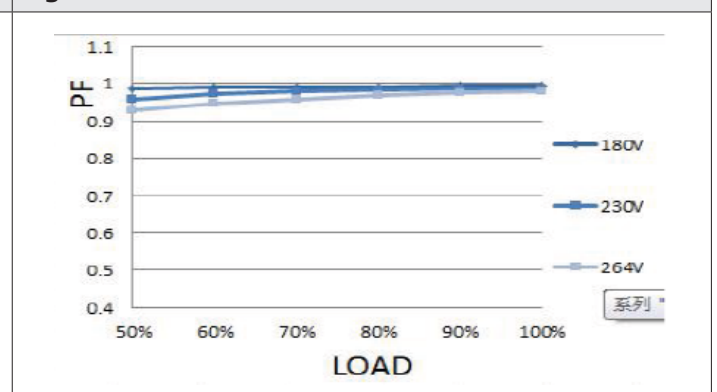
**Fig. 2 Static characteristic curve**

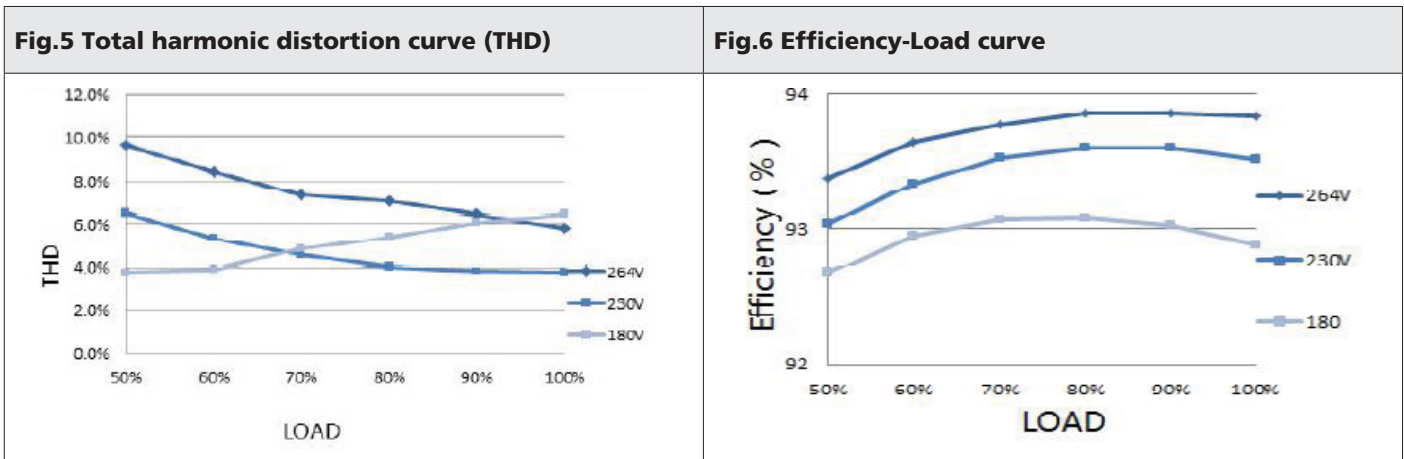


**Fig. 3 I-V curve**



**Fig. 4 Power factor characteristic curve**





**Protection**

Parameter	Conditions	Note	
Protection	Over load	1.1~1.6 times rated load	Overloading restores automatically
	Short circuit	Short circuit power ≤0.5W	Hiccup mode, auto-recovery after short circuit removal
	Over voltage	1.5 times of rated output voltage	Turn off the input voltage and recover after restart
	Over temperature	110°C	Turn off the input voltage and restore the temperature to normal value

**Environment Requirement**

Parameter	Min	Typ	Max	Note
Working temp.	-20° C	25° C	+45° C	See Fig.2
Storage temp.	-40° C	25° C	+85° C	
Working humidity	10%RH		90%RH	
Storage humidity	5%RH		95%RH	
IP grade			IP20	
Cooling mode	Natural cooling			

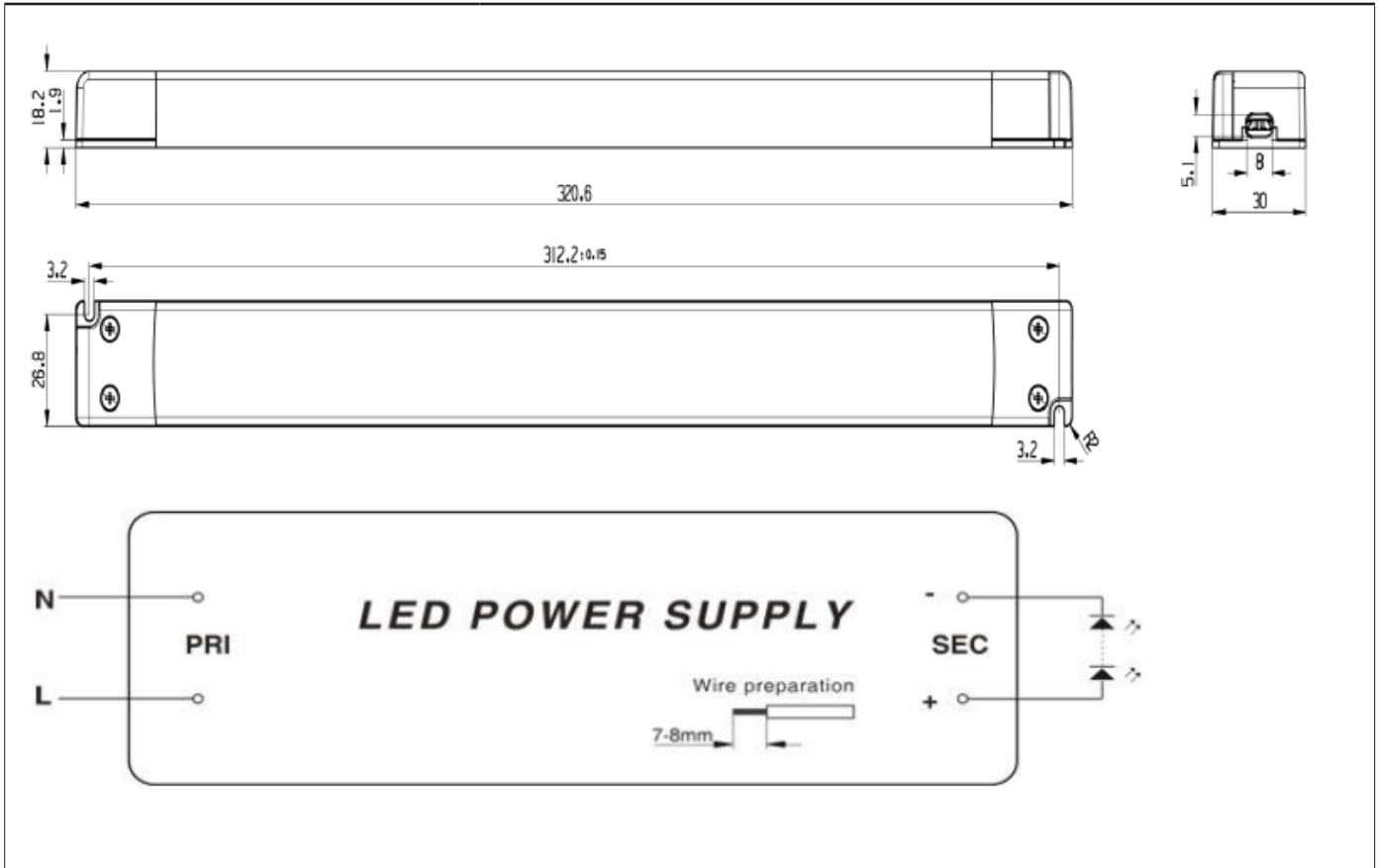
**Safety&EMC standard**

Certificate	Safety standards	Certification	Note
UL/CUL			
TUV	EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015		
SAA	AS/NZS 61347.2.13		
CCC	---		
CE	EN 61347-2-13:2014 +A1 EN61347-1:2015		

Safety Test		Qualifications	Note
Dielectric Compressive Strength	Input to output	3750Vac/5mA	Max/60s Strengthen insulation, No breakdown, No arc
	Primary to ground	---	Basic insulation, No breakdown, No arc
	Secondary to ground	---	Functional insulation, No breakdown, No arc
"Insulation resistance"	Input to output	$\geq 10M\Omega$	Test voltage: 500Vdc
Grounding Resistance		25A/1min	25A/1min
Leakage Current		$\leq 0.75mA$	264Vac
EMI/EMS Item		Standard Level	Data
Conduction CE		EN55015	
Radiation RE		EN55015	
Harmonics		EN IEC 61000-3-2	Class

**Others**

Parameter	Conditions	Note
Lifetime	30,000 hours	230Vac, Full Load, Max TC 75°C
MTBF	200,000 hours	230Vac, Full Load, TA 25° C (MIL-HDBK-217F)
TC	90°	
Weight	520g	
Dimensions	320.6mm * 30mm * 18.2mm	L x W x H



**Remark**

AC input cable	Terminal+ H03VVH2-F 2*0.75mm2
DC output cable	Terminal + H05VVH2-F 2*1.0mm2