



LED POWER SUPPLY DATASHEET

SNP100-12VF-1

DESCRIPTION

linetype design, very helpful for the limited space lighting applications, it has advantages in cabinet, furniture and light boxes application, meet new EU directive and ErP request, lifetime reach 30000hrs.



Input

Items	Conditions	Request	Note
Input voltage	Ta	AC200-240V	--
Input frequency		50/60Hz	--
Input current	25°C, rated input voltage, output with max. rated power	< 0.7A	--
Input power		< 118W	--
Efficiency		≥ 90 %	--
Standby		25°C, rated input voltage, output without load	<0.50W
Inrush current	25°C, rated input voltage	<75A	peak
PF	25°C, rated input voltage, output max. rated power	≥ 0.9	--

Temperate and others

Item	Conditions	Request	Note
Operation temp.	--	-20-45°C	--
Relative humidity	--	45%-85%	--
Max. case temp.	--	85°C	--
Lifetime	Max.Ta, rated input voltage, output with max.rated power	30,000hr	--
Working noise	25°C, rated input voltage, output with rated power, mute box background noise<35dB, pickup 10cm distance from products	yes	--

Protection

Items	Conditions	Request	Note
Open circuit	Ta, rated input voltage, no load	--	--
Over load	Ta, 0.94-1.06 times of input voltage, 1.2 times of rated power	yes	--
Short circuit	Ta, 0.94-1.06 times of input voltage	yes	--
Over temperature	Ta, 0.94-1.06 times of input voltage, temperature detected pointed more than 115 degree	--	--
Over voltage	Ta, 0.94-1.06 times of input voltage, output voltage is 1.5 times of rated one	yes	--
Auto recovery	Over load, short circuit revocation	yes	--
Latch off	Over voltage, over heat re-start after cut off	yes	--

Output

Items	Conditions	Request	Note
Startup time	25°C, rated input voltage, output with max. rated power	<0.5S	--
Output voltage and precision	Ta, rated input voltage, output with rated power	12V±5%	--
Output current range	Ta, rated input voltage	0-8.335A	
Output voltage wave	25°C, rated input voltage, output with max. rated power	<500mV	Vp-p
Output overload	25°C, rated input voltage, output with 2 times LED load	yes	--
Output current and precision	Ta, rated input voltage, output with rated power	--	--
Rated output voltage range	Ta, rated input voltage,	--	--
Output current wave	25°C, rated input voltage, output with max. rated power	--	Ip-p
Dimming mode	--	--	--
Dimming range	--	--	--

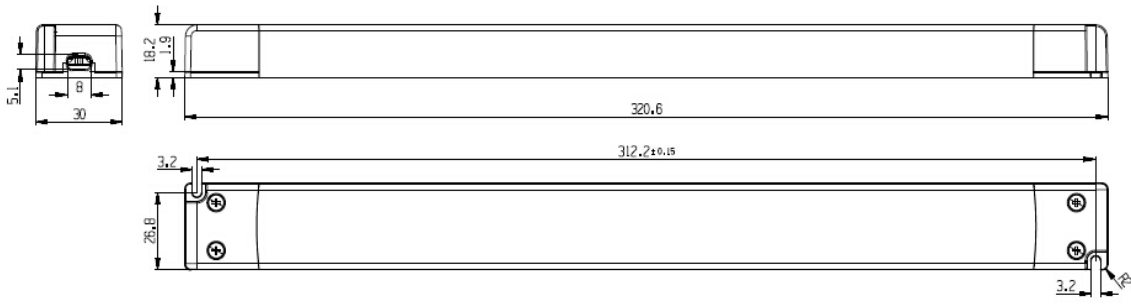
Mechanical, mounting

Items	Conditions
Case material and size	Plastic
Mounting ways	Independent
Insulation type	Class II
IP grade	IP20
Input cables dimension	H03VVH2-F 2X0.75mm ²
Output cables dimension	H05VVH2-F 2X1.0mm ²
Output cables length	max. 2m

Standard

Items	Conditions
Safety	IEC61347-1、IEC61347-2-13
Harmonic	EN61000-3-2 Class C
EMI	EN55015
EMS	EN61000-4-2、3、4、5、6 EN61547

Dimensions(mm)



IP20 LED Power Supply



Features

- European AC input / (200-240VAC)
- . 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
- . 3 years warranty

Description:

SL100 series is an indoor CV LED power supply, rated input voltage AC180-264Vac, with the high efficiency up to 94% and fan free design, working temperature range of - 20 ° C to + 45 ° C under free air convection. It has a super high PF and ultra-low THD, and total harmonic distortion, Low standby power consumption, all-round protection function, it not only greatly improves the reliability of products but also ensures the life cycle of products. This series 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, at the same time to ensure the safety of users and lighting system in the installation process.

Model

Model	Output voltage	Output current	Max. Output power	Output current precision	Power factor (Typ.)	Efficiency (Typ.)	Model
SL100-12VF	12V	0-8.33A	100W	±5%	4%	0.95	94%
SL100-24VF	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

IP20 LED Power Supply

Input

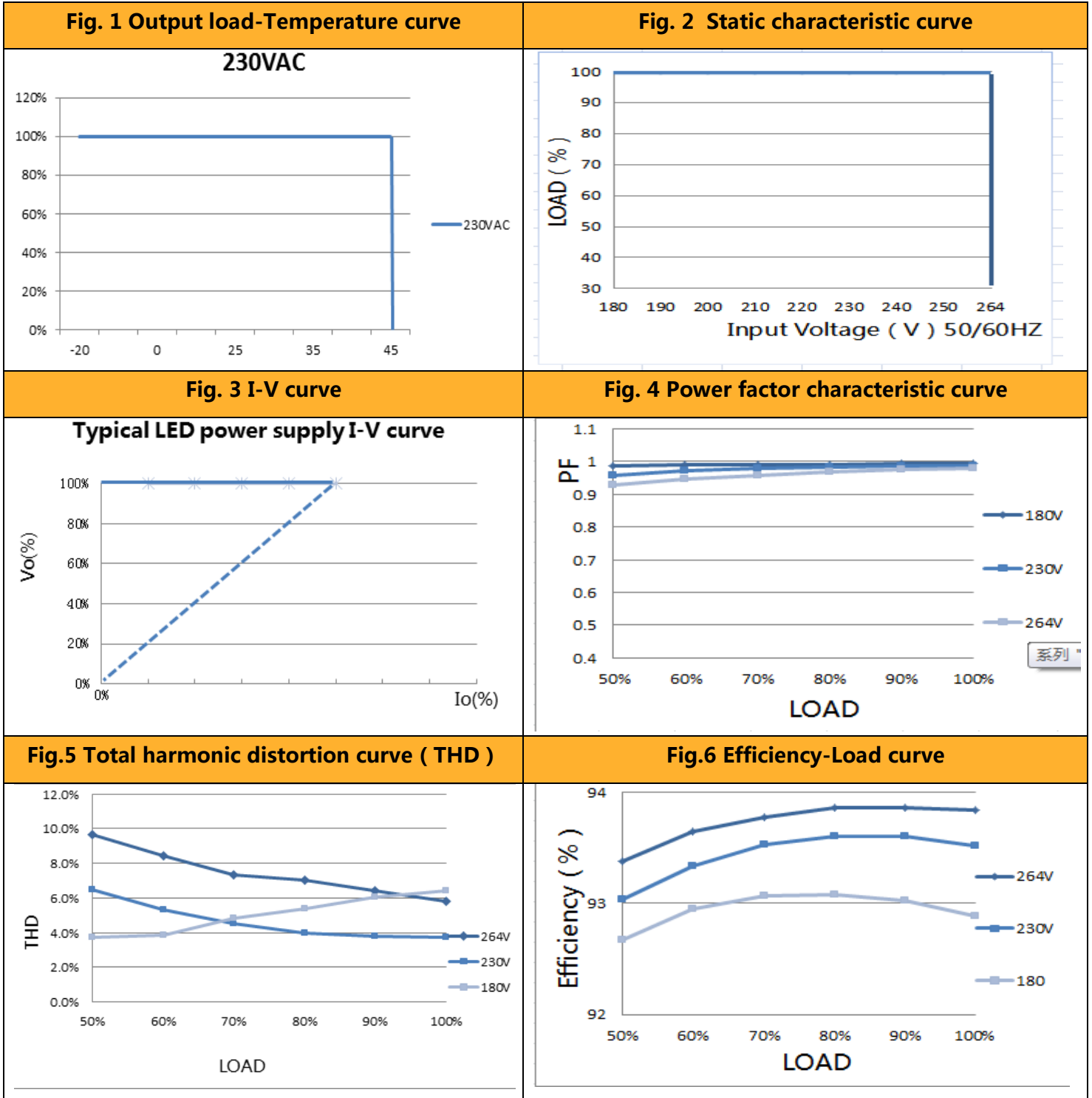
Parameter	Min. value	Typical value	Max. value	Note
Rated input voltage	200 Vac		240Vac	Derating curve is shown in figure
Input voltage	180 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max. Input current			0.5A	230Vac,Full Load
Input inrush current			60A	30Vac/50Hz,cold start
Power factor	0.96	0.97		230Vac,Full 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

Output

Parameter	SL100-12VF	SL100-24VF	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%		

IP20 LED Power Supply

Characteristic curve



IP20 LED Power Supply

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		

IP20 LED Power Supply

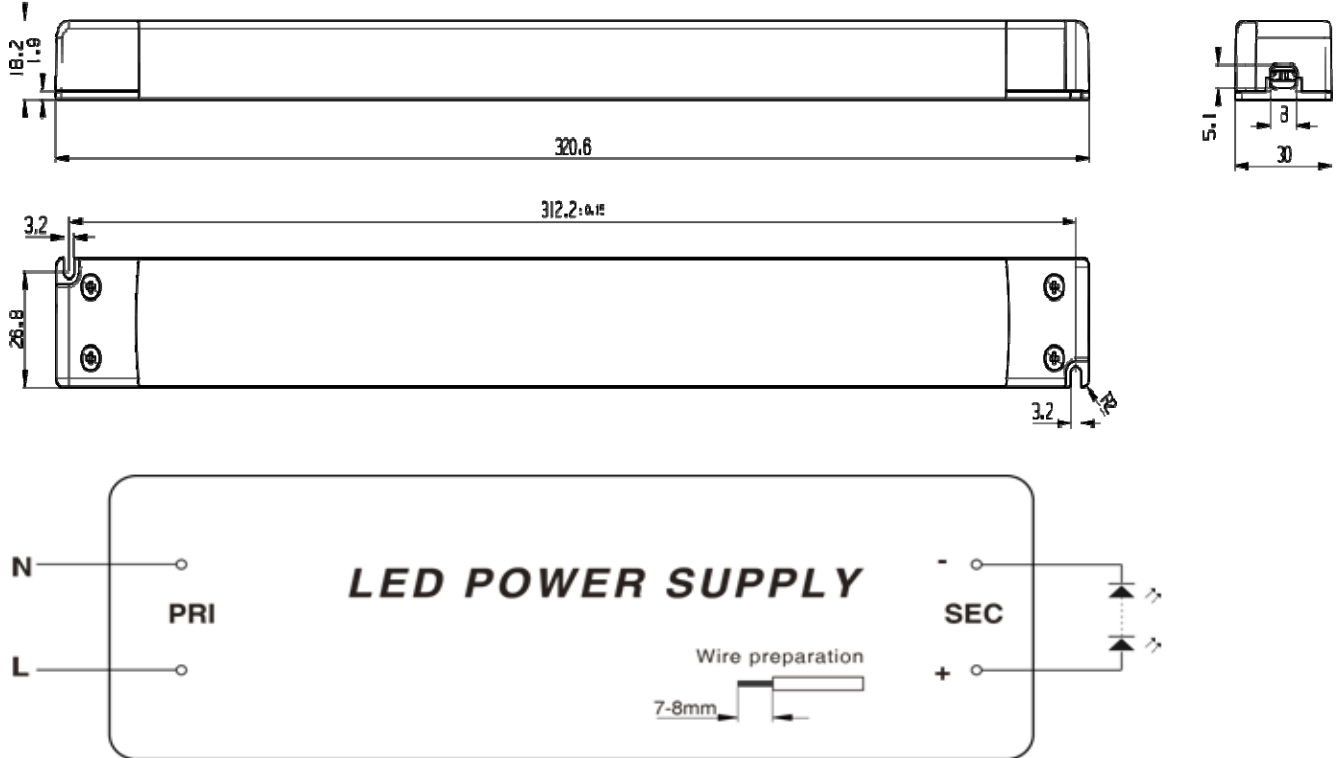
Safety test		Qualification	Note
Dielectric compressive strength	Input to output	3750Vac/5mA Max/60s	Strengthen insulation,no breakdown,no arc
	Primary to ground	---	Basic insulation,no breakdown, no arc
	Secondary to ground	---	Functional insulation,no breakdown,no arc
Insulation resistance	Input to output	$\geq 10M\Omega$	Test voltage : 500Vdc
Grounding resistance		---	25A/1min
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 C

others

Parameters	Condition	note
Lifetime	30,000 hours	230Vac,full load, Max Case Temp. 75°C
MTBF	200,000 hours	230Vac,full load,ring temperature (MIL-HDBK-217F)
TC	90°C	
Warranty	5 years	---
Weight	520g	
Dimensions	320.6mm * 30mm * 18.2mm	L x Wx H

IP20 LED Power Supply

结构尺寸特性 (单位: mm)



Remark :

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

