Ningbo SNAPPY Optoelectronics Co., Ltd.

IP20 LED Power Supply



Features :

. European AC input / (198-264VAC)

. 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, can satisfy DM 1kV

. . Comply with the world lighting equipment safety standards.

. 3 years warranty

Description :

SL150 series is an indoor CV LED power supply, rated input voltage AC198-264Vac ,with the high efficiency up to 93% 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, which 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 Voltage Precision	THD (Typ.)	Power Factor (Typ.)	Efficiency (Typ.)
SL150-12VF-1	12V	0-11A	132W	±5%	4%	0.95	93%
SL150-24VF-1	24V	0-6.25A	150W	±5%	4%	0.95	93%
SL150-48VF-1	48V	0-3.125A	150W	±5%	4%	0.95	93%

Remark: All the parameters are measured at 230VAC input, full load and 25 ℃ of ambient temperature if

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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			1A	230Vac,Full Load
Input inrush current			80A	30Vac/50Hz,cold start
Power factor	0.95	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	SL150-12VF-1	SL150-24VF-1	SL150-48VF-1	Note
Output voltage	12.0VDC	24.0VDC	48VDC	
Rated output current	11A	6.25A	3.125A	
Output current	0-11A	0-6.25A	0-3.125A	
Rated output power	132W	150W	150W	
Rated output efficiency	93%	93%	93%	230Vac
Output voltage tolerance	±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%			

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Characteristic curve :

Fig. 1 Output load-Temperature curve

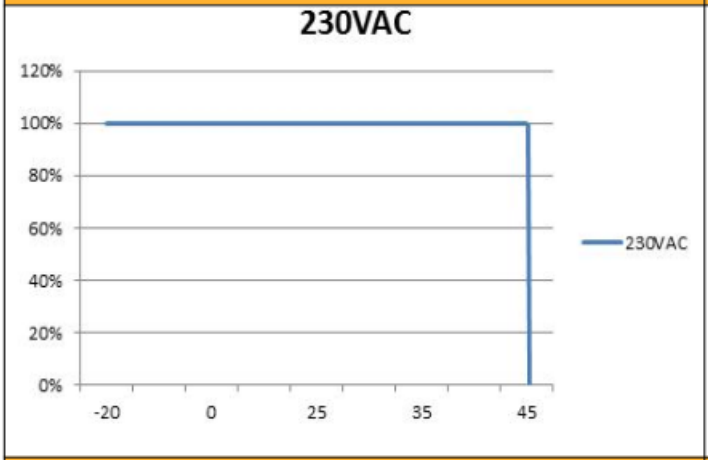


Fig. 2 Static characteristic curve

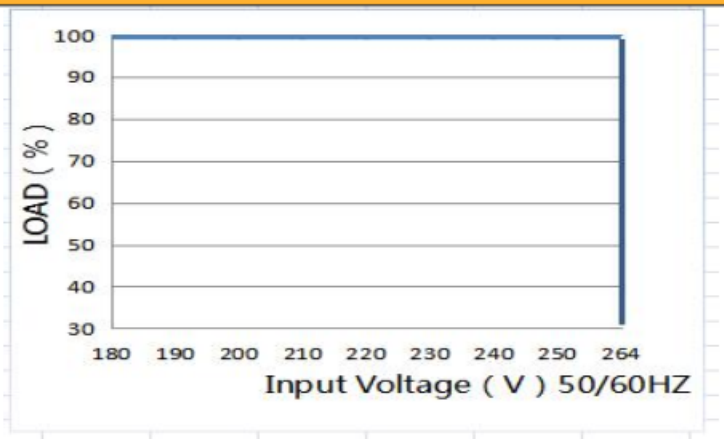


Fig. 3 I-V curve

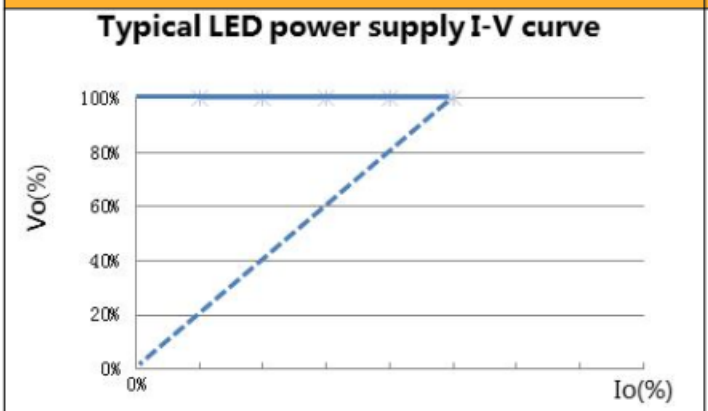


Fig. 4 Power factor characteristic curve

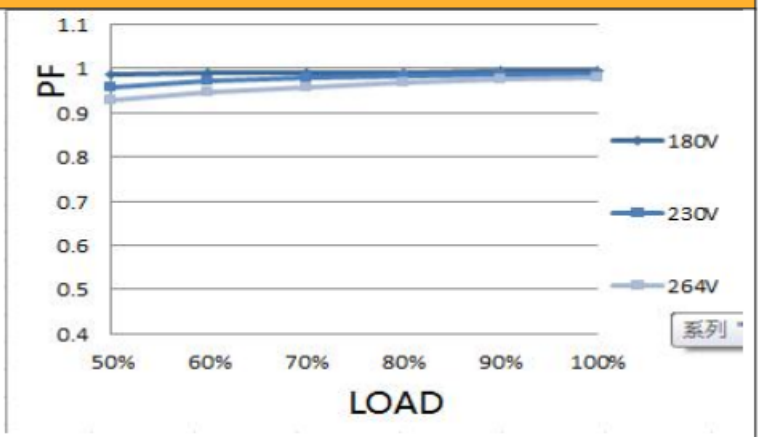


Fig.5 Total harmonic distortion curve (THD)

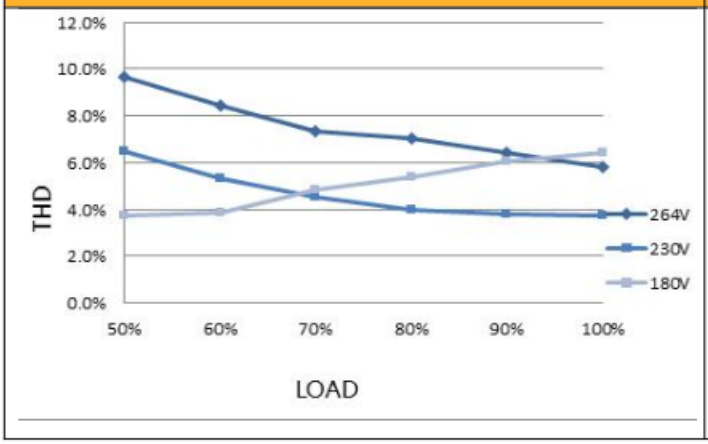
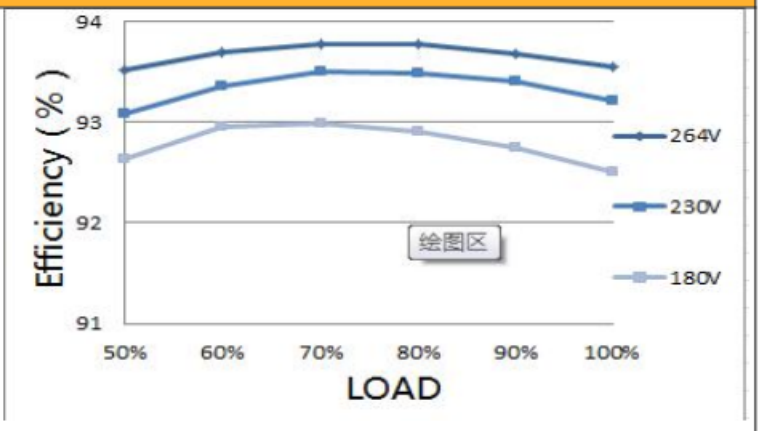


Fig.6 Efficiency-Load curve



Protection :

Parameter		Conditions	Note
Protection	Over load	1.1～1.6 times rated load	Auto-recovery after overload removed
	Short circuit	Short circuit power≤0.5W	Auto-recovery after short circuit removed
	Over voltage	1.5 times of rated output voltage	Turn off the input voltage, can be restored after restart.
	Over temperature	110℃	Hiccup mode, Auto-recovery after the temperature returns to normal level.

Environment Requirement :

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

Safety&EMC standard :

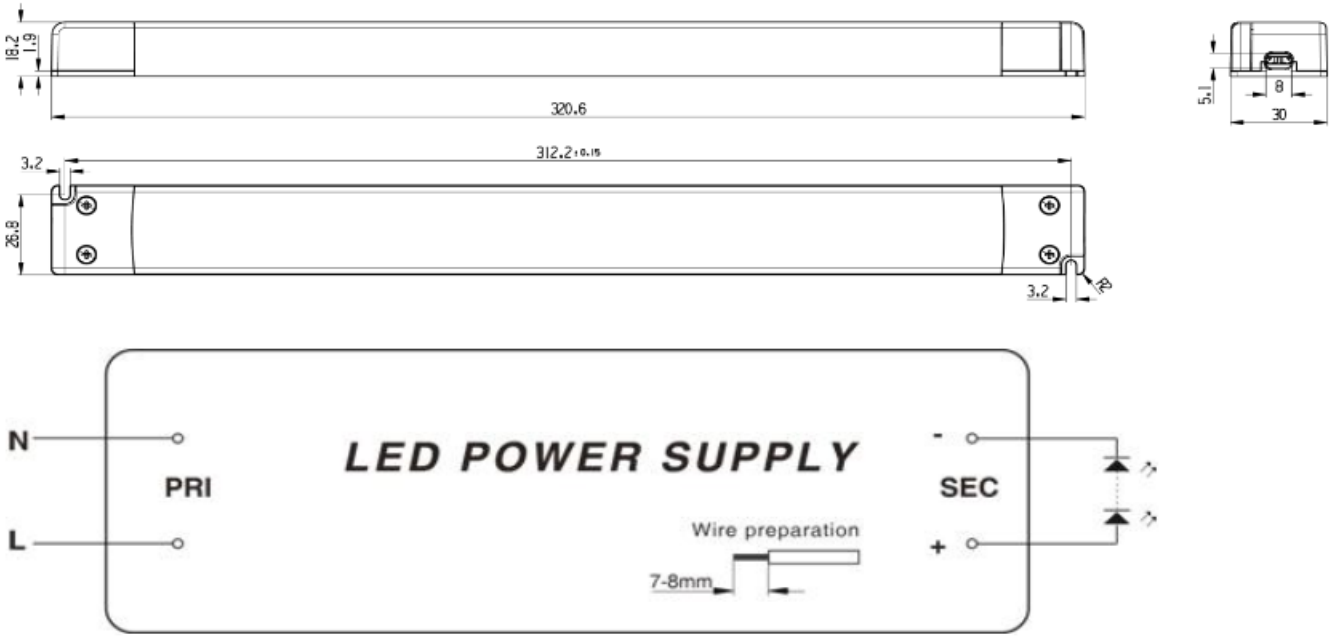
Certificate	Safety standards	Certification	Note
UL/CUL	---		
TUV	EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015	√	
SAA	AS/NZS 61347.2.13	√	
CCC	---		
CE	EN 61347-2-13:2014 +A1 EN61347-1:2015	√	

Safety test		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	≥10MΩ	Test voltage : 500Vdc
Grounding resistance		---	25A/1min
Leakage current		≤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, TC. 75℃
MTBF	200,000 hours	230Vac, full load, TA 25℃ (MIL-HDBK-217F)
TC	90℃	
Warranty	3 years	---
Weight	520g	
Dimensions	320.6mm * 30mm * 18.2mm	L x W x H

Mechanical Specification (Unit : mm)



Remark :	
AC input cable	Terminal+ H03VVH2-F 2*0.75mm^2
DC output cable	Terminal+ H03VVH2-F 2*0.75mm^2 * 2