

Indoor LED Power Supply

Features



- . European AC input (200-240VAC)
- . Built-in active PFC function
- . IP20
- . Suitable for dry environment
- . Protections : Short circuit/Over temperature/ Over voltage
- . Adopt plastic case and internal glue potting.
- . Built-in lightning protection device,can meet the difference mode 1kV
- . Comply with the world lighting equipment safety standards
- . 3 years warranty.



Description

The SNP150 series is an indoor constant voltage LED Driver with an input voltage range of 180-264Vac,whose efficiency is up to 94% with fanless design , Its working in the temperature range of -20°C~+45°C under free air convection. It has a high power factor, ultra-low total harmonic distortion ,low standby power consumption and other comprehensive protection functions, which not only greatly improve the reliability of the product ,but also guarantee the product life cycle .This series of products is designed for LED lighting and is used in indoor lighting applications. They are suitable for a wide range of applications in almost any environment where LED luminaires can be installed. Comply with the World Safety standard for lighting equipment and ensure the safety of the user and the luminaire system during installation.

Model:

Model	Output voltage	Output current	Max.Output power	Output voltage precision	Total harmonic distortion (Typ.)	Power factor (Typ.)	Efficiency(Typ.)
SNP150-12VF-2	12V	0-11A	132W	±1%	13%	0.97	93%
SNP150-24VF-2	24V	0-6.25A	150W	±1%	13%	0.97	94%

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

Indoor 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			0.9A	
Input inrush current			90A	230Vac/50Hz , Cold Start
Power factor	0.95	0.97		230Vac , Full Load
Total harmonic input		13%	15%	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	SNP150-12VF-2	SNP150-24VF-2	Note
Output voltage	12.0VDC	24.0VDC	
Rated output current	11A	6.25A	
Output current	0-11A	0-6.25A	
Rated output power	132W	150W	
Rated output efficiency	93%	94%	230Vac
Output voltage precision	±1%		
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%		

Characteristic Curve

Fig.1 Output load-Temperature curve

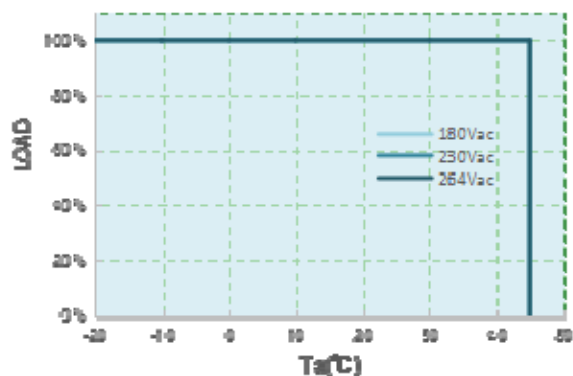


Fig.2 Static characteristic curve

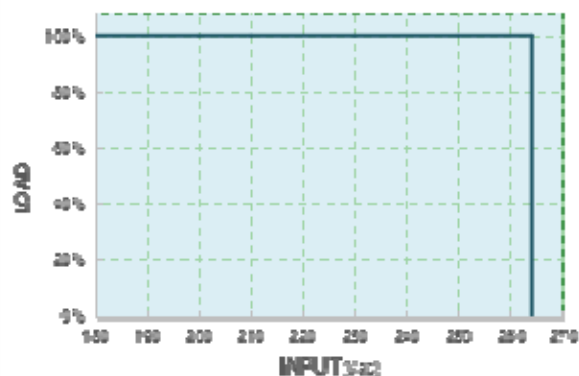


Fig.3 I-V curve

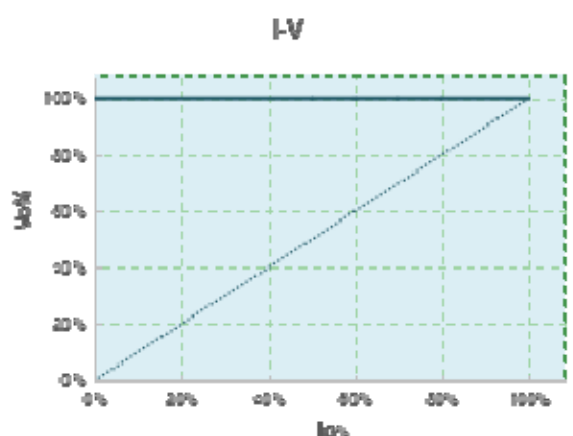


Fig.4 Power factor characteristic curve

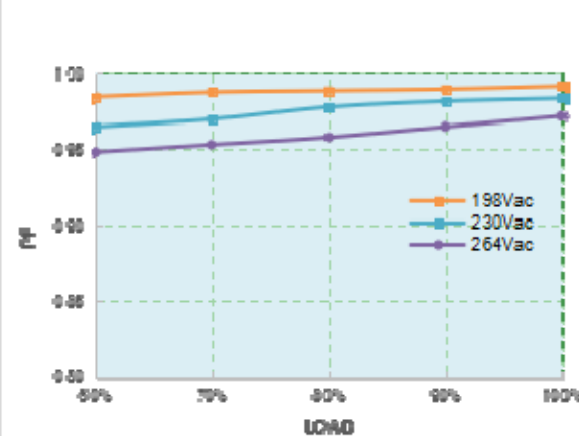


Fig.5 Total harmonic distortion curve (THD)

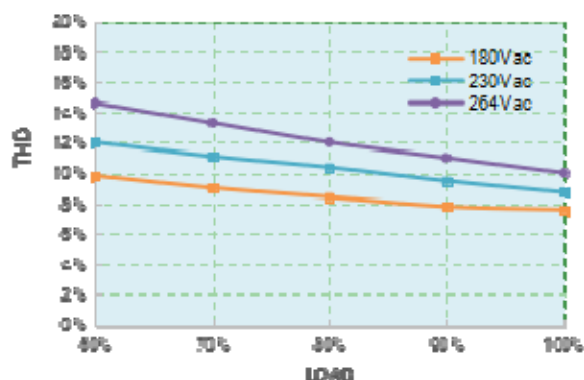
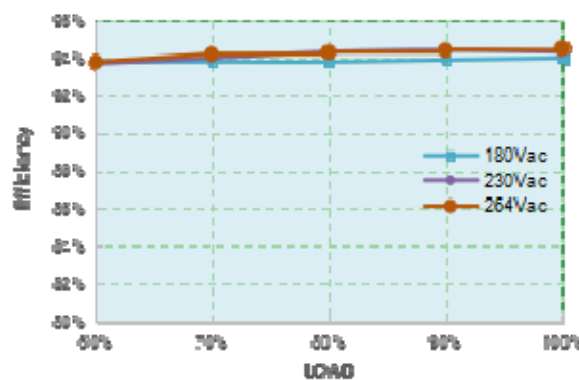


Fig.6 Efficiency-Load curve



Indoor LED Power Supply

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	Hiccup mode,auto-recovery after short circuit removed.
	Over voltage	1.5 times of rated output voltage	Turn off the input voltage and recover after restart.
	Over temperature	110℃	Turn off the input voltage,the temperature can be restored after return to normal.

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	Reinforced insulation,no breakdown,no flashover	
	Primary to	---	Basic insulation,no breakdown,no	

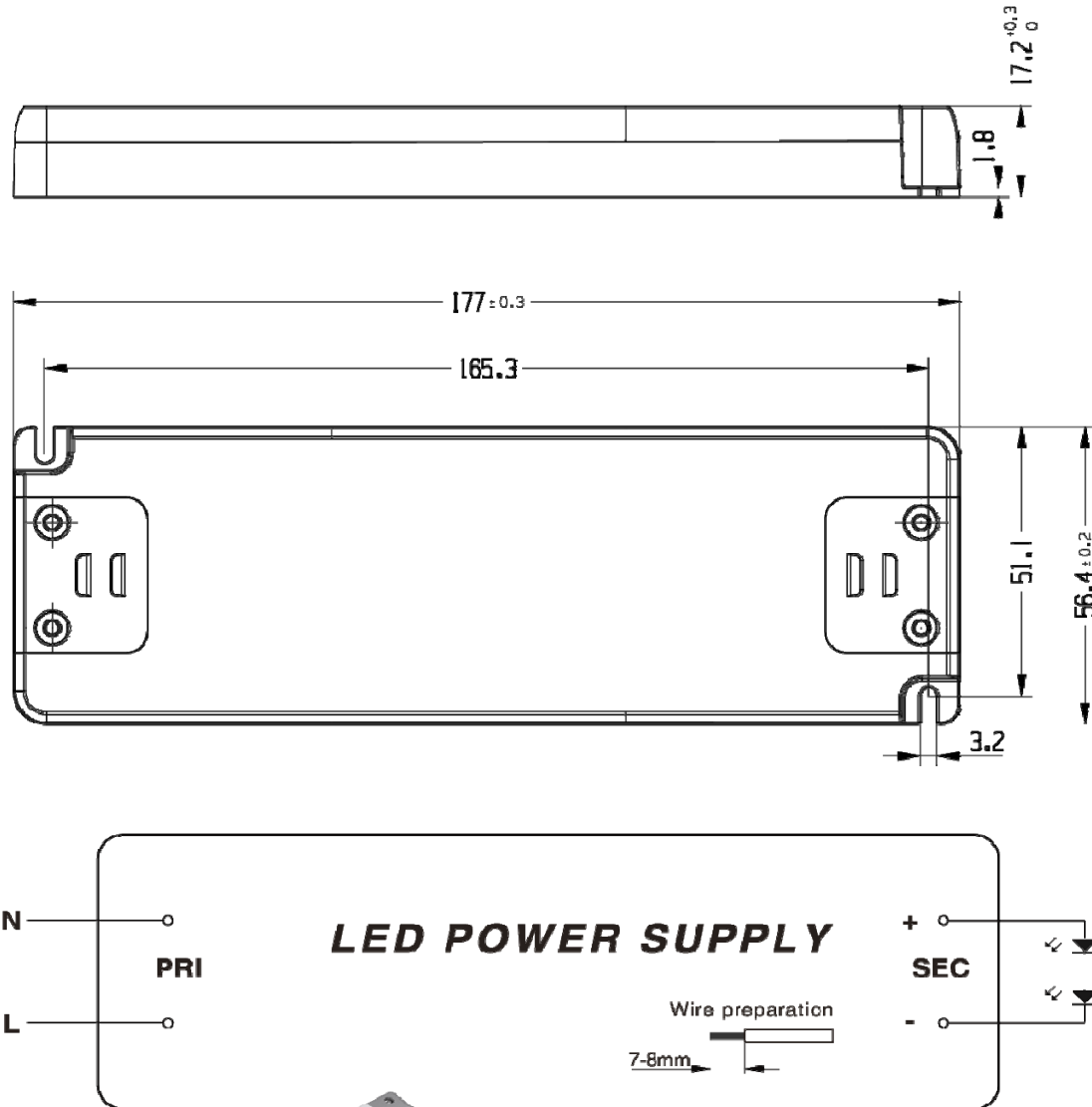
Indoor LED Power Supply

	ground		flashover
	Secondary to ground	---	Functional insulation,no breakdown,no flashover
Insulation resistance	Input to output	$\geq 10\text{M}\Omega$	Test voltage : 500Vdc
Grounding resistance		---	25A/1min
Leakage current		$\leq 0.75\text{mA}$	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 , case Temp 75°C
MTBF	200,000 hours	230Vac , full load , environment Temp. 25°C (MIL-HDBK-217F)
TC	90°C	
Warranty	3 years	---
Weight	520g	
Dimensions	177mm * 56.4mm * 17.2mm	L x W x H

Mechanical Specification (Unit : mm)



Remark :

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