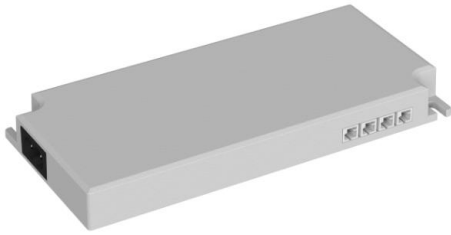


Indoor LED Power Supply



Features

- . Pass harmonic standard EN IEC 61000-3-2(< 25W)
- . IP20
- . Protections: Short circuit/Overload/Over voltage
- . Comply with the world lighting equipment safety standards
- . Warranty 5 years



Description:

SNP20-12VFC/24VFC-UE is an Indoor ultra-thin constant voltage LED Driver, rated input voltage AC100-240Vac, with the high efficiency up to 85%, working temperature range of -20°C~+45°C, It has a super high PF and ultra-low THD, pass standard EN61000-3-2, 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, used in indoor bathroom mirror lighting and other lighting fixtures.

Model

Model	Output voltage	Output current	Max. Output power	Output voltage precision	Total harmonic distortion (Typ.)	Power factor (Typ.)	Efficiency (Typ.)
SNP20-12VFC-UE	12V	0-1.67A	20W	±5%	45%	0.84	83%
SNP20-24VFC-UE	24V	0-0.833A	20W	±5%	45%	0.84	85%

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	100 Vac		240Vac	Derating curve is shown in figure
Input voltage	90 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max.input current			--	110Vac,Full Load
			0.292A	90Vac,Full Load
Input inrush current			60A	230Vac/50Hz,Cold start
Power factor	0.80	0.84		230Vac,Full Load
Total harmonic input		45%	50%	230Vac,Full Load
Leakage current			0.7mA	230Vac/50Hz,Full Load
Stand-by power consumption		0.2W	0.5W	230Vac/50Hz,No Load

Output

Parameter	SNP20-12VFC-UE	SNP20-24VFC-UE	Note
Output voltage	12VDC	24VDC	The max.output power must meet the requirements $P_o=V_o \cdot I_o=20W$
Constant current min output voltage	--	--	
Rated output current	0-1.67A	0-0.833A	
Output current adjustment range	--	--	
Rated output power	20W	20W	
Rated output efficiency	83%	83%	230Vac
Output current tolerance	--		
Output voltage ripple (PK-PK)	4%		Full load (Test under 20M bandwidth)
Output current ripple (PK-PK)	--		
Rise time	100mS		230Vac
Startup time	400mS		230Vac
Line regulation	±1%		full load
Load regulation	±2%		

Indoor LED Power Supply

SNP20-12VFC-UE/SNP20-24VFC-UE

Fig. 1 Output load-Temperature curve

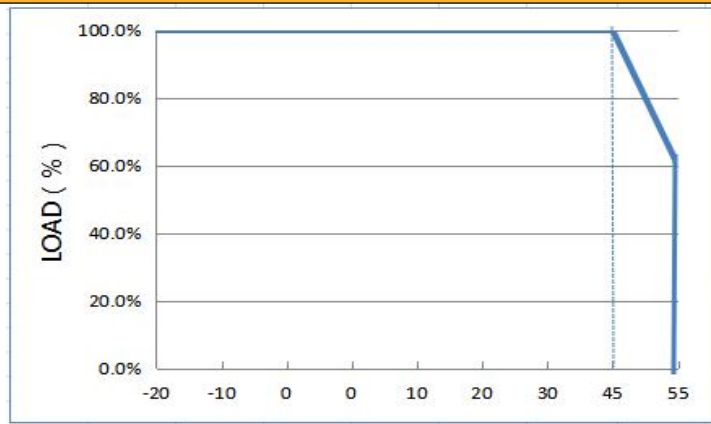


Fig. 2 Static characteristic curve

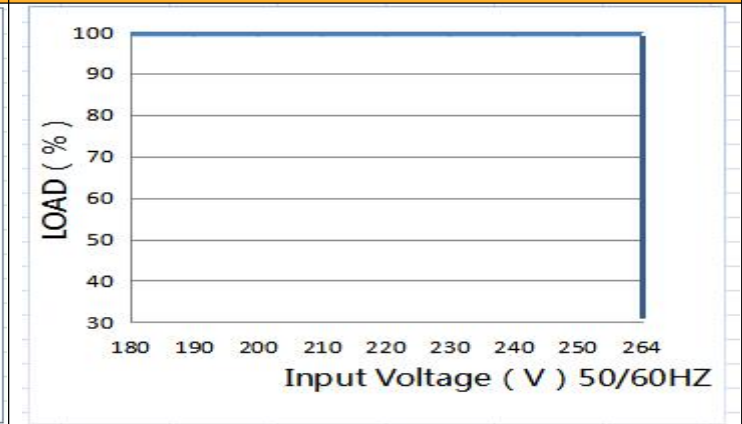


Fig. 3 I-V curve

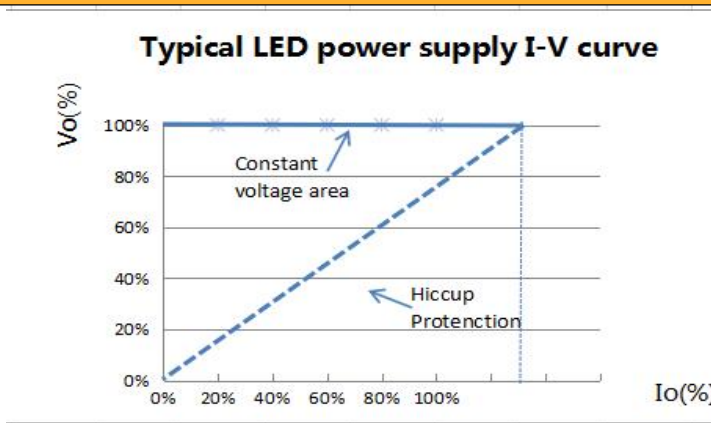


Fig. 4 Power factor characteristic curve

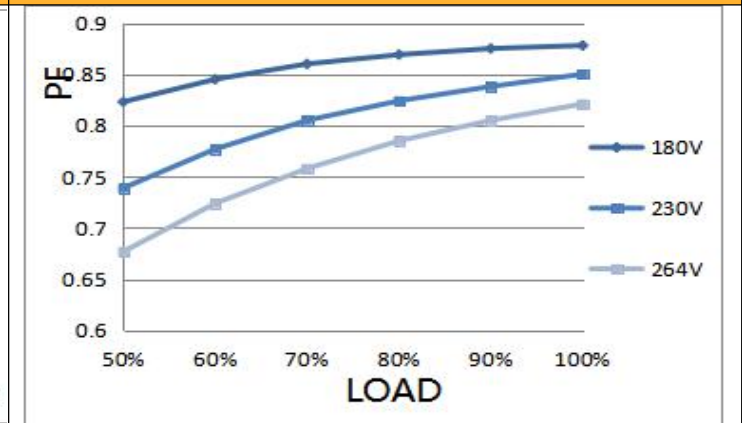


Fig.5 Total harmonic distortion curve (THD)

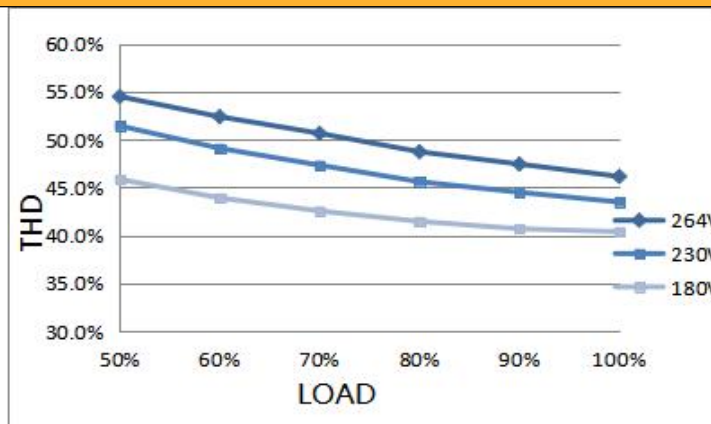
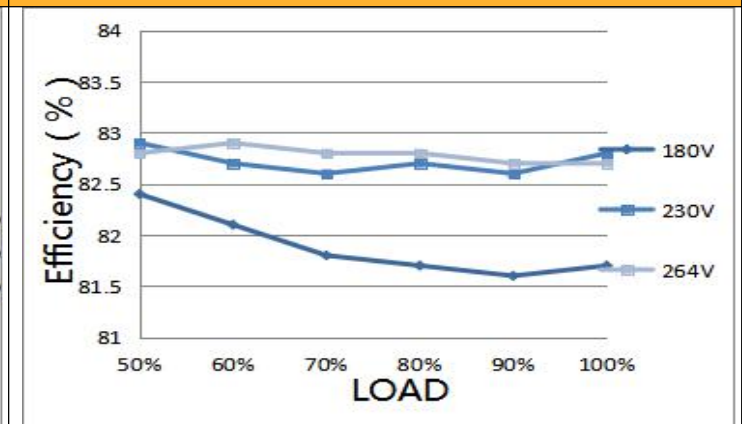


Fig.6 Efficiency-Load curve



Indoor LED Power Supply

Protection

Parameter		Conditions	Note
Protection	Over load	1.2 times rated load	Recover automatically when cancel overload
	Short circuit	Automatic recovery after short circuit removal	Hiccup mode, auto-recovery after short circuit removal
	Over voltage	1.5 times of rated output voltage	Recover automatically when cancel the overvoltage fault.
	Over temperature	12V 65°C/24V 70°C	Recover automatically when the MOS temperature is lower than 95°C

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	IP20	
Cooling mode	Natural cooling			

Remark: All the parameters are measured at 25 °C of ambient temperature if they are not specially mentioned

Indoor LED Power Supply

Safety&EMC standard

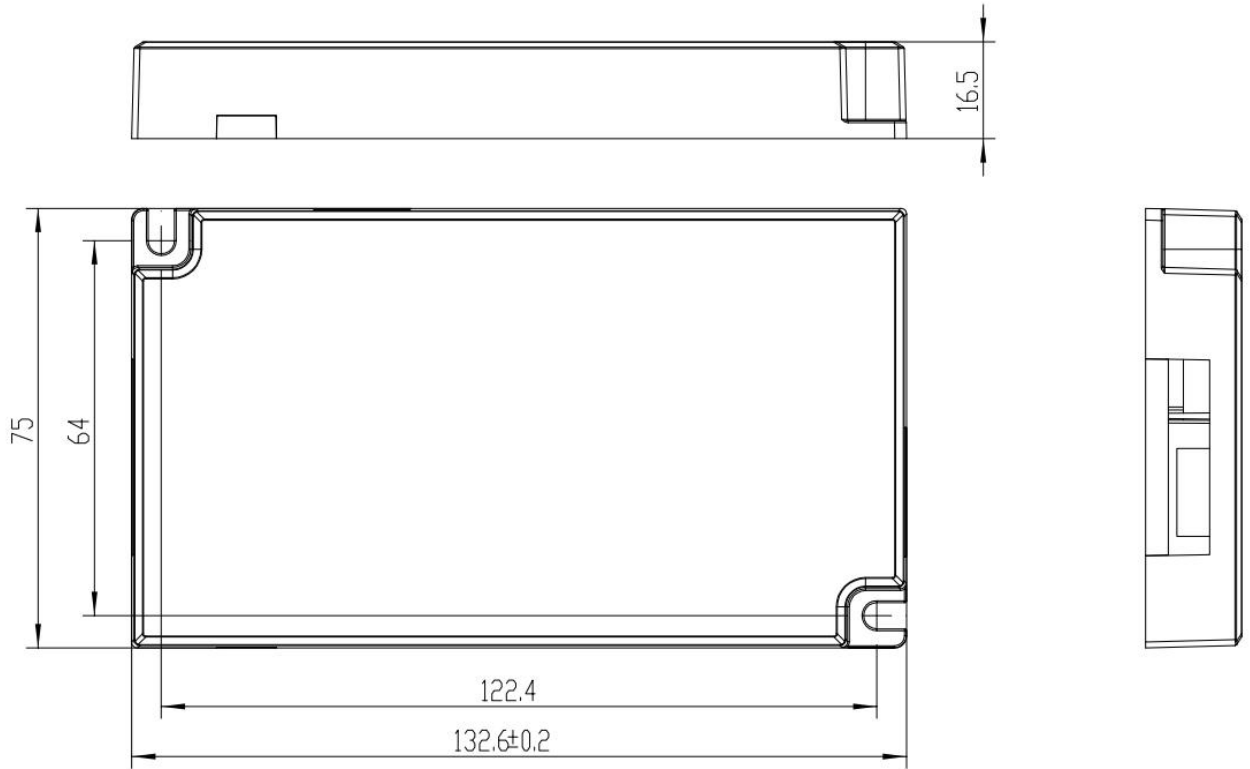
Certificate		Safety standards	Certification	Note
UL/CUL		--		
TUV		EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015		
SAA		AS/NZS 61347.2.13		
CCC		GB 19510.14-2009		
CE		EN 61347-2-13:2014 +A1 EN61347-1:2015		
Safety test		Qualification	Note	
Dielectric compressive strength	Input to output	3200Vac/5mA Max/60s	Reinforced insulation,no breakdown,no flashover	
	Primary to ground	1600Vac/5mA Max/60s	Basic insulation,no breakdown,no flashover	
	Secondary to ground	1000Vac/5mA Max/60s	Functional insulation,no breakdown,no flashover	
Insulation resistance	Input to output	≥10MΩ	Test voltage : 500Vdc	
Grounding resistance		≤0.1Ω	25A/1min	
Leakage current		≤0.75mA	277Vac	
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	30,000hours	230Vac,full load, TC 75°C
MTBF	200,000hours	230Vac,full load, TA 25°C (MIL-HDBK-217F)
TC	85°C	
Warranty	5 years	TC : 75°C
Weight	65g	
Dimensions	132.6*75*16.5mm	L x Wx H

Indoor LED Power Supply

Mechanical Specification (Unit : mm)



Remark :

AC Input cable	Terminal
DC Output cable	Terminal