

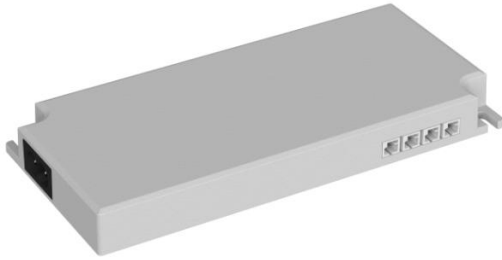


**SNAPPY**

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# NINGBO SNAPPY Optoelectronics Co.,Ltd

## Indoor LED Power Supply



### Features

- . Global input voltage ( 100-240VAC )
- . Active PFC function
- . IP20
- . Suitable for indoor environment
- . Protections: Short circuit/Over voltage /Over temperature
- . Plastic case with thickness 16.5mm
- . Warranty 5 years



### Description:

SNP50-24VFC-UE is an indoor constant voltage LED Driver, Rated input voltage AC100-240Vac , with the high efficiency up to 88%, working in -20°C~+40°C natural cooling housing temperature range, It has a super high PF and ultra-low THD, 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 interior lighting design. Suitable in almost all kinds of indoor applications where LED lamps can be installed. The product designed completely in accordance with world's lighting equipment safety regulations to ensure the safety of both user and luminaire system during installation.

### Model

Model	Output voltage	Output current	Output Power	Output voltage tolerance	Power Factor	Efficiency (Typ)
SNP50-24VFC-UE	24V	0-2.1A	50 W	±5%	> 0.9	88%

**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	230Vac	240Vac	Derating curve is shown in figure
Input Voltage	100Vac		264Vac	
Input Frequency	47Hz	50Hz	63Hz	
Max.Input current			0.65A	100Vac,Full Load
Input inrush current			70A	230Vac/50Hz,Cold start
Power Factor	0.9	0.95	0.99	230Vac,Full Load
Total harmonic input		10%	20%	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	SNP50-24VFC-UE		Note
Output voltage	24.0VDC		The max.output power must meet the requirements $P_o=V_o \cdot I_o=50W$
Rated output current	2.1A		
Output current	0-2.1A		
Rated output power	50W		
Rated output efficiency	88%		230Vac
Output voltage Tolerance		$\pm 5\%$	
Output voltage ripple(PK-PK)		10%	Full load (Test under 20M bandwidth) 230Vac
Output current ripple(PK-PK)		---	Full load (Test under 20M bandwidth) 230Vac
Rise time		---	
Startup time		<500mS	230Vac
Line regulation		3%	Full Load
Load regulation		3%	



### Indoor LED Power Supply

#### Characteristic Curve

##### 1.SNP50-24VFC-UE

Fig. 1 Output load-Temperature curve

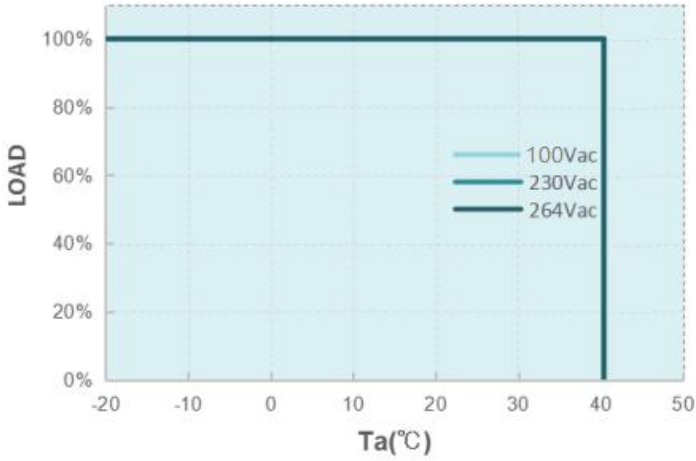


Fig. 2 Static characteristic curve

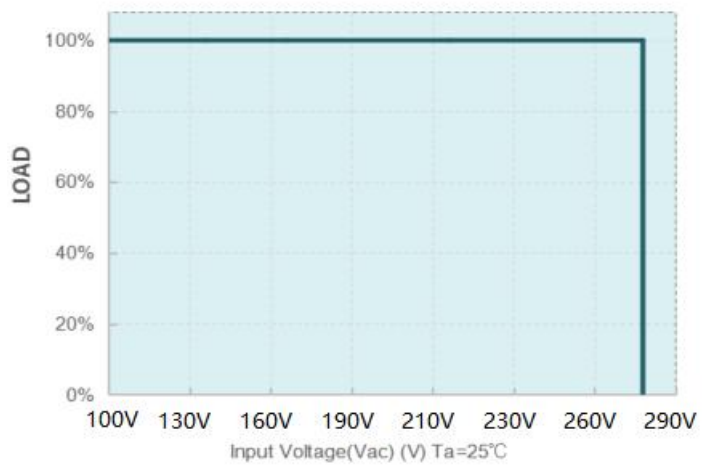


Fig. 3 I-V curve

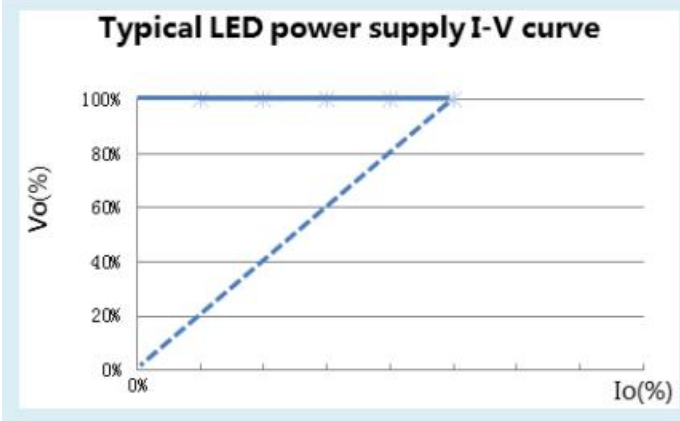


Fig. 4 Power factor characteristic curve

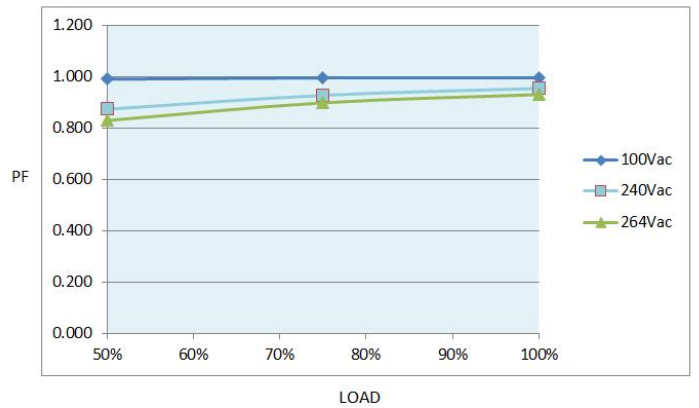


Fig.5 Total harmonic distortion curve ( THD )

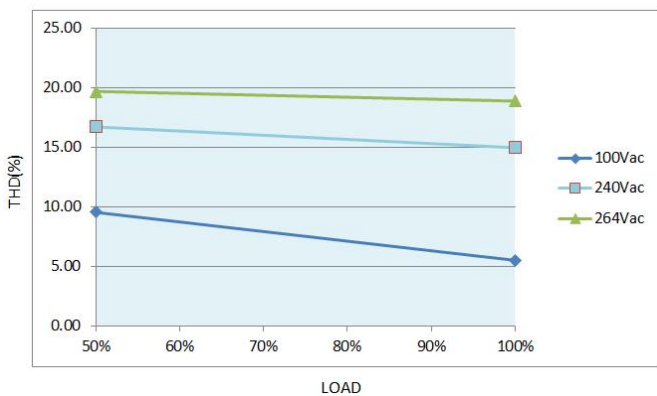
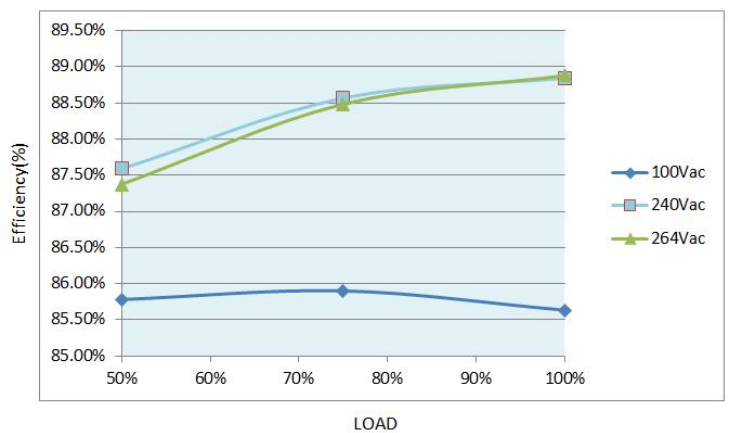


Fig.6 Efficiency-Load curve





### Indoor LED Power Supply

#### Protection

Parameter		Conditions	Note
Protection	Over Load	<65W	Recover automatically when cancel overload
	Short Circuit	Output short circuit	Auto-recovery when short circuit removal
	Over Temperature	55±5°C TA	After the temperature drops, can restored after restart.

#### Environment Requirement

Parameter	Min.	Typ.	Max.	Note
Working Temp.	-20°C	25°C	+40°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	Indoor
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		



### Indoor LED Power Supply

Safety Test		Qualification	Note
Dielectric compressive strength	Input to Output	3750Vac/5mA Max/60s	Reinforced insulation,no breakdown,no flashover
	Primary to ground	---	Basic insulation,no breakdown,no flashover
	Secondary to ground	---	Functional insulation,no breakdown,no flashover
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

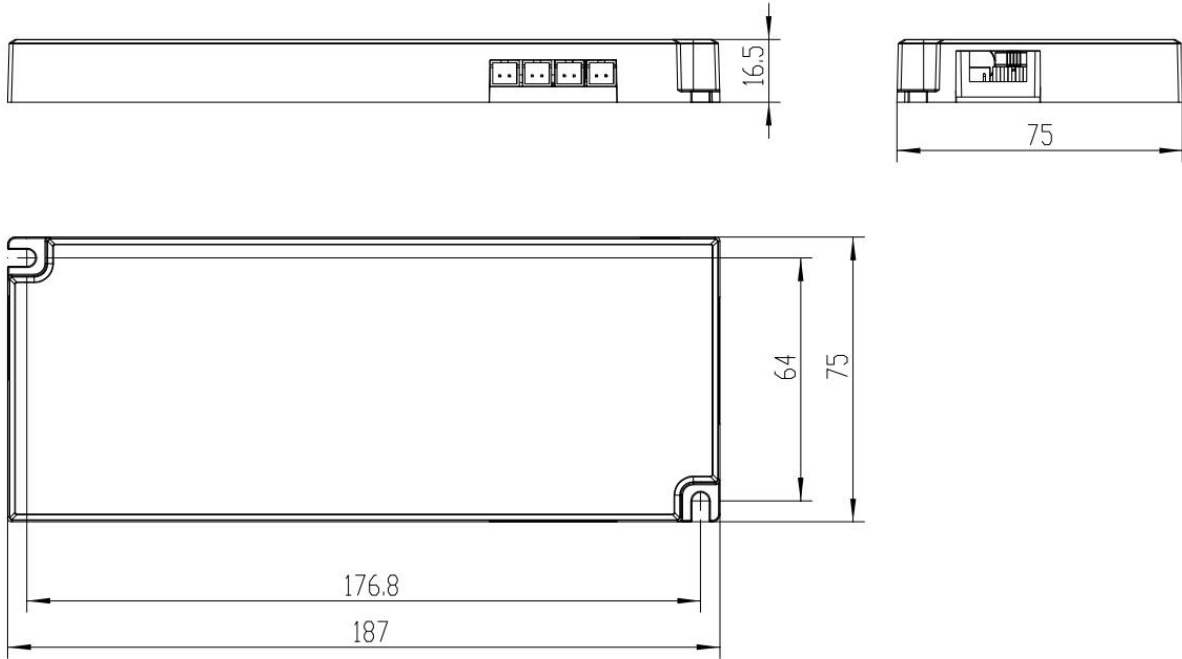
#### Others

Parameters	Condition	Note
Lifetime	30,000 hours	230Vac,full load, TA 40℃
MTBF	200,000 hours	230Vac,full load, TA 25℃
TC	85℃	
Warranty	5 years	---
Weight	180g	
Dimensions	187*75*16.5(mm)	L x Wx H



### Indoor LED Power Supply

#### Mechanical Specification ( Unit : mm )



**Remark :**

AC Input	Terminal + H03VVH2-F 2*0.75mm <sup>2</sup>
DC Output	Terminal + H03VVH2-F 2*0.2mm <sup>2</sup> x8