

## IP20 LED Power Supply



### Features

- . EU standard input voltage 198-264vac
- . Built-in active PFC function
- . IP20
- . Suitable for dry, humid and rainy environment
- . Protections: Short circuit / Overload / Over voltage
- . Adopt plastic case and internal glue potting
- . Built in lightning protection device can meet the requirements of 1KV
- . Compliance to worldwide safety regulations for lighting
- . 3 years warranty



### Description :

SL100 series is a indoor constant voltage LED power supply. Its input voltage range is 198-264Vac, with the high efficiency up to 93%, working in the temperature range of -20°C~+45°C ambient temperature range. It has ultra-high power factor, low THD, low standby power consumption, full protection function, which not only greatly improves the reliability of the product, but also ensures the life cycle of product. This series is designed for LED lighting, suitable in indoor lighting use.

### Model

Model	Rated output voltage	Rated output current	Max. output power	Output voltage tolerance	Total harmonic distortion (Typ.)	Power factor (Typ.)	Efficiency (Typ.)
SL100-12VF-1	12V	0-8.33A	100W	±5%	4%	0.95	93%
SL100-24VF-1	24V	0-4.17A	100W	±5%	4%	0.95	93%
SL100-48VF-1	48V	0-2.08A	100W	±5%	4%	0.95	93%

**Remark:** All parameters NOT specially mentioned are measured at 230VAC input, full load and 25 °C of ambient temperature

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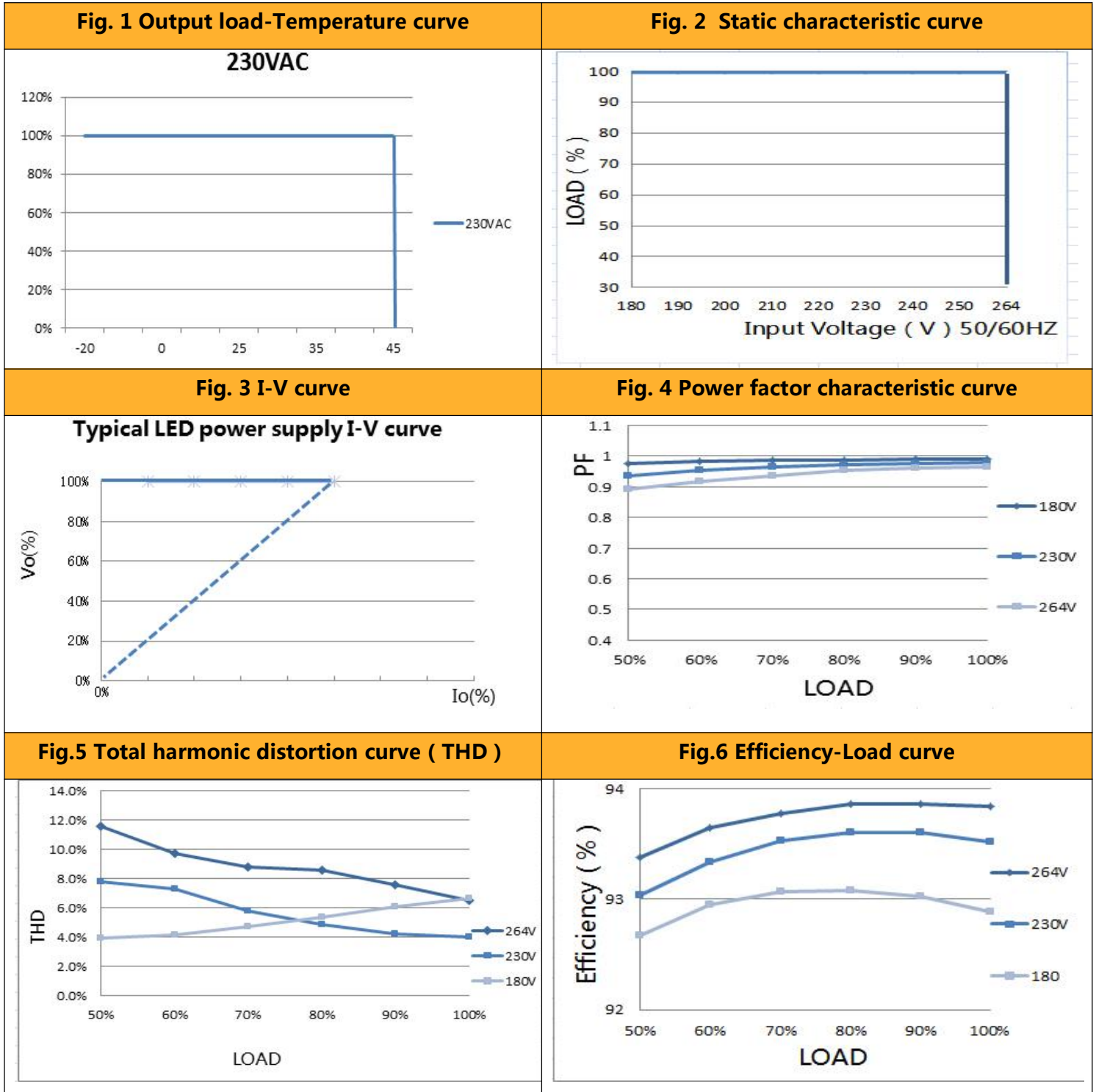
### Input

Parameter	Min. value	Typical value	Max. value	Note
Rated input voltage	220 Vac		240Vac	The derating curve is shown in the figure
Input voltage	198 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max. Input current			--	110Vac , Full Load
			0.7A	180Vac , Full Load
Input inrush current			60A	230Vac/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-1	SL100-24VF-1	SL100-48VF-1	Note
Rated output voltage	12.0VDC	24.0VDC	48.0V	Max. Output power should compliance to $P_o=V_o*I_o=8W$
Rated output current	8.33A	4.17A	2.08A	
Output current	0-8.33A	0-4.17A	0-2.08A	
Rated output power	100W	100W	100W	
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 )	---			230Vac
Rise time	100mS			
Startup time	300mS			230Vac
Line regulation	±1%			Full load
Load regulation	±1%			

### Characteristic curve



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### Protection

Parameter		Conditions	Note
Protection	Over load	1.1-1.6 times rated load	auto-recovery when overload removed
	Short circuit	Short circuit power $\leq 0.5W$	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°C	Hiccup mode, auto-recovery after after the temperature returns to normal

### 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			

**Remark:** All parameters NOT specially mentioned are typical values measured at 25 °C of ambient temperature

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### Safety&EMC Standard

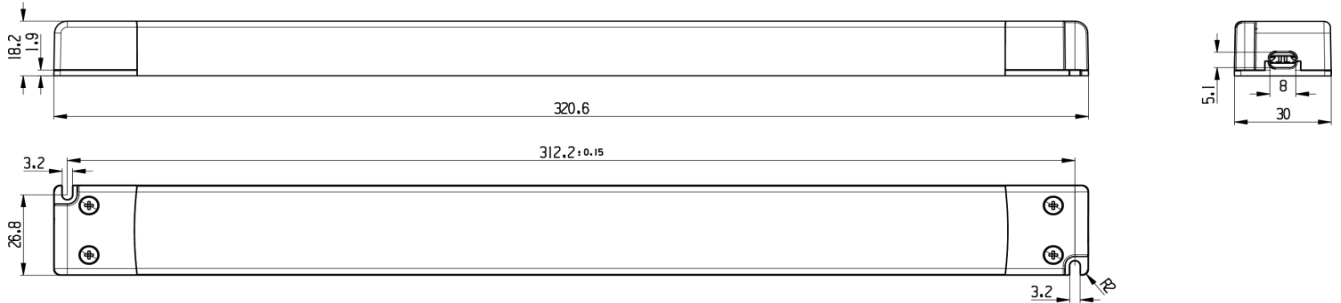
Certificate		Safety standards	Certification	Note
UL/CUL		UL8750		
TUV		EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015		
SAA		AS/NZS 61347.2.13		
CCC		GB 19510.14-2009		
CE		EN 61347-2-13:2014 +A1 EN61347-1:2015		
Safety test		Technical indexes	Note	
Dielectric strength	Input to output	3750Vac/5mA 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		Standards	Basis	
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°C
MTBF	200,000hours	230Vac , Full load, 25°C(MIL-HDBK-217F)
TC	90°C	
Warranty	3 years	
Weight	520g	
Dimensions	320.6mm * 30mm * 18.2mm	L x W x H

## IP20 LED Power Supply

### Mechanical Specification ( Unit : mm )



**Remark :**

AC input cable	Terminal , H03VVH2-F 2×0.75mm <sup>2</sup>
DC output cable	Terminal , H05VVH2-F 2*1.0mm <sup>2</sup>