

Features

- . European AC input / (220-240VAC)
- . Built-in active PFC function
- . IP20
- . Suitable for dry environment
- . Protections: Short circuit / Over voltage / Over temperature
- . Adopt plastic shell and internal glue potting
- . Compliance to worldwide safety regulations for lighting
- . 5 years warranty



Description :

SS60 series is an indoor constant voltage power supply. Its input voltage range is 220-240Vac, with the high efficiency up to 89%, fanless design, working in the temperature range of - 20 ° C to + 45 ° C under free air convection. It has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, with all-round protection functions such as lightning protection and waterproof function, which not only greatly improves the reliability of the product, but also ensures the life cycle of product. This series are designed for LED lighting such as road lighting, floodlights, stage lighting and advertising lights etc, suitable in almost all kinds of 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	Max. Output power	Current tolerance	Power factor (Typ.)	Efficiency (Typ.)
SS60-12VF	12V	0-5A	60W	±5%	0.95	87%
SS60-24VF	24V	0-2.5A	60W	±5%	0.95	88%
SS60-48VF	48V	0-1.25A	60W	±5%	0.95	89%

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

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			0.35A	230Vac , Full Load
Input inrush current			30A	230Vac/50Hz , Cold Start
Power factor	0.96	0.97		230Vac , Full Load
Total harmonic input		6%	8%	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	SS60-12VF	SS60-24VF	SS60-48VF	备注
Output voltage	12.0VDC	24.0VDC	48.0VDC	The maximum output power shall meet Po=Vo*Io=30W
Rated output current	5A	2.5A	1.25A	
Output current	0-5A	0-2.5A	0-1.25A	
Rated output power	60W	60W	60W	
Rated output efficiency	87%	88%	89%	230Vac
Output current 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%			

Characteristic curve

Fig. 1 Output load-Temperature curve

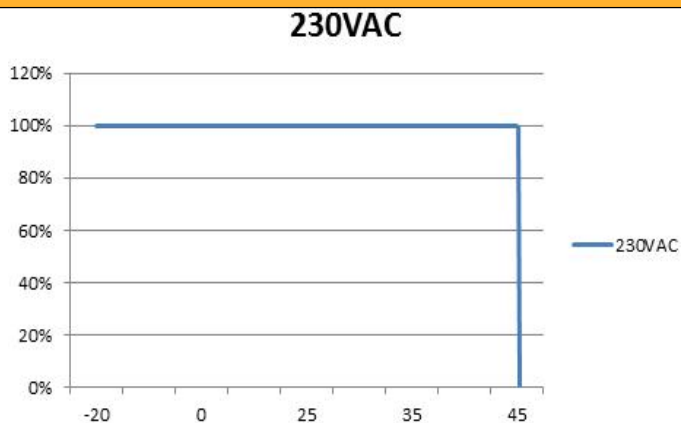


Fig. 2 Static characteristic curve

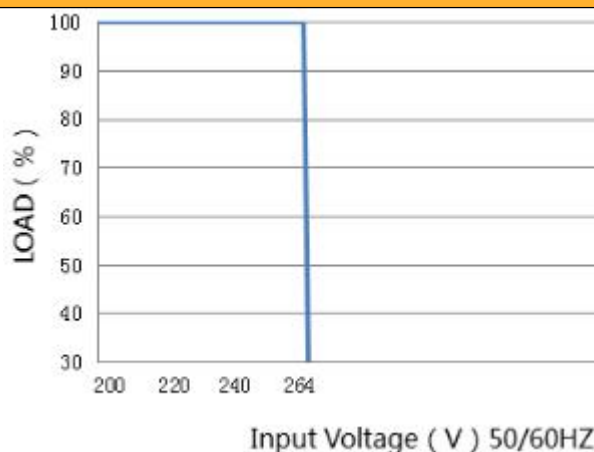


Fig. 3 I-V curve

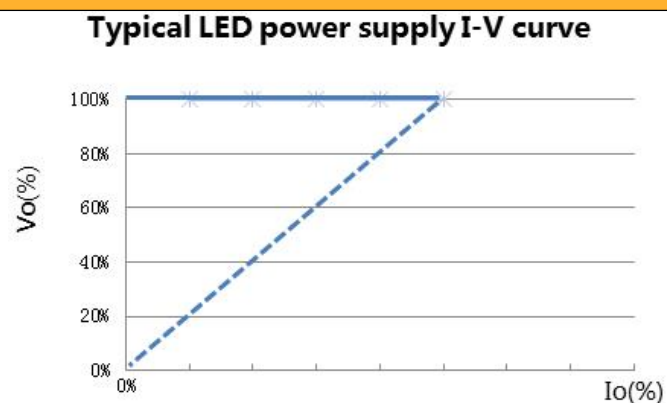


Fig. 4 Power factor characteristic curve

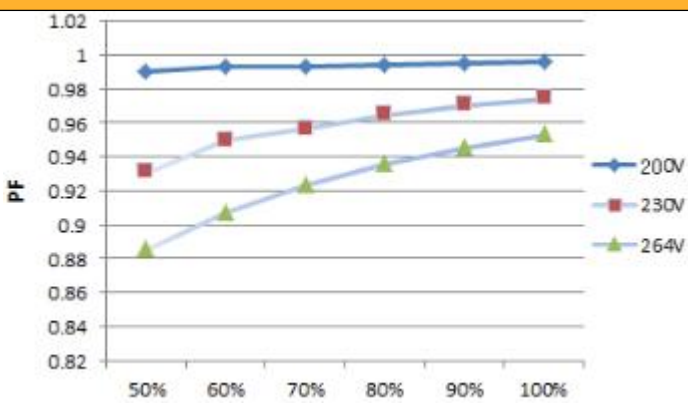


Fig.5 Total harmonic distortion curve (THD)

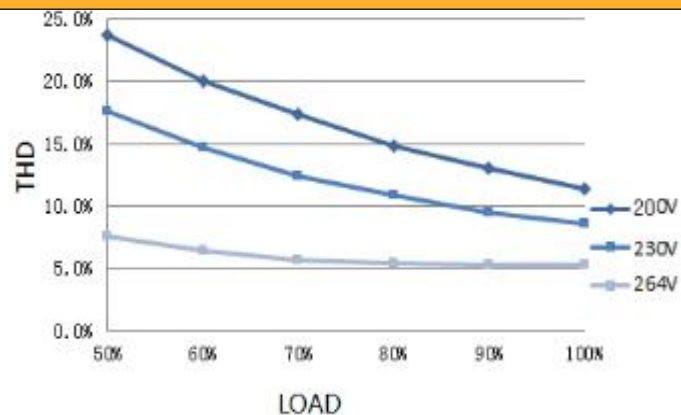
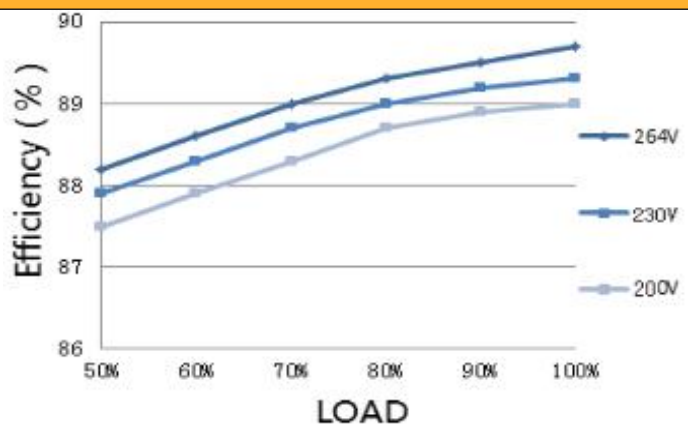


Fig.6 Efficiency-Load curve



Protection

Parameter		Conditions	Note
Protection	Over load	1.1 ~ 1.6 times rated load	Recover automatically when cancel overload
	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 input voltage and restart
	Over temperature	110°C	Turn off input voltage and restart when temp drop to normal

Environment Requirement

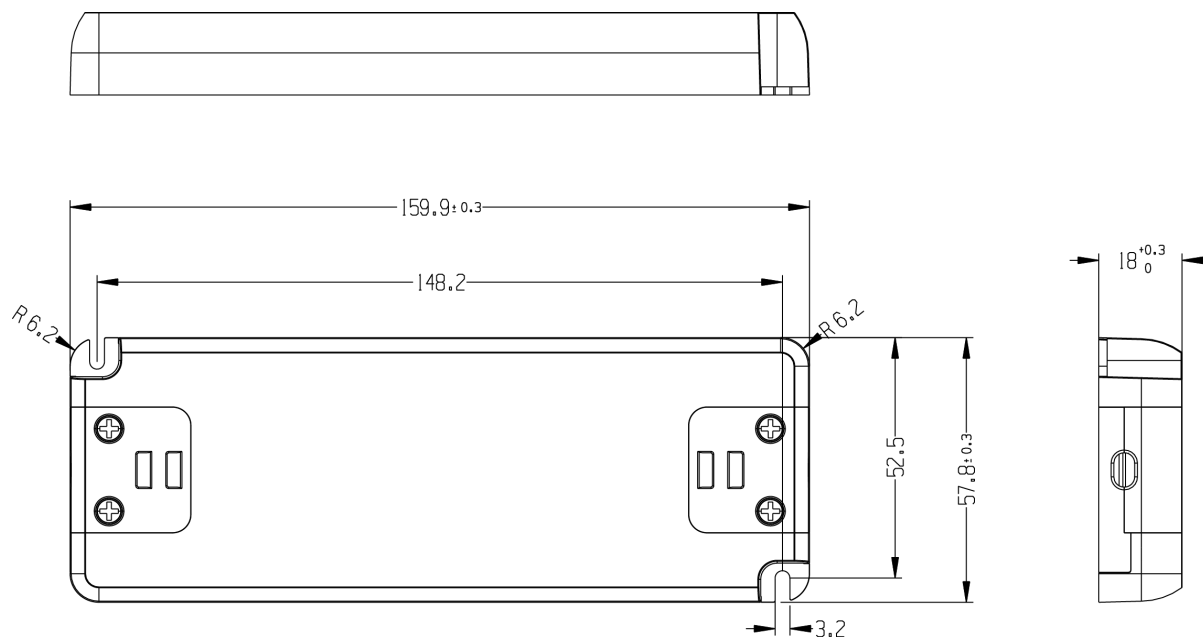
Parameter	Min.	Typ.	Max.	Note
Working temp.	-20°C	25°C	+45°C	See Fig.2
Storage temp.	-40°C	25°C	+85°C	
Working humidity	10%RH		90%RH	
Storage humidity	5%RH		95%RH	
IP grade			IP20	
Cooling mode	Natural cooling			

Certificate		Safety standards	Certification	Note
UL/CUL		---		
TUV		EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015	YES	
SAA		AS/NZS 61347.2.13		
CCC		---		
CE		EN 61347-2-13:2014 +A1 EN61347-1:2015	YES	
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	$\geq 10M\Omega$	Test voltage : 500Vdc	
Grounding resistance		--	25A/1min	
Leakage current		$\leq 0.75mA$	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	5 years	
Weight	250g	
Dimensions	159mm * 57.8mm * 18mm	L x Wx 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