

Constant Voltage LED Power Supply

SPF60-12VSP



Product description

SPF60-12VSP is an indoor constant voltage LED driver, with an input voltage range of 220-240Vac and a maximum conversion efficiency of up to 87.5%. It operates in the temperature range of -20°C to +50°C natural cooling and cooling casing, and has ultra-high power factor, low standby power consumption, and comprehensive protection functions. It not only greatly improves product reliability, but also ensures product life cycle. Comply with global lighting safety regulations, ensuring the safety of both users and lighting systems during installation.

Standards

EN61347-1:2015
EN 61347-2-13:2014+A1
EN62493:2015
AS/NZS 61347.2.13
EN 61347-2-13:2014 +A1
EN61347-1:2015

Characteristics

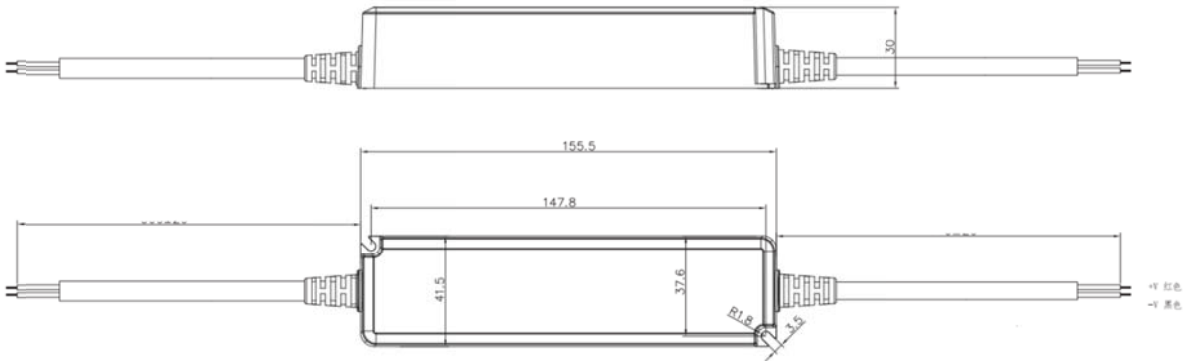
- European AC input (220-240VAC)
- Waterproof Grade IP67
- Suitable for indoor environment
- Protections:
Short circuit Over load Open circuit
- Adopt plastic case and internal glue filling
- Compliance to worldwide safety regulations for lighting

Specifications

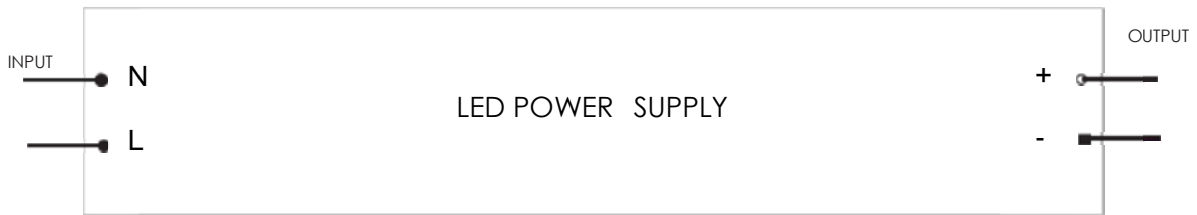
Model	SPF60-12VSP	
Output	turn on time(S)	<0.5
	output power(W)	60
	output voltage(V)	12
	output voltage tolerance	≤±5%
	ripple voltage(mV)	240
	Line Regulation	3%
	Load Regulation	3%
	working current range(A)	0-5
	SVM	≤0.4
	Pst	≤1
	dimming type	N/A
dimming range	N/A	
Input	rated DC supply voltage(Vdc)	-
	rated supply voltage(Vac)	220-240
	voltage range(Vac)	198-264
	line frequency(Hz)	50/60
	input current(A)	0.3
	efficiency	87%@full load
	average efficiency 3	≥87%
	no load power consumption(W)	≤0.5W
	power factor	0.98@full load
	THD(typ.)	63-100% Load division harmonic
	inrush current(Ipk)	36A/230μS
Leakage current	<0.7mA	
Protection	short circuit protection	hiccup mode, restart automatically after fault correction.
	over load protection	exceed maximum rated load times 1.2
	Over voltage protection	-
	Over temperature protection	-
	surge capacity	L-N: 1KV
	Withstand voltage	Input-Output: 3750V/5mA/1min
Ambient and Life	Ta(°C)	-20...50
	Tc max.(°C)	max.85
	Storage Temperature(°C)	-40...80
	ambient humidity range	10%...95%RH, Not condensing
	nominal life-time(hrs)	50'000

Other	dimensions (L×W×H)(mm)	155.5*41.5*30
	weight(g)	344
	casing material	Plastic
	housing colour	White
	type of protection	IP67
	protection class	class II
	certificate	CB CE ENEC
Note	<p>1. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>2. Tested at full load under 230Vac. Refer to "Power Factor" and "EFFICIENT" curve graphs.</p> <p>3. Calculate the model's average efficiency for each test voltage by testing at 100%, 75%, 50%, and 25% of rated current and then computing the simple arithmetic average of these four values.</p> <p>4. All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.</p> <p>5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p>	

Dimensions(mm)



Wiring Diagram



AC	SR AWM1015 18AWG*1 UL brown/blue (Multistrand tin plating) 105°600V L=150mm
DC	SR AWM1007 UL 16AWG*1 80°C 300V Red/Black SNP-023002

Electrical curves

SPF60-12VSP

Fig. 1 Output load-Temperature curve

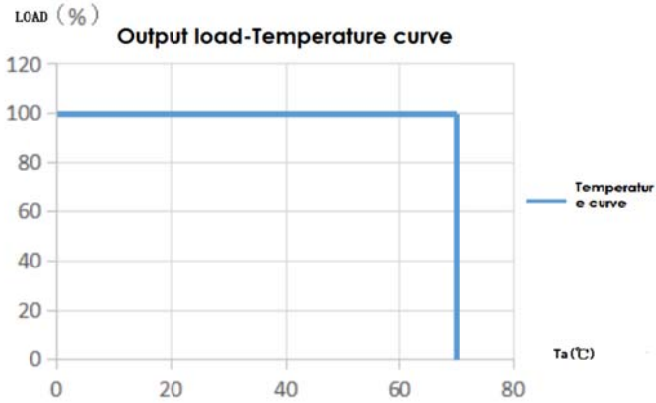


Fig. 2 Static characteristic curve

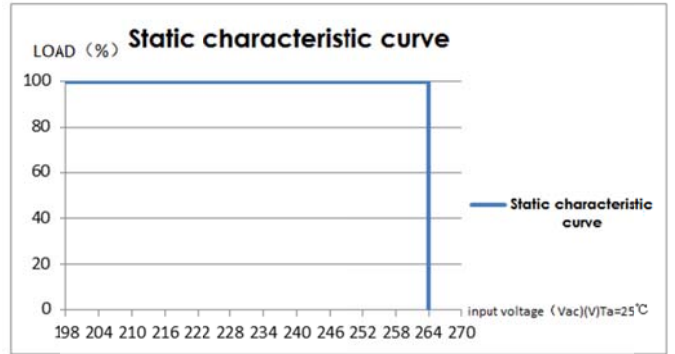


Fig. 3 I-V curve

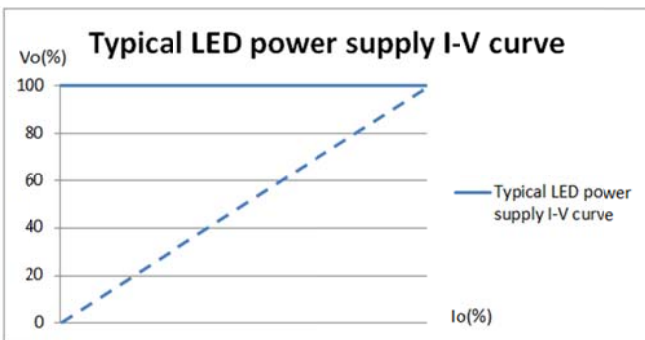


Fig. 4 Power factor characteristic curve

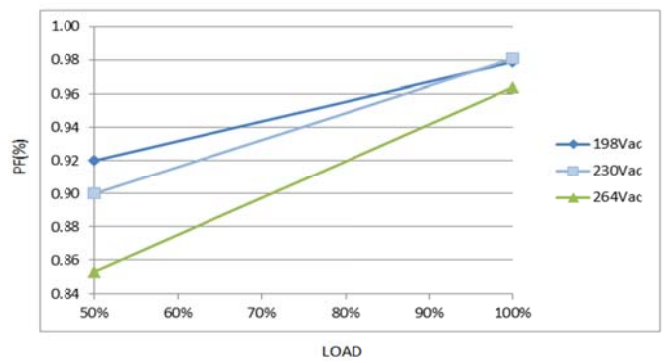


Fig.5 Total harmonic distortion curve (THD)

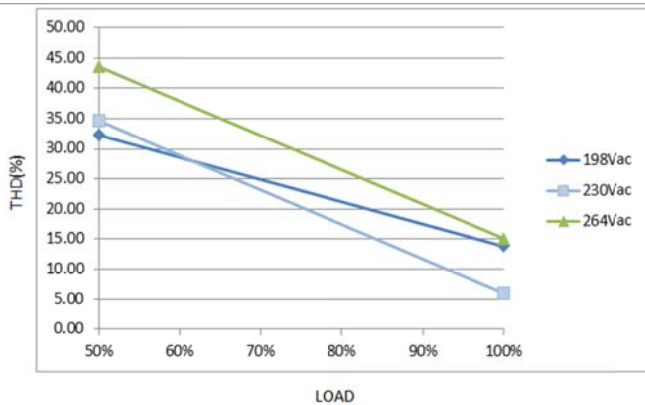
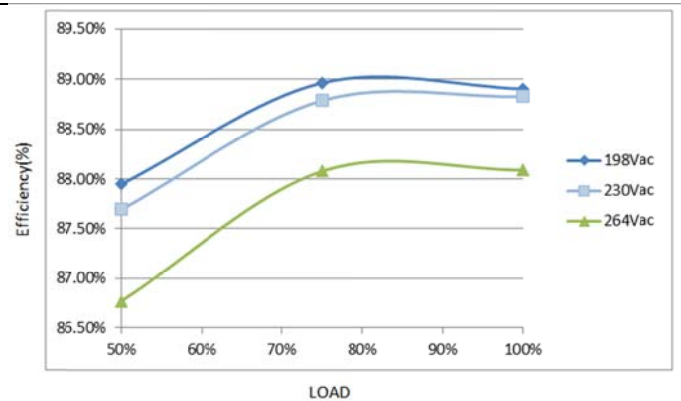


Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SPF60-12VSP	8	11	13	17	14	18	23	28

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SPF60-12VSP			

Revision history

Date	Rev.	Remark
2023.4.18	A1	Initial release.