

# Constant Voltage LED Power Supply

## SPF100-12VSP SPF100-24VSP



### Product description

SPF100 is a constant voltage IP67 LED driver with an input voltage range of 220-240Vac and a conversion efficiency up to 90%. Excellent power factor, low standby power consumption, and comprehensive protection functions not only greatly improve the reliability of the product, but also ensure the product life cycle. This series of products is designed for LED lighting design and applied to indoor lighting. It is suitable for various application environments in almost all indoor places where LED luminaires can be installed. Comply with the world's lighting equipment safety regulations.

### Standards

EN61347-1  
EN61347-2-13  
AS/NZS 61347.2.13  
EN55015  
EN61000-3-2  
EN62493

### Characteristics

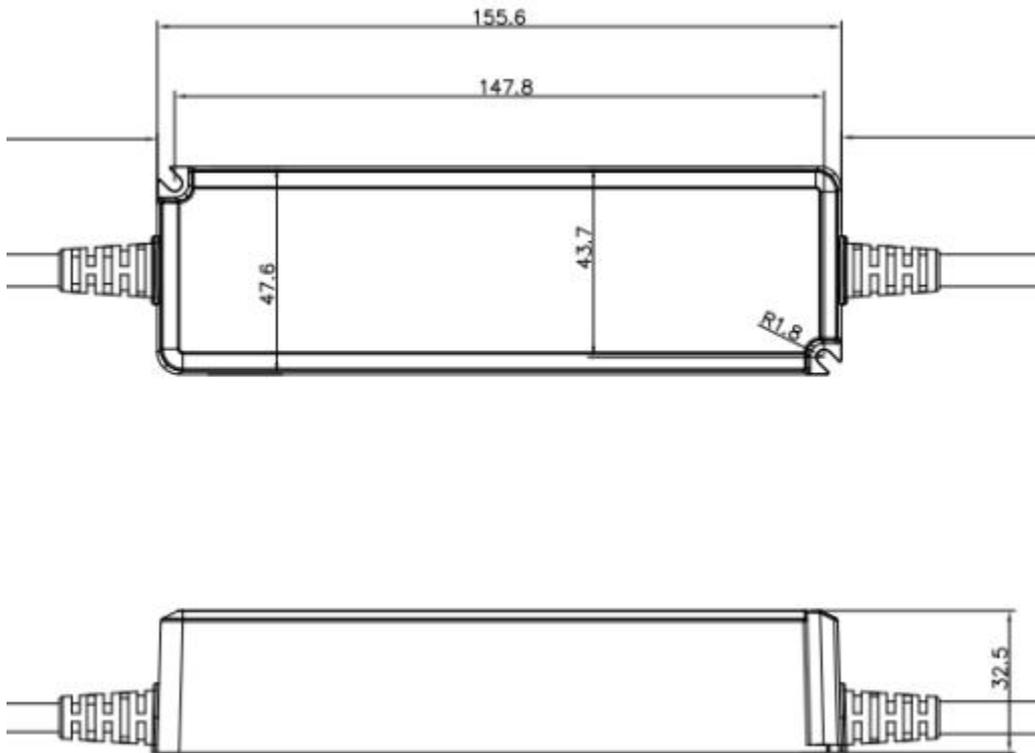
- AC input range (220-240VAC)
- With active PFC function
- Waterproof IP67
- Suitable for indoor environments
- Protection type: short circuit/over voltage protection
- Using plastic shell, internal potting
- Conforms to world lighting safety regulations
- Warranty 5 years

## Specifications

Model		SPF100-12VSP	SPF100-24VSP		
Output	turn on time(S)	<0.5	<0.5		
	output power(W)	100	100		
	output voltage(V)	12	24		
	output voltage tolerance	≤±5%	≤±5%		
	ripple voltage(mV)	≤±3%	≤±3%		
	Line Regulation	±3%	±3%		
	Load Regulation	±3%	±3%		
	working current range(A)	0-8.3	0-4.17		
	SVM	SVM≤0.4	SVM≤0.4		
	Pst	Pst LM≤1	Pst LM≤1		
	dimming type	N/A	N/A		
	dimming range	N/A	N/A		
	Input	rated DC supply voltage(Vdc)	--	--	
rated supply voltage(Vac)		220-240	220-240		
voltage range(Vac)		198-264	198-264		
line frequency(Hz)		50/60	50/60		
input current(A)		0.491/230V	0.475/230V		
efficiency		≥90%@full load	≥90%@full load		
average efficiency 3		≥90%	≥90%		
no load power consumption(W)		≤0.5W	≤0.5W		
power factor		0.98@full load	0.98@full load		
THD(typ.) THD		10%	10%		
inrush current(Ipk) (Ipk)		63.3A/200uS	63.3A/200uS		
Leakage current		--	--		
Protection	short circuit protection	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.		
	over load protection	exceed maximum rated load times 1.2	exceed maximum rated load times 1.2		
	Over voltage protection 过压保护	N/A	N/A		
	Over temperature protection	N/A	N/A		
	surge capacity 浪涌能力	L-N: 1000V	M-N: 1000V		

	Withstand voltage	Input-Output: 3750V/5mA/1min	Input-Output: 3750V/5mA/1min		
<b>Ambient and Life</b>	Ta(C)	-20...50	-20...50		
	Tc max.(C)	max.90	max.85		
	Storage Temperature(C)	-40...80	-40...80		
	ambient humidity range	5%...85%RH, Not condensing	5%...85%RH, Not condensing		
	nominal life-time(hrs)	50'000@Tc	50'000@Tc		
<b>Other</b>	dimensions (L×W×H)(mm)				
	weight(g)				
	casing material	Plastic	Plastic		
	housing colour	White	White		
	type of protection	IP67	IP67		
	protection class	class II	class II		
	certificate				
<b>Note</b>	<p>1.Tolerance:includes set up tolerance, line regulation and load regulation.  2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs.  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.  4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.  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)



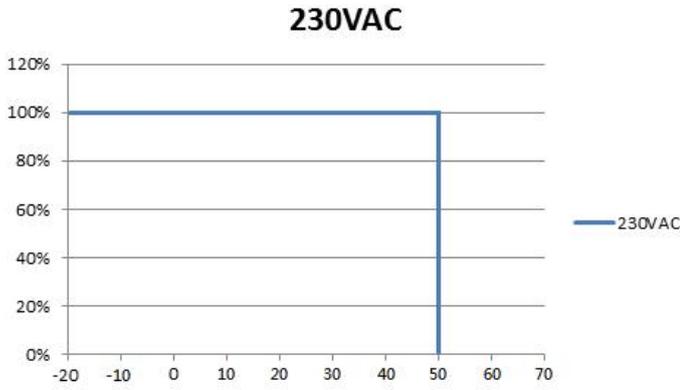
### Note:

AC	H05RN-F 2*1.0mm <sup>2</sup>
DC	SVT 18AWG*2C 105°C 300V

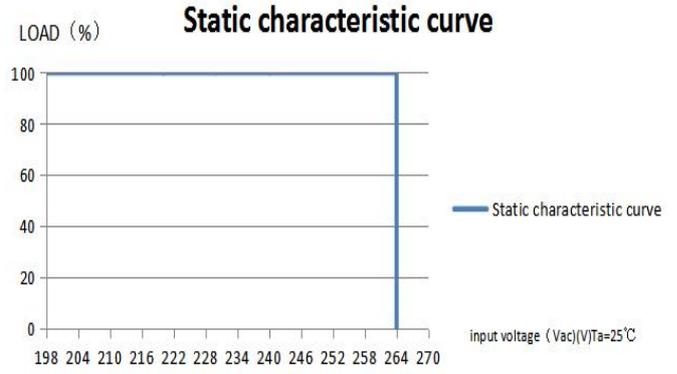
# Electrical curves

SPF100-12VSP

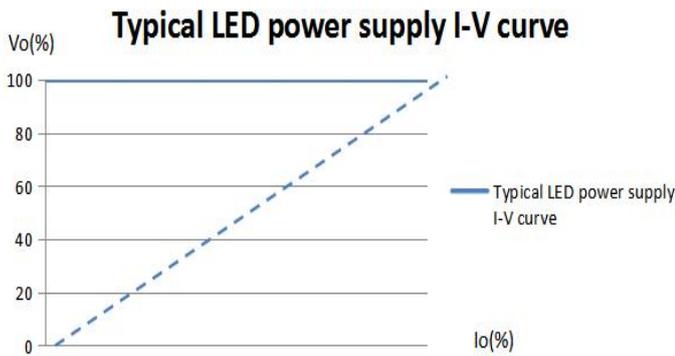
**Fig. 1 Output load-Temperature curve**



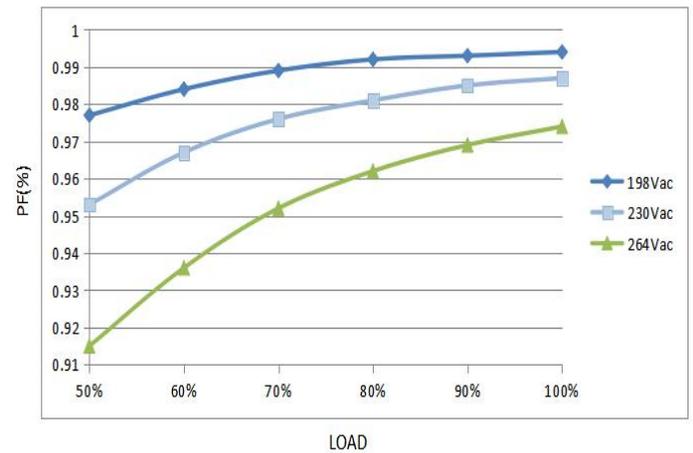
**Fig. 2 Static characteristic curve**



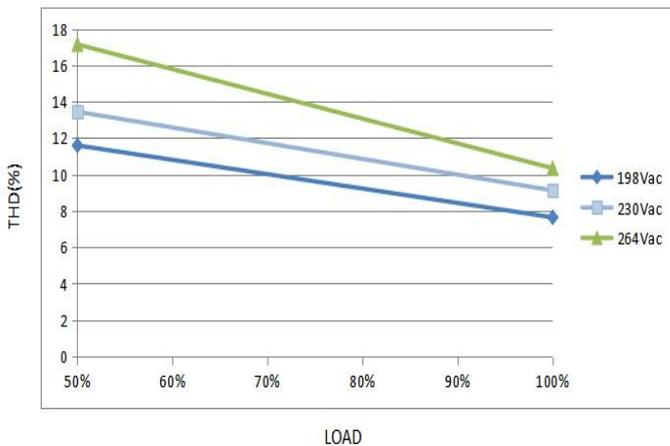
**Fig. 3 I-V curve**



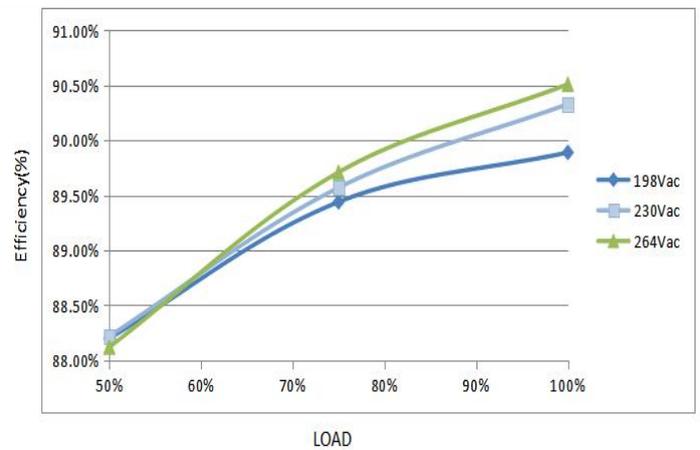
**Fig. 4 Power factor characteristic curve**



**Fig.5 Total harmonic distortion curve (THD)**



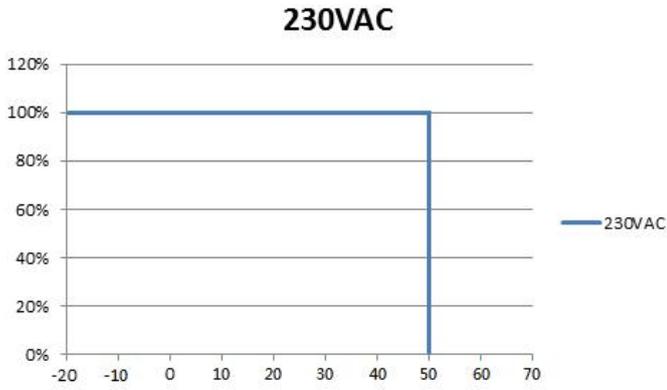
**Fig.6 Efficiency-Load curve**



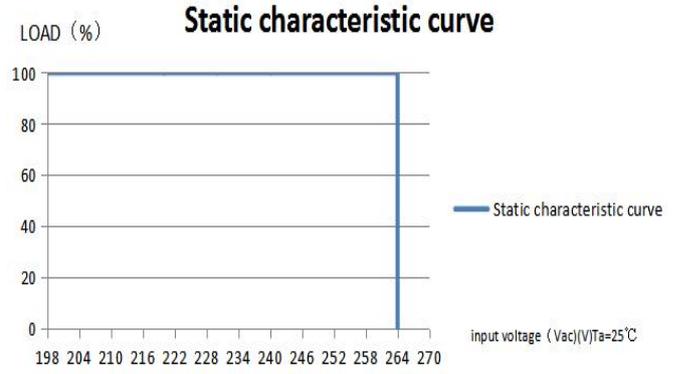
# Electrical curves

SPF100-24VSP

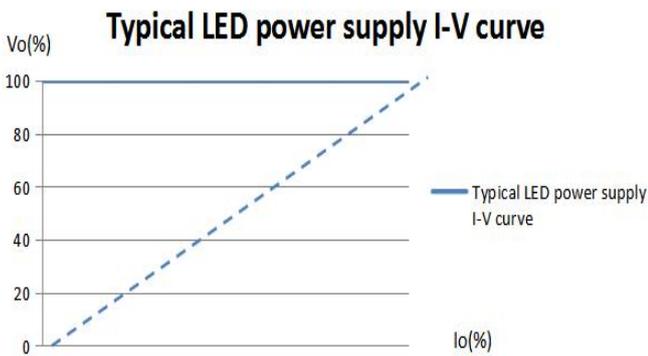
**Fig. 1 Output load-Temperature curve**



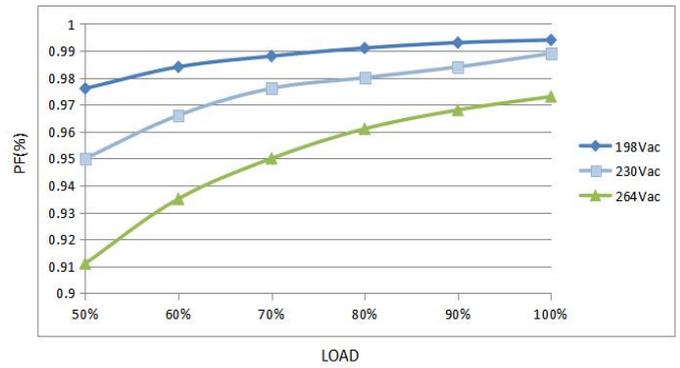
**Fig. 2 Static characteristic curve**



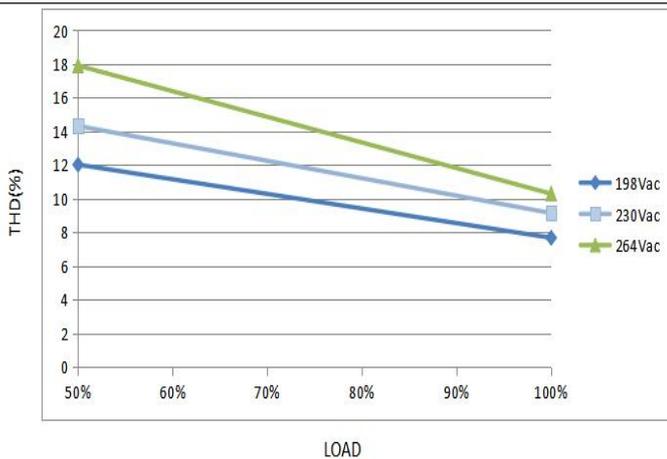
**Fig. 3 I-V curve**



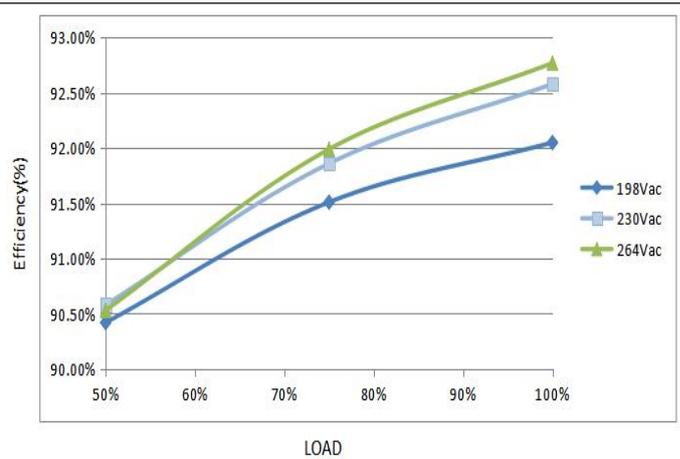
**Fig. 4 Power factor characteristic curve**



**Fig.5 Total harmonic distortion curve (THD)**



**Fig.6 Efficiency-Load curve**



## MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SPF100-12VSP	7	9	11	14	11	15	19	24
SPF100-24VSP	7	9	11	14	11	15	19	24

## Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SPF100-12VSP			
SPF100-24VSP			

## Revision history

Date	Rev.	Remark
2023.1.16	V0.01	Initial release.
2023.1	V0.02	Add OTP function