

Constant Voltage LED Power Supply

SPF24-12/24VSP

Product description



SPF24 is an indoor constant voltage LED driver, with an input voltage range of 220-240Vac and a maximum conversion efficiency of up to 86%. It operates in the temperature range of -20 ° C to +45 ° C natural cooling and cooling casing, and has ultra-high power factor, ultra-low total harmonic distortion, 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
EN61347-2-13
AS/NZS 61347.2.13
EN55015
EN61000-3-2
EN62493

Characteristics

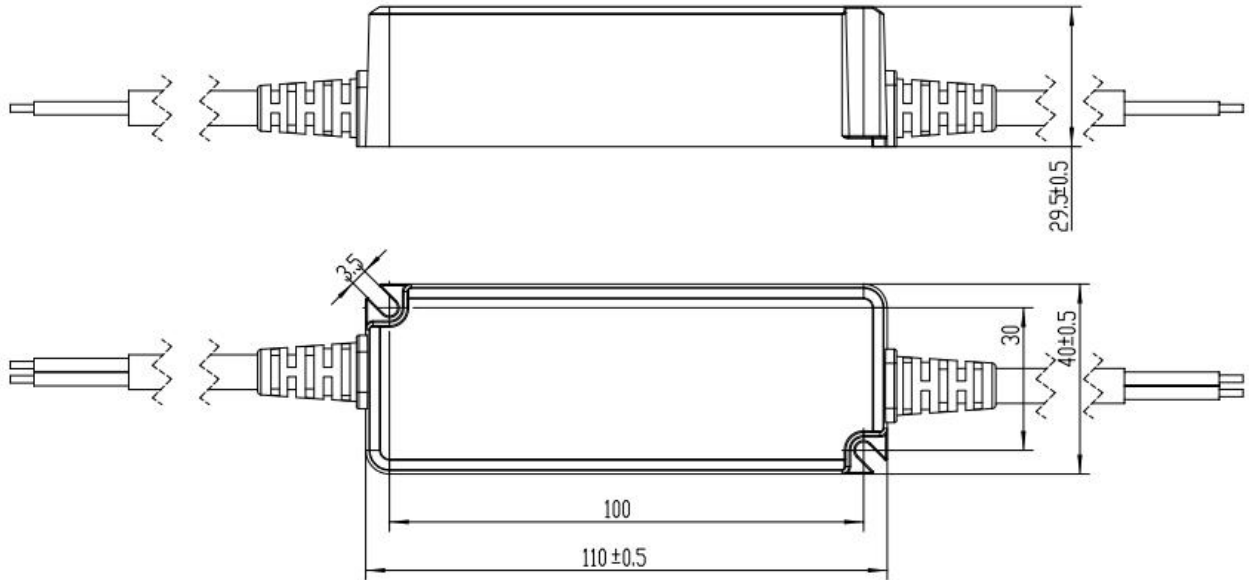
- European AC input (220-240VAC)
- With active PFC function
- IP67
- Suitable for indoor environment
- Protections: Short circuit / Overvoltage
- Adopt plastic case and internal glue filling
- Compliance to worldwide safety regulations for lighting

Specifications

Model		SPF24-12VSP	SPF24-24VSP		
Output	turn on time(S)	<0.5	<0.5		
	output power(W)	24	24		
	output voltage(V)	12	24		
	output voltage tolerance	≤±5%	≤±5%		
	ripple voltage(mV)	5%	5%		
	Line Regulation	±3%	±3%		
	Load Regulation	±3%	±3%		
	working current range(A)	0-2	0-1		
	SVM	Full load SVM≤0.4	Full load SVM≤0.4		
	Pst	Full load Pst LM≤1	Full load 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)	0.126/230V	0.126/230V		
	efficiency	≥86%@full load	≥86%@full load		
	average efficiency 3	≥86%	≥86%		
	no load power consumption(W)	≤0.5W	≤0.5W		
	power factor	0.96@full load	0.96@full load		
	THD(typ.) THD	60-100%Load division harmonic	60-100%Load division harmonic		
	inrush current(Ipk)	25.7A/306uS	25.7A/306uS		
	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	N/A	N/A		
	Over temperature protection	N/A	N/A		
	surge capacity	L-N: 500V	M-N: 500V		
	Withstand voltage	Input-Output: 3750V/5mA/1min	Input-Output: 3750V/5mA/1min		
	Ta(C)	-20...45	-20...45		
Tc max.(C)	max.90	max.90			

Ambient and Life	Storage Temperature(C)	-30...80	-30...80		
	ambient humidity range	5%...85%RH, Not condensing	5%...85%RH, Not condensing		
	nominal life-time(hrs)	30'000@Ta	30'000@Ta		
Other	dimensions (L×W×H)(mm)	114*38.5*29	114*38.5*29		
	weight(g)	266G	266G		
	casing material	Plastic	Plastic		
	housing colour	White	White		
	type of protection	IP67	IP67		
	protection class	class II	class II		
	certificate				
Note	<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)



Remark:

AC INPUT CABLE	BLACK H05RN-F 2*1.0 ² MM L=500mm+SR Peeling 8mm tin plating
DC OUTPUT CABLE	BLACK UL2464 20AWGx2c L=500mm+SR +M14 waterproof male/female

Electrical curves

Fig. 1 Output load-Temperature curve

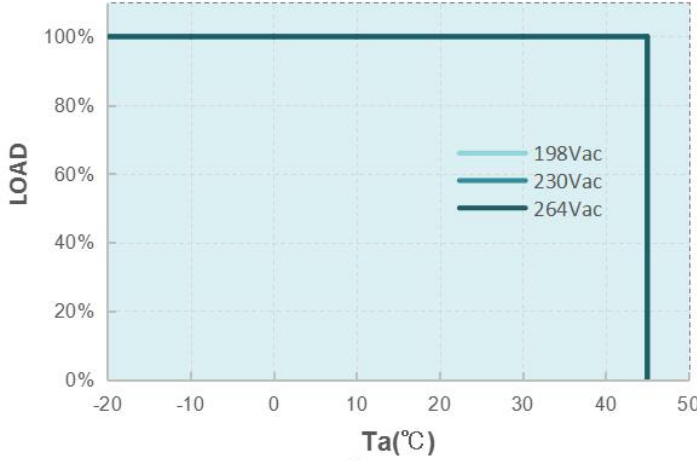


Fig. 2 Static characteristic curve

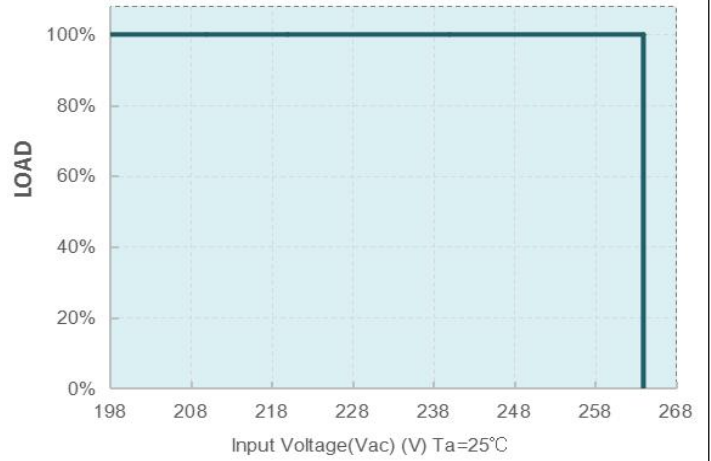


Fig. 3 I-V curve

Fig. 4 Power factor characteristic curve

Typical LED power supply I-V curve

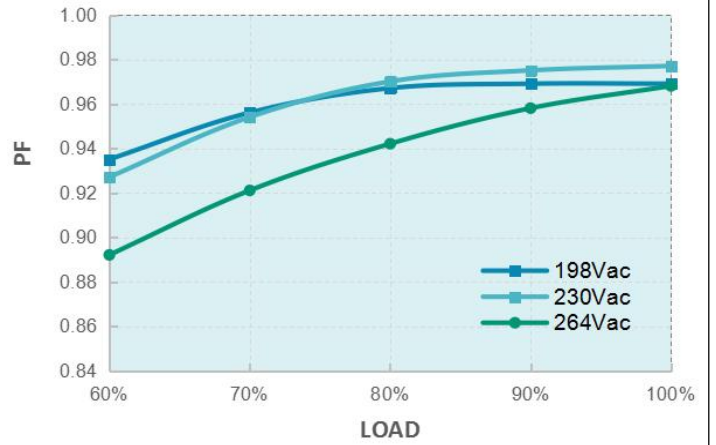
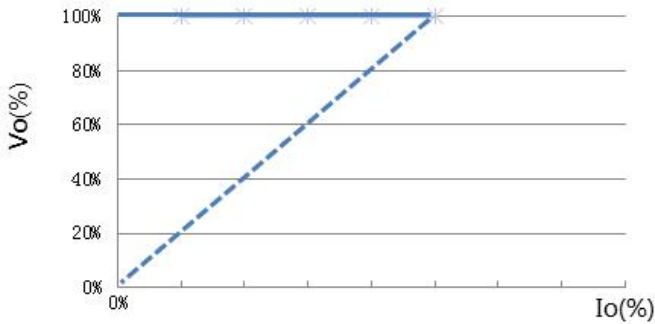
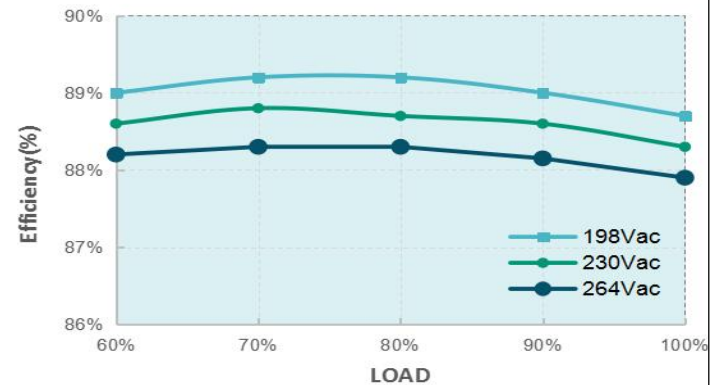
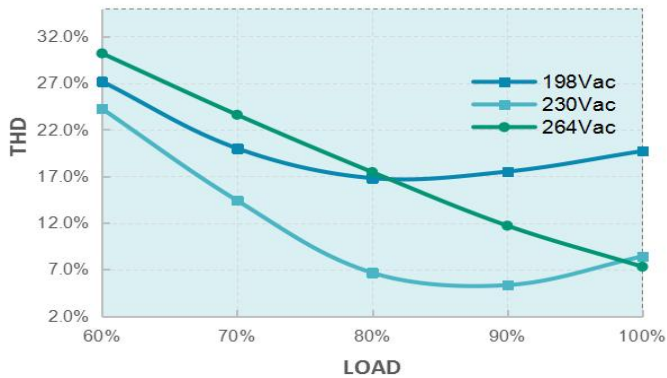


Fig.5 Total harmonic distortion curve (THD)

Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SPF24-24VSP	29	37	46	58	48	63	78	97

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SPF24-12VSP			
SPF24-24VSP			

Revision history

Date	Rev.	Remark
2023.4.18	A0	Initial release.