Constant Voltage LED Power Supply

SPF200-24VSP SPF200-48VSP
SPF150-24VSP(UE) SPF150-48VSP(UE)

Product description

SPF200-24/48VSP is a constant voltage IP67 LED driver with a rated input voltage range of 100-240Vac, a conversion efficiency of up to 94%, and an operating temperature range of -20°C~+45°C with natural cooling and heat dissipation. It has ultra-high power factor, low standby power consumption, and all-round protection functions, which not only greatly improves the reliability of the product, but also guarantees the product life cycle. This series of products for LED lighting design, designed for indoor lighting applications. Suitable for almost all indoor places where LED lamps can be installed in a variety of applications. Comply with the world's lighting safety standards, while ensuring the safety of the user and the luminaire system in the installation process.

Standards

EN61347-1
EN61347-2-13
AS/NZS 61347.2.13
EN55015
EN61000-3-2
EN62493
UL8750

Characteristics

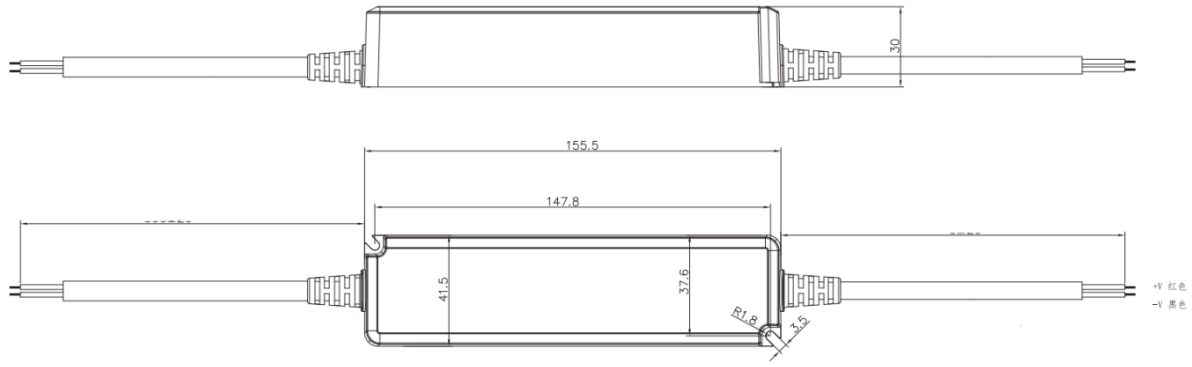
- Applicable input voltage range (100-240VAC)
- Waterproof IP67
- Suitable for indoor environments
- Protection Types: Short circuit/Overload/Open circuit/Over temperature protection
- Fully enclosed plastic housing
- Comply with the world's lighting equipment safety regulations
- Warranty 5 years
- Compliant with EN60335

Specifications

Model		SPF200-24VSP SPF150-24VSP(UE)	SPF200-48VSP SPF150-48VSP(UE)
Output	Turn on time(S)	<0.5	<0.5
	Output power(W)	200W (220-240VAC) 150W (100-120VAC)	200W (220-240VAC) 150W (100-120VAC)
	Output voltage(V)	24	48
	Output voltage tolerance	±5%	±5%
	Ripple voltage(mV)	<240	<240
	Line Regulation	±3%	±3%
	Load Regulation	±3%	±3%
	Working current range(A)	0-8.33A (220-240VAC) 0-6.25A (100-120VAC)	0-4.16A (220-240VAC) 0-3.125A (100-120VAC)
	SVM	≤0.4	≤0.4
	Pst	≤1	≤1
	Dimming type	N/A	N/A
	Dimming range	N/A	N/A
Input	Rated DC supply voltage(Vdc)	--	--
	Rated supply voltage(Vac)	100-240	100-240
	Voltage range(Vac)	90-264	90-264
	Line frequency(Hz)	50/60	50/60
	Input current(A)	1.45 /120V 1.1 /230V	1.45/120V 1.1/230V
	Efficiency	92%@120V Full load 94%@230V Full load	92 %@120V Full load 94 %@230V Full load
	Average efficiency 3	≥91%@120V ≥92.5%@230V	≥91.2%@120V ≥93.1%@230V
	No load power consumption(W)	≤0.5W	≤0.5W
	Power factor	0.98@full load	0.98@full load
	Displacement factor	0.98	0.98
	THD(typ.)	5%	5%
	Inrush current(Ipk)	81A/240uS	81A/240uS

	Leakage current	<0.7mA	<0.7mA
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 1.1-1.5	Exceed maximum rated load times 1.1-1.5
	Over voltage protection	Yes(latch off)	Yes(latch off)
	Over temperature protection	Yes(Hiccup mode)	Yes(Hiccup mode)
	Surge capacity	L-N: 1KV	L-N: 1KV
	Withstand voltage	Input-Output:3000V/5mA/1min	Input-Output:3000V/5mA/1min
Ambient and Life	Ta(℃)	-20…55(See derating curve)	-20…55(See derating curve)
	Tc max.(℃)	Max.90	Max.90
	Storage Temperature(℃)	-40...80	-40...80
	Ambient humidity range	10%...85%RH, Not condensing	10%...85%RH, Not condensing
	Nominal life-time(hrs)	50'000@Ta 35℃	50'000@Ta 35℃
Other	Dimensions (L×W×H)(mm)	155.5*41.5*30	155.5*41.5*30
	Weight(g)	352g	352g
	Casing material	Plastic	Plastic
	Housing colour	White	White
	Type of protection	IP67	IP67
	Protection class	Class II	Class II
	Certificate	CE ENEC UL	CE ENEC UL
Note	1.Tolerance:includes set up tolerance, line regulation and load regulation. 2.Tested at full load,120V/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.		

Dimensions(mm)



Wiring Diagram

NOTE:	
AC	SR plug H05RN-F 2*1.0mm² VDE
24V DC	SVT 16AWG*2C 105°C
48V DC	SVT 18AWG*2C 105℃

Electrical curves

SPF200-24VSP

Fig. 1 Output load-Temperature curve

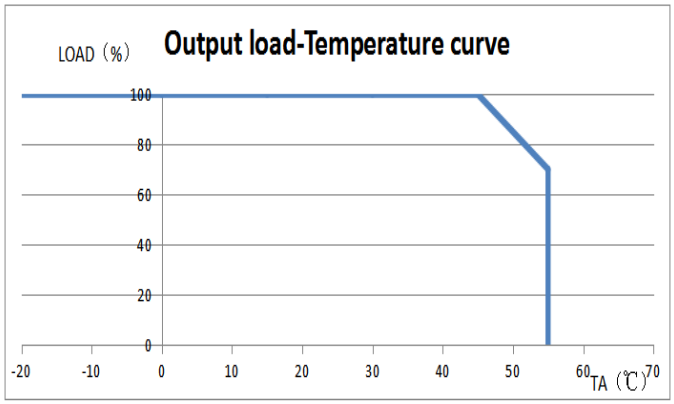


Fig. 2 Static characteristic curve

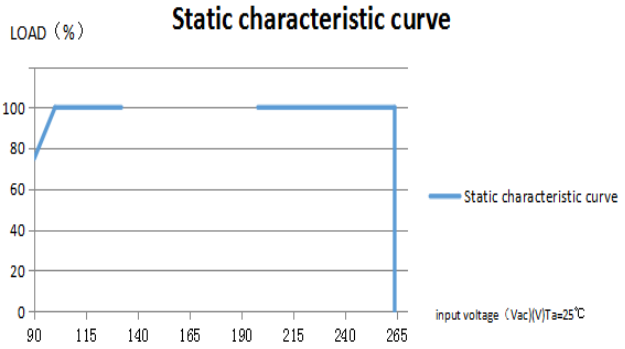


Fig. 3 I-V curve

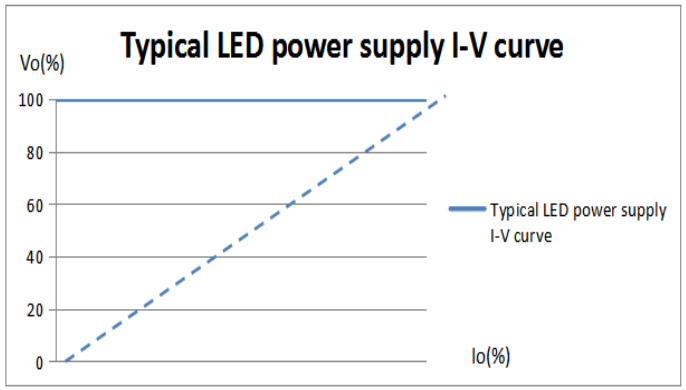


Fig. 4 Power factor characteristic curve

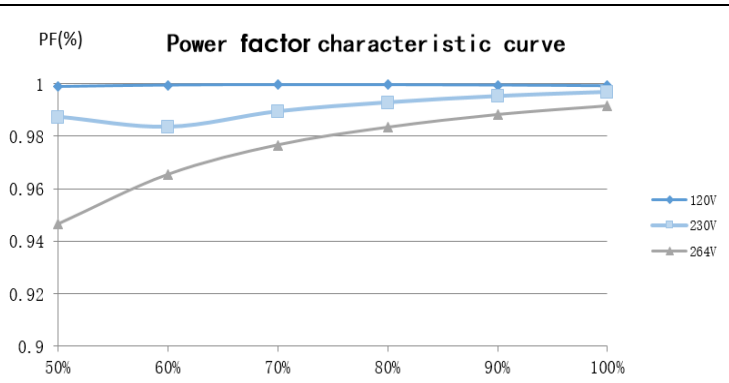


Fig.5 Total harmonic distortion curve

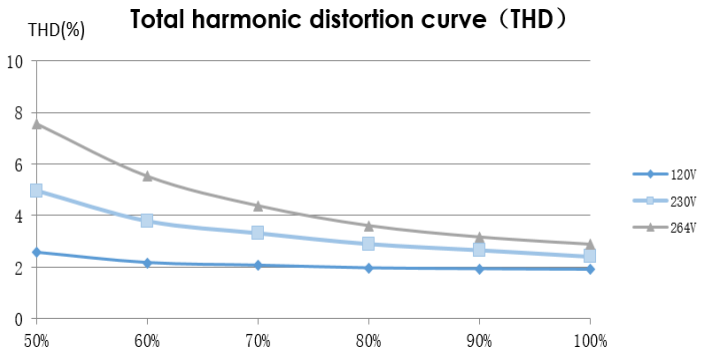
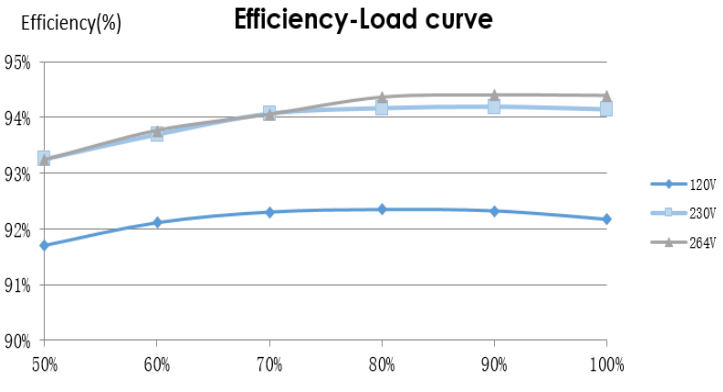


Fig.6 Efficiency-Load curve



SPF200-48VSP

Fig. 1 Output load-Temperature curve	Fig. 2 Static characteristic curve

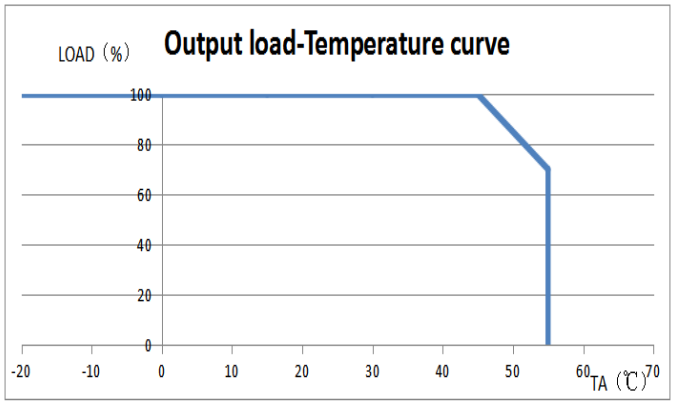
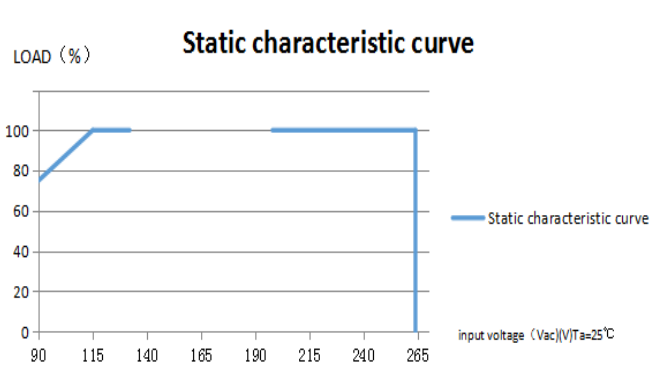
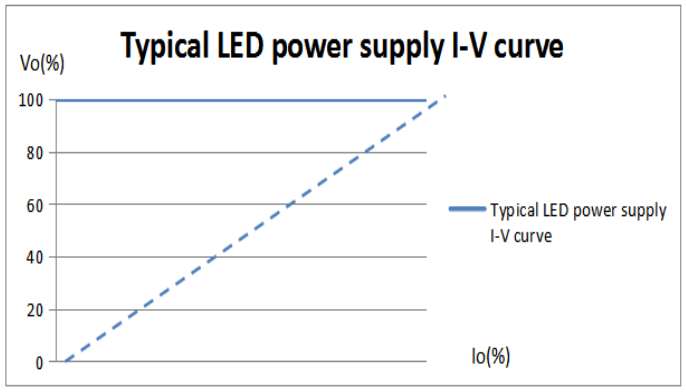
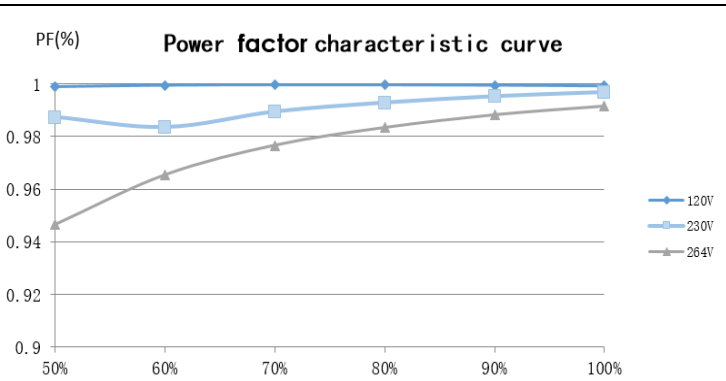

	

Fig. 3 I-V curve	**Fig. 4 Power factor characteristic curve**
	
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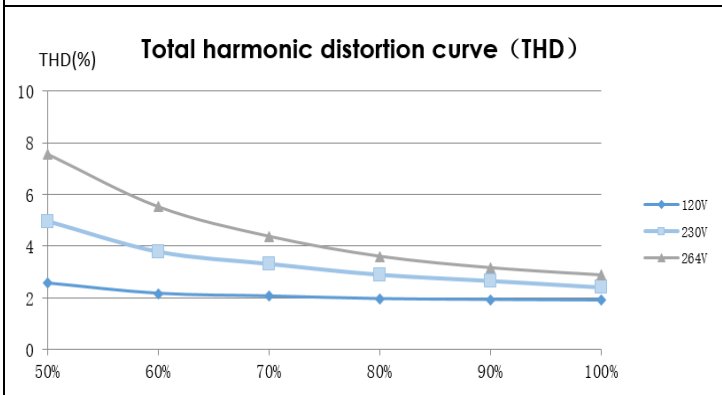	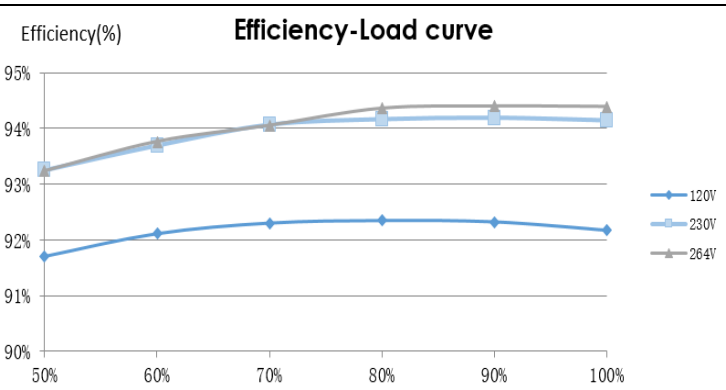

MCBS

MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SPF200-24/48VSP Vin:230V	3	4	5	7	4	6	7	9

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SPF200-24VSP(SPF150-24VSP(UE)			
SPF200-48VSP(SPF150-48VSP(UE)			

Revision history

Date	Rev.	Remark
2024.9.10	A0	Initial release.
2024.12.04	A1	Official release