



■ Features

- Suitable for leading-edge and trailing-edge triac dimmer
- American standard input voltage (120VAC)
- High PF, IP20
- Suitable for dry environment
- Protections: Open circuit / Short circuit / Overload
- Adopt plastic case and internal glue potting
- Compliance with worldwide safety regulations for lighting
- 5 years warranty

■ Description

The EV-SP30 series is an indoor triac dimming CV LED power supply. Its input voltage is 120VAC, and it operates in the temperature range of -20°C to +45°C with natural cooling enclosure. This product offers high cost performance. To enhance the safety of the product, open circuit, short circuit, and overload protection functions are integrated into the circuit. This series is designed for LED lighting and is applied to indoor lighting. It is suitable for almost all indoor applications where LED lamps can be installed. The product complies with world lighting equipment safety specifications, ensuring the safety of users and the lighting system during installation.

■ Model

Model	Rated output voltage	Rated output current	Max. output power	Power factor (Typ.)	Efficiency (Typ.)	Dimming range	Input power
EV-SP-30-12US-TDM	12V±5%	0.5-2.5A	30W	>0.9	≥83%	20%-90%	<38W
EV-SP-30-24US-TDM	24V±5%	0.25-1.25A	30W	>0.9	≥83%	20%-90%	<38W

Remark: All parameters not specially mentioned are measured at 120VAC input, full load, and 25°C ambient temperature.

■ Input

Parameter	Min. value	Typical value	Max. value	Note
Rated input voltage	-	120Vac	-	-
Input voltage	108Vac	-	132Vac	
Input frequency	-	60Hz	-	-
Max. Input current	-	-	0.39A	120Vac/60Hz, Full Load
Input inrush current	-	-	75A	120Vac/60Hz, Cold start
Leakage current	-	-	0.7mA	120Vac/60Hz, Full Load
Stand-by power consumption	-	0.2W	0.5W	120Vac/60Hz, No Load

Output

Parameter	EV-SNPV-30-12	EV-SNPV-30-24	Note
Output voltage Range	12VDC	24VDC	-
Rated output current	2.5A	1.25A	-
Output current range	0.5-2.5A	0.25-1.25A	-
Rated output power	30W	30W	-
Rated output efficiency	≥83%	≥83%	120Vac
Output voltage precision	±5%		-
Output voltage ripple (PK-PK)	<20%		Full load (Test under 20M bandwidth)
Line regulation	±3%		-
Load regulation	±5%		-

Characteristic Curve

Fig.1 THD curve

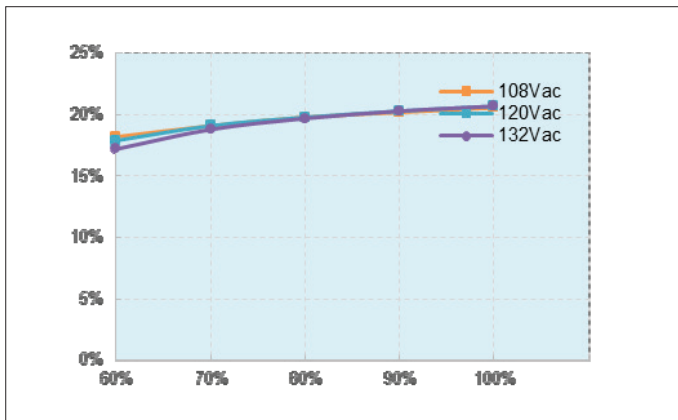


Fig.2 PF curve

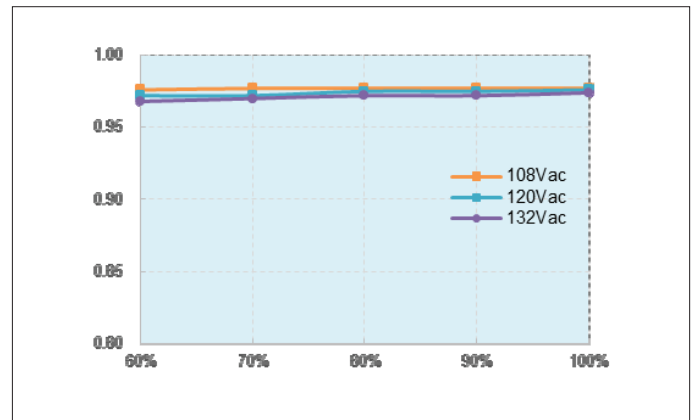


Fig.3 Input derating curve

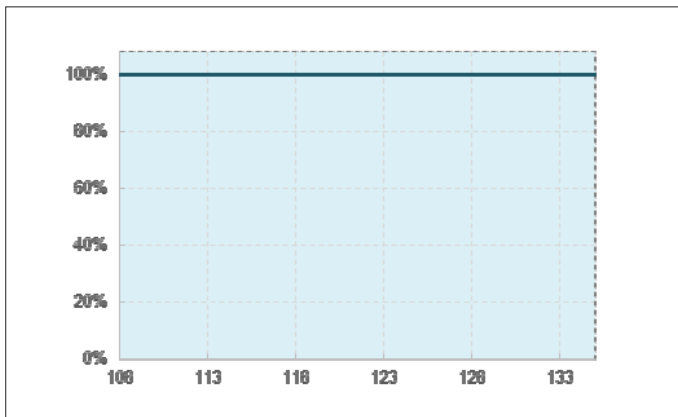


Fig.4 I-V curve

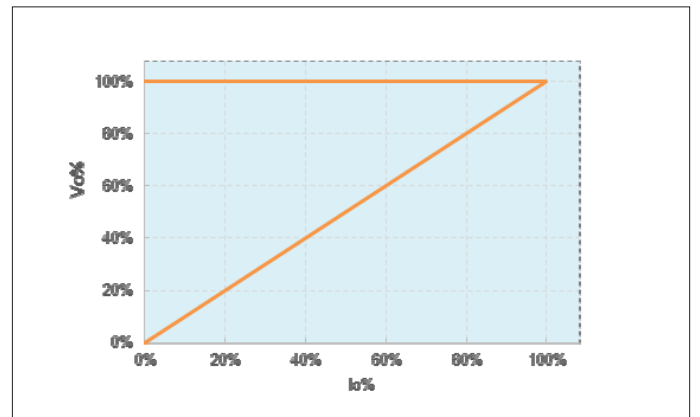


Fig.5 Efficiency-Load curve

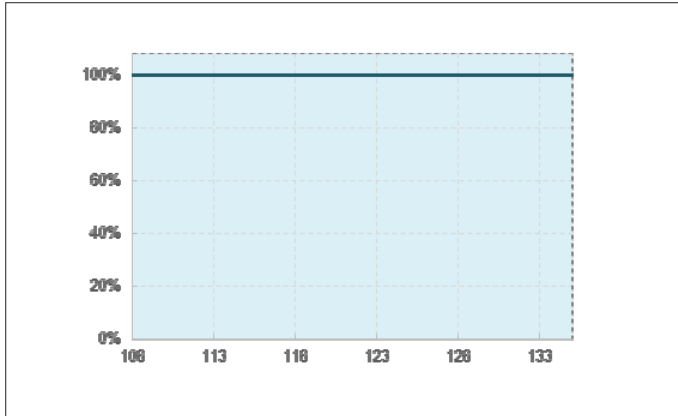
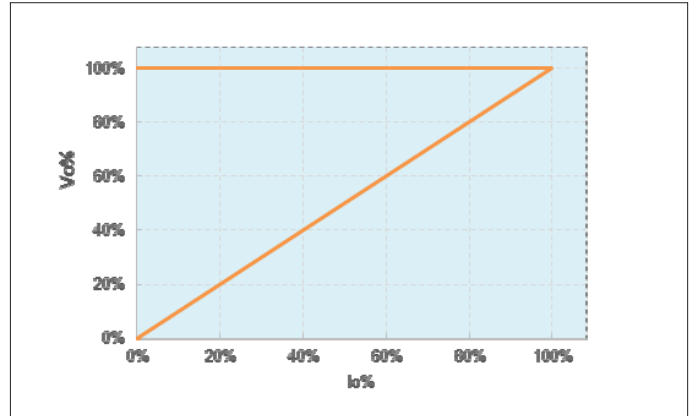


Fig.6 Temperature derating curve



■ Protection

Parameter		Conditions	Note
Protection	Over load	T _a , 0.94-1.06 times of input voltage and 1.2 times of rated output power	Auto-recovery after overload removed
	Short circuit	Hiccup mode	Hiccup mode, auto-recovery after short circuit removed
	Over voltage	T _a , 0.94-1.06 times of input voltage and 1.5 times of rated output voltage	Auto-recovery after overload removed
	Open circuit	T _a , rated input voltage, output without load	Hiccup mode

■ Environment Requirement

Parameter	Min.	Typ.	Max.	Note
Working temp.	-20°C	25°C	+45°C	-
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			-

Remark: All parameters NOT specially mentioned are typical values measured at 25°C of ambient temperature.

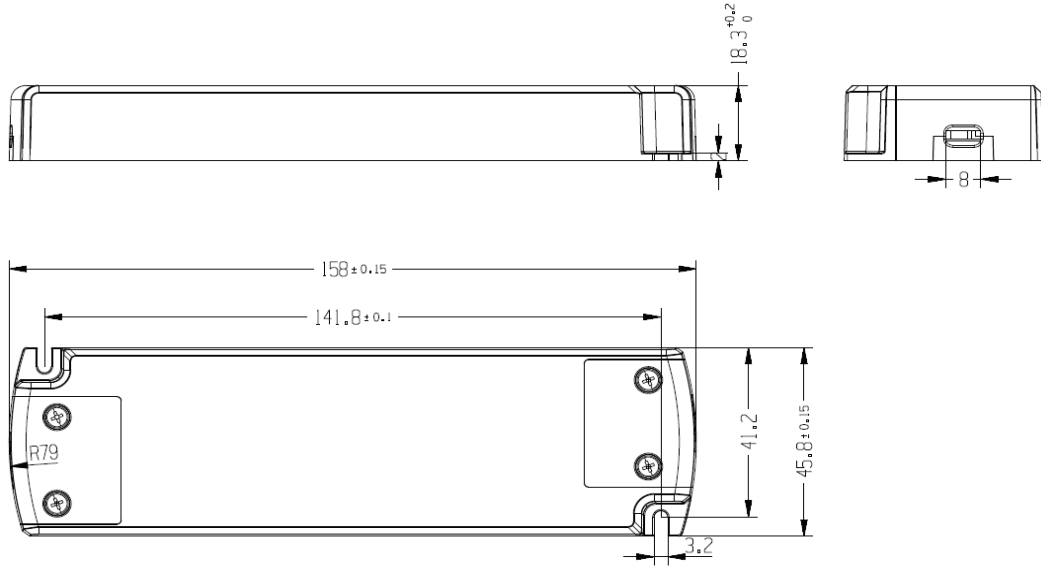
■ Safety&EMC Standard

Certificate		Safety standardst	Certification	Note
UL/CUL		UL8750,UL1310	-	-
TUV		-	-	-
SAA		-	-	-
CCC		-	-	-
CE		-	-	-
Safety test		Qualification	Note	
Dielectric compressive strength	Input to output	1800Vac/5mA Max/60s	Strengthened insulation, no breakdown, no flashover	
	Primary to ground	-	Basic insulation, no breakdown no flashover	
	Secondary to ground	-	Functional insulation, no breakdown, no flashovert	
Insulation resistance	Input to output	≥ 10MΩ	Test voltage: 500 Vdc	
Grounding resistance		-	25A/1min	
Leakage current		≤ 0.75 mA	132Vac	
EMI/EMS item		Standard	Data	
Conduction CE		Fcc Part15B	-	
Radiation RE		Fcc Part15B	-	
Harmonics		-	-	

■ Others

Parameter	Condition	Note
Lifetime	30,000 hours	120Vac, Full load, TC:75°C
TC	85°C	-
Warranty	5 years	-
Weight	135g	-
Dimensions	158mm*45.8mm*18.3mm	L x W x H

■ Mechanical Specification (Unit: mm)



AC input cable	Terminal + SPT-2 18AWG
DC output cable	Terminal + SPT-2 18AWG