EV-SE-75-12US/24US Power Supply 75W 12V/24V

Features

- US standard input voltage 90-132 Vac
- IP20
- Protections: Short circuit / Overload / Overvoltage
- Compliance with worldwide safety regulations for lighting
- 5 years warranty

Description

EV-SE-75-12US/24US is a US standard indoor ultra-thin constant voltage LED driver. Its input voltage range is 90-132Vac, with a maximum conversion efficiency of 88%, working at -20°C to +45°C ambient temperature range, low standby power consumption, all-round protection functions, not only greatly improves the reliability of the products, but also ensures the product life cycle. This series is designed for LED lighting, and applied to indoor bathroom mirror lamps and other lighting lamps.

Model

Model	Rated output voltage	Rated output current	Max.output power	Tolerance	Total harmonic distortion (Typ.)	Power factor (Typ.)	Efficiency (Typ.)
EV-SE-75-12US	12V	0-6.25A	75W	±5%	6.5%	0.99	87.5%
EV-SE-75-24US	24V	0-3.125A	75W	±5%	6.5%	0.99	88%

Remark: All parameters NOT specially mentioned are measured at 230VAC input, full load and 25°C of ambient temperature.

Input

Parameter	Min. value	Typical value	Max. value	Note
Rated input voltaget	100 Vac	-	120Vac	The derating curve is shown in the figure
Input voltage	90Vac	-	132Vac	
Input frequency 47Hz	47Hz	-	63Hz	-
Max. Input current	-	-	0.98A	90Vac, Full Load
	-	-	-	-
Input inrush current	-	-	60A	120Vac/60Hz, Cold Start
Power factor	0.98	0.99	-	120Vac, Full Load
Total harmonic input	-	5.5%	6.5%	120Vac, Full Load
Leakage current	-	-	0.7mA	120Vac/60Hz, Full Load
Stand-by power consumption	-	0.30W	0.5W	120Vac/60Hz, No Load

Output

Parameter	EV-SE-75-12US	EV-SE-75-24US	Note
Rated output voltage	12VDC	24VDC	Max. Output power should compliance to Po=Vo*Io=75W
The min. output voltage (CC mode)	-	-	-
Rated output current	0-6.25A	0-3.125A	-
Output current ADJ. range	-	-	-
Rated output power	75W	75W	-
Rated output efficiency	87.5%	88%	120Vac/60HZ
Output current tolerance	-		-
Output voltage ripple (PK-PK)	3%		Full load (Test under 20M bandwidth)
Output current ripple (PK-PK)	-		
Rise time	-		120Vac
Startup time	-		120Vac
Line regulation	±1%		Full load
Load regulation	±2%		-

Characteristic Curve

Fig. 1 Output load-Temperature curve

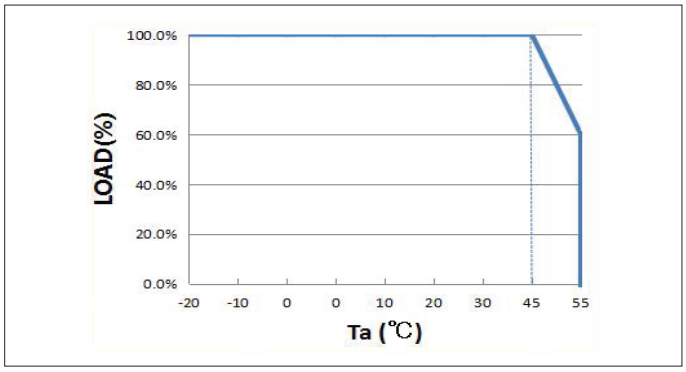


Fig. 2 Static characteristic curve

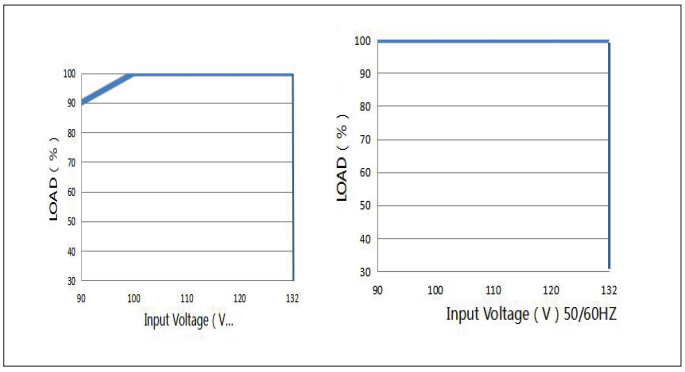


Fig. 3 I-V curve

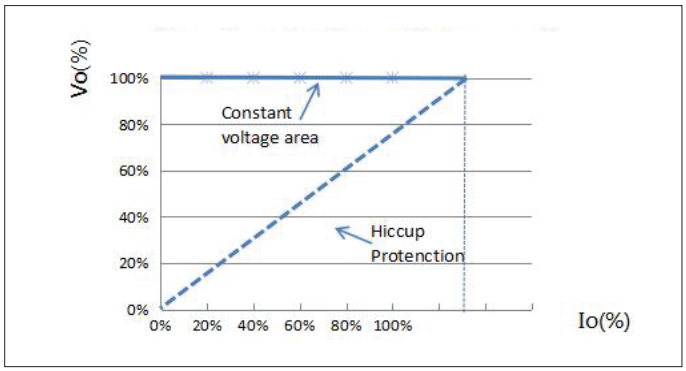


Fig. 4 Power factor characteristic curve

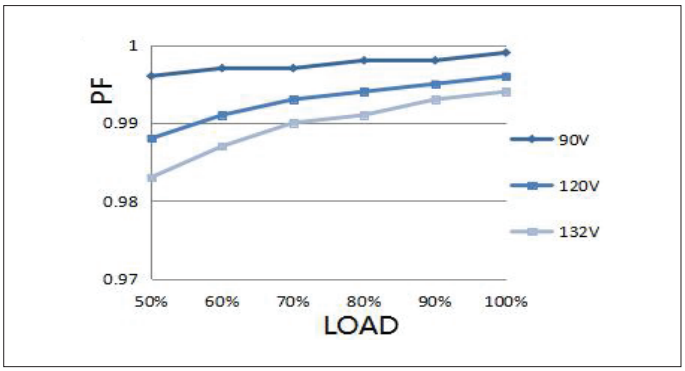


Fig.5 Total harmonic distortion curve（THD）

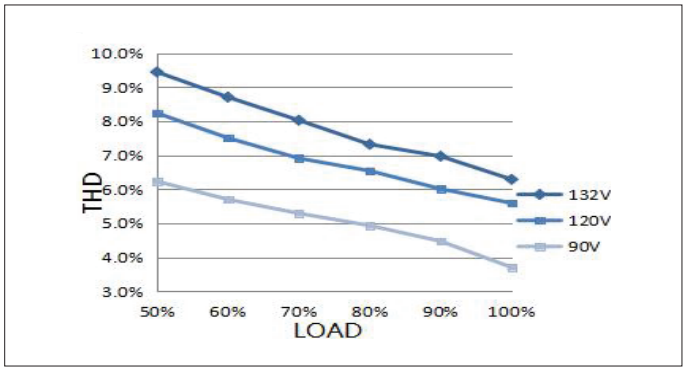
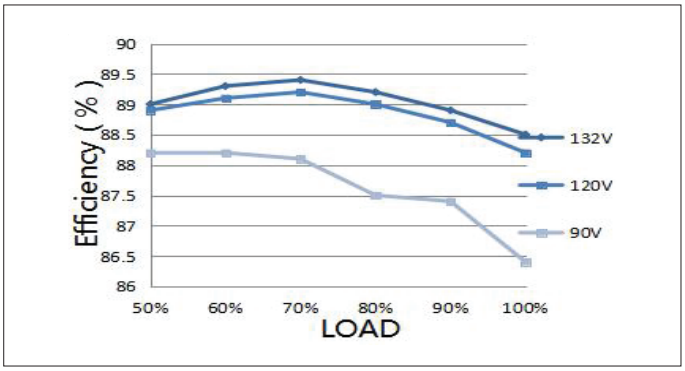


Fig. 6 Efficiency-load



■ Protection

Parameter		Conditions	Note
Protection	Over load	1.4 times of rated load	Auto-recovery after short overload removed.
	Short circuit	Short circuit power≤2.0W	Hiccup mode, auto-recovery after short circuit removed.
	Over voltage	1.5 times of rated output voltage	Turn off input voltage and restart
	Over temperature	110°C	Turn off input voltage and restart when temp drop to normal

■ Environment Requirement

Parameter	Min.	Typ.	Max.	Note
Working temp.	-20°C	25°C	+45°C	See Fig.2
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.

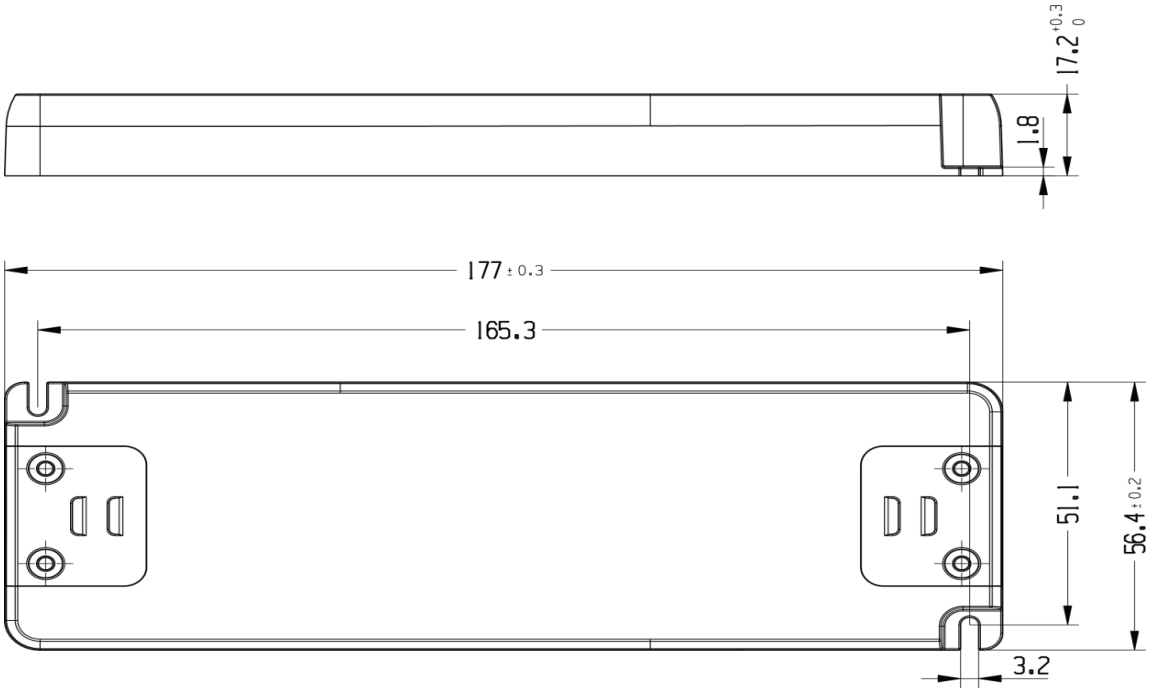
■ Safety&EMC Standard

Certificate	Safety standards.	Certification	Note
UL/CUL	UL8750	√	-
Safety test	**Technical indexes**	**Note**	
Safety project	UL8750	-	
EMC test	**Standard**	**Criterion**	
EMC	FCC PART 15	-	

■ Others

Parameter	Condition	Note
Lifetime	55,000 hours	120Vac, Full load, TC:75°C
MTBF	200,000hours	120Vac, Full load, Ta:25°C (MIL-HDBK-217F)
TC	85°C	-
Warranty	5 years	TC：75°C
Weight	240g	-
Dimensions	177mm*56mm*17.2mm	L x W x H

■ Mechanical Specification(Unit：mm)



AC input cable	Terminal block, SPT-2 18AWG
DC output cable	Terminal block, SPT-2 18AWG