

12W Constant Current power supply



■ Approve



Features

- Class II, SELV, independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.6C
- Efficiency: 83%
- 5 years warranty
- IP20

Applications

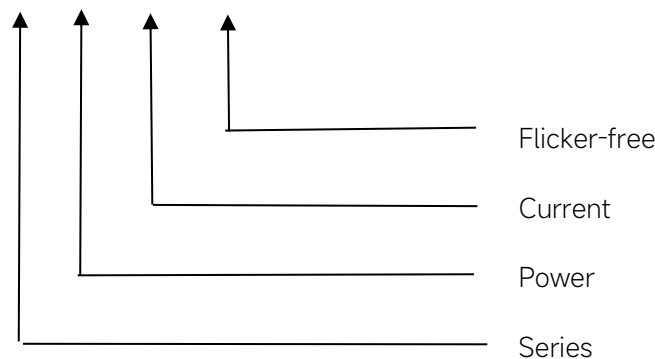
- LED panel、LED down light
LED spot light

◆ Description

LS-12-XXX SI ECO is a 12W constant current LED driver with 250~600mA output current. With it's compact dimensions from 92 x 36 x 25 mm it is easy to integrate in LED panel、LED down light、LED spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-12-XXX SI ECO



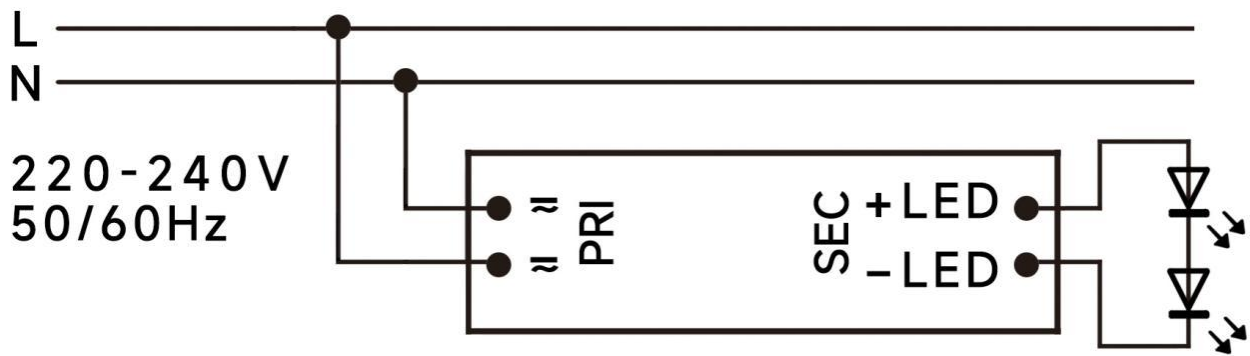
◆ Specification

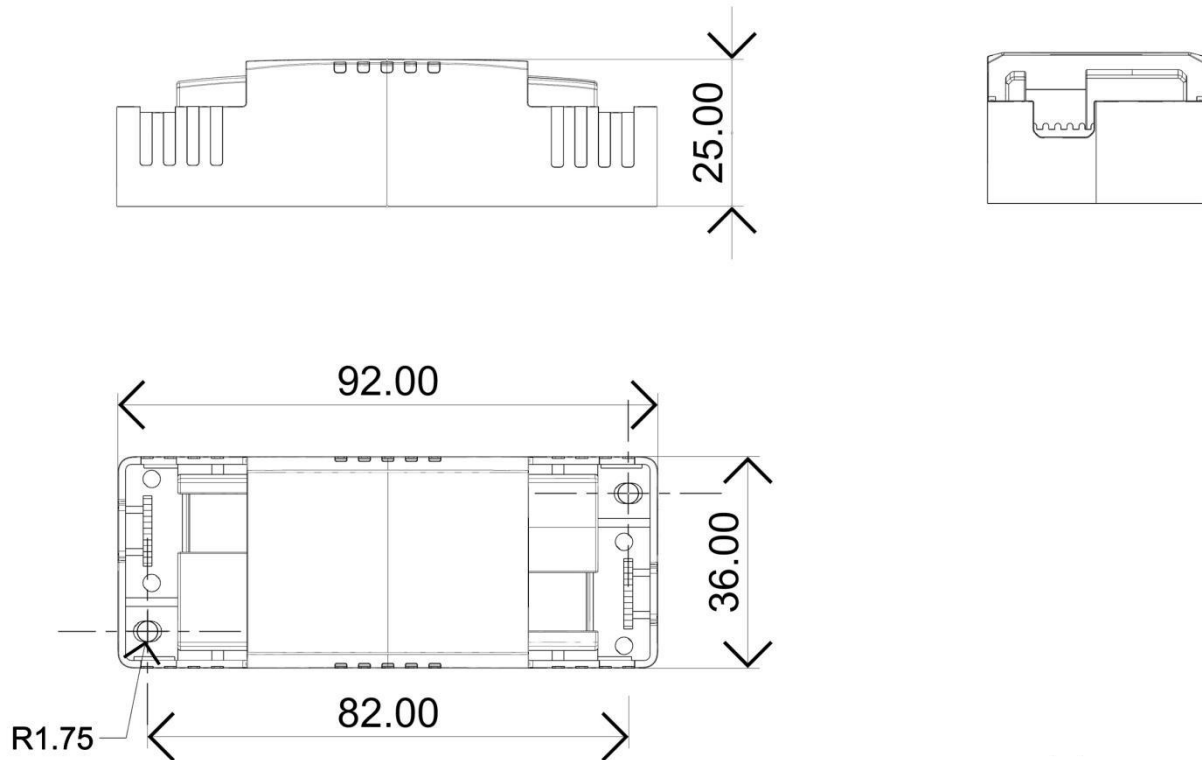
	Constant Current	250mA	300mA	350mA	500mA	600mA	
Output	Voltage Range	30-42VDC		27-40V	14-26V	11-20V	
	Unload voltage Max.	59VDC		57VDC	39VDC	31VDC	
	Current Accuracy	±5%					
	Output HF current ripple(≥1KHz)	±5%					
	Output LF current ripple(≤120Hz)	±5%					
	SVM	≤0.4					
	P _{st}	≤1					
	Efficiency(Typ.)	≥83%					
	Input	Rated input voltage	220-240VAC				
Range of input voltage		198-264VAC					
Frequency(Hz)		50/60 Hz					
Displacement factor		≥0.7					
Power Factor		0.6C					
Input Current max		150mA	180mA	200mA	190mA		
Start-up time		< 0.5S					
No Load Power		≤0.5W					
Protection	Over Load Protection	103-120%					
		YES/Auto Resume					
	Over Voltage Protection	59VDC		57VDC	39VDC	31VDC	
		YES/Auto Resume					
	Short circuit Protection	YES/Auto Resume					
	Over Temperature Protection	YES/Auto Resume					
Environment	Operating Temperature	-20°C~+45°C					
	Humidity	20%-90%RH					
	Tc	75°C					
	Storage Temperature	-25°C~+60°C					
	Life time	> 30,000h@tc=75°C; > 60,000h@tc=65°C					
Surface	Dimension	92X36X25 (LXWXH)mm					
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;						
Others	ErP	EU 2019/2020					
	RoHS	RoHS (2011/65/EU) (EU)2015/863					
Note	1. All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature. 2. Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.						

◆ **Circuit Breaker**

I ^{peak}	T ^{width}	B10	B16	B20	C10	C16	C20
8.64A	92μs	36pcs	58pcs	72pcs	36pcs	58pcs	72pcs

◆ **Wiring diagram**

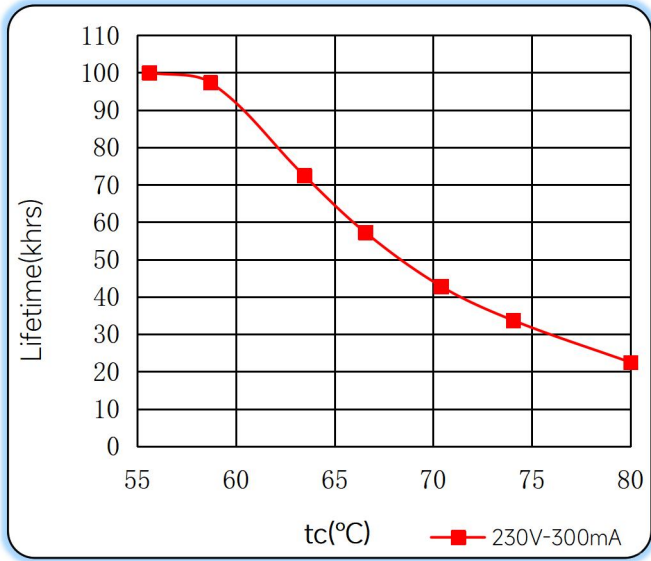


◆ 2D diagram

◆ Wiring & Connections

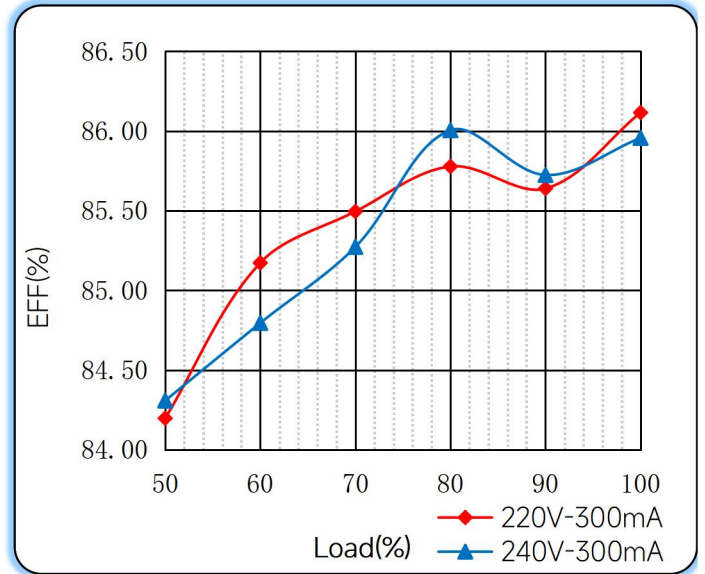
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	8...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Curve for LS-12-300 SI ECO, I_o=300mA

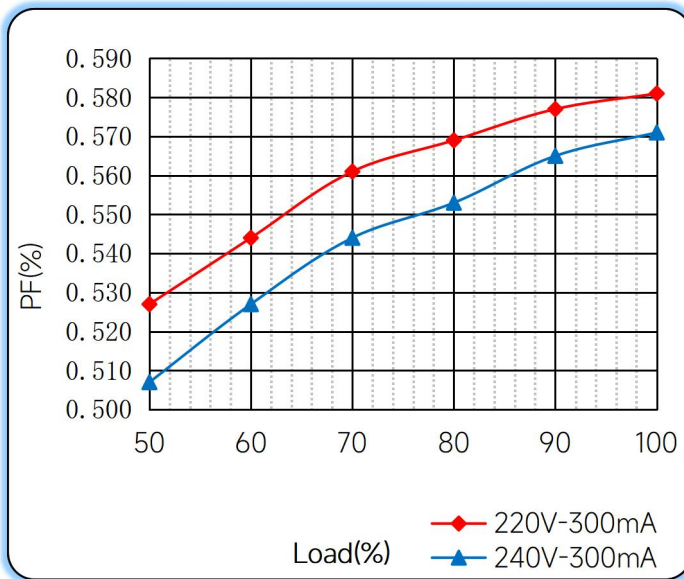
Lifetime vs. Temperature Curve



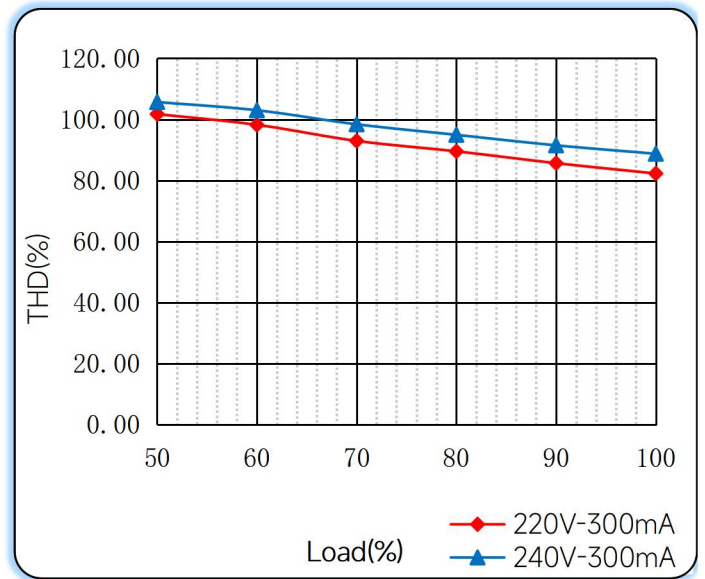
Efficiency vs. Load



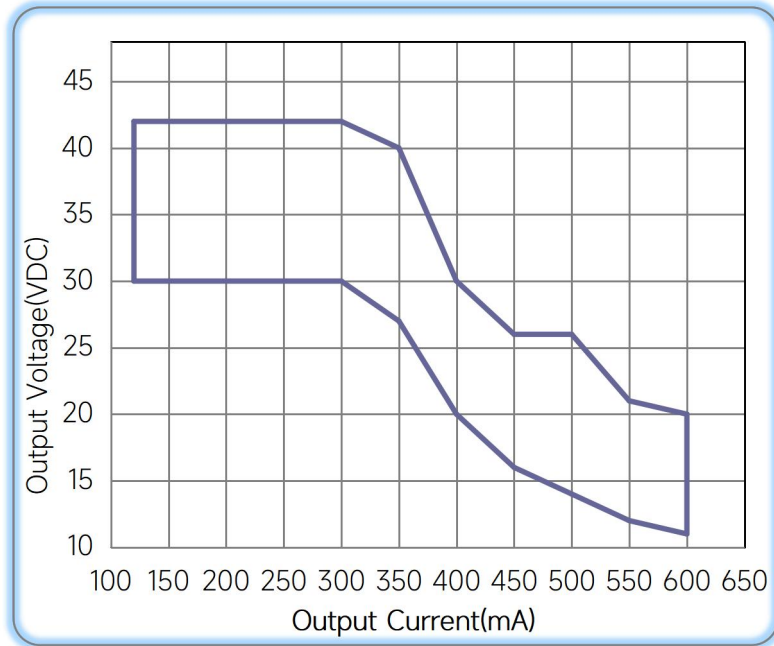
Power Factor Characteristics



THD vs. Load



◆ Operating window



— Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

Tel: +86-0757-86256822, +86-0757-86256831

E-mail: sales@eaglerise.com

Website : <https://lighting.eaglerise.com>



EAGLERISE



Manual