

## 30W Constant Current power supply



■ Approve



### Features

- Class II, SELV, Built-in
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.95
- Efficiency: 90%
- 5 years warranty
- IP20

### Applications

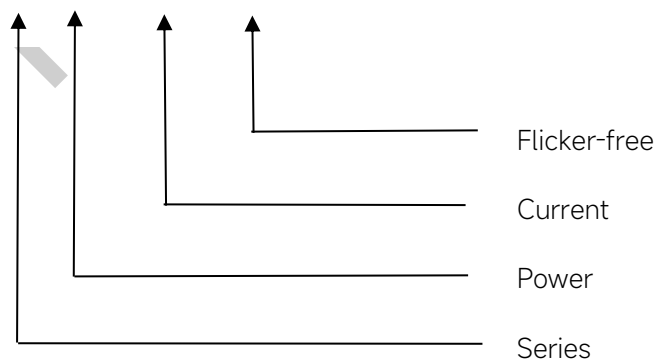
- LED panel, LED ceiling light
- LED spot light

### ◆ Description

CS-30-XXX LI is a 30W constant current LED driver with 600 to 750mA output current. With its compact dimensions from  $\Phi 55 \times 24 \text{mm}$ . It is easy to integrate in LED Panel, spot and ceiling lights product. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### CS-30-XXX LI



## ◆ Specification

Output	Constant Current (mA)	600	650	700	750
	Voltage Range(VDC)	12-50	12-47	12-43	12-40
	Unload voltage Max.	69VDC		59VDC	
	Current Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	90%			
Input	Rated input voltage	220-240VAC			
	Range of input voltage	198-264VAC			
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition			
	Frequency(Hz)	50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	0.95			
	Input Current max (mA)	200			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%			
Protection	Over Load Protection	103-140% YES/Auto Resume			
	Over Voltage Protection	69VDC YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
	Over Temperature Protection	YES/Auto Resume			
capability	Surge capability (L-N)	2KV			
	Surge capability (L/N-Ground)	2KV			
Environment	Operating Temperature	-20°C~+60°C			
	Humidity	20%-90%RH			
	Tc	90°C			
	Storage Temperature	-25°C~+60°C			
	Life time	> 50000h@Tc=85°C			
	Noise	≤20dB(A)@10cm			
Surface	Dimension	Φ55 x 24mm			
	material	PC			
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN62384			

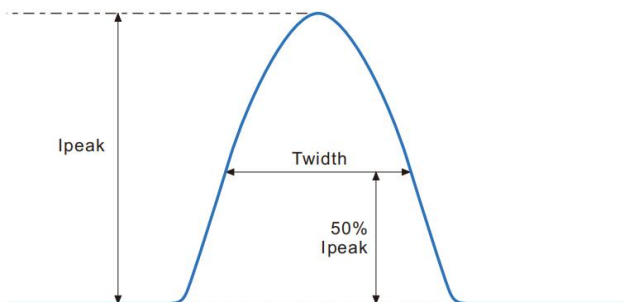
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.Surge capability (L/N-Ground) was measured with a metal plate 2-3mm underlay.</p> <p>5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.</p>	

### ◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	CS-30-600 LI	600	12-50	69	30
2	CS-30-650 LI	650	12-47		30.6
3	CS-30-700 LI	700	12-43	59	30.1
4	CS-30-750 LI	750	12-40		30

### ◆ Inrush Current

I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
19.6A	134μs	31pcs	51pcs	63pcs	40pcs	64pcs	80pcs

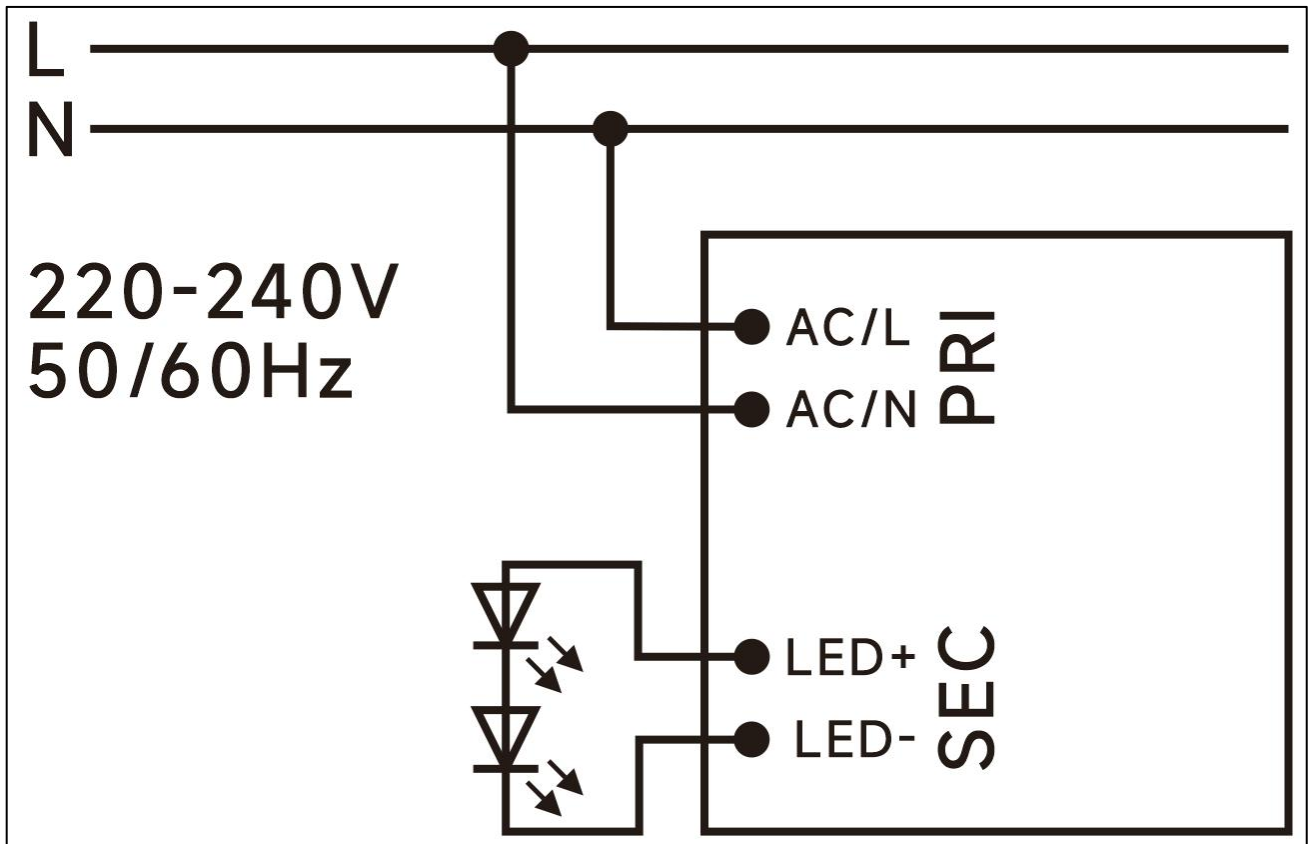


#### Remarks:

1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.

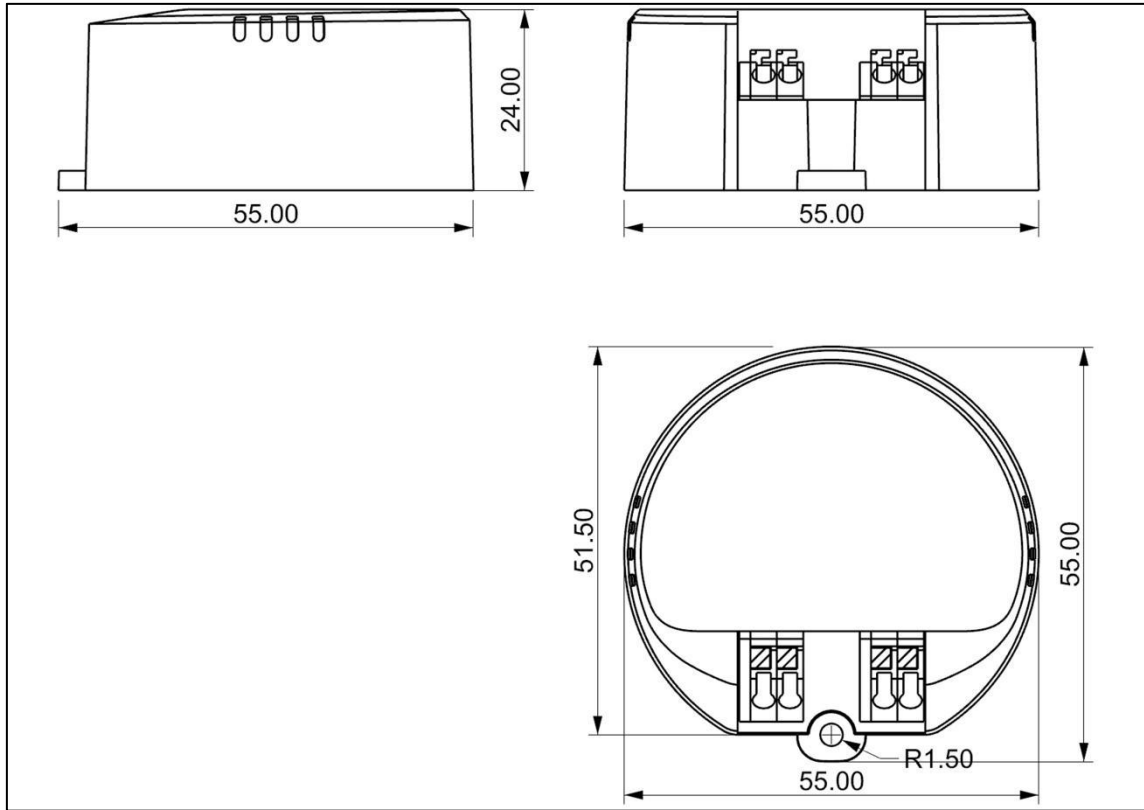
2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram

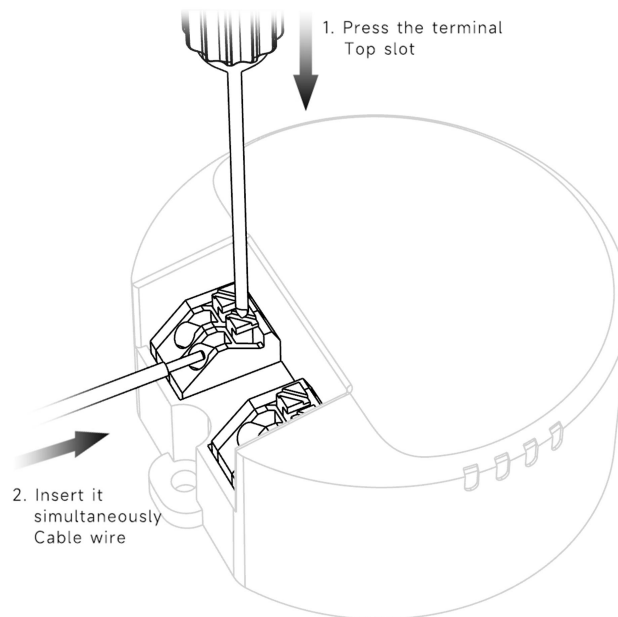


Preliminary

◆ 2D diagram



Termina



## ◆ Wiring & Connections

Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

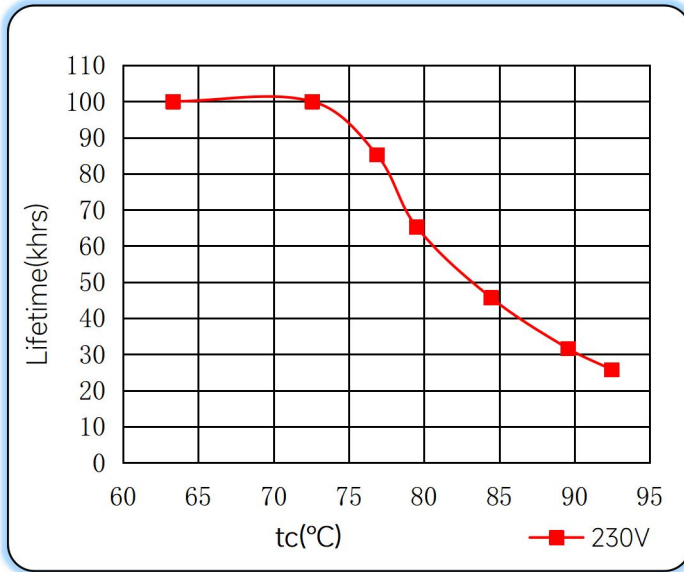
## ◆ Recommended wire

Wire cross-section	Wire type
2*0.5mm <sup>2</sup>	H03VVH2-F 2core
2*0.75mm <sup>2</sup>	H03VVH2-F 2core
1.5mm <sup>2</sup>	CCC 08(RV-90)
16AWG(1.25mm <sup>2</sup> )	UL1015

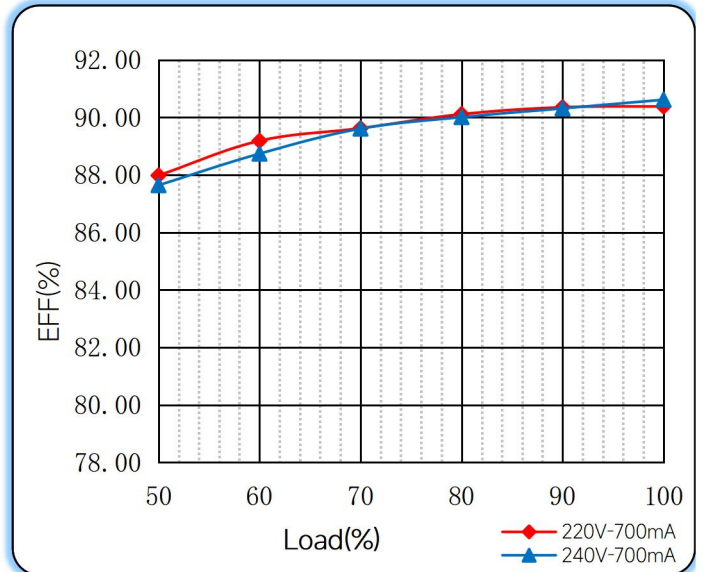
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for CS-30-700 LI, I<sub>o</sub>=700mA

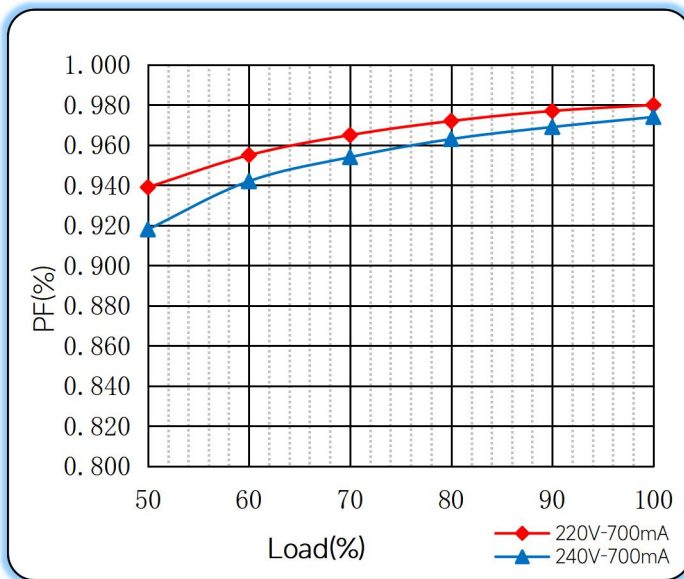
Lifetime vs. Temperature Curve



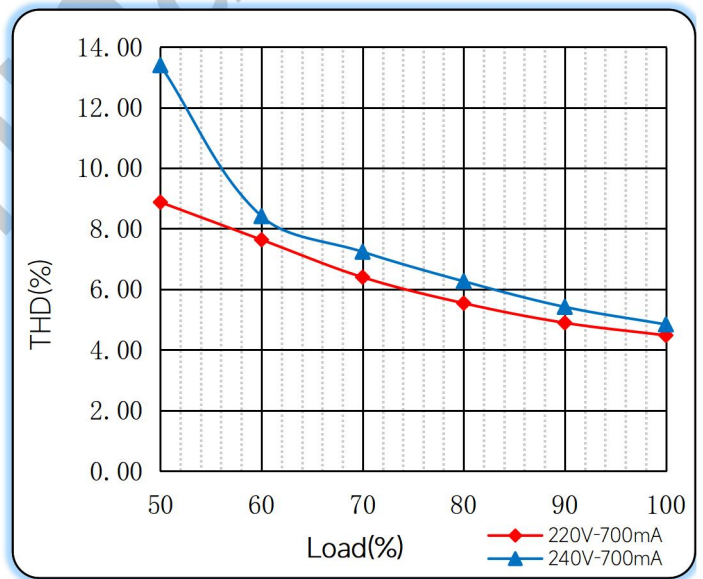
Efficiency vs. Load



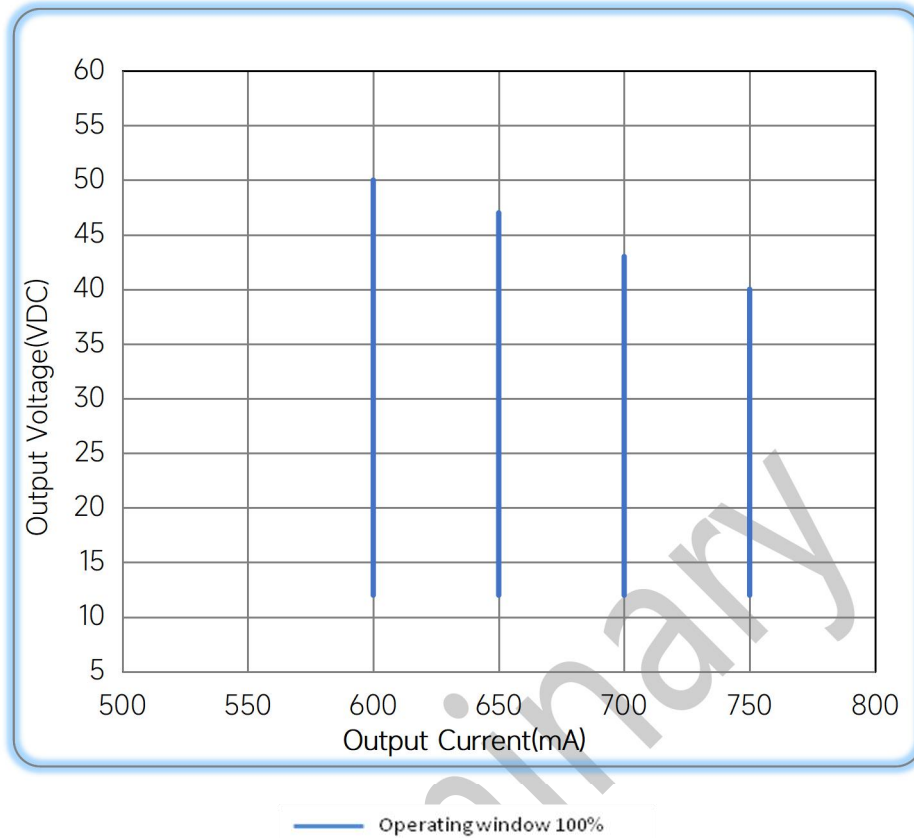
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/12
Life time	> 50000h@Tc=90°C	> 50000h@Tc=85°C	B	2023/01/15

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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

E-mail: sales@eaglerise.com

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



EAGLERISE



Manual