

## 42W Constant Current power supply



■ Approve



### Features

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

### Applications

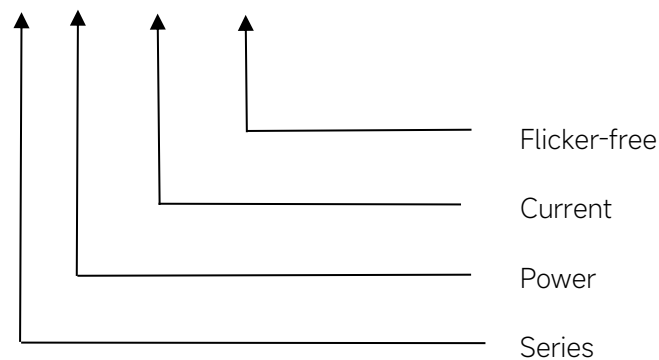
- LED panel, LED ceiling light

### ◆ Description

CS-42-XXX LI1 is a 42W constant current LED driver with 800 to 1050mA output current and a forward voltage range from 24 to 42 Vdc. With it's compact dimensions from  $\Phi 65 \times 25$ 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-42-XXX LI1



## ◆ Specification

Output	Constant Current (mA)	800	850	900	950	1000	1050	
	Voltage Range(VDC)	24-42						24-40
	Unload voltage Max.	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	≥0.95						
	Power Factor	0.95						
	Input Current max (mA)	0.27A						
	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	> 59VDC YES/Auto Resume						
	Short circuit Protection	YES/Auto Resume						
capability	Surge capability (L-N)	2KV						
	Surge capability (L/N-Ground)	NA						
Environment	Operating Temperature	-20°C~+70°C						
	Humidity	20%-90%RH						
	Tc	100°C						
	Storage Temperature	-25°C~+80°C						
	Life time	> 50000h@Tc=85°C						
Surface	Noise	≤25dB(A)@10cm						
	Dimension	Φ65 x25mm						
Standards	material	PC						
	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						

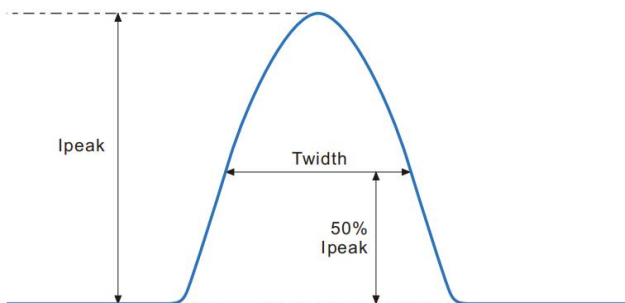
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The over-temperature protection of the product is provided by the IC.</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-42-800 LI1	800	24-42	59VDC	33.6
2	CS-42-850 LI1	850			35.7
3	CS-42-900 LI1	900			37.8
4	CS-42-950 LI1	950			39.9
5	CS-42-1000 LI1	1000			42
6	CS-42-1050 LI1	1050	24-40		42

### ◆ Inrush Current

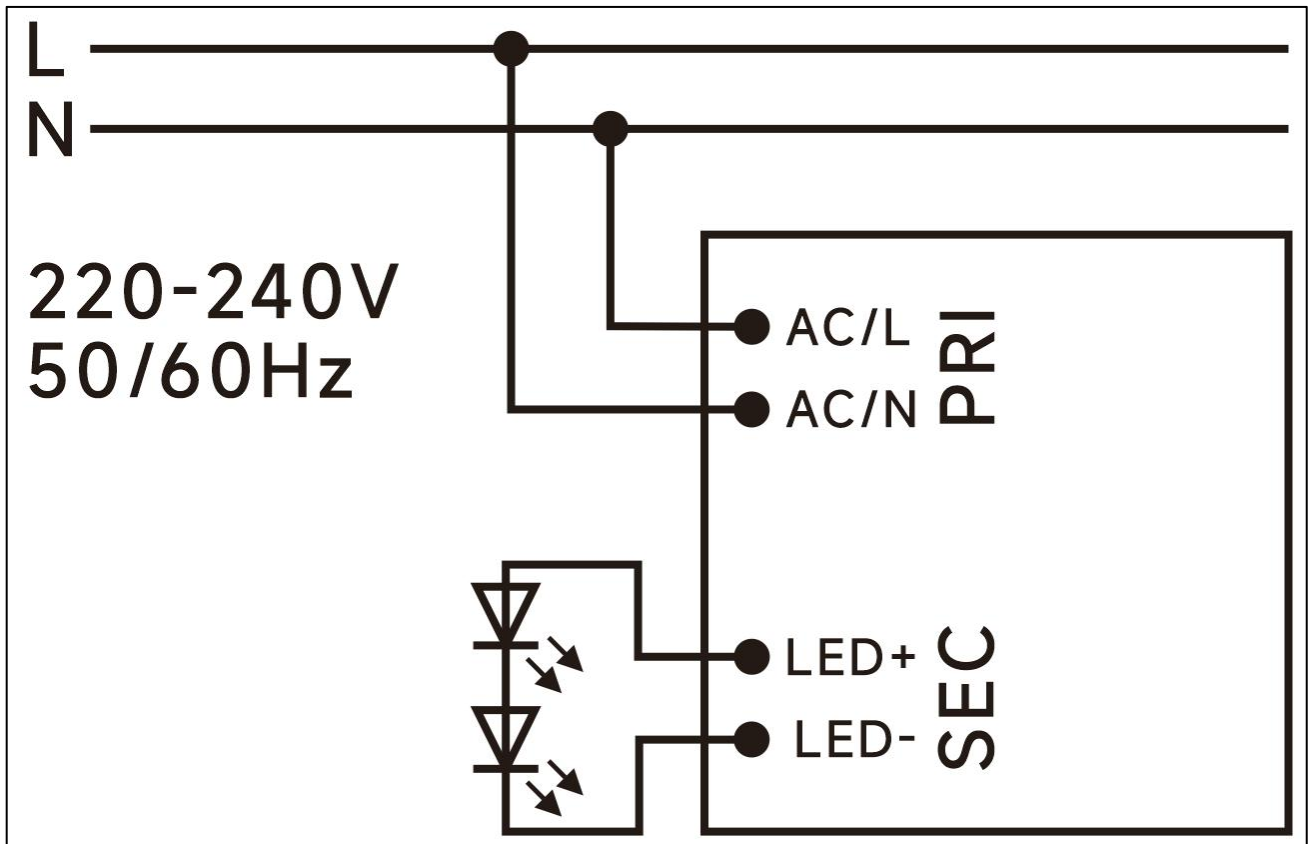
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
24.2A	144μs	23pcs	38pcs	47pcs	29pcs	47pcs	59pcs



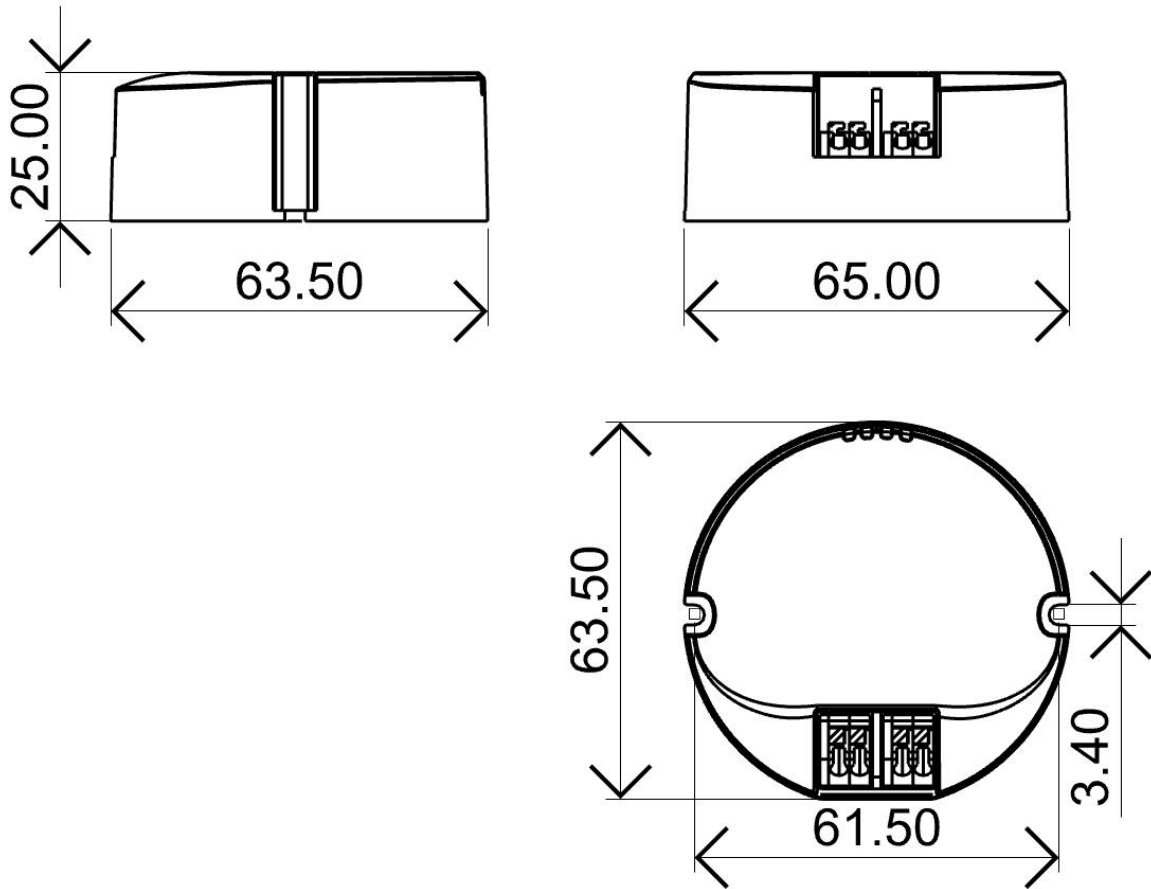
Remarks:

- 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.

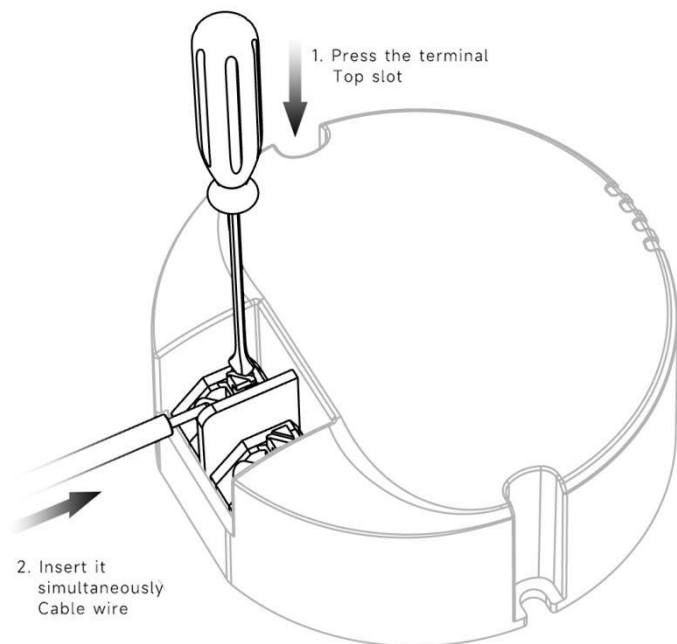
◆ Wiring diagram



◆ 2D diagram



Terminal



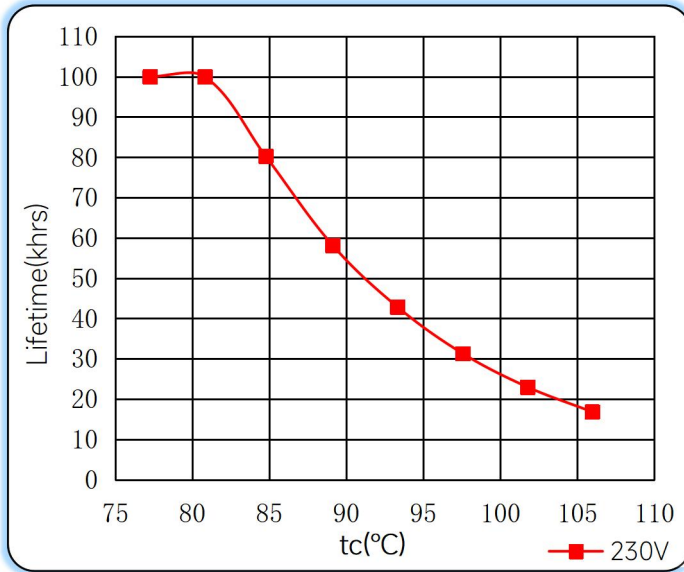
## ◆ Wiring & Connections

	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

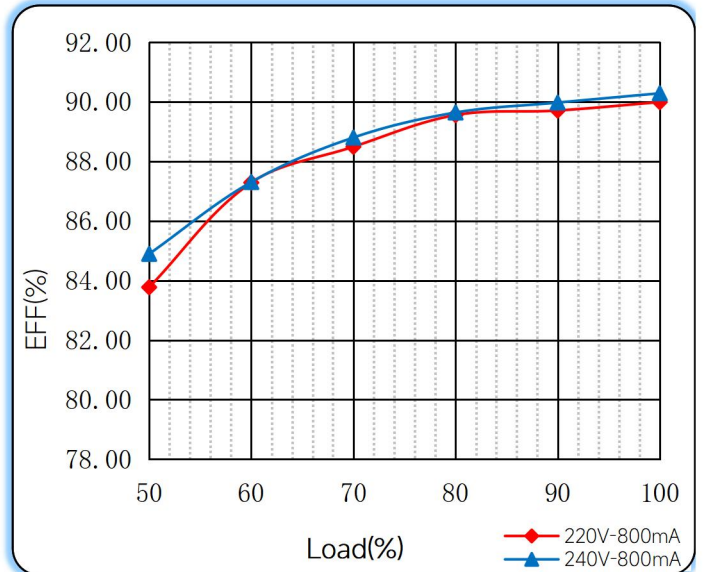
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for CS-42-800 LI1, I<sub>o</sub>=800mA**

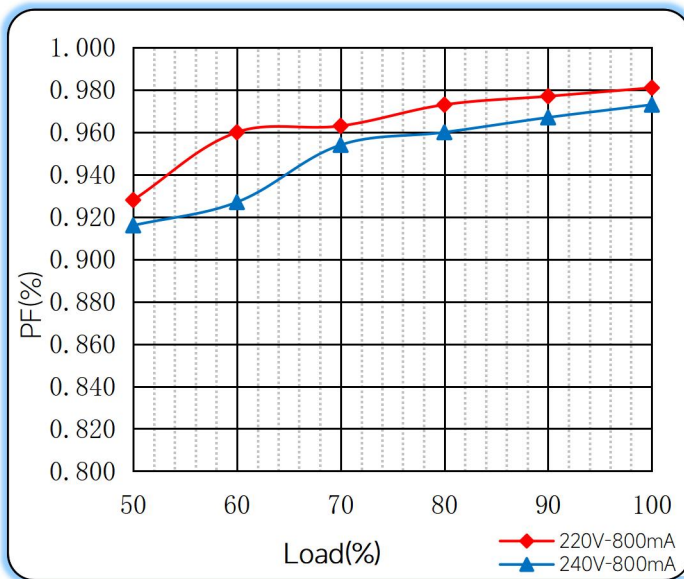
Lifetime vs. Temperature Curve



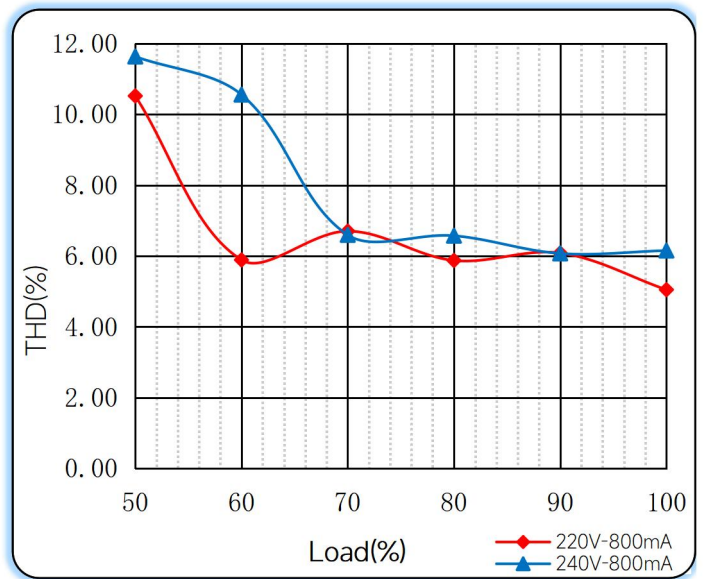
Efficiency vs. Load



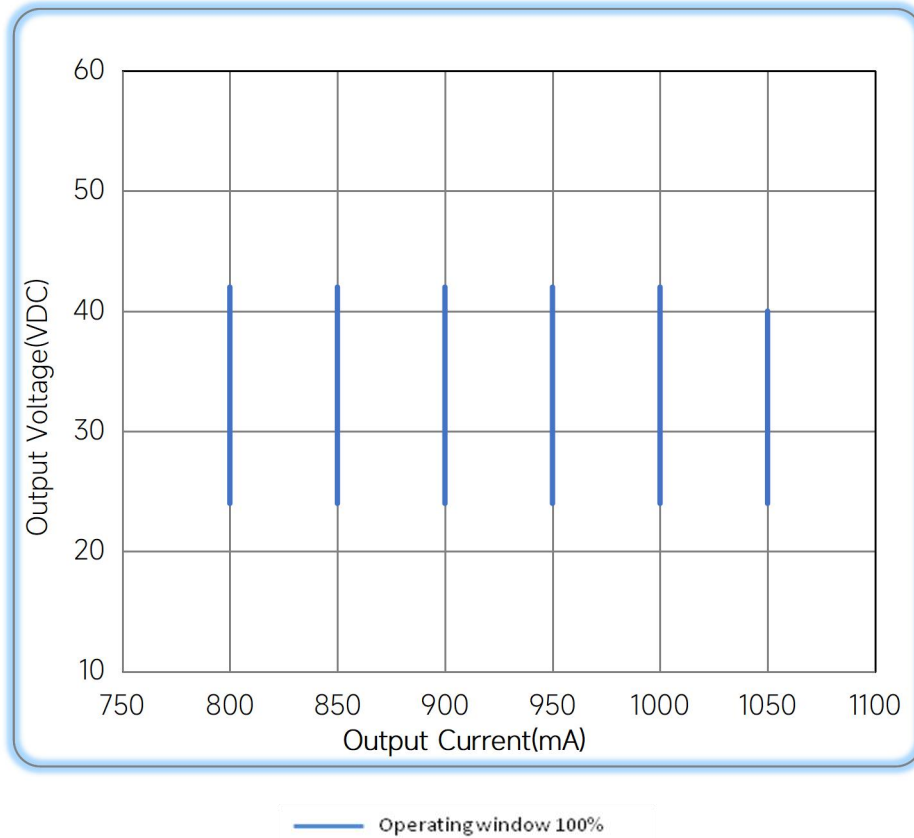
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/06/05
Power Factor	≥0.95	0.95	B	2024/07/26

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

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Manual