

15W Constant Current power supply



■ Approve



Features

- Class II, SELV, Built-in
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.55C
- Efficiency: ≥82%
- 5 years warranty
- IP20

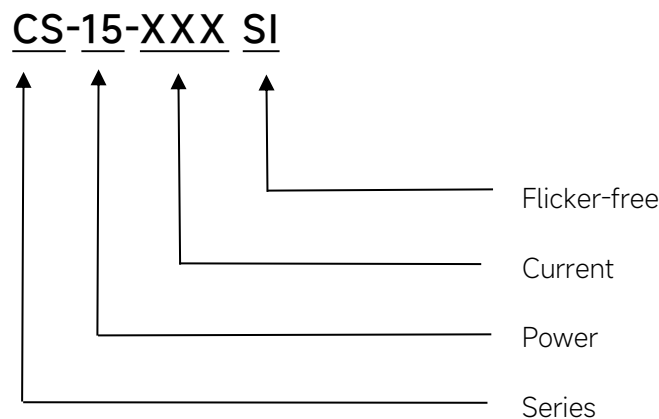
Applications

- LED panel, LED ceiling light
- LED spot light

◆ Description

CS-15-XXX SI is a 15W constant current LED driver with 250 to 350mA output current. With its compact dimensions from $\Phi 42 \times 21 \text{mm}$. 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



◆ Specification

| | Constant Current (mA) | 250 | 280 | 300 | 350 |
|------------------------|----------------------------------|--|------------|-------|-----|
| Output | Voltage Range(VDC) | 27-42 | | | |
| | 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.) | ≥82%@Full load,230V | | | |
| | 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 | | ≥0.7 | | | |
| Power Factor | | 0.5 | | | |
| Input Current max (mA) | | 125mA | 150mA | 175mA | |
| Start-up time | | < 0.5S | | | |
| No Load Power | | ≤0.5W | | | |
| Protection | Over Load Protection | 103-130% YES/Auto Resume | | | |
| | Over Voltage Protection | 59VDC YES/Auto Resume | | | |
| | Short circuit Protection | YES/Auto Resume | | | |
| | Over Temperature Protection | YES/Auto Resume | | | |
| capability | Surge capability (L-N) | 1KV | | | |
| | Surge capability (L/N-Ground) | 2KV | | | |
| 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 | | | |
| | Noise | ≤20dB(A)@10cm | | | |
| Surface | Dimension | Φ42 x 21mm | | | |
| | 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 | | | |

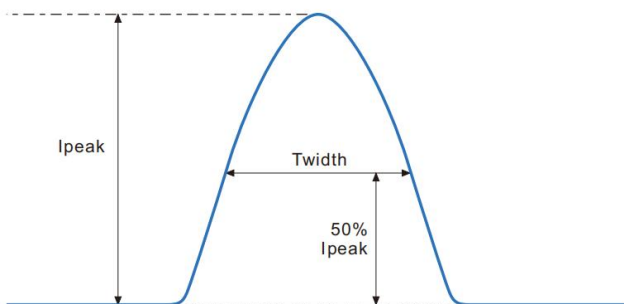
| | | |
|------|--|--------------------------------|
| | RoHS | RoHS (2011/65/EU) (EU)2015/863 |
| Note | <p>1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 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-15-250 SI | 250 | 27-42 | 59 | 10.5 |
| 2 | CS-15-280 SI | 280 | | | 11.8 |
| 3 | CS-15-300 SI | 300 | | | 12.6 |
| 4 | CS-15-350 SI | 350 | | | 14.7 |

◆ Inrush Current

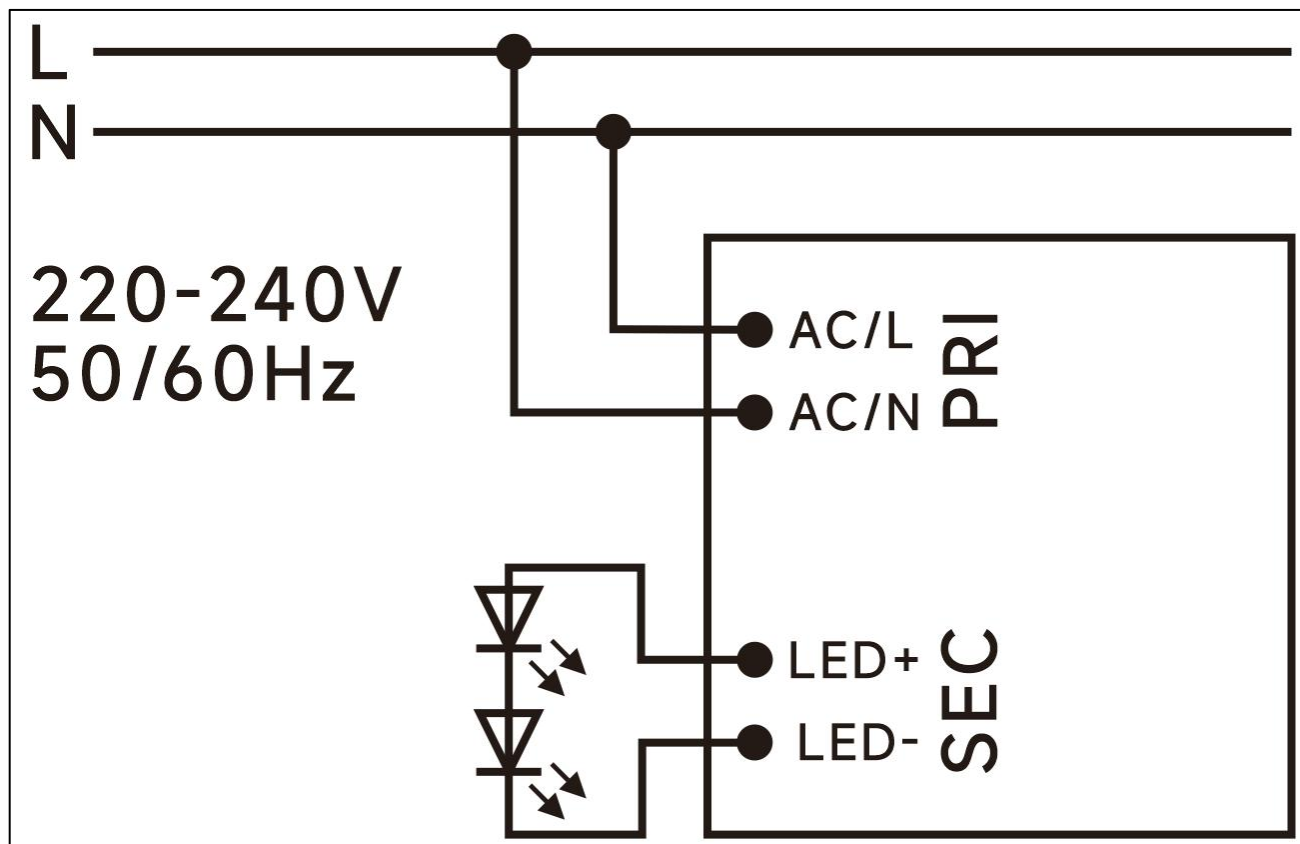
| I _{peak} | T _{width} | B10 | B16 | B20 | C10 | C16 | C20 |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------|
| 8.12A | 114µs | 45pcs | 73pcs | 91pcs | 45pcs | 73pcs | 91pcs |



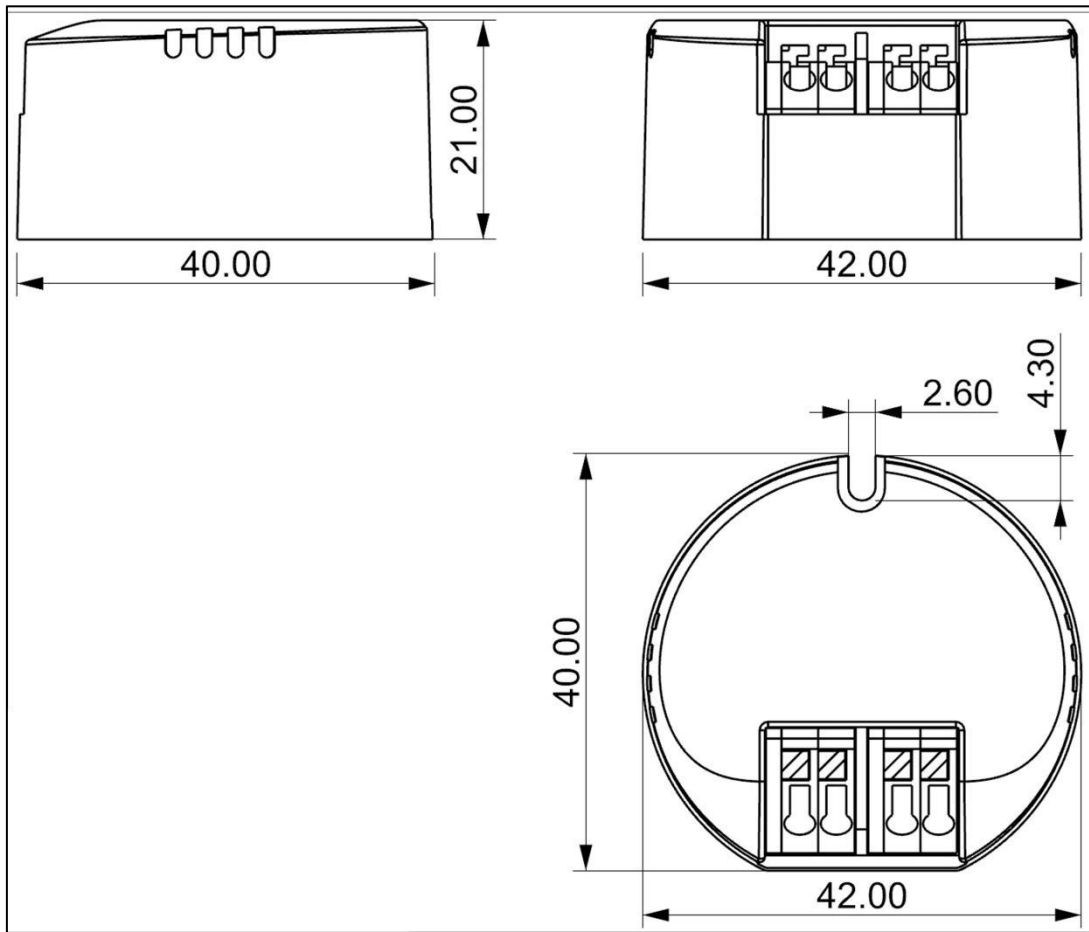
Remarks:

- 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.

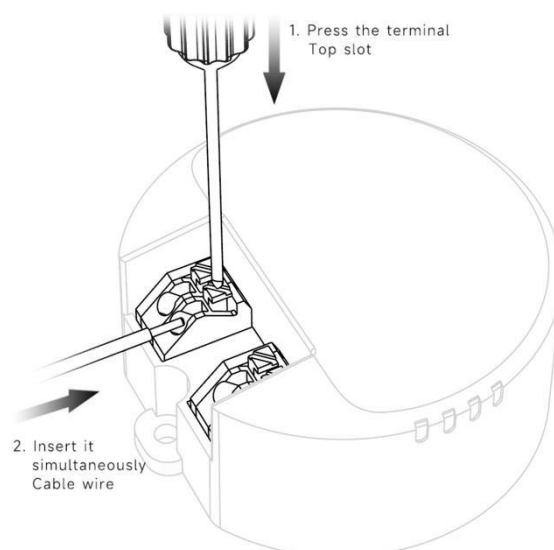
◆ Wiring diagram



◆ 2D diagram



Terminal

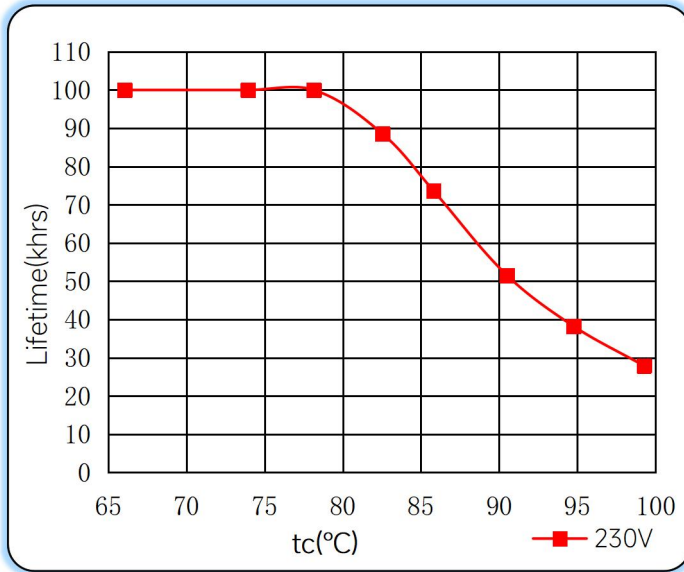
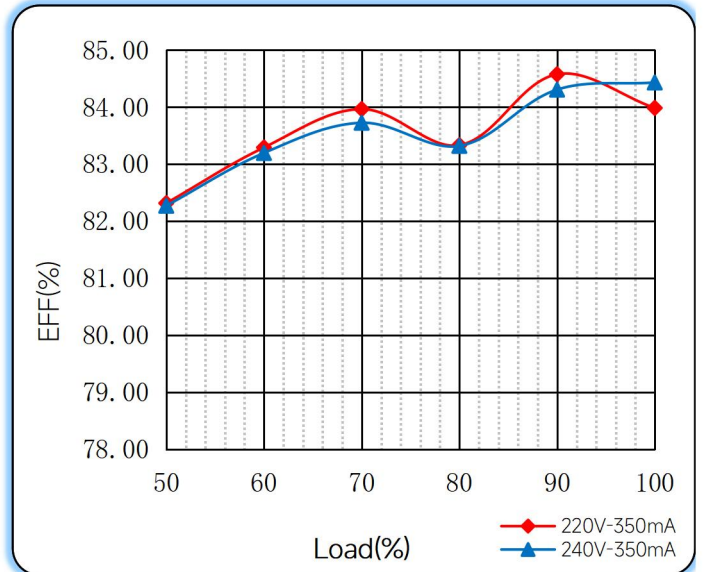
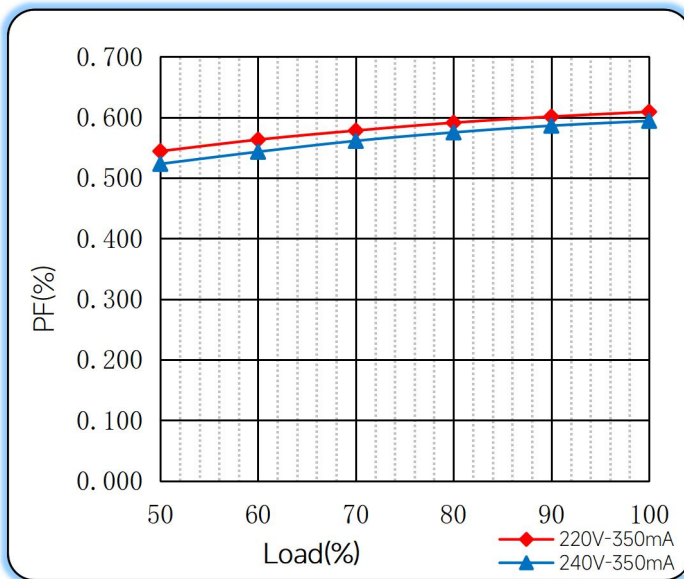
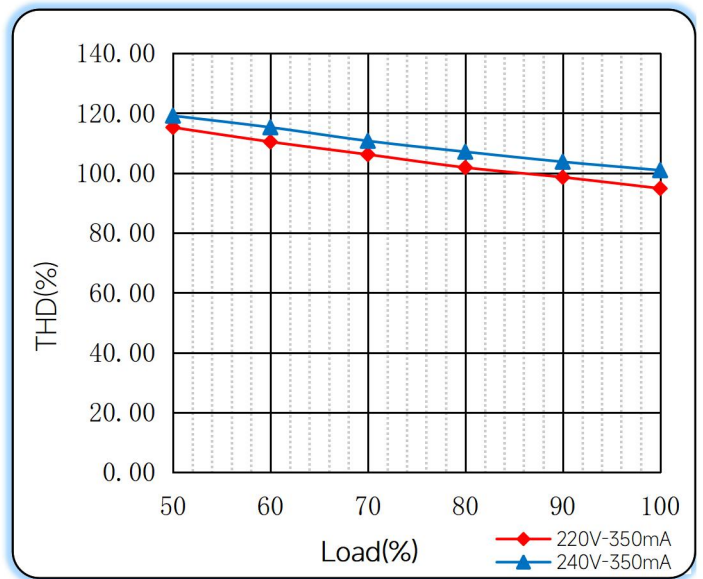


◆ Wiring & Connections

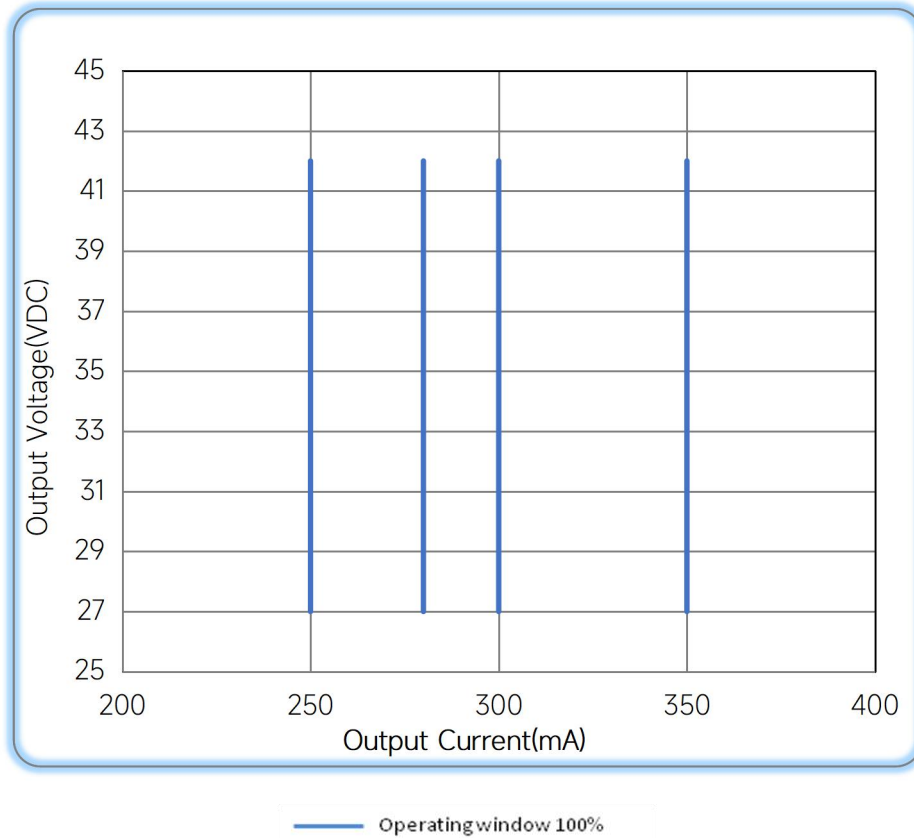
| | Specification item | Value (Unit) |
|--------|---------------------------|---------------------------|
| Input | Input wire cross-section | 0.5...1.5 mm ² |
| | Input wire gauge. | 16...20 AWG |
| | Input wire strip length | 7...9mm |
| Output | Output wire cross-section | 0.5...1.5 mm ² |
| | Output 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-15-XXX SI, I_o=350mA

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 | 2023/12/18 |
| Ta/TC | 60°C/90°C | 70°C/100°C | C | 2024/04/10 |

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