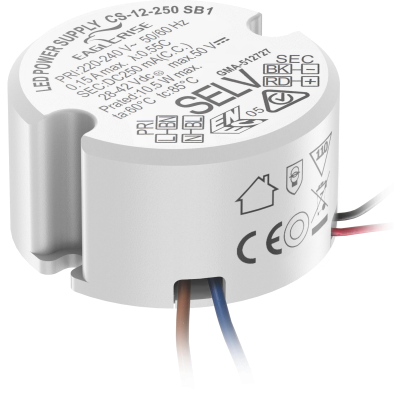
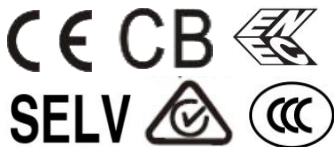


## 12W Constant Current -CS Series



■ Approve



### Features

- Class II, SELV, Built-in
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.55C
- Efficiency:  $\geq 83\%$
- 5 years warranty

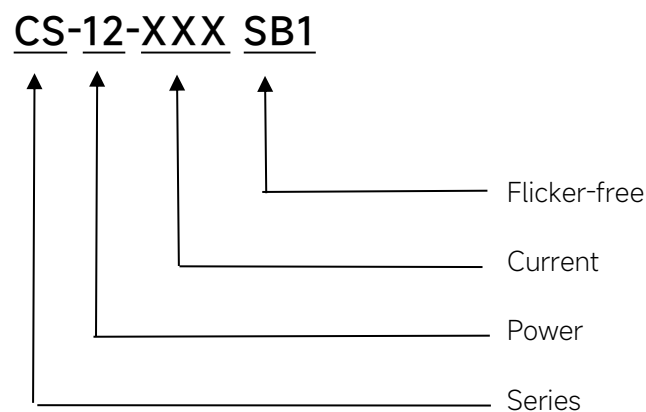
### Applications

- LED spot light, LED wall light

### ◆ Description

CS-12-XXX SB1 is a 12W constant current LED driver with 250mA or 300mA output current. With it's compact dimensions from  $\Phi 42 \times 22\text{mm}$  it is easy to integrate in LED down light, LED wall light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code



## ◆ Specification

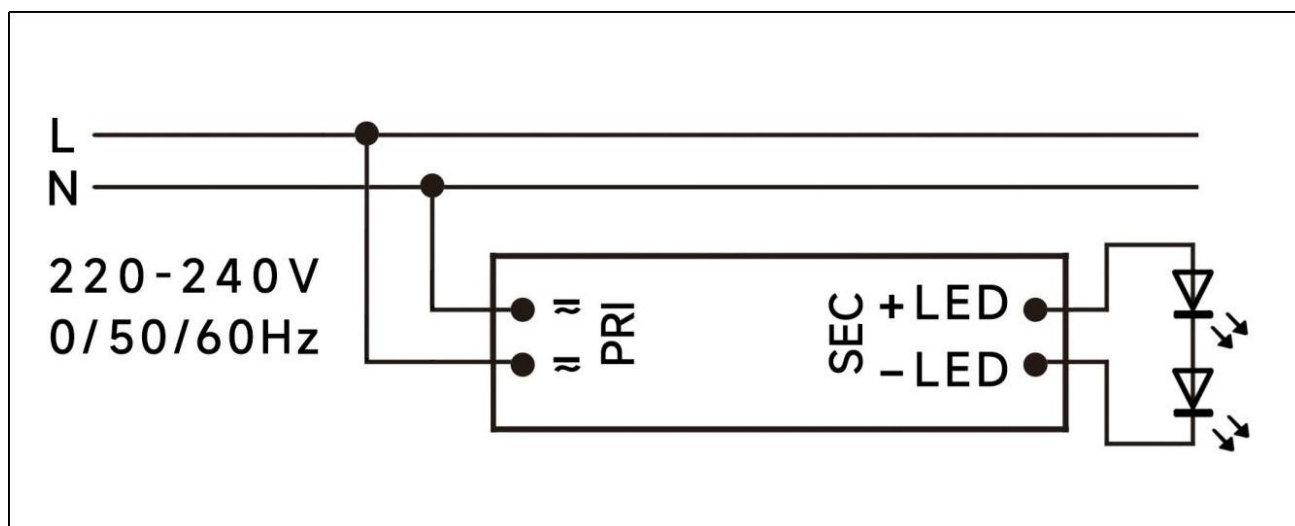
|             |                                                                                                                                                                                                                                                                  |                                |  |       |  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--|-------|--|
| Output      | Constant Current                                                                                                                                                                                                                                                 | 250mA                          |  | 300mA |  |
|             | Voltage Range                                                                                                                                                                                                                                                    | 28-42VDC                       |  |       |  |
|             | Unload voltage Max.                                                                                                                                                                                                                                              | 50VDC                          |  |       |  |
|             | Current Accuracy                                                                                                                                                                                                                                                 | ±10%                           |  |       |  |
|             | Output HF current ripple(≥1KHz)                                                                                                                                                                                                                                  | ±3%                            |  |       |  |
|             | Output LF current ripple(≤120Hz)                                                                                                                                                                                                                                 | ±3%                            |  |       |  |
|             | SVM                                                                                                                                                                                                                                                              | ≤0.4                           |  |       |  |
|             | Pst                                                                                                                                                                                                                                                              | ≤1                             |  |       |  |
|             | Efficiency(Typ.)                                                                                                                                                                                                                                                 | ≥83%                           |  |       |  |
| Input       | Rated input voltage                                                                                                                                                                                                                                              | 220-240VAC                     |  |       |  |
|             | Range of input voltage                                                                                                                                                                                                                                           | 198-264VAC                     |  |       |  |
|             | Range of input voltage(DC)                                                                                                                                                                                                                                       | 198-280VDC                     |  |       |  |
|             | Frequency(Hz)                                                                                                                                                                                                                                                    | 0/50/60 Hz                     |  |       |  |
|             | Displacement factor                                                                                                                                                                                                                                              | ≥0.9                           |  |       |  |
|             | Power Factor                                                                                                                                                                                                                                                     | 0.55C@Full Load, 230VAC        |  |       |  |
|             | Input Current max                                                                                                                                                                                                                                                | 0.15A                          |  | 0.18A |  |
|             | Start-up time                                                                                                                                                                                                                                                    | < 0.5S                         |  |       |  |
|             | No Load Power                                                                                                                                                                                                                                                    | ≤0.5W                          |  |       |  |
| Protection  | Over Load Protection                                                                                                                                                                                                                                             | 103-120%                       |  |       |  |
|             |                                                                                                                                                                                                                                                                  | YES/Auto Resume                |  |       |  |
|             | Over Voltage Protection                                                                                                                                                                                                                                          | >50VDC                         |  |       |  |
|             |                                                                                                                                                                                                                                                                  | YES/Auto Resume                |  |       |  |
|             | Short circuit Protection                                                                                                                                                                                                                                         | YES/Auto Resume                |  |       |  |
| Environment | Operating Temperature                                                                                                                                                                                                                                            | -20°C~+60°C                    |  |       |  |
|             | Humidity                                                                                                                                                                                                                                                         | 20%-90%RH                      |  |       |  |
|             | Tc                                                                                                                                                                                                                                                               | 85°C                           |  |       |  |
|             | Storage Temperature                                                                                                                                                                                                                                              | -25°C~+60°C                    |  |       |  |
|             | Life time                                                                                                                                                                                                                                                        | > 30,000h@ta=60°C              |  |       |  |
| Surface     | Dimension                                                                                                                                                                                                                                                        | Φ42X22(DXH)mm                  |  |       |  |
| Standards   | IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;GB/T17743,GB19510. 1, GB19510. 2, EN61347- 1, EN61347-2- 13, EN62384;14;EN55015, EN61000-3-2, EN61000-3-3, EN61547                                                                                         |                                |  |       |  |
| 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.<br>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. |                                |  |       |  |

## ◆ Model list

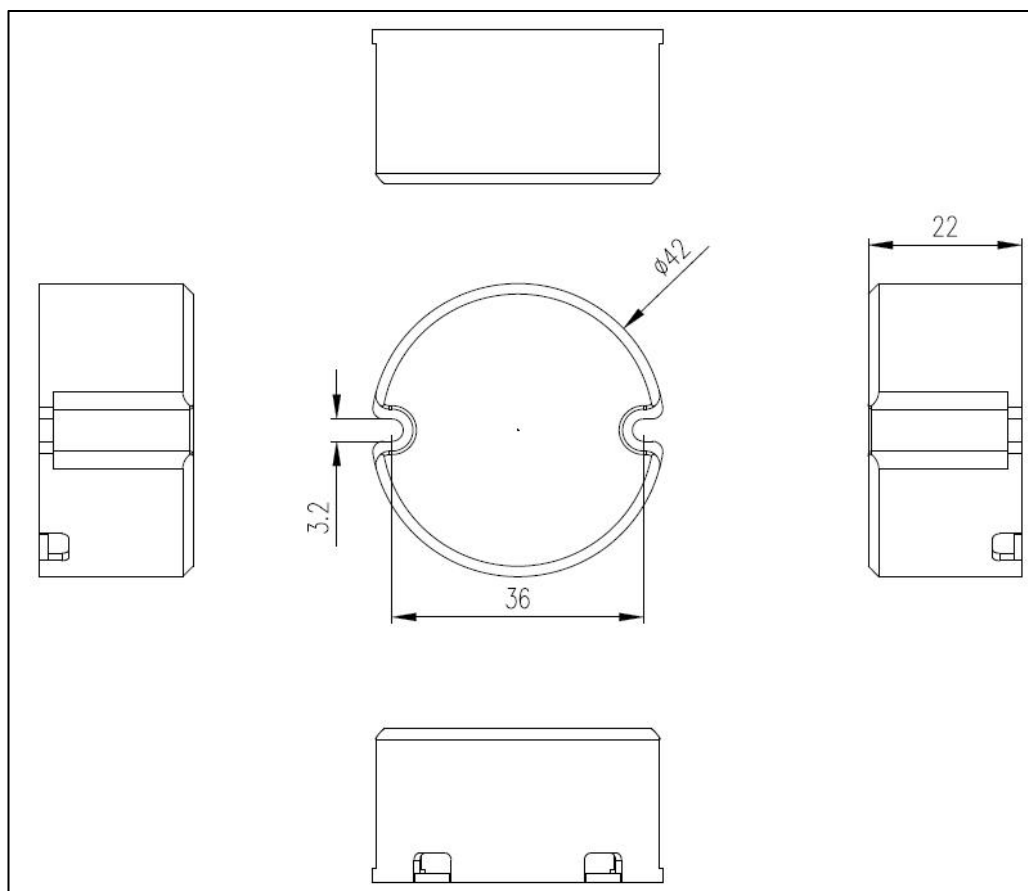
| NO. | Model number  | Input         |             |                | Output                |                              |                               | Max.Prated(W) |
|-----|---------------|---------------|-------------|----------------|-----------------------|------------------------------|-------------------------------|---------------|
|     |               | Voltage (VAC) | Current (A) | Frequency (Hz) | Constant current (mA) | Normal working voltage (VDC) | No load working voltage (VDC) |               |
| 1   | CS-12-250 SB1 | 220-240       | 0.15        | 0/50/60        | 250                   | 28-42                        | 50                            | 10.5          |
| 2   | CS-12-300 SB1 |               | 0.18        |                | 300                   |                              |                               | 12.6          |

\* Factory default

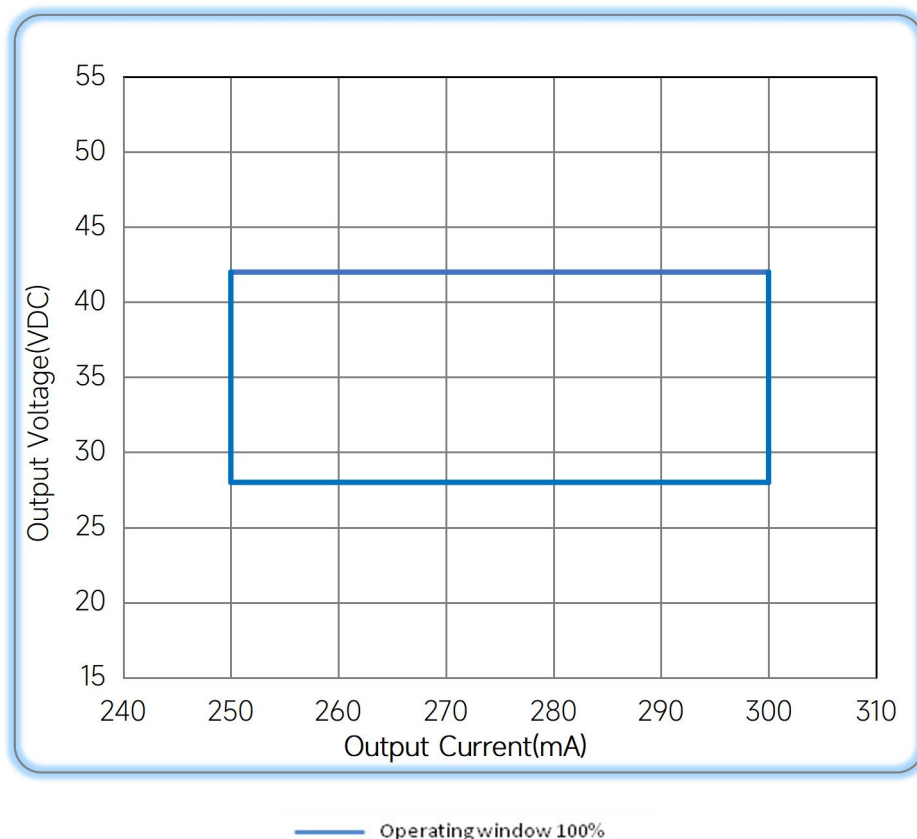
## ◆ Wiring diagram



◆ 2D diagram



## ◆ Operating window



## ◆ Revision Updates

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

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