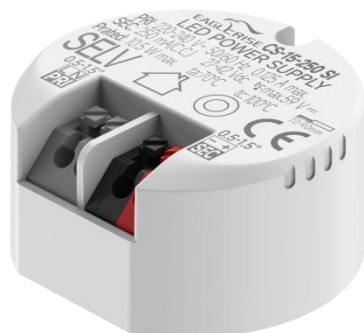


## 15W Constant Current power supply



■ Approve



### Features

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

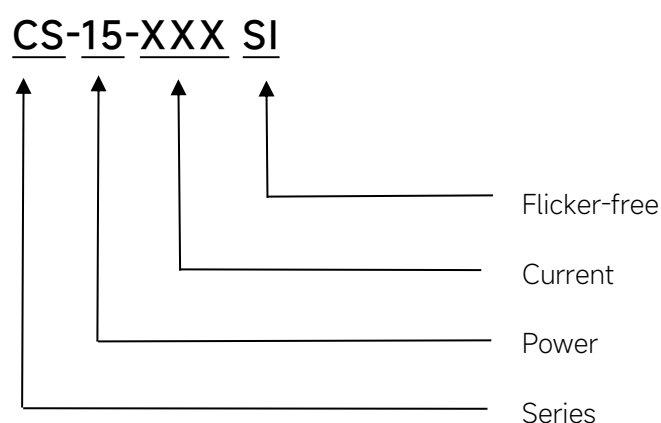
### Applications

- 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 it's compact dimensions from  $\Phi 42 \times 21$ 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

|             |                                  |                                                                              |     |       |       |
|-------------|----------------------------------|------------------------------------------------------------------------------|-----|-------|-------|
| Output      | Constant Current (mA)            | 250                                                                          | 280 | 300   | 350   |
|             | 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                                                              |     |       |       |
| capability  | Over Temperature Protection      | YES/Auto Resume                                                              |     |       |       |
|             | 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                                                          |     |       |       |

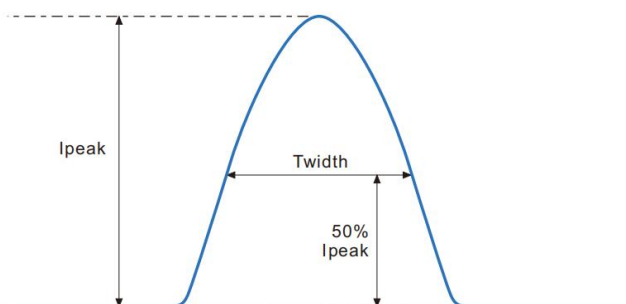
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|      | RoHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RoHS (2011/65/EU) (EU)2015/863 |
| Note | 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.<br>3.Switch and dimmer are not recommended to connect between this product output and luminaries.<br>4.Surge capability (L/N-Ground) was measured with a metal plate 2-3mm underlay.<br>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. |                                |

## ◆ 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

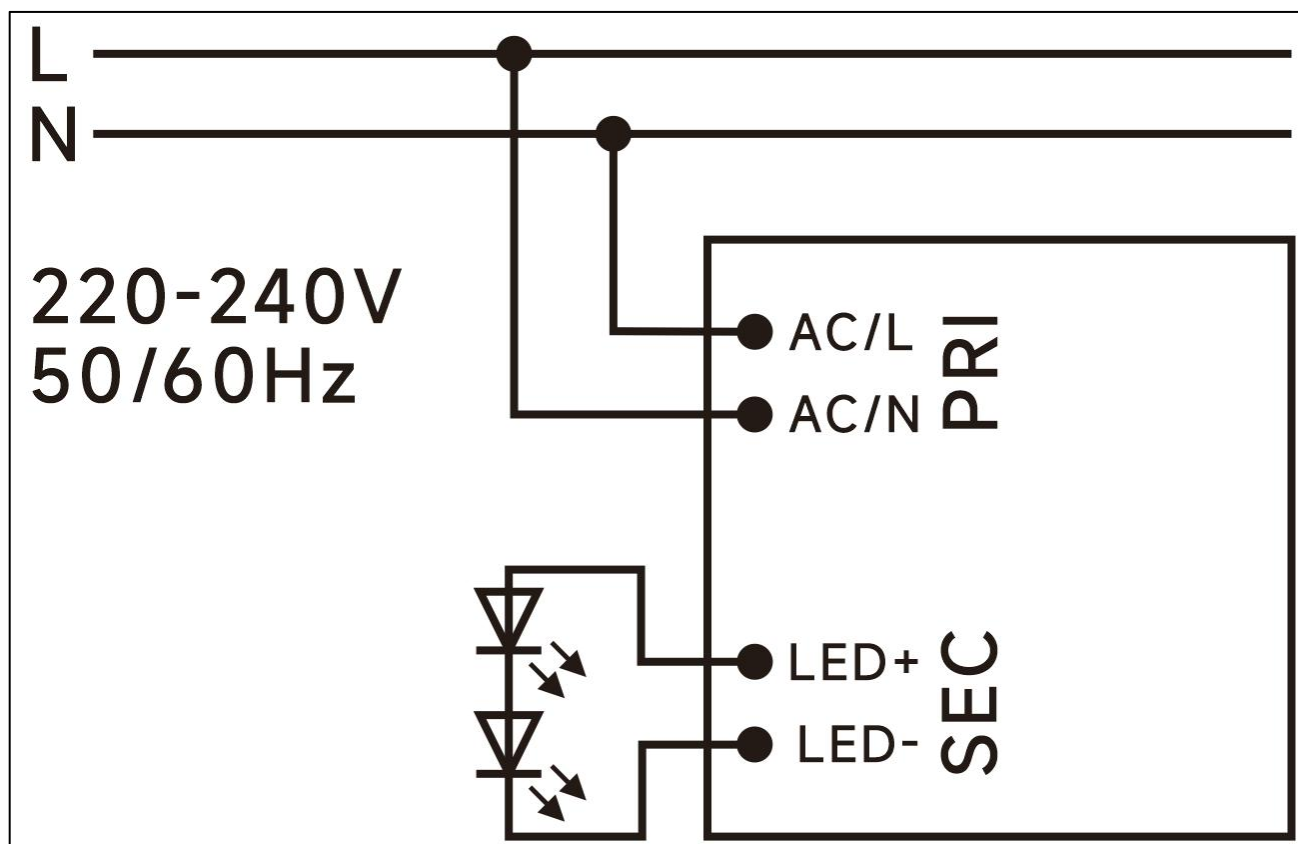
| I <sub>peak</sub> | T <sub>width</sub> | B10   | B16   | B20   | C10   | C16   | C20   |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------|
| 8.12A             | 114μs              | 45pcs | 73pcs | 91pcs | 45pcs | 73pcs | 91pcs |



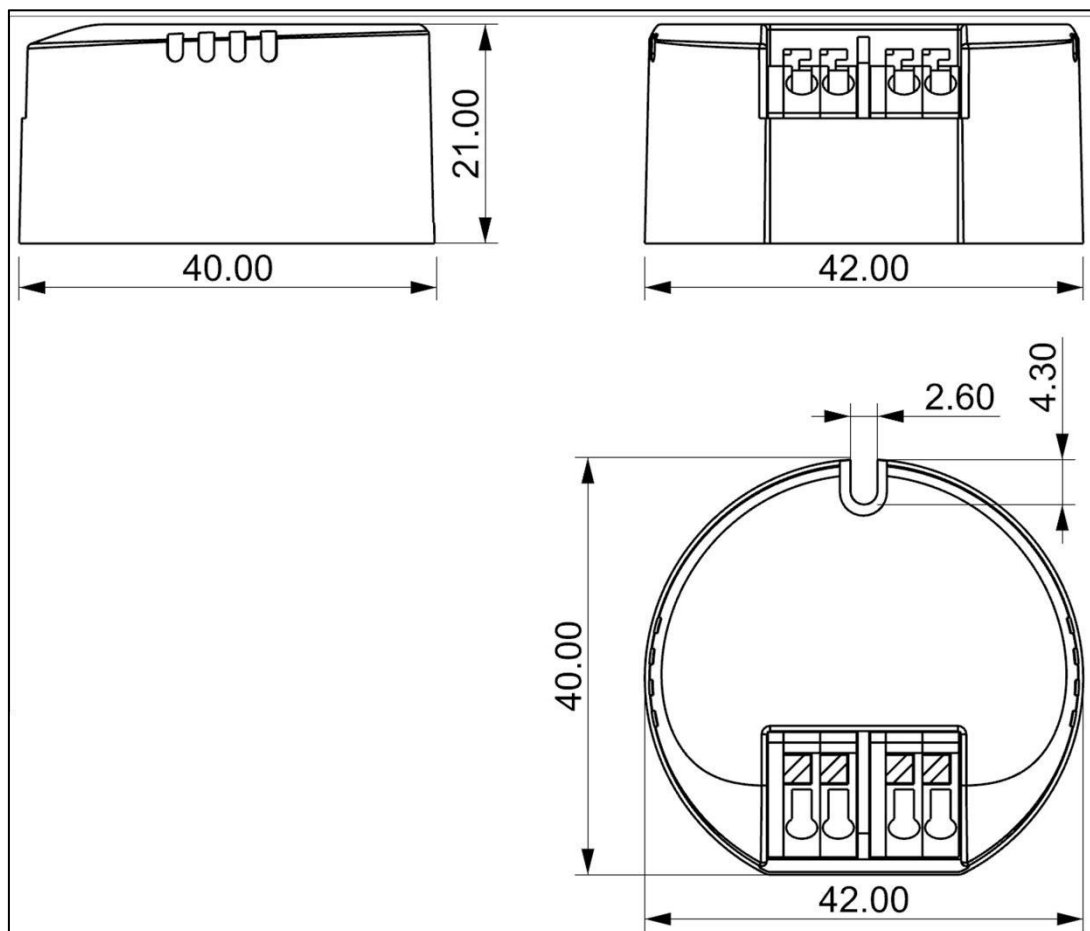
### Remarks:

- 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.

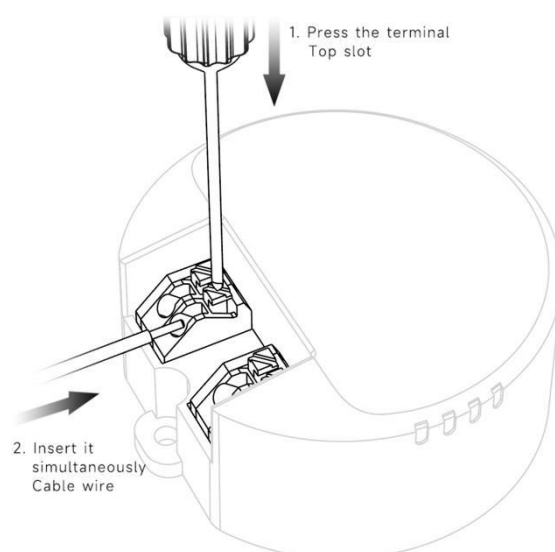
◆ Wiring diagram



◆ 2D diagram



Terminal

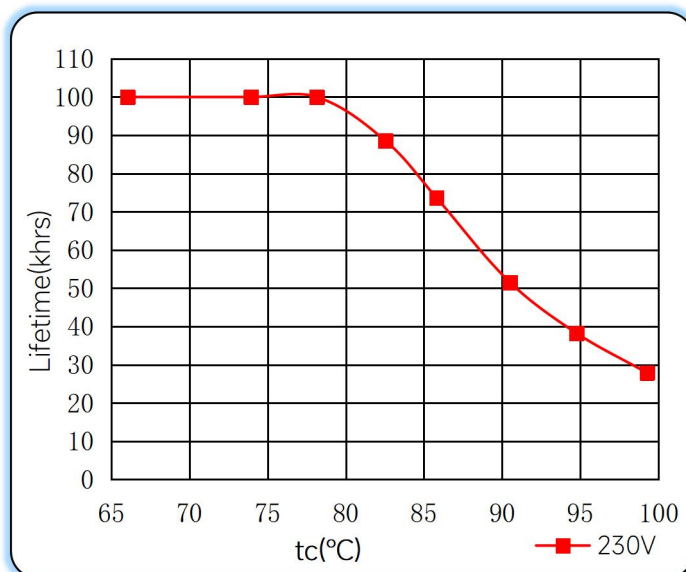
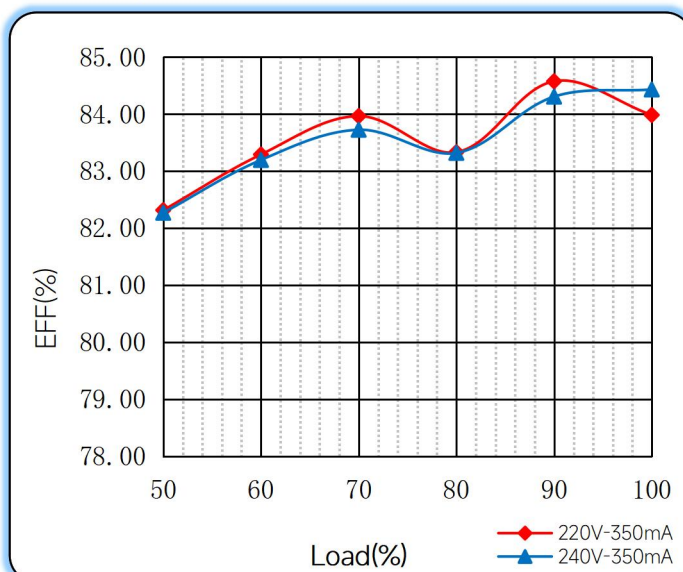
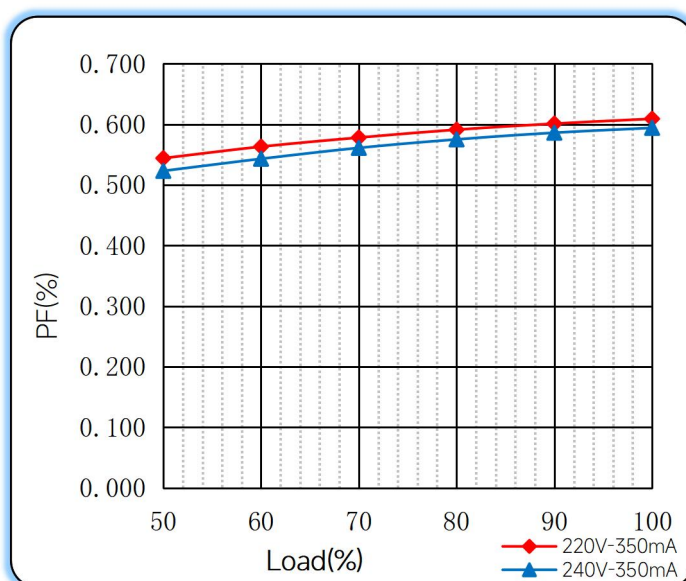
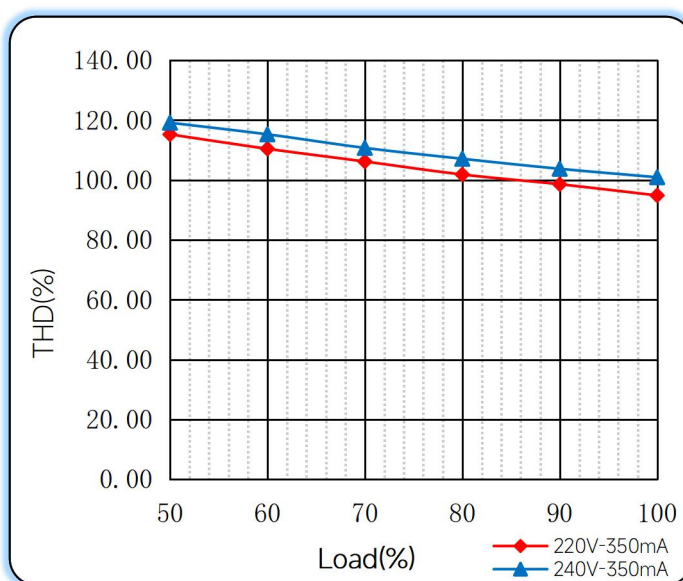


## ◆ Wiring & Connections

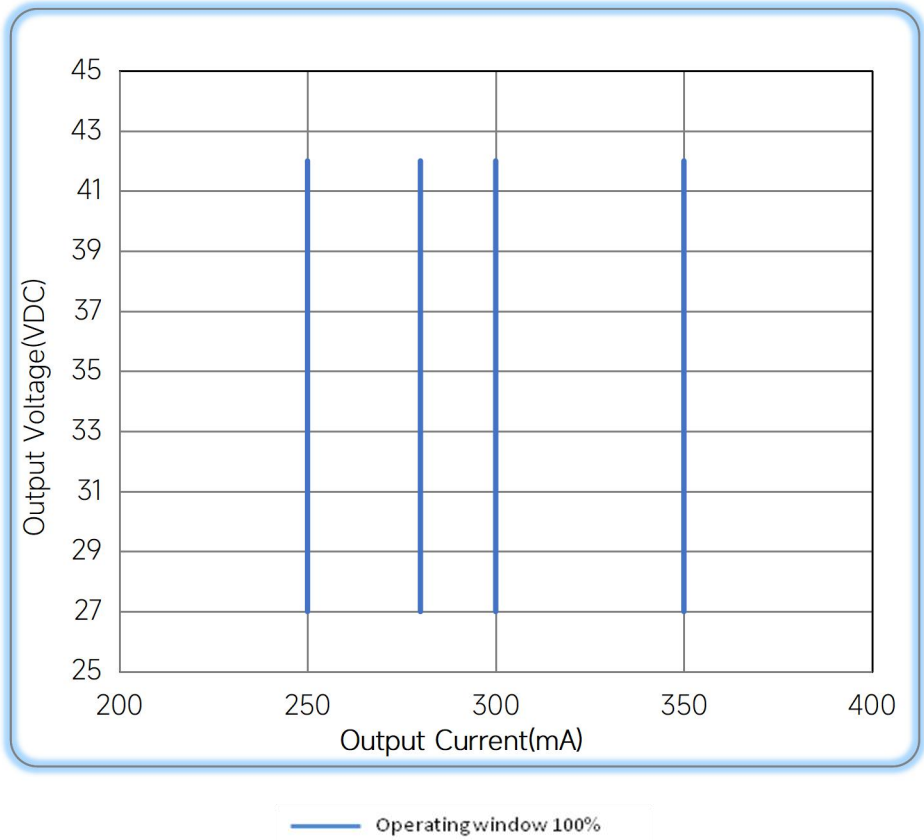
|        | Specification item        | Value (Unit )             |
|--------|---------------------------|---------------------------|
| Input  | Input wire cross-section  | 0.5...1.5 mm <sup>2</sup> |
|        | Input wire gauge.         | 16...20 AWG               |
|        | Input wire strip length   | 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-15-XXX SI, Io=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.

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EAGLERISE



Manual