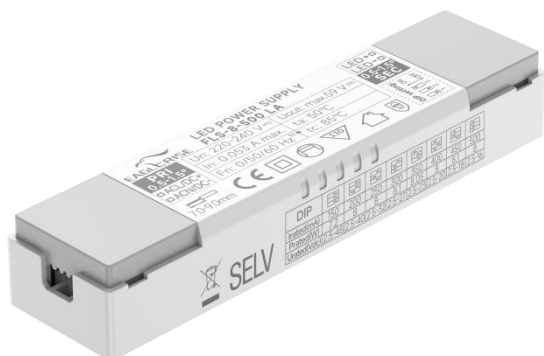


## 8W Constant Current Power Supply



■ Approve



### Features

- For luminaires of protection Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.9(Typ.)
- Efficiency: 82%(Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

### Applications

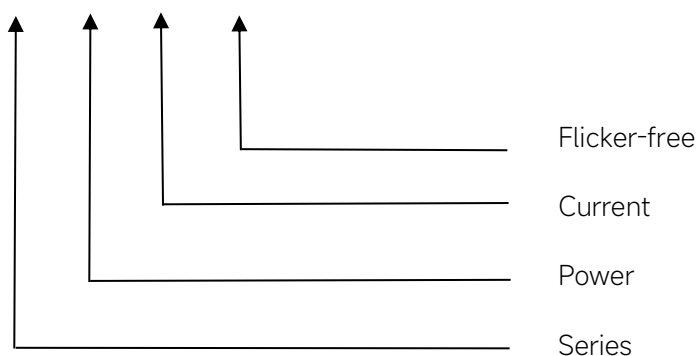
- LED down light

### ◆ Description

FLS-8-500 LA is a 8W constant current LED driver with 150 to 500mA output current and a forward voltage range from 2.5 to 48Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 115x30x20.5 mm. It is easy to integrate in LED down light product. The side covers are available as accessories and allow to use the LED driver independent.

### ◆ Model code

#### FLS-8-500 LA



## ◆ Specification

|             |                                  |                                                                                                                |        |        |        |        |        |        |        |  |
|-------------|----------------------------------|----------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--|
| Output      | Constant Current (mA)            | 150                                                                                                            | 200    | 250    | 300    | 350    | 400    | 450    | 500    |  |
|             | Voltage Range(VDC)               | 2.5-48                                                                                                         | 2.5-40 | 2.5-32 | 2.5-27 | 2.5-23 | 2.5-20 | 2.5-18 | 2.5-16 |  |
|             | Unload voltage Max.(VDC)         | 59V                                                                                                            |        |        |        |        |        |        |        |  |
|             | Current Accuracy                 | ±8%                                                                                                            | ±7%    | ±5%    |        |        |        |        |        |  |
|             | Output LF current ripple(≤120Hz) | ≤±5%                                                                                                           |        |        |        |        |        |        |        |  |
|             | SVM                              | ≤0.4                                                                                                           |        |        |        |        |        |        |        |  |
|             | Pst                              | ≤1                                                                                                             |        |        |        |        |        |        |        |  |
|             | Efficiency(Typ.)                 | ≥82%@Full Load,230V                                                                                            |        |        |        |        |        |        |        |  |
| Input       | Rated input voltage(VAC)         | 220-240V                                                                                                       |        |        |        |        |        |        |        |  |
|             | Range of input voltage(VAC)      | 198-264VAC                                                                                                     |        |        |        |        |        |        |        |  |
|             | Maximum voltage                  | 300VAC@1 h maximum,unit might not operate in this abnormal condition                                           |        |        |        |        |        |        |        |  |
|             | Range of input voltage(VDC)      | 176-280VDC                                                                                                     |        |        |        |        |        |        |        |  |
|             | Frequency(Hz)                    | 0/50/60 Hz                                                                                                     |        |        |        |        |        |        |        |  |
|             | Displacement factor              | 0.9 @Full Load,230V                                                                                            |        |        |        |        |        |        |        |  |
|             | Power Factor                     | 0.9 @Full Load,230V                                                                                            |        |        |        |        |        |        |        |  |
|             | Input Current max                | 0.053AMax                                                                                                      |        |        |        |        |        |        |        |  |
|             | Start-up time                    | < 0.5S                                                                                                         |        |        |        |        |        |        |        |  |
|             | No Load Power                    | ≤0.5W                                                                                                          |        |        |        |        |        |        |        |  |
|             | THD (Typ.)                       | ≤20%@Full Load,230V                                                                                            |        |        |        |        |        |        |        |  |
| Protection  | Over Load Protection             | 103-130%                                                                                                       |        |        |        |        |        |        |        |  |
|             |                                  | 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)    | NA                                                                                                             |        |        |        |        |        |        |        |  |
| Environment | Operating Temperature            | -20°C~~+45°C                                                                                                   |        |        |        |        |        |        |        |  |
|             | Humidity                         | 20%-90%RH                                                                                                      |        |        |        |        |        |        |        |  |
|             | Tc                               | 85°C                                                                                                           |        |        |        |        |        |        |        |  |
|             | Storage Temperature              | -25°C~~+60°C                                                                                                   |        |        |        |        |        |        |        |  |
|             | Life time                        | > 50000h@Tc=80°C                                                                                               |        |        |        |        |        |        |        |  |
|             | Ripple&Noise                     | ≤20dB(A)@20cm                                                                                                  |        |        |        |        |        |        |        |  |
| Surface     | Dimension                        | 115x30x20.5mm                                                                                                  |        |        |        |        |        |        |        |  |
|             | material                         | PC                                                                                                             |        |        |        |        |        |        |        |  |
| Standards   | Safety                           | GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13; EN62384;                        |        |        |        |        |        |        |        |  |
|             | EMC                              | GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, 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.The over-temperature protection of the product is provided by the IC.<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.<br>6. Working temperature during DC input was tested at Ta=40°C |                                |

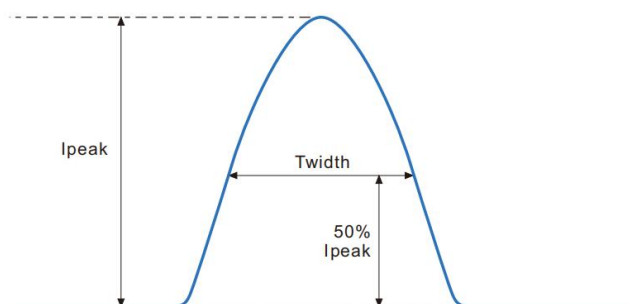
## ◆ Parameter

| Number | Output       |               |                       | Switch position |    |    |    |
|--------|--------------|---------------|-----------------------|-----------------|----|----|----|
|        | Current (mA) | Voltage (VDC) | Voltage No load (VDC) | Power (W)       | 1  | 2  | 3  |
| 1      | 150mA        | 2.5-48V       | 59V                   | 7.2W            | -- | -- | -- |
| 2      | 200mA        | 2.5-40V       |                       | 8W              | -- | -- | ON |
| 3      | 250mA        | 2.5-32V       |                       | 8W              | -- | ON | -- |
| 4      | 300mA        | 2.5-27V       |                       | 8.1W            | -- | ON | ON |
| 5      | 350mA        | 2.5-23V       |                       | 8.05W           | ON | -- | -- |
| 6      | 400mA        | 2.5-20V       |                       | 8W              | ON | -- | ON |
| 7      | 450mA        | 2.5-18V       |                       | 8.1W            | ON | ON | -- |
| *8     | 500mA        | 2.5-16V       |                       | 8W              | ON | ON | ON |

\* Factory default

## ◆ Inrush Current

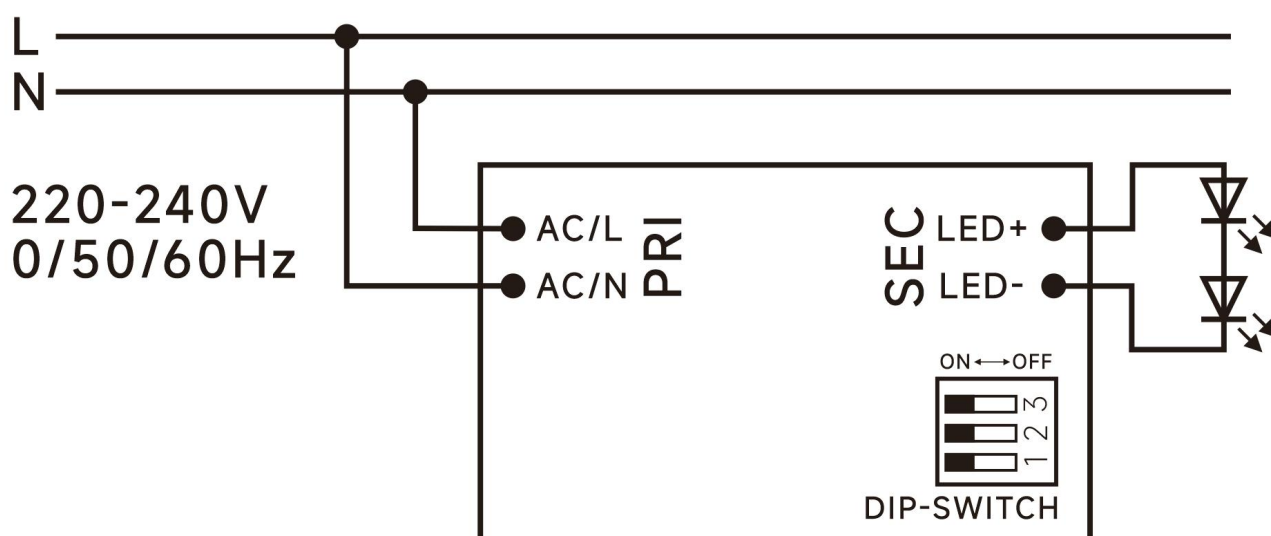
| $I_{peak}$ | Twidth | B10    | B16    | B20    | C10    | C16    | C20    |
|------------|--------|--------|--------|--------|--------|--------|--------|
| 2.24A      | 52μs   | 150pcs | 241pcs | 301pcs | 150pcs | 241pcs | 301pcs |



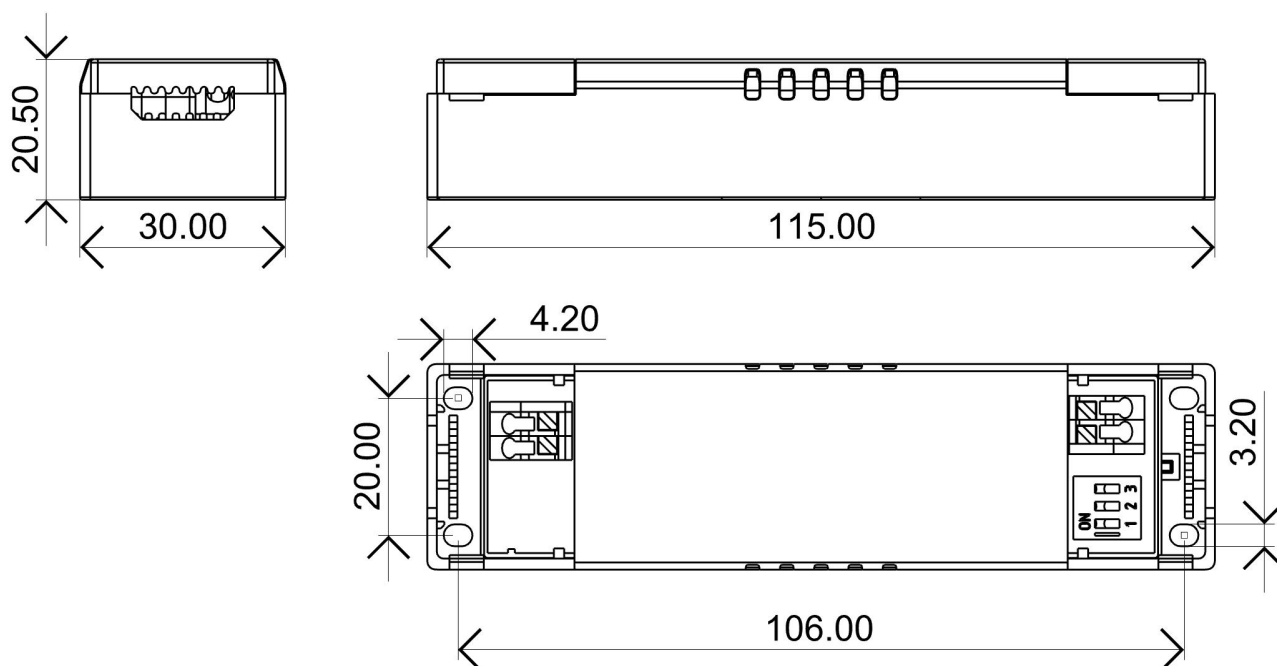
### Remarks:

- 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.

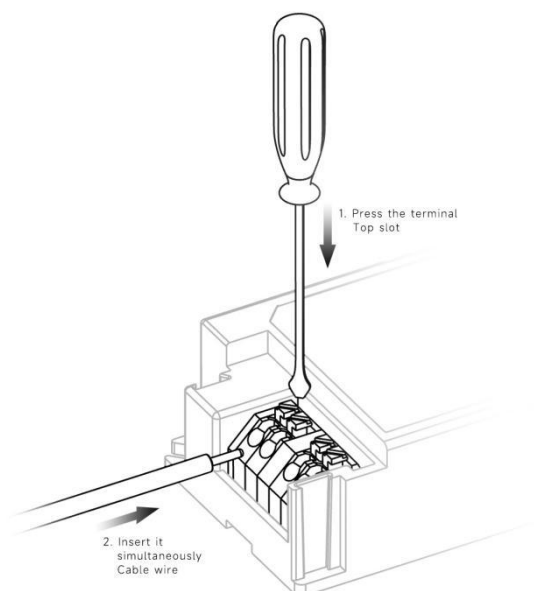
## ◆ Wiring diagram



## ◆ 2D diagram



## Terminal



## ◆ Wiring & Connections

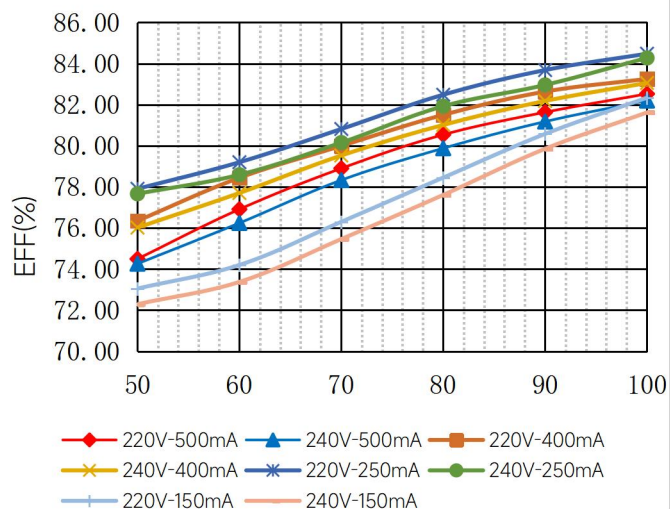
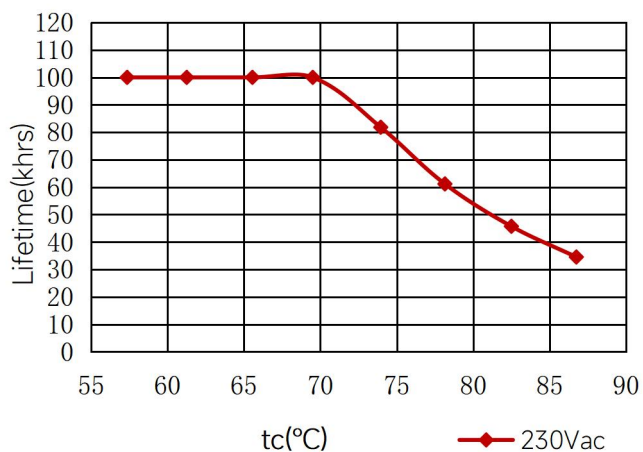
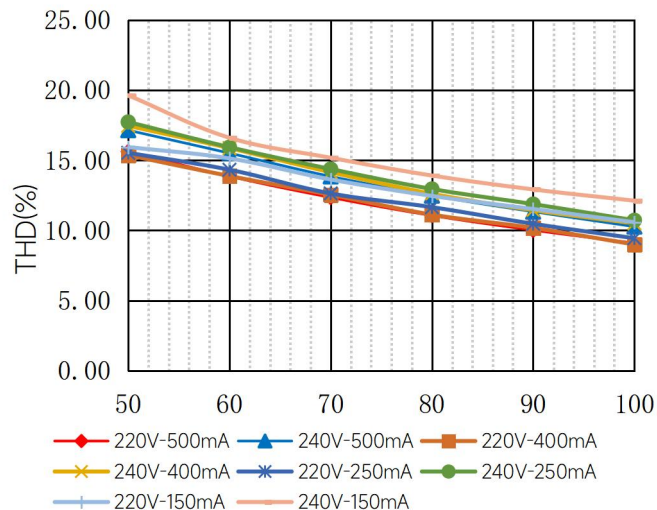
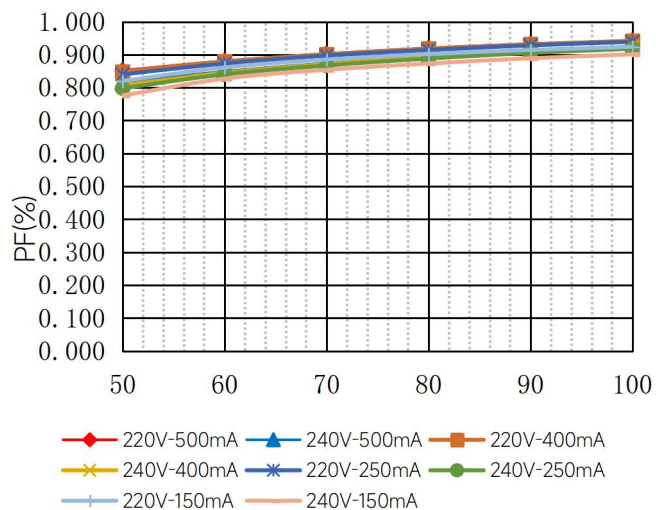
| Specification item |                           | Value (Unit )             |
|--------------------|---------------------------|---------------------------|
| Input              | Input wire cross-section  | 0.5...1.5 mm <sup>2</sup> |
|                    | Input wire gauge.         | 16...20 AWG 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

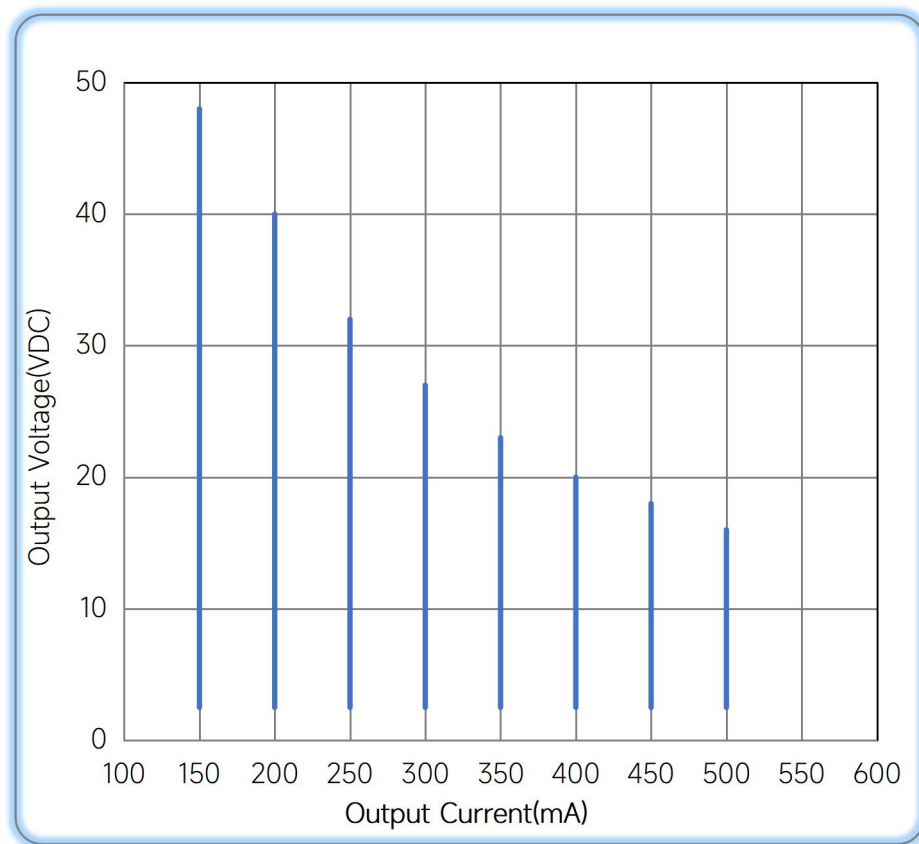
## ◆ Packaging

| Model           | Product Dimensions(mm) | weight/piece | Outer carton dimension(mm) | Quantity/carton | Net weight/carton(Kg) | Gross weight/carton(Kg) |
|-----------------|------------------------|--------------|----------------------------|-----------------|-----------------------|-------------------------|
| FLS-8-500<br>LA | 115X30X20.5            | 0.06         | 370X277X215                | 243             | 14.6                  | 15.4                    |

# ◆ Curve for FLS-8-500 LA, $I_o=150/250/400/500\text{mA}$

**Lifetime vs. Temperature Curve**
**Efficiency vs. Load**

**Power Factor Characteristics**
**THD vs. Load**


## ◆ Operating window



— Operating window 100%

## ◆ Revision Updates

| ITEM                  | BEFORE      | AFTER       | VERSION | DATE       |
|-----------------------|-------------|-------------|---------|------------|
| Initial               |             |             | A       | 2025/06/26 |
| Operating Temperature | -20°C~+50°C | -20°C~+45°C | B       | 2025/09/08 |

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

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