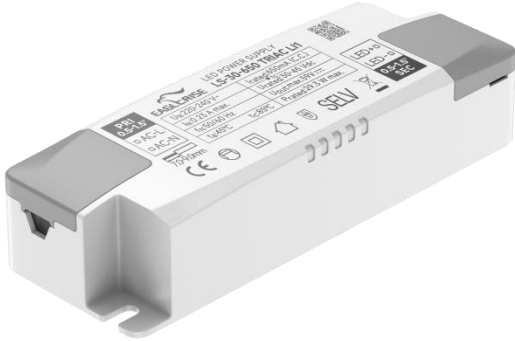


## 30W Triac Dimming power supply



■ Approve

CE CB EN CCC SELV

### Features

- For luminaires of protection Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: > 0.95
- Efficiency: 86%
- 5 years warranty
- IP20

### Applications

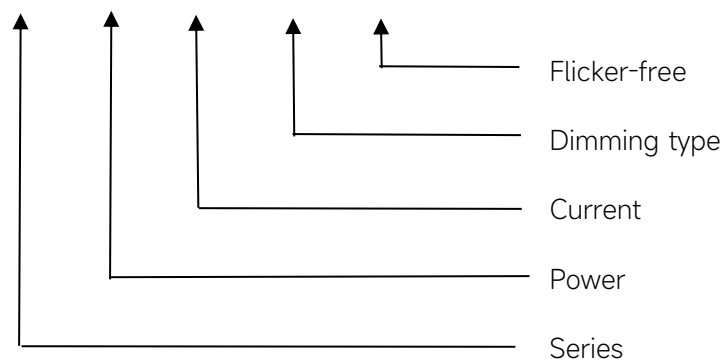
- LED panel, LED down light

### ◆ Description

LS-30-XXX TRIAC LI1 is a 30W constant current LED driver that operates from 198-264Vac input with 600-900mA output current. With it's compact dimensions from 135 x 41 x 25 mm it is easy to integrate in LED panel, pendant light and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### LS-30-XXX TRIAC LI1



## ◆ Specification

|             |                                  |                                                                      |       |       |       |     |       |
|-------------|----------------------------------|----------------------------------------------------------------------|-------|-------|-------|-----|-------|
| Output      | Constant Current (mA)            | 600                                                                  | 650   | 700   | 750   | ... | 900   |
|             | Voltage Range(VDC)               | 35-50                                                                | 30-45 | 28-42 | 28-40 | ... | 22-34 |
|             | Unload voltage Max.              | 70VDC                                                                | 59VDC |       |       |     |       |
|             | Current Accuracy                 | ±5%@220-240V                                                         |       |       |       |     |       |
|             | Output HF current ripple(≥1KHz)  | ±5%                                                                  |       |       |       |     |       |
|             | Output LF current ripple(≤120Hz) | ±5%                                                                  |       |       |       |     |       |
|             | SVM                              | ≤0.4                                                                 |       |       |       |     |       |
|             | Pst                              | ≤1                                                                   |       |       |       |     |       |
|             | Efficiency(Typ.)                 | 86%                                                                  |       |       |       |     |       |
| 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              | ≥0.9                                                                 |       |       |       |     |       |
|             | Power Factor                     | >0.95@Full load,230VAC                                               |       |       |       |     |       |
|             | Input Current max (mA)           | 0.23A                                                                |       |       |       |     |       |
|             | Start-up time                    | < 0.5S                                                               |       |       |       |     |       |
|             | No Load Power                    | ≤0.5W                                                                |       |       |       |     |       |
|             | THD (Typ.)                       | <25%                                                                 |       |       |       |     |       |
| Dimming     | Dimming                          | YES                                                                  |       |       |       |     |       |
|             | Dimming mode                     | Triac, Leading edge & trailing edge dimmable                         |       |       |       |     |       |
|             | Dimming depth                    | 8%@220-240V                                                          |       |       |       |     |       |
|             | Dimming current range            | 8 ~ 100%                                                             |       |       |       |     |       |
| Protection  | Over Load Protection             | 103-130%                                                             |       |       |       |     |       |
|             |                                  | YES/Auto Resume                                                      |       |       |       |     |       |
|             | Over Voltage Protection          | 70VDC                                                                | 59VDC |       |       |     |       |
|             |                                  | YES/Auto Resume                                                      |       |       |       |     |       |
| capability  | Short circuit Protection         | YES/Auto Resume                                                      |       |       |       |     |       |
|             | Surge capability (L-N)           | 1KV                                                                  |       |       |       |     |       |
| Environment | Surge capability (L/N-Ground)    | NA                                                                   |       |       |       |     |       |
|             | Operating Temperature            | -20°C~+45°C                                                          |       |       |       |     |       |
|             | Humidity                         | 20%-90%RH                                                            |       |       |       |     |       |
|             | Tc                               | 85°C                                                                 |       |       |       |     |       |
|             | Storage Temperature              | -25°C~+60°C                                                          |       |       |       |     |       |
|             | Life time                        | > 50000h@Tc=75°C                                                     |       |       |       |     |       |
|             | Ripple&Noise                     | ≤30dB(A)@20cm                                                        |       |       |       |     |       |
| Surface     | Dimension                        | 135 x41x 25mm                                                        |       |       |       |     |       |
|             | material                         | PC                                                                   |       |       |       |     |       |

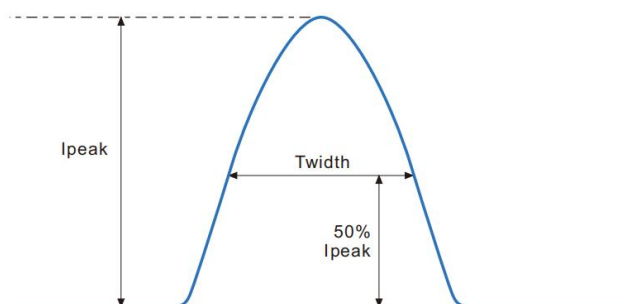
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 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;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547 |
|           | 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.The over-temperature protection of the product is provided by the IC.</p> <p>4.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<br>(mA) | Voltage<br>(VDC) | Voltage<br>No load<br>(VDC) | Power<br>(W) |
| 1      | LS-30-600 TRIAC LI1 | 600             | 35-50            | 70                          | 30           |
| 2      | LS-30-650 TRIAC LI1 | 650             | 30-45            | 59                          | 29.3         |
| 3      | LS-30-700 TRIAC LI1 | 700             | 28-42            |                             | 29.4         |
| 4      | LS-30-750 TRIAC LI1 | 750             | 28-40            |                             | 30           |
| 5      | LS-30-800 TRIAC LI1 | 800             | 28-40            |                             | 32           |
| 6      | LS-30-850 TRIAC LI1 | 850             | 24-37            |                             | 31.5         |
| 7      | LS-30-900 TRIAC LI1 | 900             | 22-34            |                             | 30.6         |

## ◆ Inrush Current

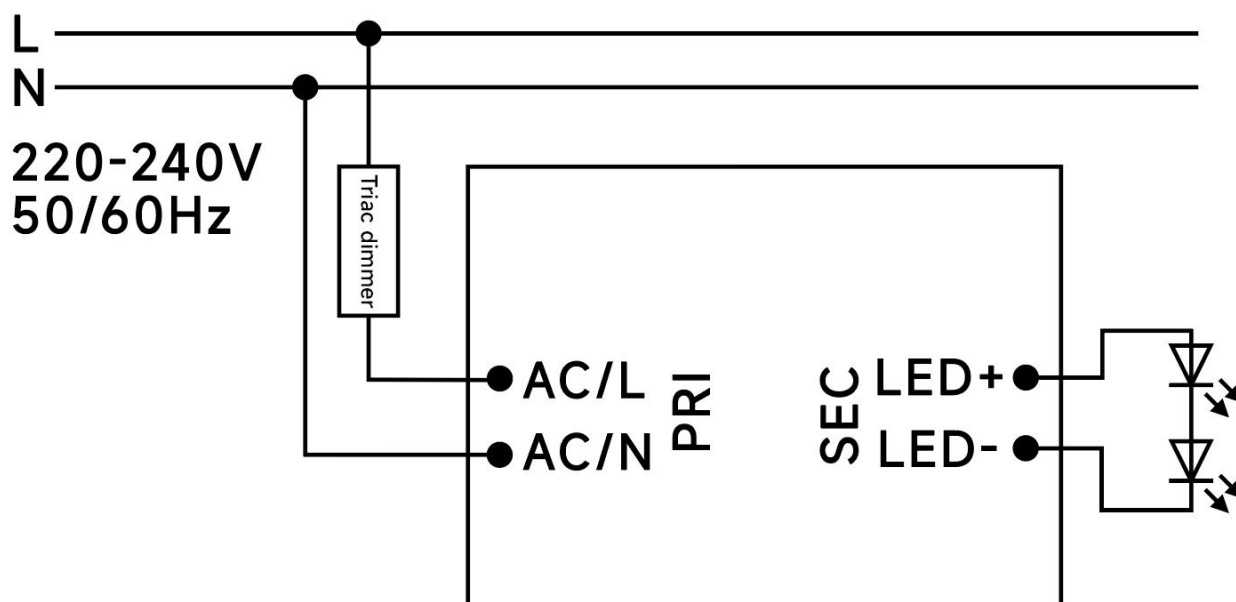
| $I_{peak}$ | Twidth       | B10   | B16   | B20   | C10   | C16   | C20   |
|------------|--------------|-------|-------|-------|-------|-------|-------|
| 3.72A      | 35.2 $\mu$ s | 34pcs | 55pcs | 69pcs | 34pcs | 55pcs | 69pcs |



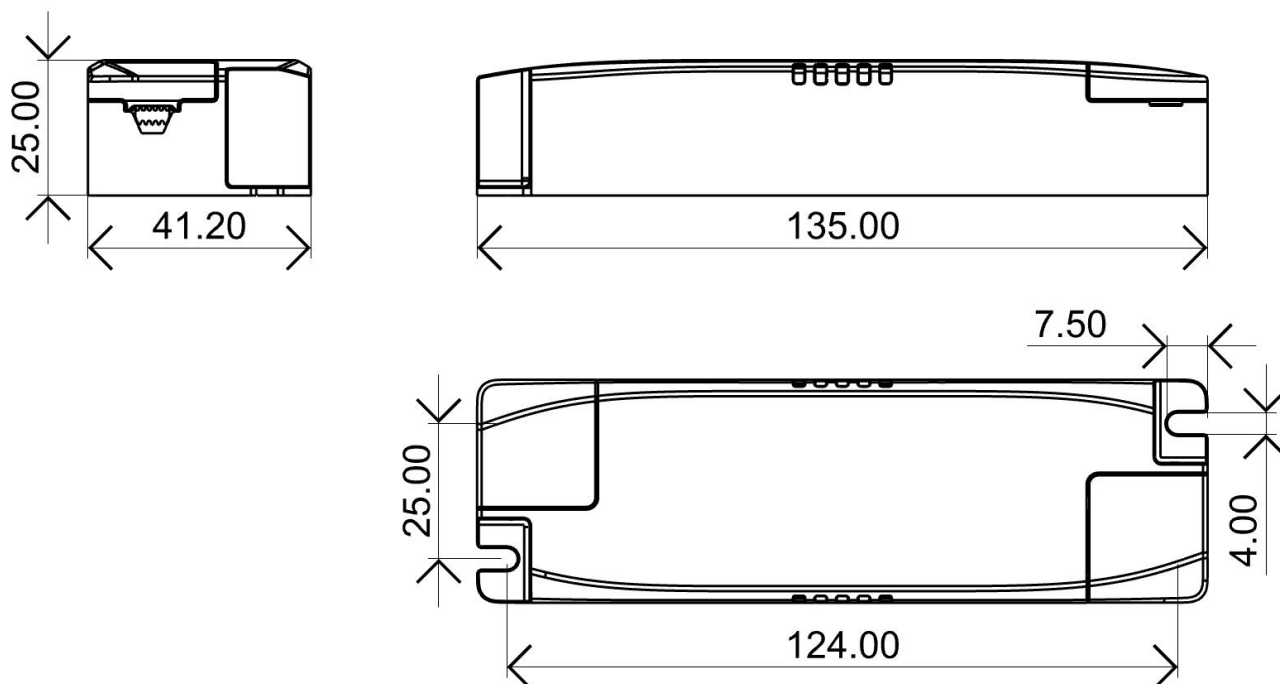
Remarks:

- 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.

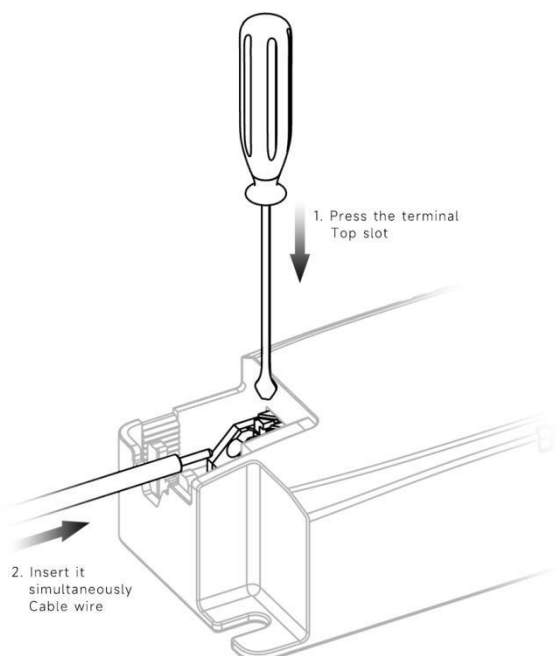
## ◆ Wiring diagram



◆ 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                   |

## ◆ Recommended wire

| Wire cross-section          | Wire type       |
|-----------------------------|-----------------|
| 2*0.5mm <sup>2</sup>        | H03VVH2-F 2core |
| 2*0.75mm <sup>2</sup>       | H03VVH2-F 2core |
| 1.5mm <sup>2</sup>          | CCC 08(RV-90)   |
| 16AWG(1.25mm <sup>2</sup> ) | UL1015          |

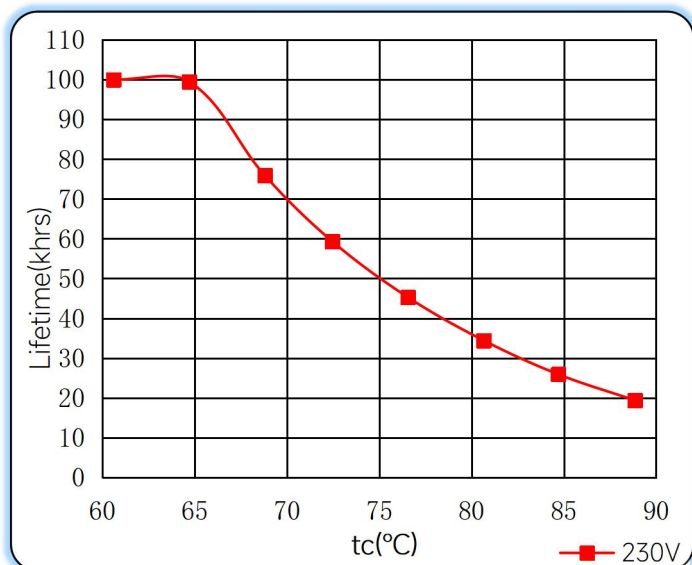
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

## ◆ Packaging

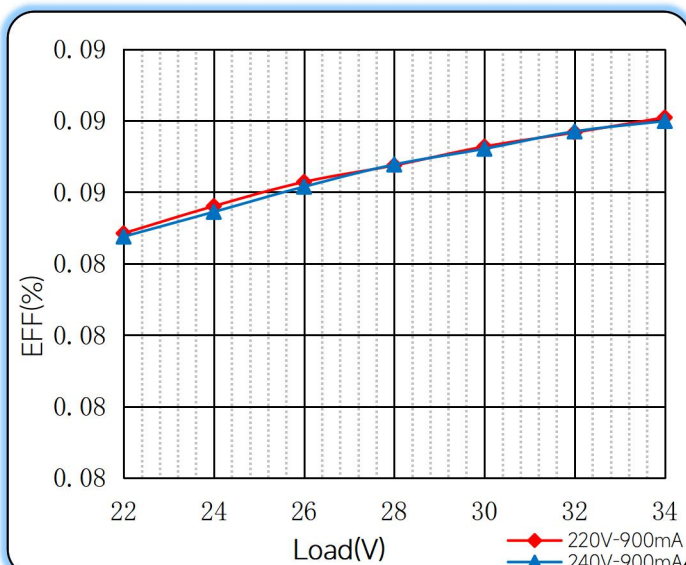
| Model                  | Product Dimensions(mm) | weight/piece | Outer carton dimension(mm) | Quantity/carton | Net weight/carton(Kg) | Gross weight/carton(Kg) |
|------------------------|------------------------|--------------|----------------------------|-----------------|-----------------------|-------------------------|
| LS-30-XXX<br>TRIAC LI1 | 135 x41 x 25           | 0.093        | 370X275X215                | 108             | 9.99                  | 11.16                   |

## ◆ Curve for LS-30-XXX TRIAC LI1, $I_o=900\text{mA}$

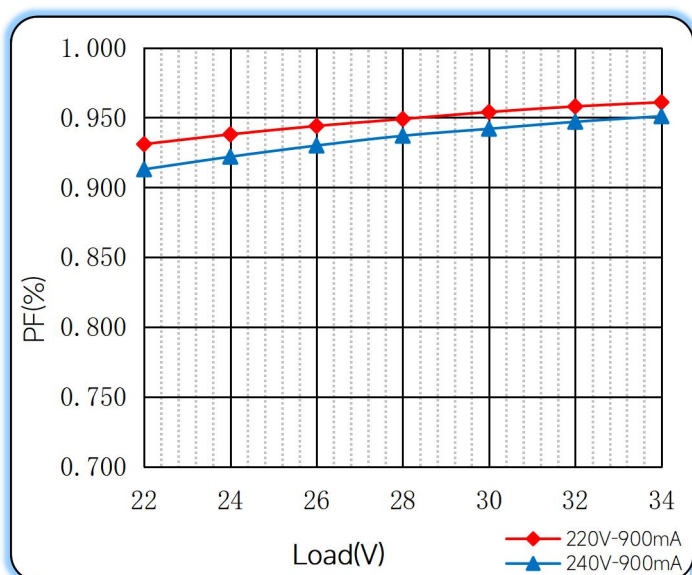
Lifetime vs. Temperature Curve



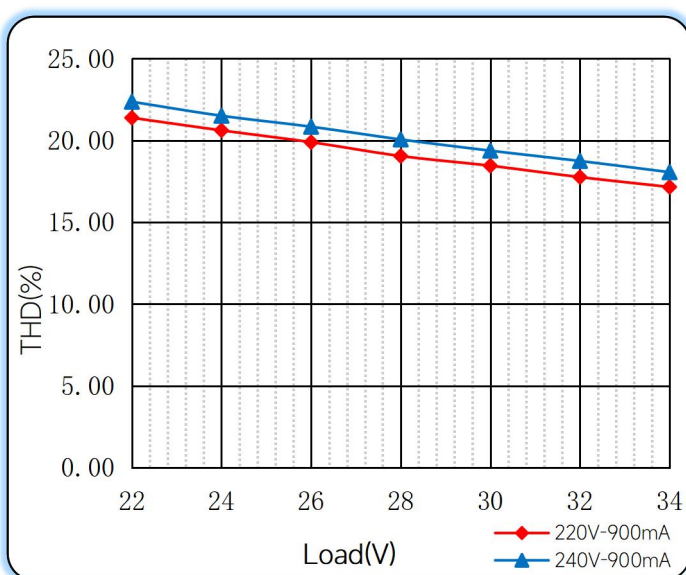
Efficiency vs. Load



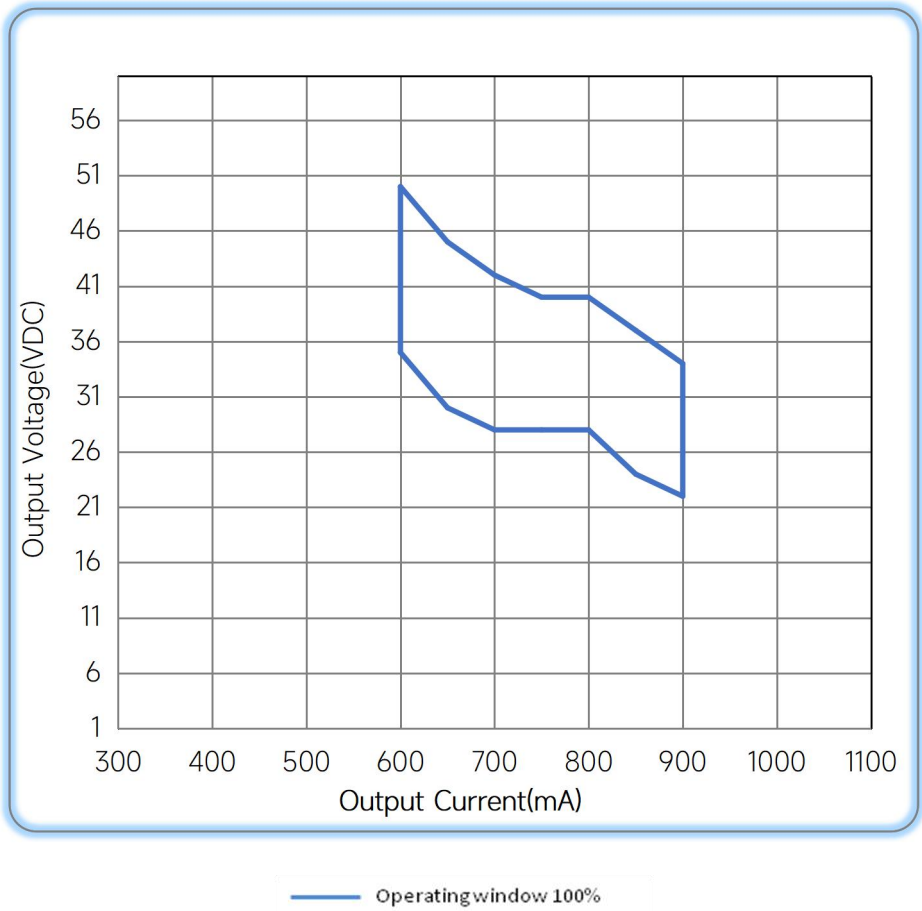
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

| ITEM    | BEFORE | AFTER | VERSION | DATE       |
|---------|--------|-------|---------|------------|
| Initial |        |       | A       | 2024/08/15 |
| Tc      | 90℃    | 85℃   | B       | 2024/02/11 |
|         |        |       |         |            |

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

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