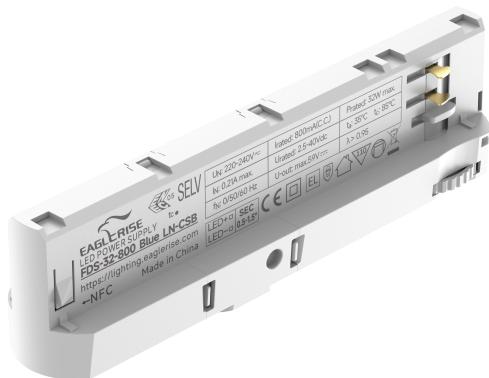


## 32W Blue Dimming FDS power supply



■ Approve

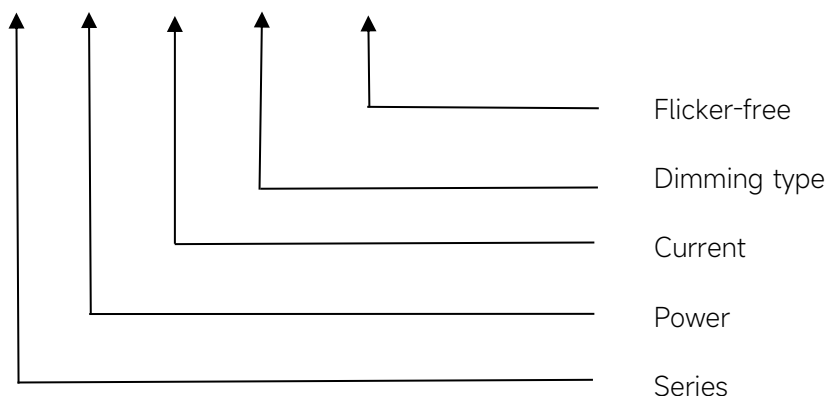


### ◆ Description

FDS-32-800 Blue LN-CSB is a 32W constant current LED driver with 200 to 800mA output current and a forward voltage range from 2.5 to 42Vdc. The output current is adjustable by NFC. With it's dimensions from 162x29.5x42mm it is easy to integrate in Ceiling light and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### FDS-32-800 Blue LN-CSB



#### Features

- For luminaries of protection Class II, SELV, Independent
  - Input Voltage: 220-240VAC
  - Protections: SCP/OLP/OVP/OTP
  - Power Factor: > 0.95
  - Efficiency: 89%
  - Suitable for emergency lighting acc. to EN 50172
  - EOfi=15%
  - Support casambi Dimming
  - Adjustable Output Current with NFC
  - 5 years warranty
- #### Applications
- Track spot light

## ◆ Specification

|             |                                            |                                                                      |
|-------------|--------------------------------------------|----------------------------------------------------------------------|
| Output      | Constant Current (mA)                      | 200-800mA                                                            |
|             | Voltage Range(VDC)                         | 2.5-42VDC                                                            |
|             | Unload voltage Max.(VDC)                   | 59VDC                                                                |
|             | Current Accuracy                           | ±5%                                                                  |
|             | <sup>2</sup> Output current ripple(≤120Hz) | ±3%                                                                  |
|             | SVM                                        | ≤0.4@Full Load                                                       |
|             | P <sub>st</sub>                            | ≤1@Full Load                                                         |
|             | Efficiency(Typ.)                           | 89%                                                                  |
|             | EOFI                                       | 15%                                                                  |
| Input       | Rated input voltage(V)                     | 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, 230Vac                                               |
|             | Power Factor                               | >0.95@full load, 230Vac                                              |
|             | Input Current max                          | 0.22A max                                                            |
|             | Start-up time                              | < 0.5S                                                               |
|             | Switch over time(AC/DC mode)               | < 0.4S                                                               |
|             | Standby Power                              | ≤0.3W, @220Vac                                                       |
|             | Network Standby Power                      | ≤0.3W,@220Vac                                                        |
|             | THD (Typ.)                                 | <10%@full load,230Vac                                                |
|             |                                            |                                                                      |
| Dimming     | Dimming                                    | YES                                                                  |
|             | Dimming mode                               | Bluetooth                                                            |
|             | Dimming depth                              | 5mA@200-500mA, 1%@500-800mA                                          |
|             | Dimming current range                      | 1-100%                                                               |
| Protection  | Over Load Protection                       | 103-120%<br>YES/Latch off                                            |
|             | Over Voltage Protection                    | 59VDC<br>YES/Latch off                                               |
|             | Short circuit Protection                   | YES/Latch off                                                        |
|             | Over Temperature Protection                | YES/Auto Resume                                                      |
|             |                                            |                                                                      |
| capability  | Surge capability (L-N)                     | 1KV                                                                  |
|             | Surge capability (L/N-Ground)              | 2KV                                                                  |
| Environment | Operating Temperature                      | -20°C~+35°C                                                          |
|             | Humidity                                   | 20%-90%RH                                                            |
|             | T <sub>c</sub>                             | 75°C                                                                 |
|             | Storage Temperature                        | -40°C~+80°C                                                          |

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Life time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | > 50000h,@TC=75°C                                                                                                                                                  |
|           | Noise                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ≤25dB(A)@20cm                                                                                                                                                      |
| Surface   | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 162X29.5X42mm                                                                                                                                                      |
|           | material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PC                                                                                                                                                                 |
| Standards | Safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;AS 61347.2.13;EN62384;                                                     |
|           | EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;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.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>4.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications.</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> |                                                                                                                                                                    |

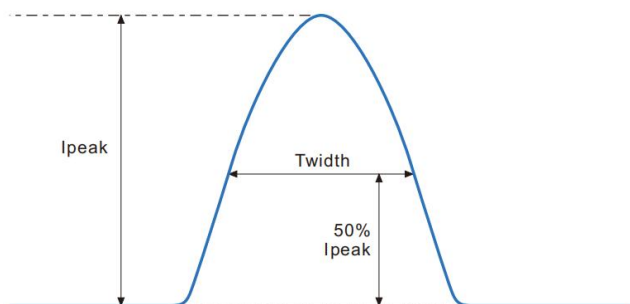
## ◆ Parameter

| Number | Output          |                  |                             |              |
|--------|-----------------|------------------|-----------------------------|--------------|
|        | Current<br>(mA) | Voltage<br>(VDC) | Voltage<br>No load<br>(VDC) | Power<br>(W) |
| *1     | 200mA           | 2.5-42VDC        | 59                          | 12.6         |
| 2      | ...             | ...              | ...                         | ...          |
| 3      | 600mA           | 2.5-42VDC        | 59                          | 25.2         |
| 4      | ...             | ...              | ...                         | ...          |
| 5      | 800mA           | 2.5-40VDC        | 59                          | 32           |

\* Factory default

## ◆ Inrush Current

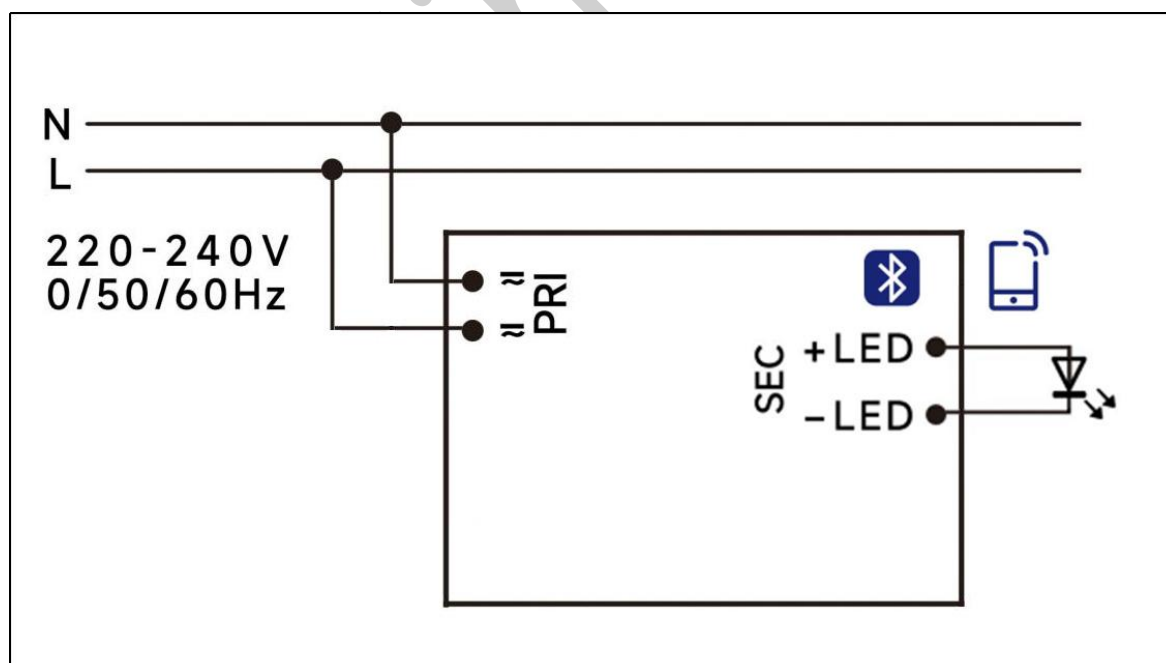
| $I_{peak}$ | Twidth  | B10 | B16 | B20 | C10 | C16 | C20 |
|------------|---------|-----|-----|-----|-----|-----|-----|
| A          | $\mu s$ | pcs | pcs | pcs | pcs | pcs | pcs |



### 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

## ◆ Wiring & Connections

| Specification item |                           | Value (Unit )             |
|--------------------|---------------------------|---------------------------|
| Output             | Output wire cross-section | 0.5...1.5 mm <sup>2</sup> |
|                    | Output wire gauge.        | 16...20 AWG               |
|                    | Output wire strip length  | 8...9mm                   |

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

## ◆ Matching brand

|       |           |
|-------|-----------|
| Brand | AAG       |
|       | ERCO      |
|       | Unipro    |
|       | Powergear |
|       | GLOBAL    |

**◆ Curve for FDS-32-800 Blue LN-CSB,  $I_o=800\text{mA}$** 

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load

Preliminary

◆ Operating window

Operating Window 100% Minimum dimming current

◆ Revision Updates

| ITEM    | BEFORE | AFTER | VERSION | DATE       |
|---------|--------|-------|---------|------------|
| Initial |        |       | A       | 2024/10/14 |
|         |        |       |         |            |

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

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EAGLERISE



Manual