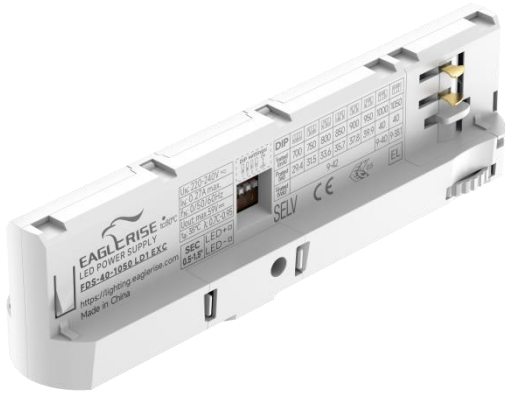




FDS-40-1050 LD1 EXC

40W Constant Current -FDS power supply



Approve



Features

- Class II, SELV, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.7C-0.95
- Efficiency: 88%
- Adjustable Output Current with dip-switch
- 5 years warranty

Applications

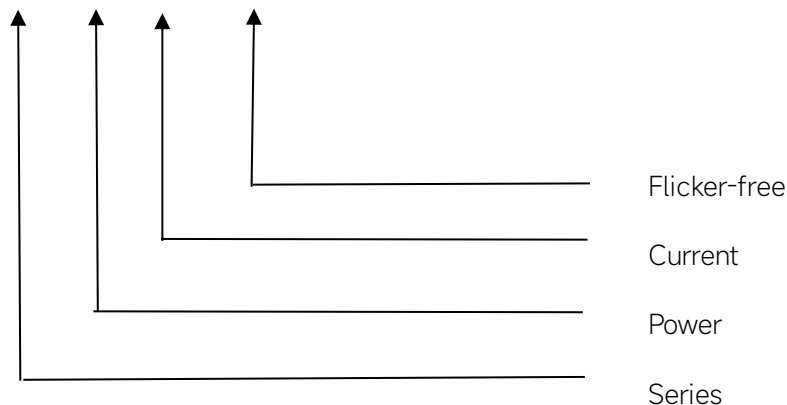
- Track Spot light

Description

FDS-40-1050 LD1 EXC is a 40W constant current LED driver that operates from 198-264Vac input with 700 to 1050mA output current and a forward voltage range from 9 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 162x31.1x42.2mm. It is easy to integrate in track spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

Model code

FDS-40-1050 LD1 EXC



◆ Specification

| | | | | | |
|-------------|----------------------------------|--|-----------------|-----|-----------|
| Output | Constant Current | 700mA | 750mA | ... | 1050mA |
| | Voltage Range(VDC) | 9-42VDC | 9-42VDC | ... | 9-38.1VDC |
| | Unload voltage Max. | 59VDC | | | |
| | Current Accuracy | ±5% | | | |
| | Output HF current ripple(≥1KHz) | ±5% | | | |
| | Output LF current ripple(≤120Hz) | ±5% | | | |
| | SVM | ≤0.4 | | | |
| | P _{st} | ≤1 | | | |
| | Efficiency(Typ.) | 88%@Full Load,230VAC | | | |
| Input | Rated input voltage | 220-240V | | | |
| | Range of input voltage | 198-264VAC | | | |
| | Maximum voltage | 300VAC@1 h maximum,unit might not operate in this abnormal condition | | | |
| | Range input voltage(DC) | 176-280VDC | | | |
| | Frequency(Hz) | 0/50/60 Hz | | | |
| | Displacement factor | ≥0.9 | | | |
| | Power Factor | 0.7C-0.95 | | | |
| | Input Current max | 0.27A MAX. @Full Load,230VAC | | | |
| | Start-up time | < 0.5S | | | |
| | No Load Power | ≤0.5W | | | |
| | THD (Typ.) | <10% @Full Load,230VAC | | | |
| Protection | Over Load Protection | 103-130% | YES/Auto Resume | | |
| | Over Voltage Protection | > 59VDC | YES/Auto Resume | | |
| | Short circuit Protection | YES/Auto Resume | | | |
| | Over Temperature Protection | YES/Auto Resume | | | |
| capability | Surge capability (L-N) | 2KV | | | |
| | Surge capability (L/N-Ground) | 2KV | | | |
| Environment | Operating Temperature | -20°C~+35°C | | | |
| | Humidity | 10%-90%RH | | | |
| | T _c | 80°C | | | |
| | Storage Temperature | -40°C...+85°C | | | |
| | Life time | > 50000h@T _c =80°C | | | |
| | Noise | ≤25dB(A)@20cm | | | |
| Surface | Dimension | 162x31.1x42.2mm(LXWXH)mm | | | |
| | material | PC | | | |
| Standards | Safety | IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384 | | | |
| | EMC | 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 | <p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</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.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> | |

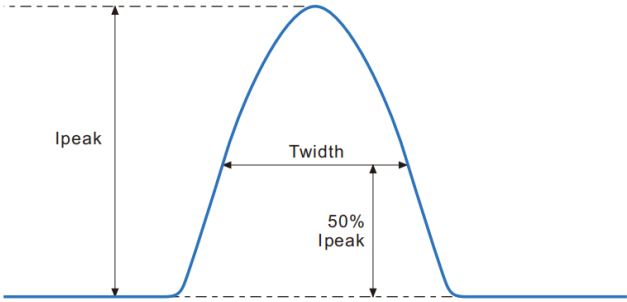
◆ Parameter

| Number | Output | | | | Switch position | | | |
|--------|--------------|---------------|-----------------------|-----------|-----------------|----|----|----|
| | Current (mA) | Voltage (VDC) | Voltage No load (VDC) | Power (W) | 1 | 2 | 3 | 4 |
| 1 | 700mA | 9-42VDC | 59V | 29.4 | -- | -- | -- | -- |
| 2 | 750mA | | | 31.5 | ON | -- | -- | -- |
| 3 | 800mA | | | 33.6 | -- | ON | -- | -- |
| 4 | 850mA | | | 35.7 | -- | -- | ON | -- |
| 5 | 900mA | | | 37.8 | ON | -- | ON | -- |
| 6 | 950mA | | | 39.9 | -- | ON | ON | -- |
| 7 | 1000mA | 9-40VDC | | 40 | ON | ON | ON | -- |
| *8 | 1050mA | 9-38.1VDC | | 40 | ON | ON | ON | ON |

* Factory default

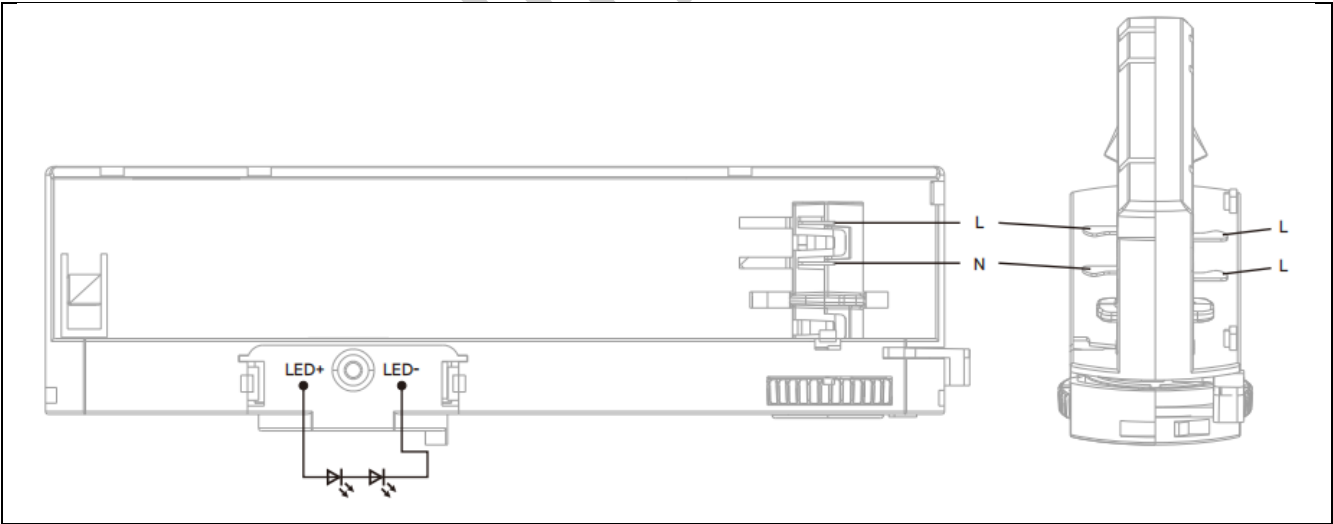
◆ **Inrush Current**

| I_{peak} | T_{width} | B10 | B16 | B20 | C10 | C16 | C20 |
|-------------------------|--------------------------|------------|------------|------------|------------|------------|------------|
| 18A | 134μs | 29pcs | 47pcs | 59pcs | 29pcs | 47pcs | 59pcs |

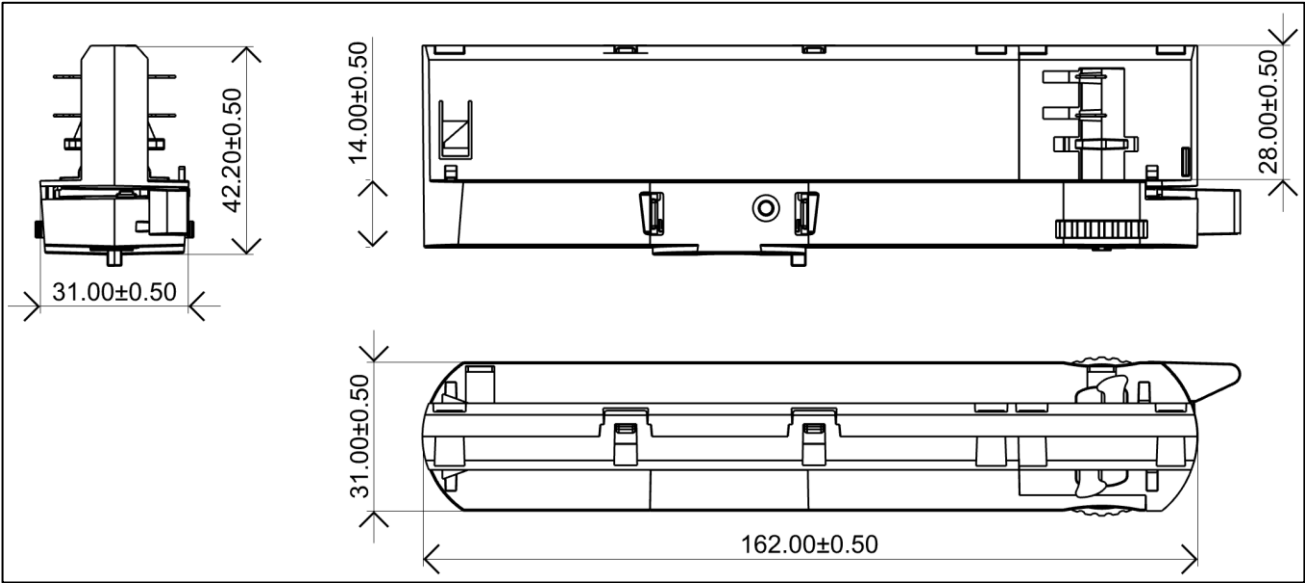


Remarks:
 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ **Wiring diagram**



◆ 2D diagram



◆ Wiring & Connections

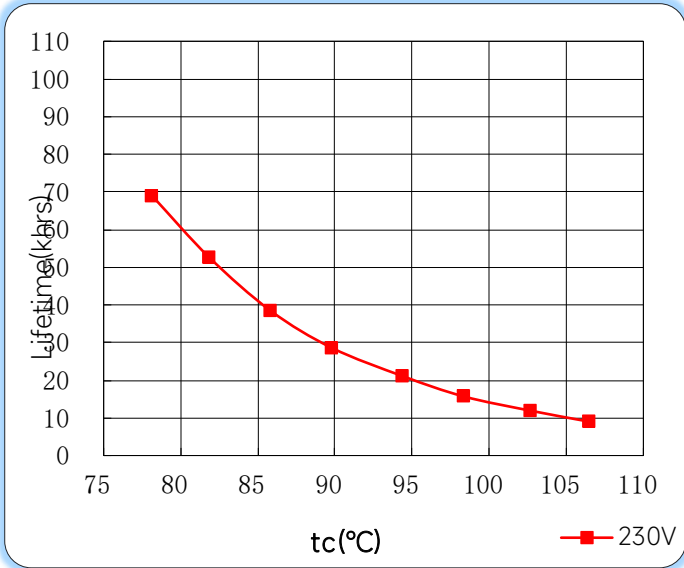
| | Specification item | Value (Unit) |
|--------|---------------------------|---------------------------|
| Output | Output wire cross-section | 0.5...1.5 mm ² |
| | Output wire gauge. | 16...20 AWG |
| | Output wire strip length | 8...9mm |

◆ **Matching brand**

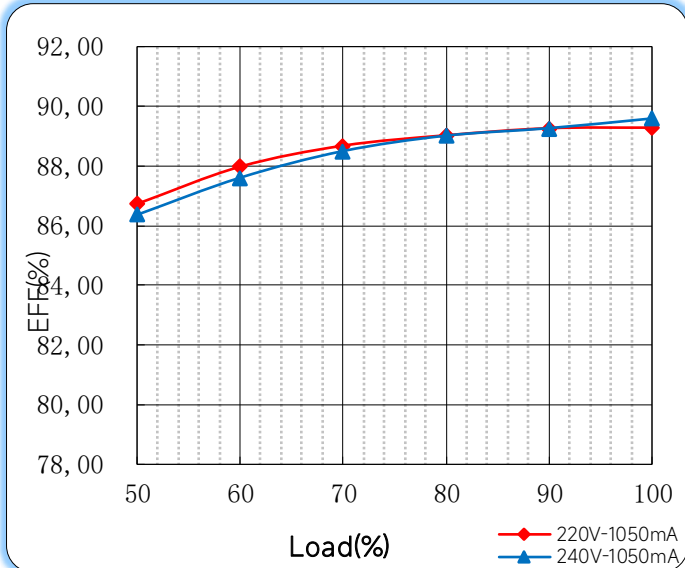
| Manufacturer | Type | System | Intrack casing colour |
|------------------|---------------------------|--------|-----------------------|
| EUTRAC | 25-XX-XX/26-XX-XX | 3P | Black, white, gray |
| IVELA | 7501/7511/7512 | 3P | Black, white, gray |
| LUMISYS UNIPRO | T32/T33/34 | 3P | Black, white, gray |
| LUMISYS UNIPRO | T32F/T33F/34F | 3P | Black, white, gray |
| NORDIC ALUMINIUM | GLOBAL Trac Pro XTS 4XXX | 3P | Black, white, gray |
| NORDIC ALUMINIUM | GLOBAL Trac Pro XTSF 4XXX | 3P | Black, white, gray |
| ERCO | 783.. | 3P | Black, white, gray |
| SIDE | 25101 | 3P | Black, white, gray |
| PHILIPS | RCS350 3C | 3P | Black, white, gray |
| Stucchi | One track | 3P | Black, white, gray |
| Powergear | PRO-0610 | 3P | Black, white, gray |
| Unipro | T32W | 3P | Black, white, gray |
| ZUMTOBEL | 280 174 | 3P | Black, white, gray |

◆ Curve for FDS-40-1050 LD1 EXC, I_o=1050mA

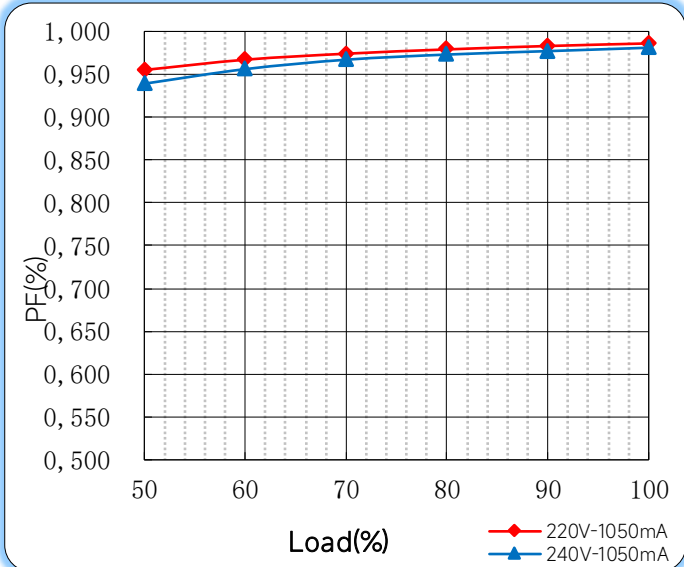
Lifetime vs. Temperature Curve



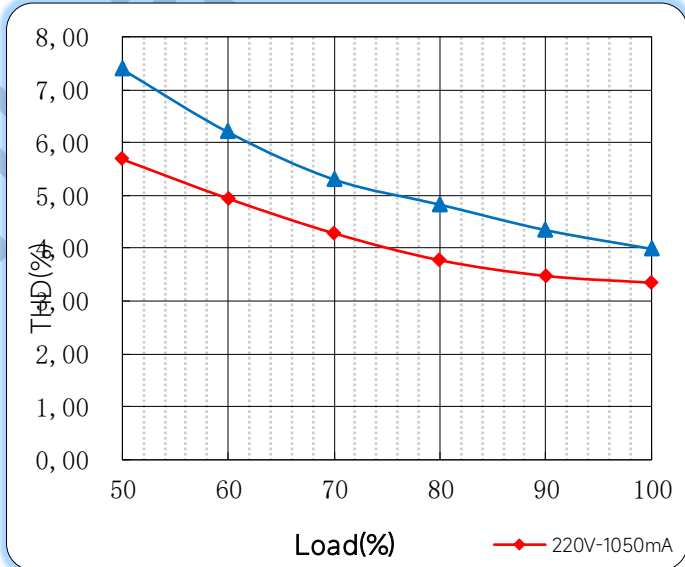
Efficiency vs. Load



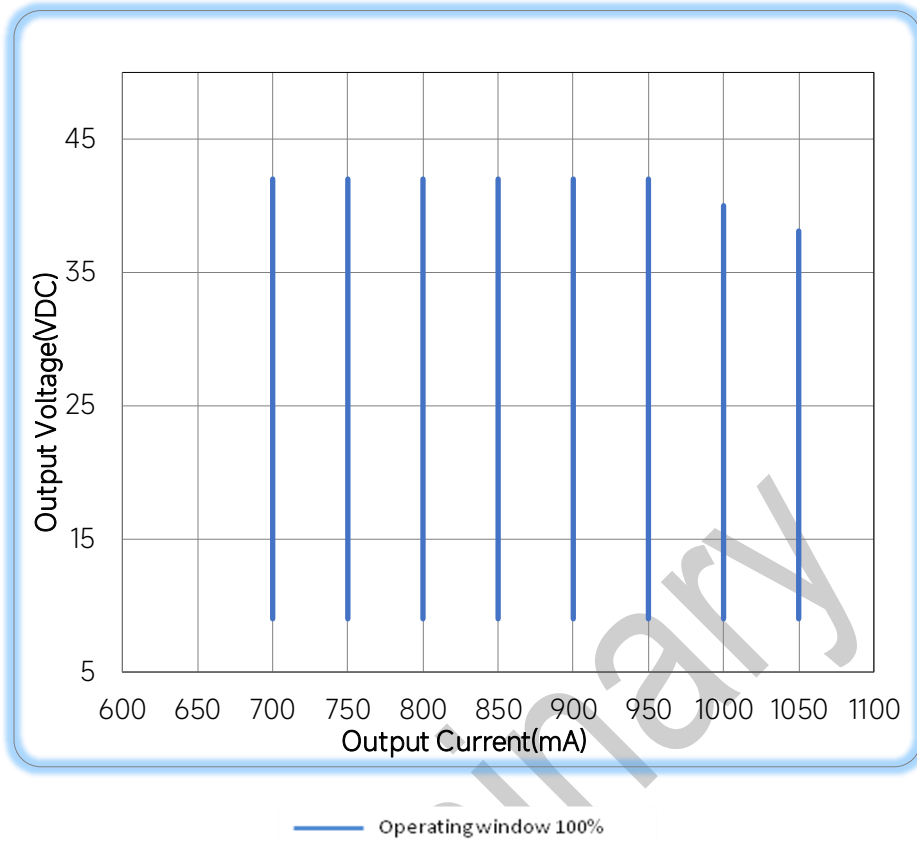
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

| ITEM | BEFORE | AFTER | VERSION | DATE |
|---------|----------|----------|---------|------------|
| Initial | | | A | 2023/09/12 |
| Current | 350-1050 | 700-1050 | B | 2023/12/19 |

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



+7 (499) 647-80-74

zakaz@citi-el.ru