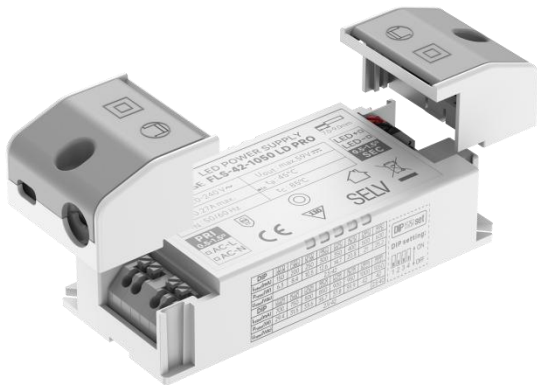


42W Constant Current Power Supply



■ Approve



Features

- Class II, SELV, Built-in/Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: ≥ 0.95 (Typ.)
- Efficiency: $\geq 89\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

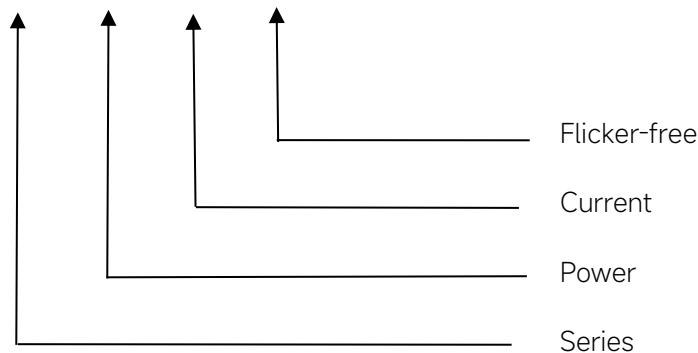
- LED panel, LED down light

◆ Description

FLS-42-1050 LD PRO is a 42W constant current LED driver with 150 to 1050mA output current and a forward voltage range from 2.5 to 42Vdc. The output current is adjustable by DIP Switch. With its compact dimensions from 98 x 43 x 22 mm. It is easy to integrate in LED Panel and down light products. The side covers are available as accessories and allow to use the LED driver independent.

◆ Model code

FLS-42-1050 LD PRO



◆ Specification

| | | | | | | | | | |
|-----------------------------|----------------------------------|---|-----------------------------|-------|-------|-------|--------|--------|---------|
| Output | Constant Current (mA) | 150mA | 200mA | 250mA | 300mA | | 1000mA | 1050mA | |
| | Voltage Range(VDC) | 2.5-42V | | | | | | | 2.5-40V |
| | Unload voltage Max.(VDC) | 59V | | | | | | | |
| | Current Accuracy | ±7% | | ±6% | ±5% | | | | |
| | Output HF current ripple(≥1KHz) | ≤±5% | | | | | | | |
| | Output LF current ripple(≤120Hz) | ≤±3% | | | | | | | |
| | SVM | ≤0.4 | | | | | | | |
| | Pst | ≤1 | | | | | | | |
| | Efficiency(Typ.) | ≥89% @Full Load,230V | | | | | | | |
| | EOFI | 100% | | | | | | | |
| Input | Rated input voltage(VAC) | 220-240VAC | | | | | | | |
| | Range of input voltage(VAC) | 198-264VAC | | | | | | | |
| | Rated of input voltage(VDC) | 198-254VDC | | | | | | | |
| | Range of input voltage(VDC) | 198-280VDC | | | | | | | |
| | Frequency(Hz) | 0/50/60 Hz | | | | | | | |
| | Displacement factor | ≥0.95 @Full Load,230V | | | | | | | |
| | Power Factor | ≥0.95 @Full Load,230V | | | | | | | |
| | Input Current max | 0.27A Max | | | | | | | |
| | Start-up time | < 0.5S | | | | | | | |
| | No Load Power | ≤0.5W | | | | | | | |
| | THD (Typ.) | <10% @Full Load,230V | | | | | | | |
| | Protection | Over Load Protection | 103-120% YES/Auto Resume | | | | | | |
| Over Voltage Protection | | >59V 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) | 2KV | | | | | | | |
| Environment | Operating Temperature | -20°C~+45°C@150-1000mA;-20°C~+40°C@1050mA | | | | | | | |
| | Humidity | 20%-90%RH | | | | | | | |
| | Tc | 85°C | | | | | | | |
| | Storage Temperature | -25°C~+60°C | | | | | | | |
| | Life time | > 50000h@Tc=85°C | | | | | | | |
| | Ripple&Noise | ≤20dB(A)@10cm | | | | | | | |
| Surface | Dimension | 98X43X22mm (With sidecaps):132X43X22mm | | | | | | | |
| | material | PC | | | | | | | |

| | | |
|-----------|--|--|
| Standards | Safety | GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2-13;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 | <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.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> | |

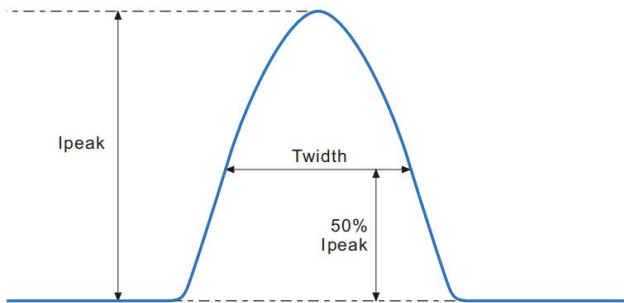
◆ Parameter

| Number | Output | | | | Switch position | | | |
|--------|--------------|---------------|-----------------------|-----------|-----------------|----|----|----|
| | Current (mA) | Voltage (VDC) | Voltage No load (VDC) | Power (W) | 1 | 2 | 3 | 4 |
| 1 | 150mA | 2.5-42VDC | 59V | 6.3W | -- | -- | -- | -- |
| 2 | 200mA | | | 8.4W | ON | -- | -- | -- |
| 3 | 250mA | | | 10.5W | -- | ON | -- | -- |
| 4 | 300mA | | | 12.6W | ON | ON | -- | -- |
| 5 | 350mA | | | 14.7W | -- | -- | ON | -- |
| 6 | 400mA | | | 16.8W | ON | -- | ON | -- |
| 7 | 500mA | | | 21W | -- | ON | ON | -- |
| 8 | 600mA | | | 25.2W | ON | ON | ON | -- |
| 9 | 700mA | | | 29.4W | -- | -- | -- | ON |
| 10 | 750mA | | | 31.5W | ON | -- | -- | ON |
| 11 | 800mA | | | 33.6W | -- | ON | -- | ON |
| 12 | 850mA | | | 35.7W | ON | ON | -- | ON |
| 13 | 900mA | | | 37.8W | -- | -- | ON | ON |
| 14 | 950mA | | | 39.9W | ON | -- | ON | ON |
| 15 | 1000mA | | | 42W | -- | ON | ON | ON |
| *16 | 1050mA | 2.5-40VDC | | 42W | ON | ON | ON | ON |

* Factory default

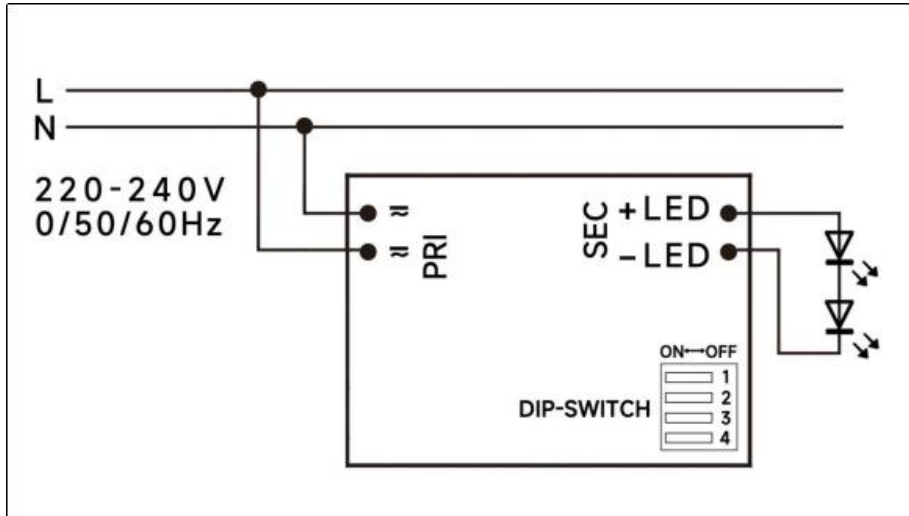
◆ Inrush Current

| I_{peak} | Twidth | B10 | B16 | B20 | C10 | C16 | C20 |
|------------|------------|-------|-------|-------|-------|-------|-------|
| 5.38A | 32 μ s | 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

◆ Label

LED POWER SUPPLY
EAGLERISE FLS-42-1050 LD PRO

7.0-9.0mm

| | |
|------------------------------|--|
| U _N : 220-240 V ~ | f _N : 0/50/60 Hz |
| U _N : 198-254 V ~ | U _{out} : max.59V ~ |
| I _N : 0.27A max. | •tc t _C : 85°C λ: 0.2C-0.95 |
| ta: 40°C (≥1000mA) | ta: 45°C (<1000mA) |

PRI
 0.5-1.5[□]
 Built-in

EL

□ AC-L
 □ AC-N

CE

| DIP | | | | | | | | |
|--------------------------|--------|------|------|------|------|------|------|--------|
| I _{rated} (mA) | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |
| P _{rated} (W) | 6.3 | 8.4 | 10.5 | 12.6 | 14.7 | 16.8 | 21 | 25.2 |
| U _{rated} (Vdc) | 2.5-42 | | | | | | | |
| DIP | | | | | | | | |
| I _{rated} (mA) | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 |
| P _{rated} (W) | 29.4 | 31.5 | 33.6 | 35.7 | 37.8 | 39.9 | 42 | 42 |
| U _{rated} (Vdc) | 2.5-42 | | | | | | | 2.5-40 |

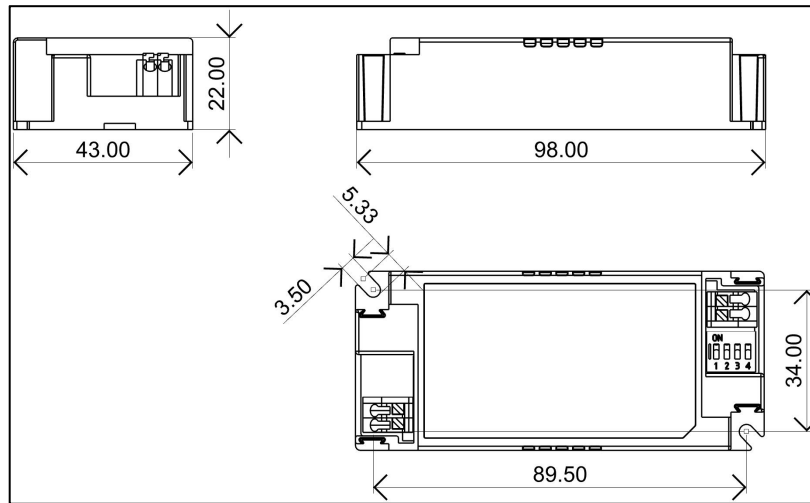
DIP set

DIP setting:

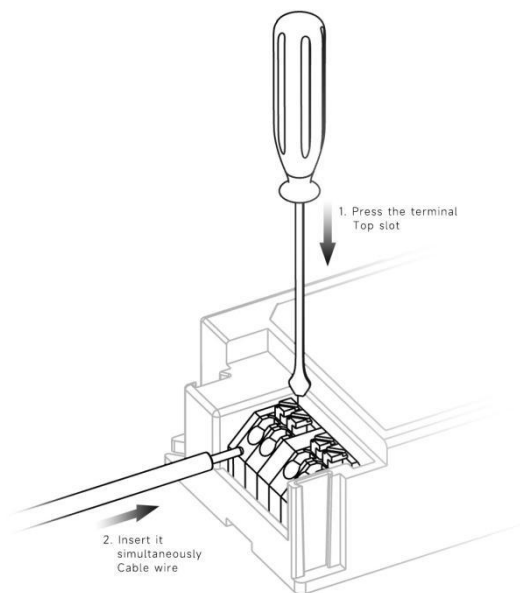
ON
 ↑
 OFF

1 2 3 4

◆ 2D diagram



Termina

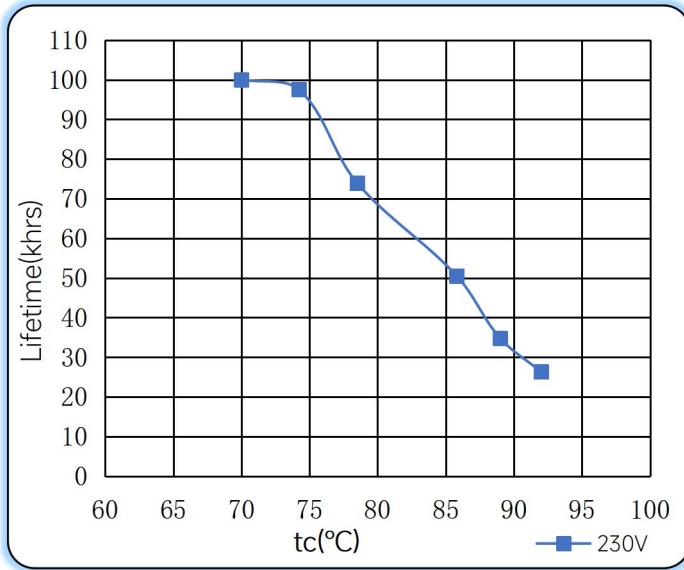


◆ Wiring & Connections

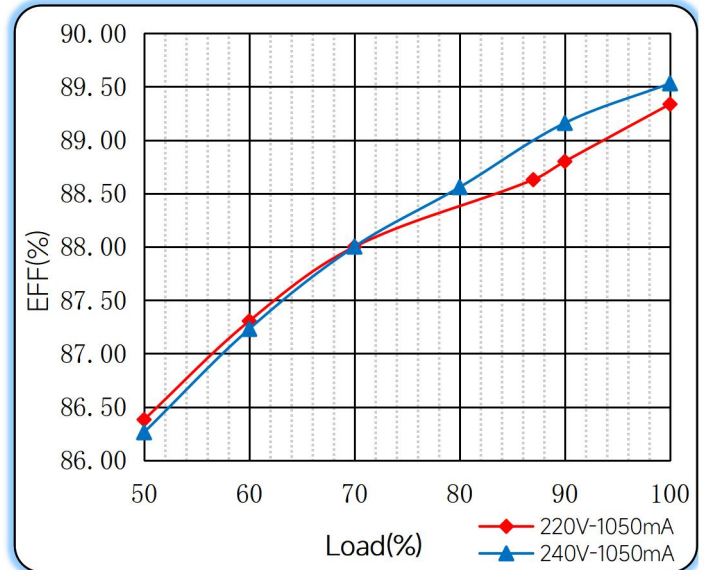
| Specification item | | Value (Unit) |
|--------------------|---------------------------|---------------------------|
| Input | Input wire cross-section | 0.5...1.5 mm ² |
| | Input wire gauge. | 16...20 AWG |
| | Input wire strip length | 7...9mm |
| Output | Output wire cross-section | 0.5...1.5 mm ² |
| | Output wire gauge. | 16...20 AWG |
| | Output wire strip length | 7...9mm |

◆ Curve for FLS-42-1050 LD PRO, I_o=1050mA

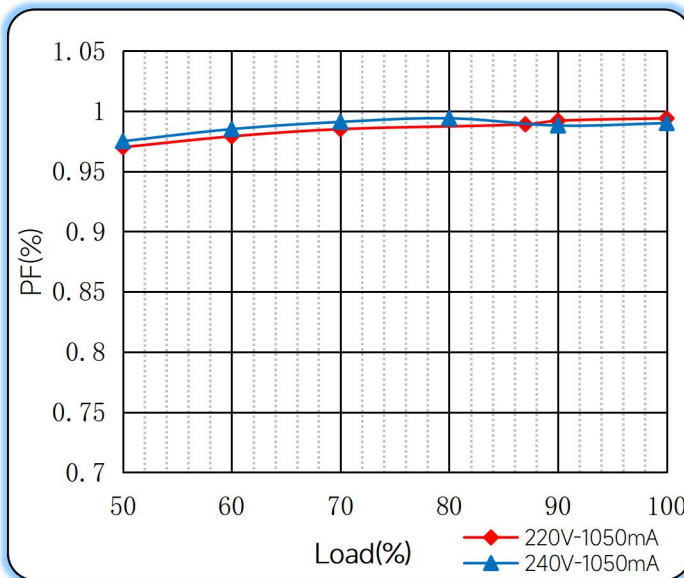
Lifetime vs. Temperature Curve



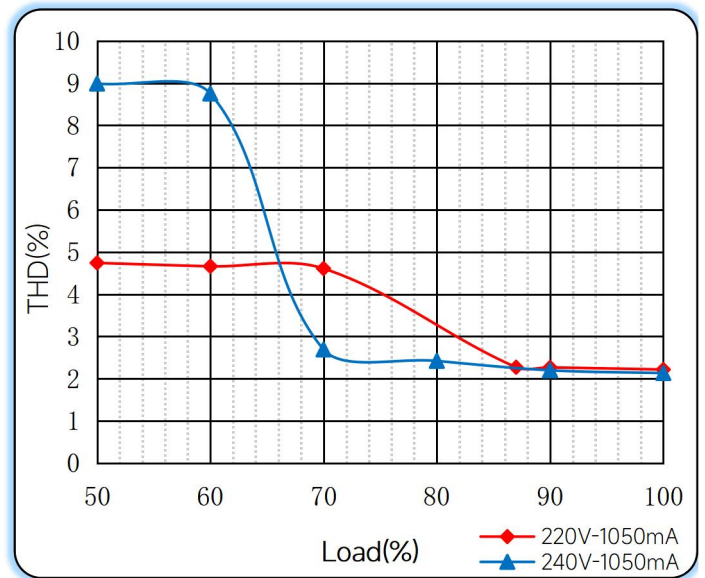
Efficiency vs. Load



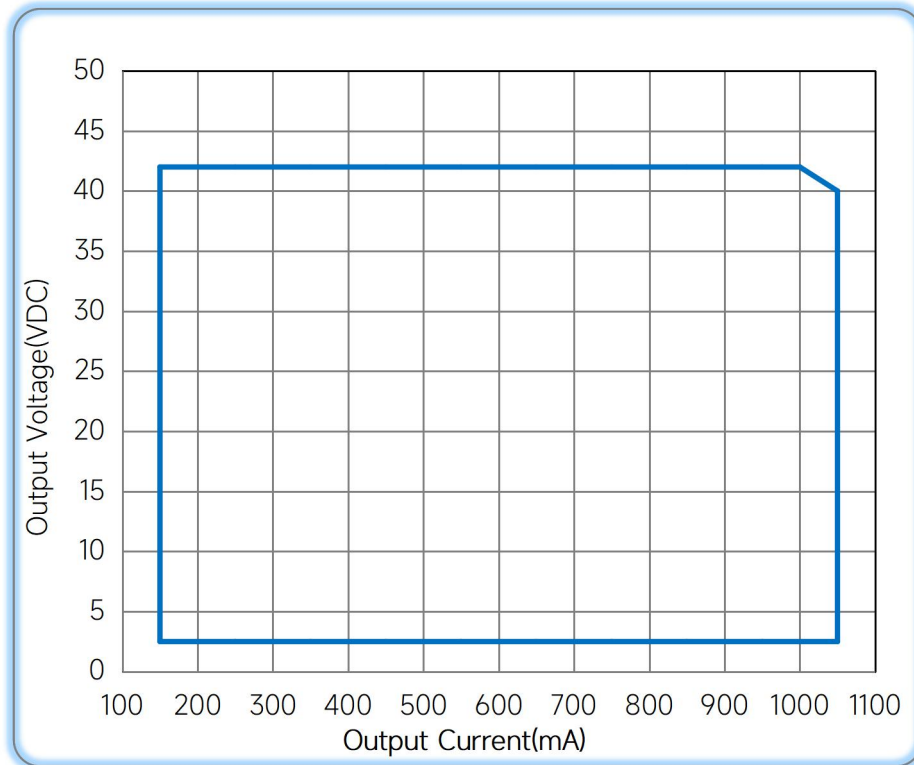
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

| ITEM | BEFORE | AFTER | VERSION | DATE |
|-------------------|--------|-----------|---------|------------|
| Initial | | | A | 2023/06/07 |
| Input Current max | | 0.27A Max | B | 2023/06/08 |
| Lable | | | C | 203/07/19 |

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

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EAGLERISE



Manual