## 0/1-10V Constant Current LED Driver

Model No.: LF-15A / LF-25A / LF-36A


## Features

- Dimming interface: 0-10V, 1-10V, 10V PWM, Resistor, AC Push-Dim.
- Universal AC input / Full range.
- 1 channel constant current output, configurable current via DIP switch.
- Built-in active PFC function: 0.95 Typ.
- Synchronize on multiple number of LED drivers.
- Over-heat / Over load / Short circuit protection, recover automatically.
- Full protective plastic case.
- Suitable for indoor LED lighting application.
- 5 Year, 50,000hr warranty.


## Mechanical Structures and Installations



## Technical Parameters

| Model |  | LF－15A | LF－25A | LF－36A |
| :---: | :---: | :---: | :---: | :---: |
| Output | Output Voltage | 10－45VDC | 10－52VDC | 10－52VDC |
|  | Output Current | $150-700 \mathrm{~mA}$ | 250－900mA | 350－1200mA |
|  | Output Power | Max．15W | Max．25W | Max．36W |
|  | Max Output Voltage | 48VDC | 52VDC | 52VDC |
|  | Dimming Range | 0～100\％ |  |  |
|  | PWM Frequency | 500 Hz |  |  |
|  | Current Accuracy | $\pm 5 \%$ | $\pm 3 \%$ | $\pm 3 \%$ |
|  | Rise Time | 100VAC～265VAC |  |  |
| Input | Input Voltage Range |  |  |  |
|  | Frequency Range | $50 / 60 \mathrm{~Hz}$ |  |  |
|  | Efficiency | $>80 \% / 115 \mathrm{VAC}$ ， <br> ＞80\％／230VAC | $\begin{aligned} & >80 \% / 115 \mathrm{VAC}, \\ & >80 \% / 230 \mathrm{VAC} \end{aligned}$ | $\begin{aligned} & >82 \% / 115 \mathrm{VAC}, \\ & >84 \% / 230 \mathrm{VAC} \end{aligned}$ |
|  | Alternating Current | $0.15 \mathrm{~A} / 115 \mathrm{VAC}$ ， 0．07A／230VAC | $0.28 \mathrm{~A} / 115 \mathrm{VAC}$ ， <br> $0.14 \mathrm{~A} / 230 \mathrm{VAC}$ | $0.38 \mathrm{~A} / 115 \mathrm{VAC}$, $0.19 \mathrm{~A} / 230 \mathrm{VAC}$ |
|  | Power Factor | $>0.98 / 115 \mathrm{VAC}$, <br> $>0.93 / 230 \mathrm{VAC}$ | $>0.99 / 115 \mathrm{VAC}$ $>0.95 / 230 \mathrm{VAC}$ | $>0.99 / 115 \mathrm{VAC}$ ， <br> $>0.95 / 230 \mathrm{VAC}$ |
|  | THD | ＞15\％／230VAC | ＞15\％／230VAC | ＞15\％／230VAC |
|  | Inrush Current | Cold start 16A at 230VAC | Cold start 16A at 230VAC | Cold start 16A at 230VAC |
|  | Leakage Current | $<0.5 \mathrm{~mA} / 230 \mathrm{VAC}$ | $<0.5 \mathrm{~mA} / 230 \mathrm{VAC}$ | $<0.5 \mathrm{~mA} / 230 \mathrm{VAC}$ |
|  | No Load Power | ＜2W | ＜2W | $<2 \mathrm{~W}$ |
| Protection | Over Load Power | When $\mathrm{O} / \mathrm{P}$ voltage exceed its range， $\mathrm{O} / \mathrm{P}$ current declines，auto recovers when the load is reduced． |  |  |
|  | Short Circuit | Shut down automatically if short circuit occurs，auto recovers． |  |  |
|  | Over Temperature | Intelligently adjust or turn off the output current if the PCB temp $>100^{\circ} \mathrm{C}$ ，auto recovers． |  |  |
| Environment | Woking Temperature | $-30^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$ |  |  |
|  | T－case Max | $70^{\circ} \mathrm{C}$ |  |  |
|  | Working Humidity | 20\％～90\％RH，nc．．．$\sim \ldots . . c . . . . .7 \mathrm{~g}$ |  |  |
|  | Storage Temp／Humidity | $-40^{\circ} \mathrm{C} \sim 80^{\circ} \mathrm{C}, 10 \% \sim 95 \% \mathrm{RH}$ |  |  |
|  | Temperature Coefficient | $\pm 0.03 \% /{ }^{\circ} \mathrm{C}(0-50 \%)$ |  |  |
|  | Vibration Resistance | $10-500 \mathrm{~Hz}, 2 \mathrm{G}, \mathrm{Omin} / \mathrm{cycle}, \mathrm{X}, \mathrm{Y}, \mathrm{Z}$ axes／2min |  |  |
|  | IP Rating | IP20 |  |  |
| Safety\＆EMC | Security Specifications | IEC／EN61347－1，IEC／EN61 347－2－13 |  |  |
|  | Withstand Voltage | I／P－O／P：3750VAC |  |  |
|  | Insulation Resistance | I／P－O／P： 100 M ת／500VDC／25 ${ }^{\circ} \mathrm{C} / 70 \% \mathrm{RH}$ |  |  |
|  | EMC Emission | EN55015，EN61000－3－2 Class C，IEC61000－3－3 |  |  |
|  | EMC Immunity | EN61000－4－2．3．4．5．6．8．11，EN61547 |  |  |
|  | Certications | CE，EMC |  |  |

## LED Current Selection：

| DIP switch | 1 213 | ■ 回 | ■ ■ ■ | $\square \square \square$ | $\square \square \square$ | ■ $\square$ 回 | ■■■ | ■回 | －回 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LF－15A | Output Voltage | $10-45 \mathrm{~V}$ | 10－45V | 10－43V | 10－38V | 10－34V | 10－30V | 10－23V | 10－22V |
|  | Output Current | 150 mA | 200 mA | 350 mA | 400 mA | 450 mA | 500 mA | 650 mA | 700 mA |
|  | Output Power | 1．5－6．75W | 2－9W | $3.5-15 \mathrm{~W}$ | 4－15W | $4.5-15 \mathrm{~W}$ | $5-15 \mathrm{~W}$ | 6．5－15W | 7.15 W |
| LF－25A | Output Voltage | 10－52V | 10－52V | 10－52V | 10－52V | 10－50V | 10－42V | 10－36V | 10－28V |
|  | Output Current | 250 mA | 300 mA | 350 mA | 400 mA | 500 mA | 600 mA | 700 mA | 900 mA |
|  | Output Power | $2.5-13 \mathrm{~W}$ | $3-15.6 \mathrm{~W}$ | $3.5-18.2 \mathrm{~W}$ | $4-20.8 \mathrm{~W}$ | $5-25 \mathrm{~W}$ | $6-25.2 \mathrm{~W}$ | $7-25.2 \mathrm{~W}$ | $9-25.2 \mathrm{~W}$ |
| LF－36A | Output Voltage | 10－52V | 10－52V | 10－52V | 10－52V | 10－45V | 10－40V | 10－35V | 10－30V |
|  | Output Current | 350 mA | 500 mA | 600 mA | 700 mA | 800 mA | 900 mA | 1050 mA | 1200 mA |
|  | Output Power | 3．5－18．2W | 5－26W | 6－31．2W | 7－36．4W | 8－36W | 9－36W | 10．5－36W | 12.36 W |

## Applications

－Suitable for downlight，spotlight and decorative applications．
－Office／Commercial／Domestic Lighting，Hotels，Classrooms，Warehouse，Health care，Retail and Display．
－Use for retrofit upgrades \＆new luminaire designs．

## Wiring Diagram

## 1.0/1-10V Connection



- The 0/1-10V input is operable via commercially available simple rotary wall switchs designed for 0/1-10V dimming equipment or from decicated system central dimming controllers.
- Compliant with 0-10V, 1-10V, 10V PWM, RX(4 in 1).
- We recommend the number of LED drivers connected to $0 / 1-10 \mathrm{~V}$ dimmer does not exceed 5 pieces, The maximum length of the wires from dimmer to LED driver should be no more than 15 meters.
- If the LED driver be used with the RF remote or Push-Dim interface prior to using the $0 / 1-10 \mathrm{~V}$ interface, the $0 / 1-10 \mathrm{~V}$ signal should change over $10 \%$ to return $0 / 1-10 \mathrm{~V}$ control.


## 2. AC Push-Dim connection



The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switchs.

## - Short press:

Turn on or off light.

- Long press (1-6s):

Press and hold to step-less dimming,
With every other long press, the light level goes to the opposite direction.

- Dimming memory:

Light returns to the previous dimming level when switched off and on again, even at power failure.

## - Synchronization:

If more than one LED driver are connected to the same push switch, do a long press for more than 10s,
then the system is synchronized and all lights in the group dim up to $100 \%$.
This means there is no need for any additional synchrony wire in larger installations.
We recommend the number of LED drivers connected to a push switch does not exceed 25 pieces,
The maximum length of the wires from push to LED driver should be no more than 20 meters.

## Dimming Curve

Push dimming


0/1-10V dimming


