## LED Intelligent Driver

- Dimming interface: Triac/ELV, Push DIM
- Apply to leading edge / trailing edge Triac dimmers and dimming system.
- Built-in SCM, dimming curve and smoothing time can be customized.
- PWM digital dimming, no alter LED color rendering index.
- Dimming range: $0 \sim 100 \%$, dimming depth: Max. $0.1 \%$.
- Multi-current \& wide voltage, suitable for different power LED.
- Short circuit / Over-heat / Over load / Non-load protection.
- Non-load output voltage OV to prevent damages to LED caused by poor contact.
- Class 2 power supply. Full protective plastic housing.
- Compliant with Safety Extra Low Voltage standard.

5W~50W 500~1750mA 10~54Vdc


- Suitable for internal lights application for I / II / III.



## Main Characteristics

| Dimming interface: | Triac/ELV, Push DIM |
| :--- | :--- |
| Input Voltage Range: | $200-240 \mathrm{Vac}$ |
| Frequency: | $50 / 60 \mathrm{~Hz}$ |
| Input Current: | $230 \mathrm{Vac} \leqslant 0.5 \mathrm{~A}$ |
| Efficiency: | $>85 \%$ |
| Inrush Current(typ.): | Cold start 40A at 230Vac |
| Control Surge Capability: | L-N: 1kV |


| Leakage Current: | $<0.5 \mathrm{~mA} / 230 \mathrm{Vac}$ |
| :--- | :--- |
| Operating Voltage: | $10-54 \mathrm{Vdc}$ |
| Out |  |


| Max Output Voltage: | 58 Vdc |
| :--- | :--- |
| Non-load Output Voltage: | 0 Vdc |
| PWM Frequency: | $200 \mathrm{~Hz} \sim 500 \mathrm{~Hz}$ |
| Dimming Range: | $0 \sim 100 \%$, dimming depth: Max. $0.1 \%$. |
| Working Temperature: | ta: $-30^{\circ} \mathrm{C} \sim 55^{\circ} \mathrm{C} \mathrm{tc:} 85^{\circ} \mathrm{C}$ |
| Working Humidity: | $20 \sim 95 \% \mathrm{RH}$, non-condensing |
| Storage Temp., Humidity: | $-40 \sim 80^{\circ} \mathrm{C}, 10 \sim 95 \% \mathrm{RH}$ |
| Temp. Coefficient: | $\pm 0.03 \% /{ }^{\circ} \mathrm{C}\left(0-50^{\circ} \mathrm{C}\right)$ |
| Vibration: | $10 \sim 500 \mathrm{~Hz}, 2 \mathrm{G} 12 \mathrm{~min} . / 1$ cycle, period |
|  | for 72 min . each along $\mathrm{X}, \mathrm{Y}, \mathrm{Z}$ axes. |

Current Accuracy:
$\pm 3 \%$
Output Current :

| 500 mA | 700 mA | 900 mA | 1050 mA | 1200 mA | 1450 mA | 1600 mA | 1750 mA |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $10-54 \mathrm{~V}$ | $10-54 \mathrm{~V}$ | $10-54 \mathrm{~V}$ | $10-48 \mathrm{~V}$ | $10-42 \mathrm{~V}$ | $10-34 \mathrm{~V}$ | $10-32 \mathrm{~V}$ | $10-29 \mathrm{~V}$ |
| $5-27 \mathrm{~W}$ | $7-37.8 \mathrm{~W}$ | $9-48.6 \mathrm{~W}$ | $10.5-50.4 \mathrm{~W}$ | $12-50.4 \mathrm{~W}$ | $14.5-49.3 \mathrm{~W}$ | $16-51.2 \mathrm{~W}$ | $17.5-50.8 \mathrm{~W}$ |

* The dimming range parameters adopted LUTRON ${ }^{\otimes}$ dimming system as testing standards. The parameters may differ by using Triac/ELV dimming systems of different brands. We can customize program for clients' high requirements.
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## Protection

Short Circuit Protection:

Over-heat Protection:

Over Load Protection:

Non-load Protection.

Shut down automatically if short circuit occurs, auto recovers after faulty condition is removed.
Shut down the output when PCB temp. $\geqslant 110^{\circ} \mathrm{C}$, auto recovers when temp. back to normal.
When 0/P voltage exceed its range, $0 / P$ current declines, auto recovers when the load is reduced. Auto detecting, auto recovers when load back to normal.

## Dimensions



## Safety \& EMC

Withstand Voltage: Isolation Resistance:

Safety Standards:
I/P-0/P: 3750Vac
I/P-O/P: $100 \mathrm{M} \boldsymbol{\Omega} / 500 \mathrm{VDC} / 25^{\circ} \mathrm{C} / 70 \% \mathrm{RH}$
IEC/EN61347-1, IEC/EN61347-2-13

## Others

| Dimension: | $133 \times 89 \times 30 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \times \mathrm{H})$ |
| :--- | :--- |
| Packing: | $135 \times 90 \times 35 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \times \mathrm{H})$ |
| Weight(G.W.): | $240 \mathrm{~g} \pm 10 \mathrm{~g}$ |




## Selecting between ordinary dimmer and dimming system

Ordinary dimmer and dimming system have different dimming precision, precision of dimming system is higher. To meet customers' requirements on perfect dimming effects, LTECH have designed two programme options.

Ordinary dimmer
Method: Turn off the power and then remove the housing of the LED driver to find right component on the PCB. Shift system by selecting different contact pin (For installation professionals use only). Factory default as 1-2 (For ordinary dimmer).

## Push Dimming



- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the light level goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.

Reset Switch

## LED Current Selection

Quick options: DIP switch for 8 optional currents' quick selection(see the table below).


* After current setting by DIP switch, power off and then power on to make the new current effective.
* E.g. LED $3.2 \mathrm{~V} / \mathrm{pcs}: 10-54 \mathrm{~V}$ can power $3-16 \mathrm{pcs}$ LEDs in series, $10-29 \mathrm{~V}$ can power $3-9 \mathrm{pcs}$ LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Advanced options: Dial DIP switch down $\downarrow \boldsymbol{\downarrow}$, connect ISET port with resistors of different values to set up any current from 500 mA to 1750 mA (specific resistor values refer to the table).


