



# LED Intelligent Driver

- Dimming interface: 0-10V (1-10V/PWM/RX), Push Dim.
- Built-in high performance MCU, dimming curve can be customized.
- PWM digital dimming, no alter LED color rendering index.
- Dimming range: 0~100%, LED start at 0.1% possible.
- 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.
- Suitable for internal lights application for I/II/III



1~15W 100~700mA 10~54Vdc



















0-10V **PUSH DIM** 















#### **Main Characteristics**

Dimming Interface: 0-10V (1-10V/PWM/RX), Push Dim Input Voltage Range: 100-277Vac ±10% (Max. 90-305Vac)

Frequency: 50/60Hz

Input Current: 115Vac≤0.2A, 230Vac≤0.12A, 277Vac≤0.1A

Power Factor: PF>0.97/115Vac, PF>0.9/230Vac, PF>0.88/277Vac (full load)

THD. <16%/115Vac, <20%/230Vac, <22%/277Vac, (full load)

Efficiency: >82%

Inrush Current(typ.): Cold start 8A at 230Vac (twidth=75µs measured at 50% Ipeak)

Control Surge Capability: L-N: 1kV Leakage Current: <0.5mA/230Vac

Operating Voltage: 10-54Vdc

Output Power Range: 1W~15W

Output Current: 100mA 180mA Output Voltage: 10-54V 10-54V

Current Accuracy: ±5% Max. Output Voltage: 58Vdc Non-load Output Voltage: 0Vdc

Dimming Range: 0~100%, LED start at 0.1% possible.

PWM Frequency: ≤4KHz

Working Temperature: ta: -30°C ~ 55°C tc: 75°C 20 ~ 95%RH, non-condensing Working Humidity: Storage Temp., Humidity: -40 ~ 80°C, 10~95%RH

Temp. Coefficient: ±0.03%/°C(0-50°C)

400mA

Vibration. 10~500Hz, 2G 12min./1cycle, period

for 72min. each along X, Y, Z axes

350mA 450mA 700mA 10-50V 10-34V 10-30V 10-22V 10-43V 10-25V 1.8W-9.72W 3.5W-15.05W 4.5W-15.3W 7W-15.4W Output Power: 1W-5 4W 3W-15W 5W-15W

300mA

# Protection

Over-heat Protection: Shut down the output when PCB temp.≥110°C,

auto recovers when temp. back to normal.

Over Load Protection: Shut down the output when rated power≥102%

~125%, auto recovers when the load is reduced.

Shut down automatically if short circuit occurs, auto recovers after faulty condition is removed.

Non-load Protection: Shut down the output if no load, auto recovers

when load back to normal.

# Safety & EMC

500mA

Withstand Voltage: I/P-0/P-3750Vac

Isolation Resistance: I/P-0/P: 100M Ω/500VDC/25°C/70%RH Safety Standards: IEC/EN61347-1, IEC/EN61347-2-13

EMC Emission: EN55015, EN61000-3-2 Class C, IEC61000-3-3

EMC Immunity: EN61000-4-2,3,4,5,6,8,11 EN61547

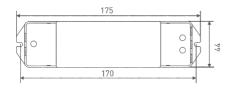
#### Others

Dimension: 175×44×30mm(L×W×H) 178×48×33mm(I ×W×H) Packing:

Weight(G.W.): 175g±10g

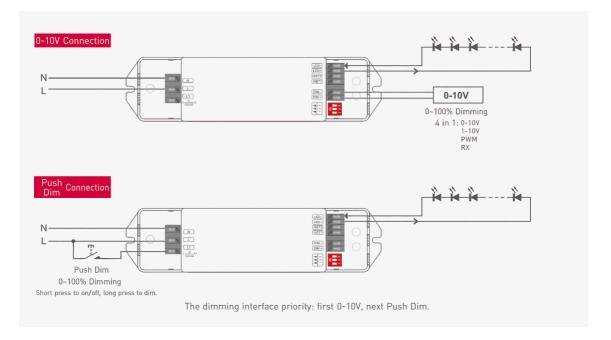
#### **Dimensions**

Short Circuit Protection:









# **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.

### **LED Current Selection**

Reset Switch

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



| TTT    | $\bot\bot\top$ | 171    | ATT    | TIL    | TIT    | TTI    | TTT    | T   | <u> </u> |  |
|--------|----------------|--------|--------|--------|--------|--------|--------|-----|----------|--|
| 100mA  | 180mA          | 300mA  | 350mA  | 450mA  | 500mA  | 600mA  | 700mA  | ON  | OFF      |  |
| 10-54V | 10-54V         | 10-50V | 10-43V | 10-34V | 10-30V | 10-25V | 10-22V | OIN | 011      |  |

\* After current setting by DIP switch, power off and then power on to make the new current effective.

🖈 E.g. LED 3.2V/pcs: 10-54V can power 3-16pcs LEDs in series, 10-22V can power 3-6pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

**Advanced options:** connect ISET port with resistors of different values to set up any current from 100mA to 700mA. (specific resistor values refer to the table).



|               | Connecting ISET with resistors can obtain the following typical currents. |          |         |          |         |          |          |         |          |        |
|---------------|---|----------|---------|----------|---------|----------|----------|---------|----------|--------|
| Current (mA)  | 10 0mA  | 140mA    | 180mA   | 220mA    | 260mA   | 300mA    | 340mA    | 380mA   | 420mA    | 460mA  |
| Resistor (ΚΩ) |   | 33.93 KΩ | 27.78ΚΩ | 23.19 KΩ | 19.32KΩ | 16.34 KΩ | 14.05 KΩ | 11.96KΩ | 10.17 KΩ | 8.57KΩ |
|               |   |          |         |          |         |          |          |         |          |        |
| Current (mA)  | 500mA   | 540mA    | 580mA   | 620mA    | 660mA   | 700mA    |          |         |          |        |
| Resistor (ΚΩ) | 7.16 KΩ   | 5.98 KΩ  | 4.9 KΩ  | 3.87 KΩ  | 3 KΩ    |          |          |         |          |        |