Intelligent Tunable White LED Driver (Constant Voltage)

- Adopt SAMSUNG/COVESTRO V0 flame resistant polycarbonate protective housings with small size and light weight.
- Bluetooth Mesh & Tuya application protocol with high networking capability are reliable and stable.
- With soft-on and fade-in dimming function enhancing visual comfort.
- Adjust brightness levels when lights are turned on or go to the brightness level adjusted last time.
- 0-100% flicker-free dimming with high frequency exemption level.
- Dimming from 0~100%, down to 0.1%.
- Innovative thermal management technology protects the power life intelligently.
- Overheat, overvoltage , overload, short circuit protection and automatic recovery.
- Suitable for indoor light applications of Ⅰ/Ⅱ/Ⅲ type .
- Up to 50000-hour life time.
- 5 -year warranty (Rubycon capacitor).

LTECH | tuya
Strategic Partnership

Flicker-free
IEEE 1789

Dimmable:
0.1%-100%   DIM/CT

SELV RoHS

(The certification icons represent on-going certification applications only, and final certification qualification are subject to actual products.)

| Bluetooth | Flicker-free IEEE 1789 | Short circuit protection | Overload protection | Overheat protection |

Technical Specs

Wireless type:	Tuya Bluetooth Mesh	Input voltage:	220-240Vac
Output voltage:	24Vdc	Frequency:	50/60Hz
Output voltage range :	24Vdc ± 0.5Vdc	Input current:	Max. 0.5A/230Vac
Output current :	Max. 4.17A	Power factor:	PF≥0.98/230Vac (Full load)
Output power :	Max. 100W	THD :	230Vac@THD≤12% (Full load)
Output power range:	0-100W	Efficiency (Typ):	93%
Strobe level:	High frequency exemption level	Standby power loss :	＜0.5W
Dimming range:	0~100%, down to 0.1%	Inrush current :	Cold start45.2A/230Vac(Test twidth=372 us tested under 50%Ipeak)
Overload power limitation :	≥102%	Anti surge:	L-N: 2kV
Ripple & noise:	≤300mV	Leakage current :	Max. 0.5mA
PWM dimming frequency:	3600Hz	Vibration:	10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively

Protection

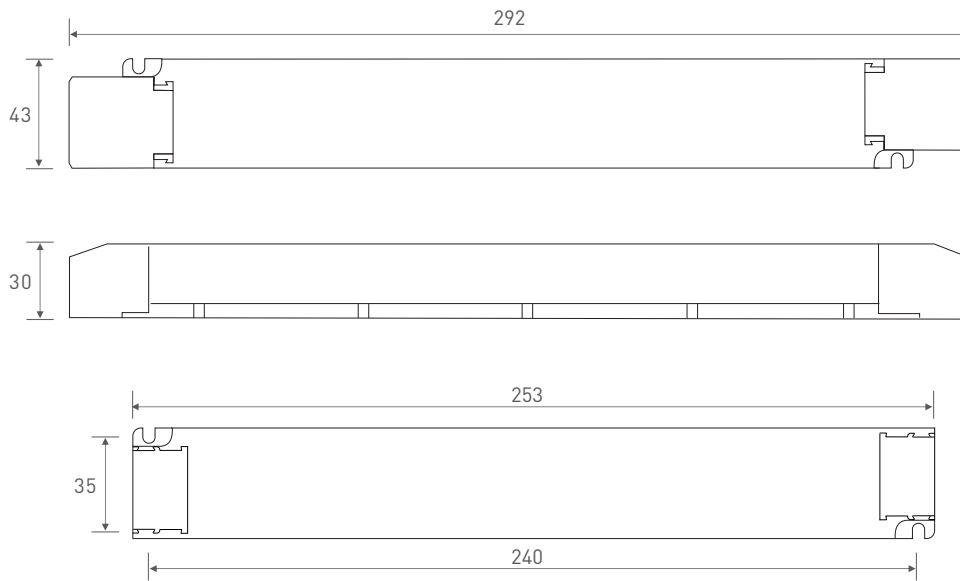|	
Overvoltage protection :	Shut down the output when non-load voltage≥26V, repower on to recover after fault conditon is removed.
Overload protection :	Shut down the output when load current≥102%,and recover automatically
Overheat protection :	Intelligently adjust or turn off the output current if the PCB temperature≥110°C,and recover automatically
Short circuit protection :	Enter hiccup mode if short circuit occurs,and recover automatically

Safety & EMC

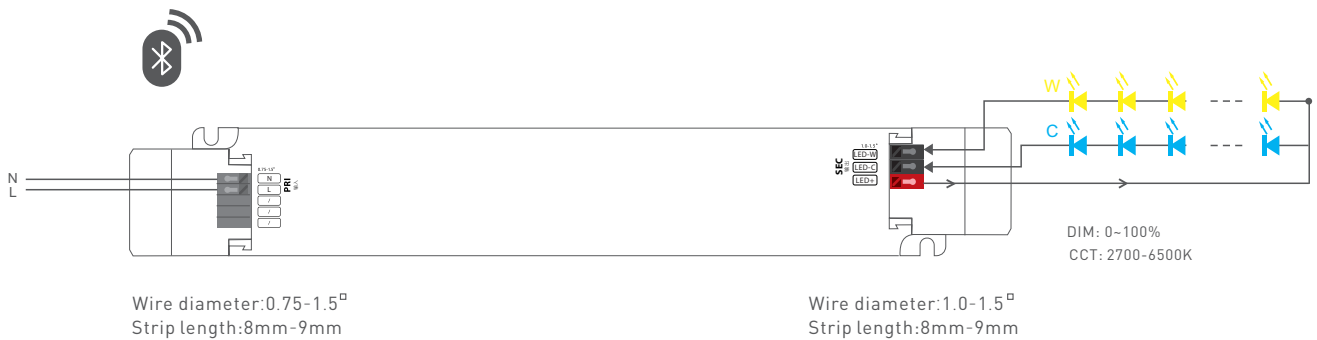|	
Withstand voltage :	I/P-O/P:3750Vac
Insulation resistance :	I/P-O/P:100MΩ/500VDC/25°C /70%RH
Safety standards:	IEC/EN61347-1, IEC/EN61347-2-13
EMC emission:	EN55015, EN61000-3-2 , IEC61000-3-3
EMC immunity:	EN61000-4-2,3,4,5,6,8,11, EN61547
Strobe test standard:	IEEE 1789

ENVIRONMENT

Working temperature :	ta: -20 ~ 50°C tc: 80°C
Working humidity :	20 ~ 95%RH, non-condensing
Storage temperature,Humidity :	-40 ~ 80°C, 10~95%RH
Temperature coefficient :	±0.03%/°C(0-50°C)

Others

Dimensions(L×W×H) :	292×43×30mm(L×W×H)
Package size(L×W×H) :	296×44×33mm(L×W×H)
Gross weight:	300g±10g

www.ltech-led.com

Product Size

Unit : mm

Wiring Diagram

Wire diameter:0.75-1.5$^{\square}$
Strip length:8mm-9mm

Wire diameter:1.0-1.5$^{\square}$
Strip length:8mm-9mm

DIM: 0~100%
CCT: 2700-6500K

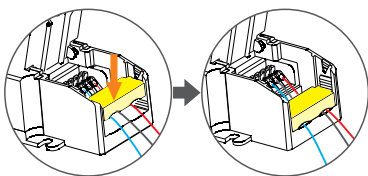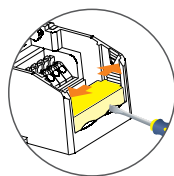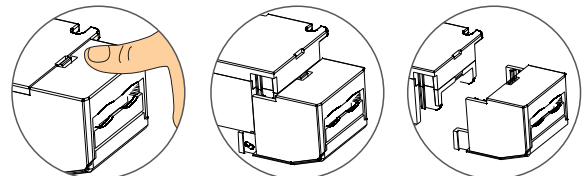＊Access the network to control through App and Bluetooth

Tension plate

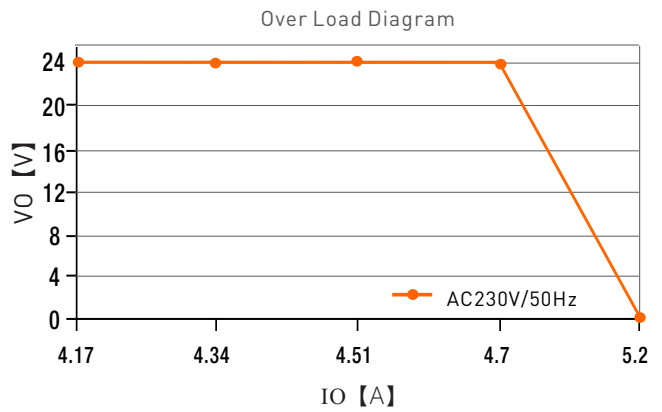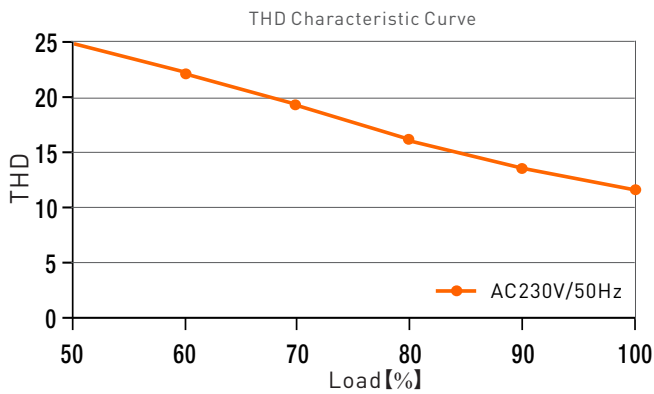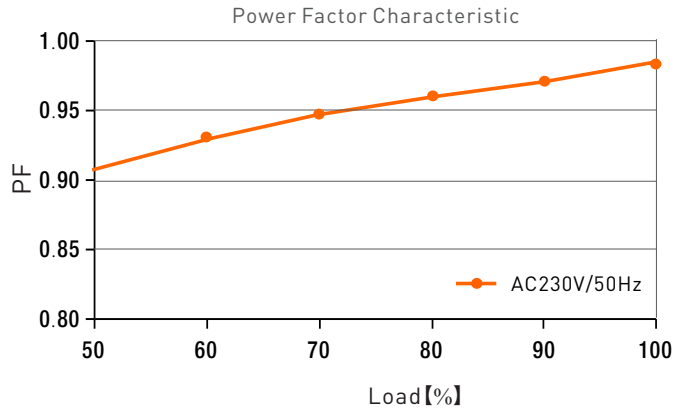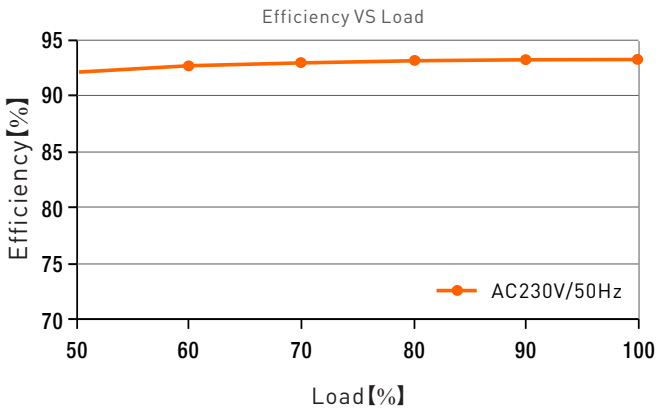Push the tension plate down to fix the electric wire.

Push the side plate outwards and remove the tension plate by prying it up with a tool at the same time.

Remove the protective housing

Pull the housing left and right from the bottom to remove it.

Relationship Diagrams
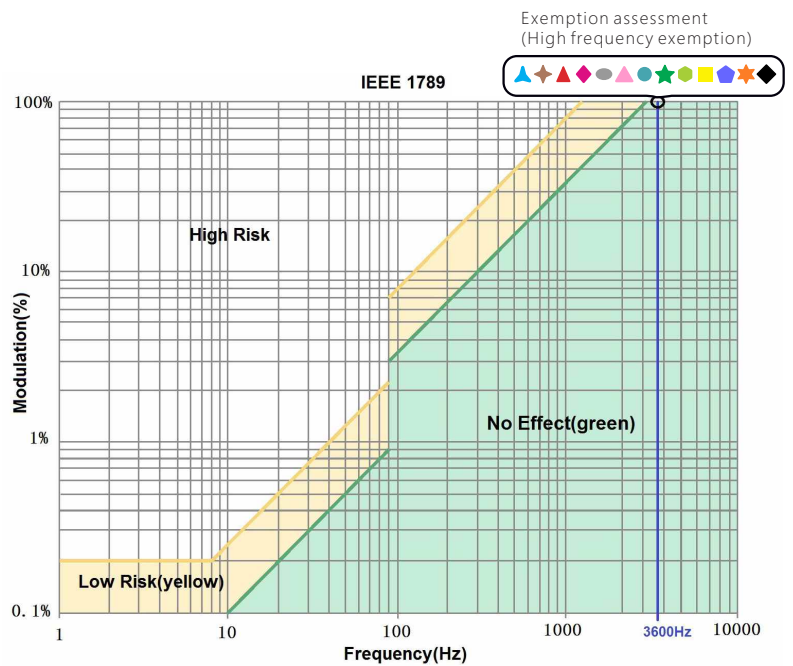
Efficiency VS Load

AC230V/50Hz

Power Factor Characteristic

AC230V/50Hz

THD Characteristic Curve

AC230V/50Hz

Over Load Diagram

AC230V/50Hz

Flicker Test Table

IEEE 1789

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output	Limit value (%)
$f \le 8Hz$	0.2
$8Hz < f \le 90Hz$	$0.025 \times f$
$90Hz < f \le 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment

Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output	Limit value (%)
$f \le 10Hz$	0.1
$10Hz < f \le 90Hz$	$0.01 \times f$
$90Hz < f \le 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	Exemption assessment (High frequency exemption)

Brightness
- 0.1%
- 1%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%

Exemption assessment (High frequency exemption)

IEEE 1789

High Risk

No Effect(green)

Low Risk(yellow)

3600Hz

App Operating Instructions

1.Register an account

Tuya Smart App is compatible with iOS and Android systems. Scan the QR code below with you mobile phone and follow the prompts to complete the app installation. After installation being completed, you can log in or register an account.
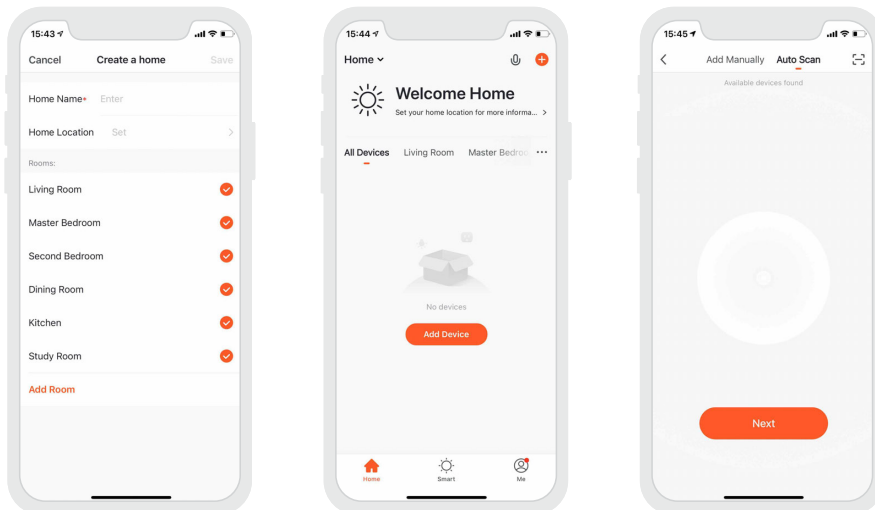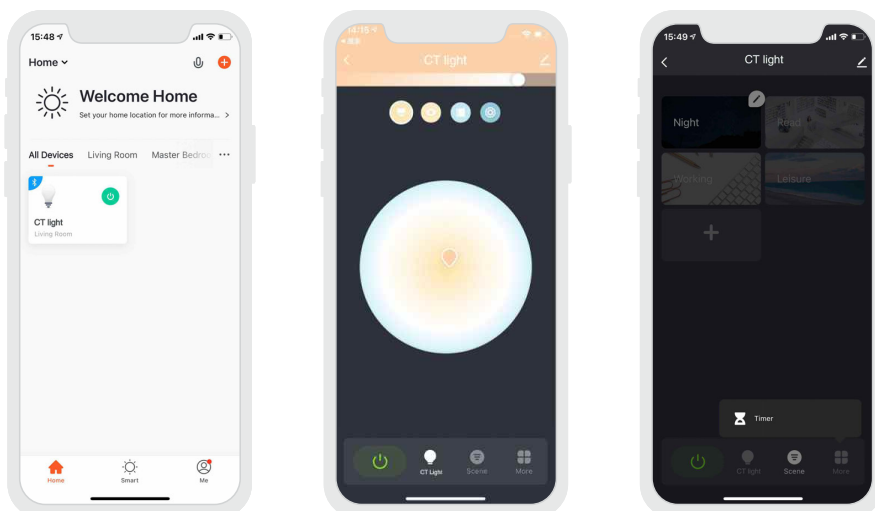
APP support

App download

2. Paring instructions

A new user clicks "Me" →"Home Management"→ "Create a Home ", give a name to your home and confirm your home location, then add the rooms you need. Click "Add Device" - "Auto Scan" and enable permissions for automatically scanning Bluetooth/Wi-Fi/Zigbee/wired devices. Follow the prompts to add the device (Ensure that the device is ready for network connection).

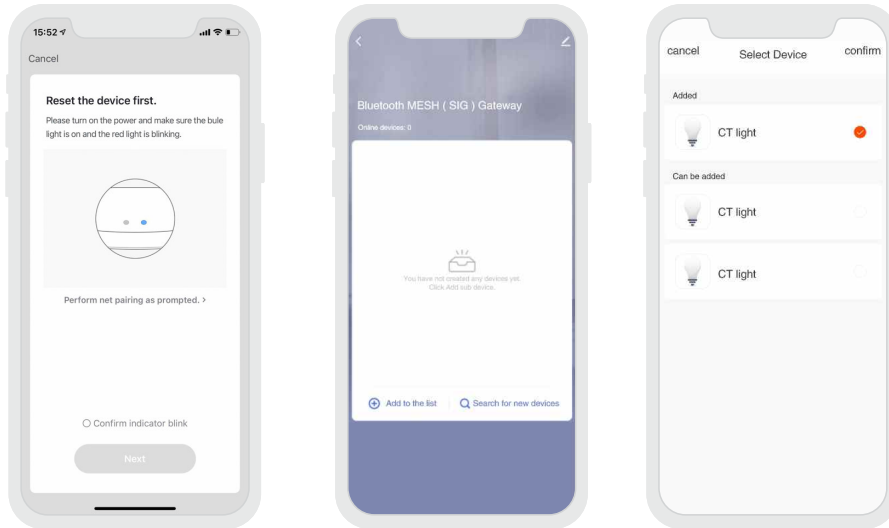## 3. Lighting control settings

After paring up your device, click the device you add and adjust to your desired lighting status by brightness changing and color temperature adjustment. In "Settings", there are also lighting alarm clock (Tuya Bluetooth Gateway needs to be added) and countdown functions.
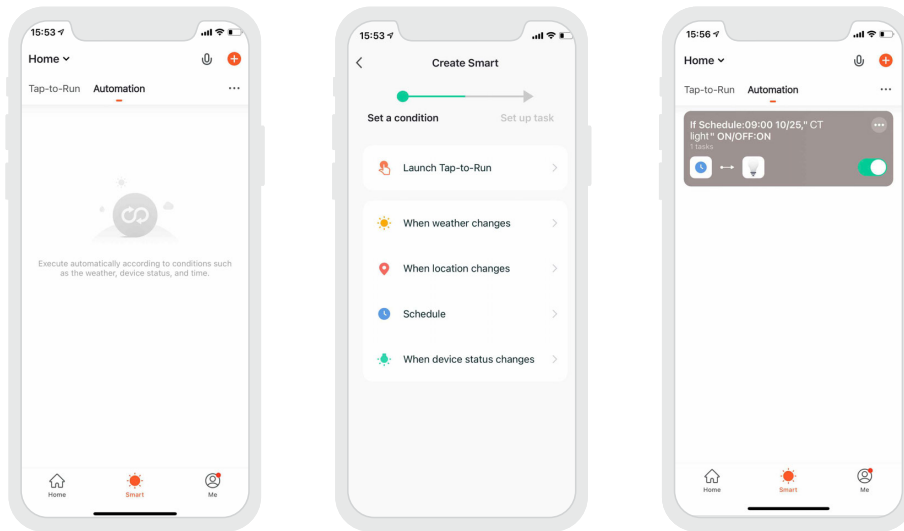
4．Remote control and automation

4.1 Remote control: Add Tuya Bluetooth MESH（SIG）Gateway by search bluetooth devices, and follow the prompts to configure the gateway to the network. After configuring the network, access the gateway interface and click "Add to the list" or "Search for new devices" to add the device to the gateway, and then the device can be controlled remotely.
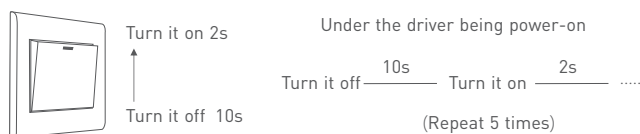

4.2 Automation settings: After adding Tuya Bluetooth MESH（SIG）Gateway , you'll be able to control the lighting remotely by clicking "Automation" in the "Smart" menu. In "Automation", set up conditions from weather, location and timing to other device status so as to trigger the lighting effects you preset and realize the lighting automation.

Reset The Device (Reset to factory defaults)

When the driver is power-on, turn it off and after 10s turn it on. After 2s, turn it off again. Repeat the same operation 5 times and then turn on the driver again. When the lamp is flashing (2 flashes/s), reset the device successfully.

Turn it on 2s
Turn it off 10s

Under the driver being power-on

Turn it off —— 10s —— Turn it on —— 2s —— ......

(Repeat 5 times)

Attentions

- Products shall be installed by qualified professionals.
- LTECH products are non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
- Good heat dissipation will extend the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

✲ This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

Warranty Agreement

Warranty periods from the date of delivery: 5 years

Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.
1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.