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.)

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

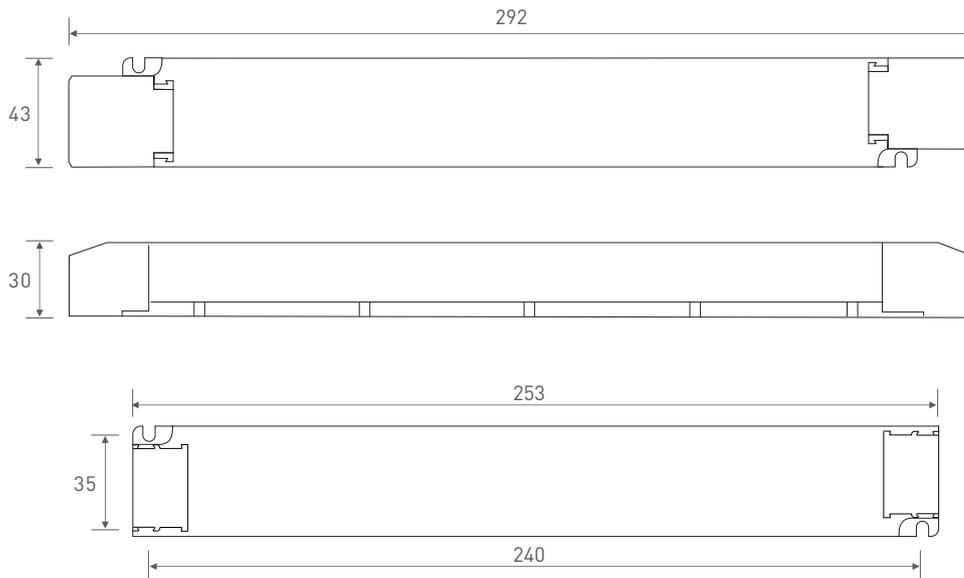|	
Overvoltage protection：	Shut down the output when non-load voltage≥26V, repower on to recover after fault conditon is removed.
Overload protection：	Shut down the output when load current≥102%,and recover automatically
Overheat protection：	Intelligently adjust or turn off the output current if the 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.con

Product Size

Unit : mm


```
292
43
30
253
35
240
```

Wiring Diagram

N
L

Wire diameter:0.75-1.5▫
Strip length:8mm-9mm

Wire diameter:1.0-1.5▫
Strip length:8mm-9mm

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

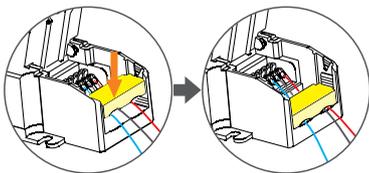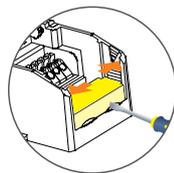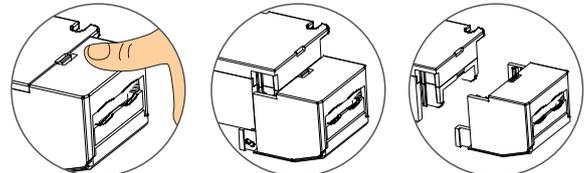＊Access the network to control through App and Bluetooth

Tension plate

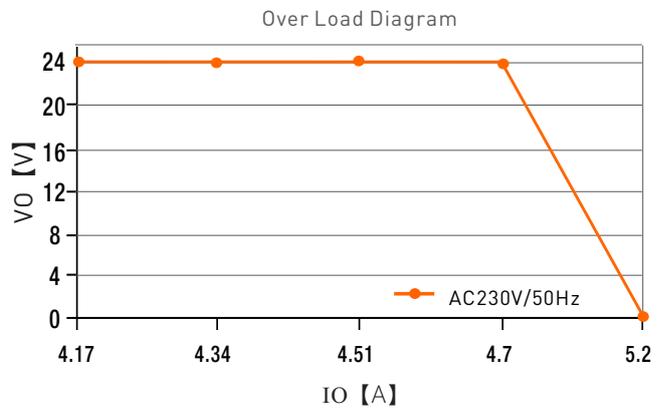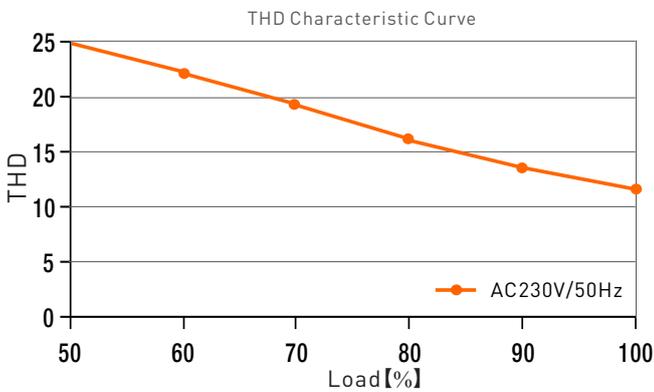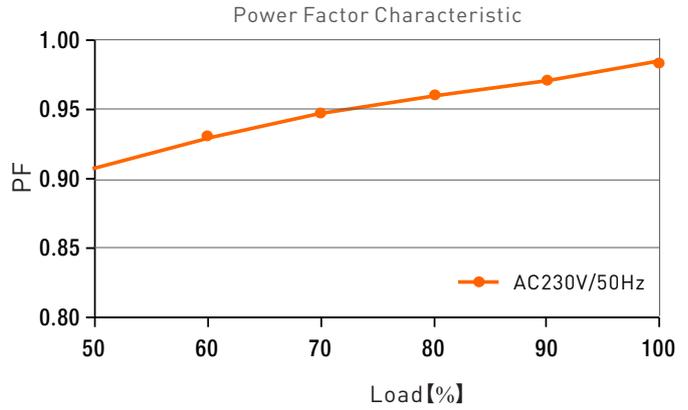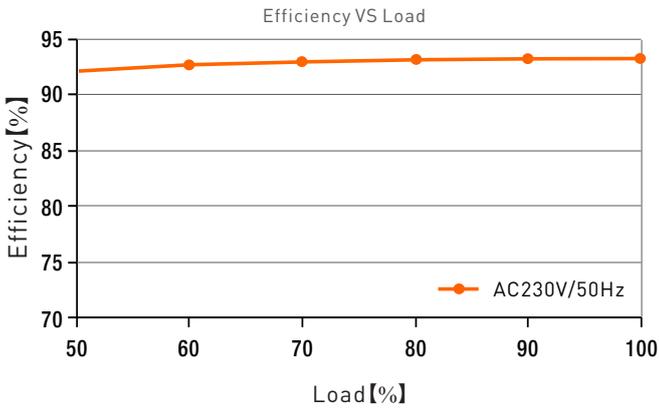Push the tension plate down
to fix the electric wire.

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

Power Factor Characteristic

THD Characteristic Curve

Over Load Diagram

Flicker Test Table

IEEE 1789

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

Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output	Limit value (%)
$f \leq 10Hz$	0.1
$10Hz < f \leq 90Hz$	$0.01 \times f$
$90Hz < f \leq 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	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
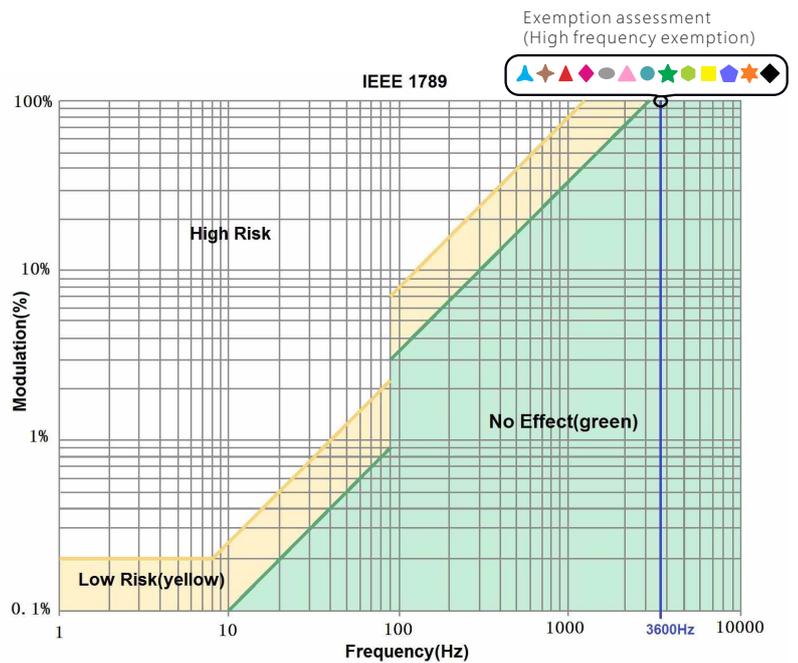
App Operating Instructions

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).
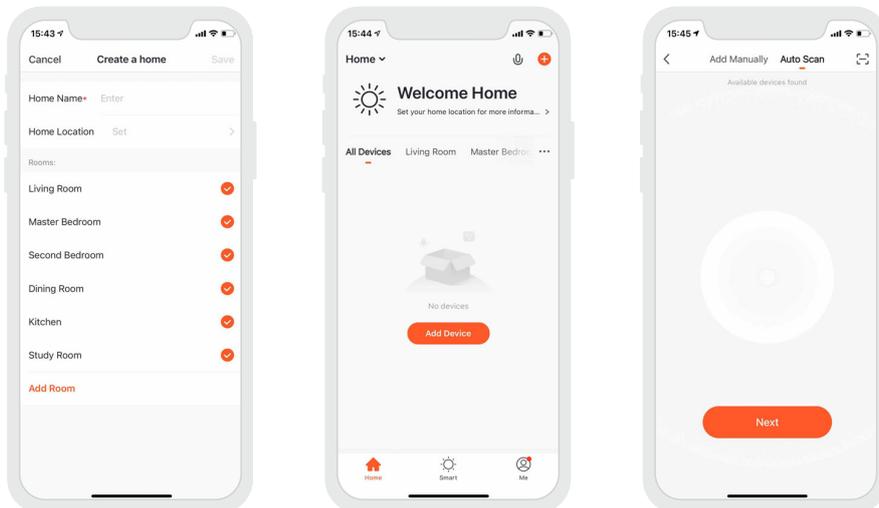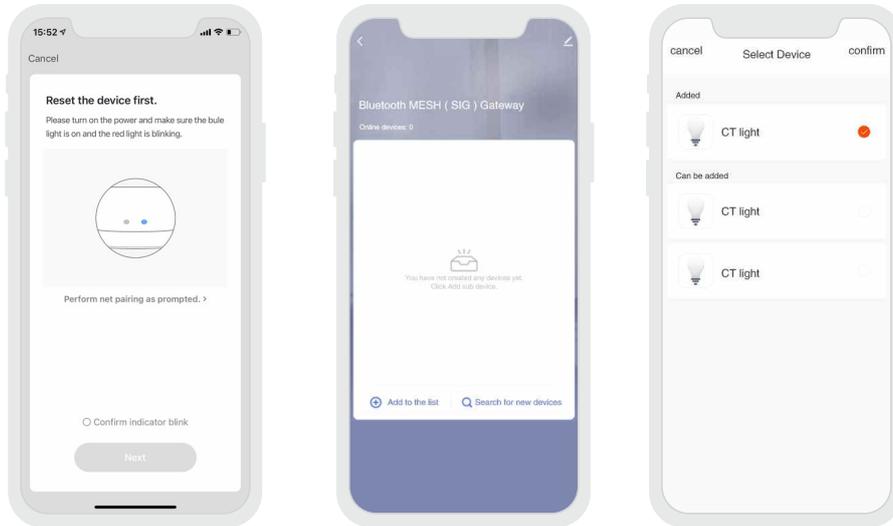
3. Lighting control settings

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.
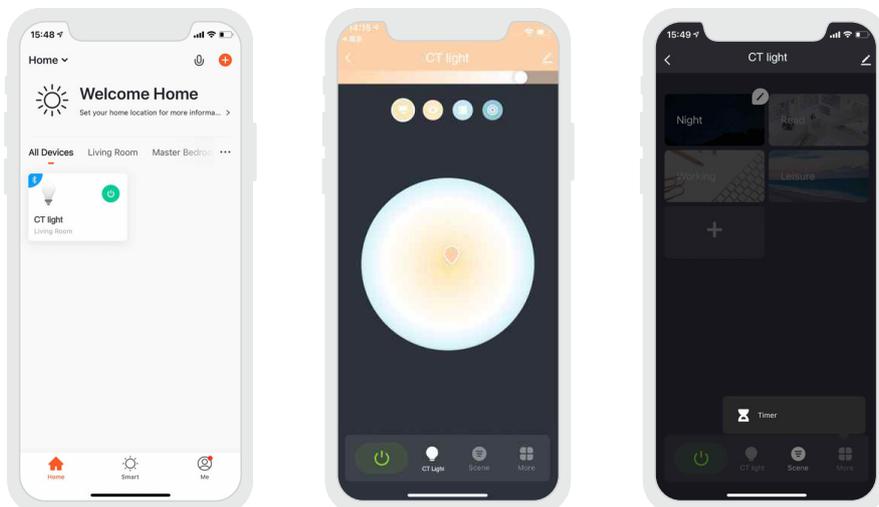
4. Remote control and automation

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.
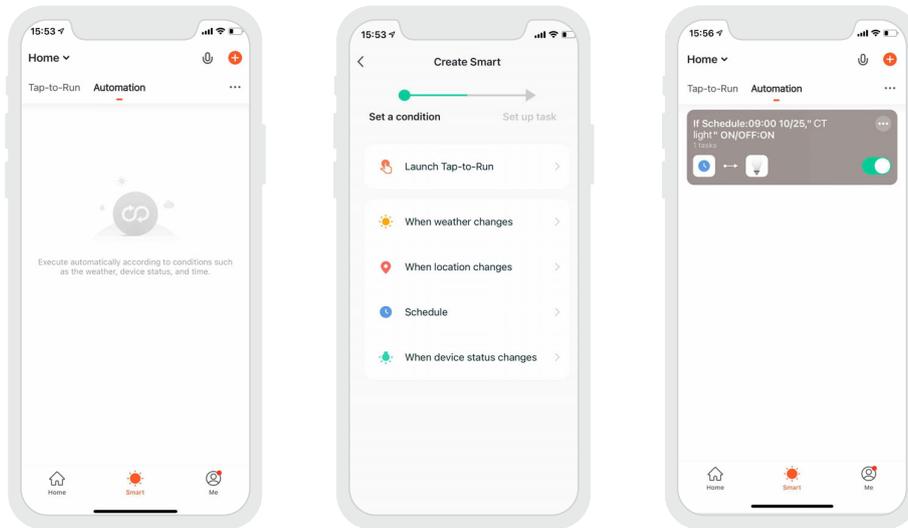
Reset The Device (Reset to factory defaults)

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)
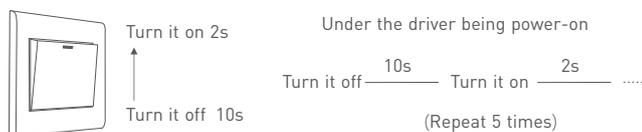
Attentions

- Please use in spacious and open space. Avoid metal obstructions above and in front of products.
- Please use in a cool and dry environment.
- No disassembly of products so as not to affect the warranty.
- Please keep away from heat.
- Please do not open, modify, repair or maintain products , otherwise warranties are not allowed.

Warranty Agreement

Thanks for your purchasing. Our products offer a 5-year warranty and you can enjoy free maintenance services within 5 years from the date of receiving products. Please contact your suppliers before sending products back to repair.

Warranty exclusions below:

- Any failure or damage of products caused by improper installation, operation, maintenance and storage ,which results from failing to follow manuals.
- Beyond warranty periods.
- Alter or tear up product bar codes without authorization.
- Change configuration files of products or dismantle products for repair without authorization.
- Artificial damage of products, such as Improper voltage, high temperature, water damage, mechanical damage, smash, serious oxidation, and rust.
- Failures or damage of products caused by force majeure , such as earthquake, fire disaster, flood, and electric shock.
- Failures or damage of products not caused by product designs, technology, manufacturing, or quality.

∗ 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.

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