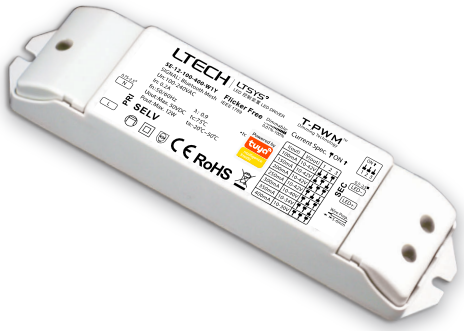
SE-12-100-400-W1Y

LTECH Tuya Bluetooth Mesh

Intelligent LED Driver (Constant Current)

- 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.
- T-PWM dimming technology allows continuous and flicker-free images under high-speed shooting.
- 0-100% flicker-free dimming with high frequency exemption level.
- Dimming from 0~100%, down to 0.01%.
- Innovative thermal management technology protects the power life intelligently.
- Overheat, over voltage , 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

T-PWM™
Super depth dimming technology

Flicker-free
IEEE 1789

Dimmable:
0.01-100%

SELV RoHS

T-PWM Super depth dimming technology | Flicker-free IEEE 1789 | Short circuit protection | Overload protection | Overheat protection

Technical Specs

Wireless type:	Tuya Bluetooth Mesh	Input voltage:	100-240Vac (120-300Vdc)
Output voltage:	9-42Vdc	Frequency:	0/50/60Hz
Max output voltage:	50Vdc	Input current:	115Vac≤0.2A, 230Vac≤0.1A
Output current:	100-400mA	Power factor:	PF≥0.95/115Vac , PF≥0.85/230Vac (Full load)
Load power range:	1W~12W	Efficiency (Typ):	80%
Flicker level:	No visible flicker/High frequency exemption level	Inrush current:	Cold start5A@230Vac (Test twidth=40 us tested under 50% Ipeak)
Dimming range:	0~100%, 0.01% depth dimming	Anti surge:	L-N: 1kV
LF current ripple(<120Hz):	<1%	Leakage current:	<0.24mA/230Vac
Current accuracy:	±5%	Working temperature:	ta: -20 ~ 50°C tc: 75°C
Ripple & noise:	≤2V	Working humidity:	20 ~ 95%RH, non-condensing
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 and recover automatically once it exceeds no-load voltage.
Overload protection:	Shut down the output and recover automatically once it exceeds 1.02 times of the max load power.
Overheat protection:	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically
Short circuit protection:	When short circuit occurs, shut down the output and recover automatically.

Safety & EMC

Withstand voltage:	I/P-O/P:3750Vac
Insulation resistance:	I/P-O/P:500Vdc/1min/25℃/70%RH≥10MΩ
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

Others

Dimensions(LxWxH): 167x41x32mm Package size(LxWxH): 168x43x35mm Gross weight : 120g±10g

LED Current Selection

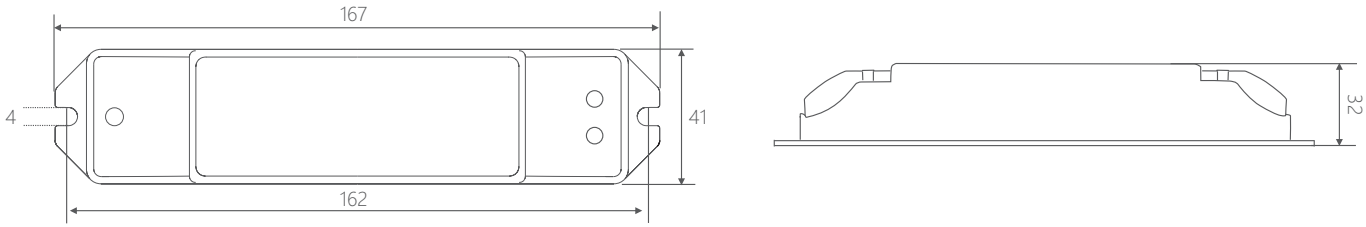
DIP switch quickly selects multiple current value (See the table below). ✻ Please set current value when the driver is power-off

DIP switch

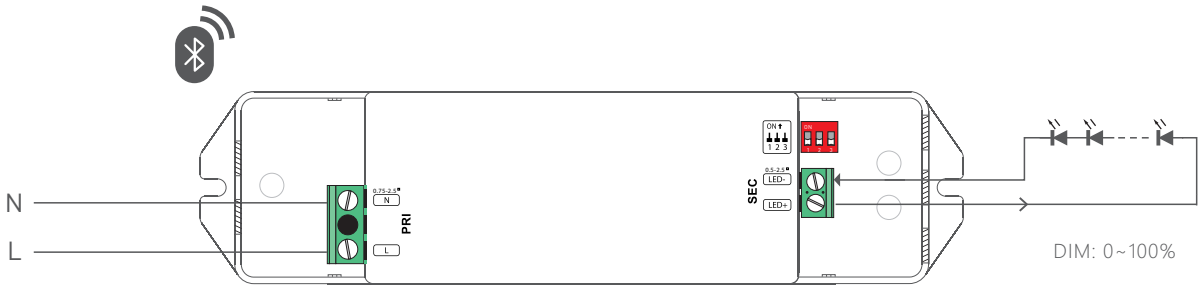
SE-12-100-400-W1Y	DIP switch								ON / OFF
	Output current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	
	Output voltage	9-42V	9-42V	9-42V	9-42V	9-40V	9-34V	9-30V	
	Output power	0.9-4.2W	1.35-6.3W	1.8-8.4W	2.25-10.5W	2.7-12W	3.15-11.9W	3.6-12W	

Product Size

Unit: mm



Wiring Diagram



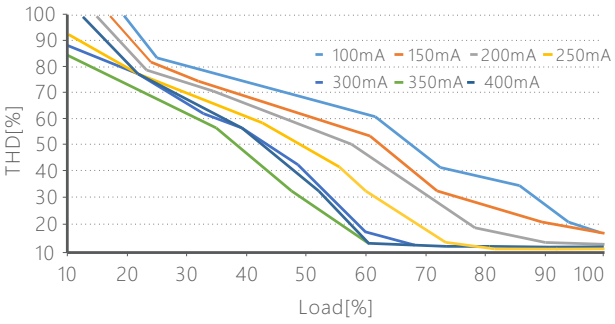
Wire diameter: 0.75-2.5□
Strip length: 5mm-6mm

Wire diameter: 0.5-2.5□
Strip length: 5mm-6mm

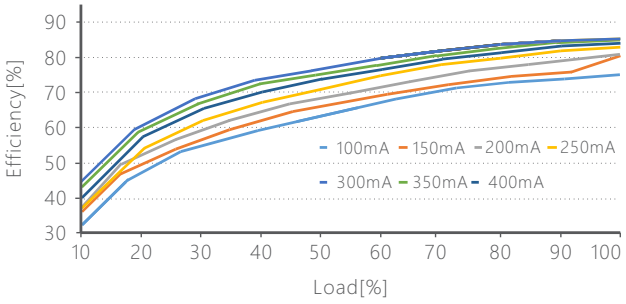
Access the network to control through App and Bluetooth

Relationship Diagrams

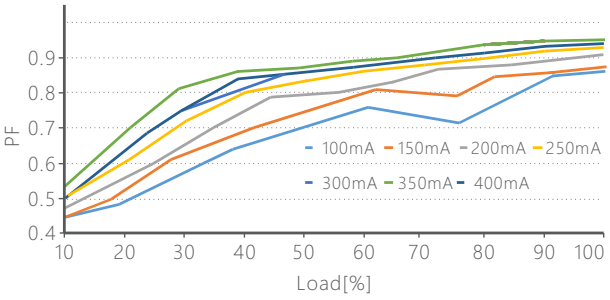
THD Characteristic Curve



Efficiency VS Load



Power Factor Characteristic Curve

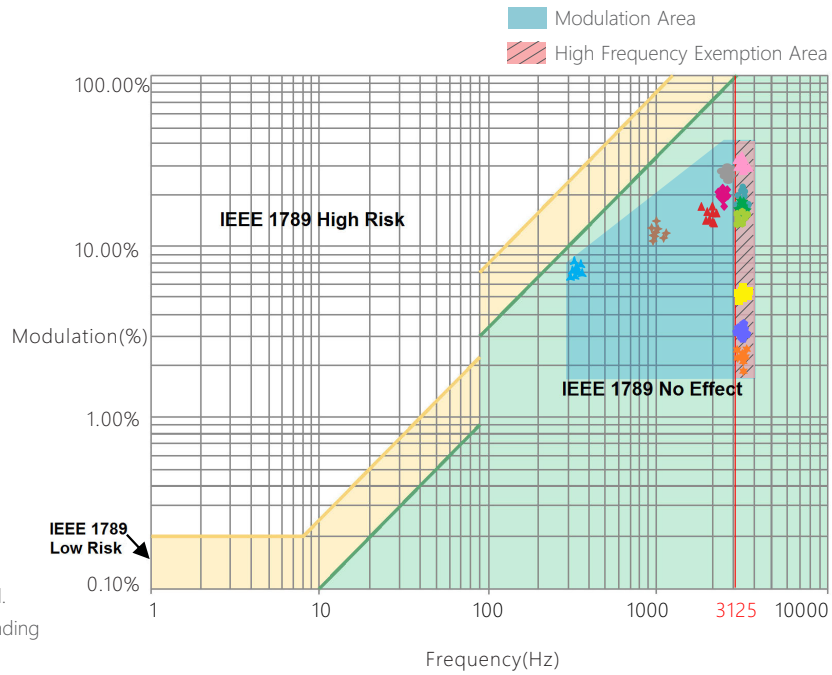


Flicker Test Table

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
- 01%
- 1%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%



Marks in the right chart are tested results of different current level.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

App Operating Instructions

1. Register an account

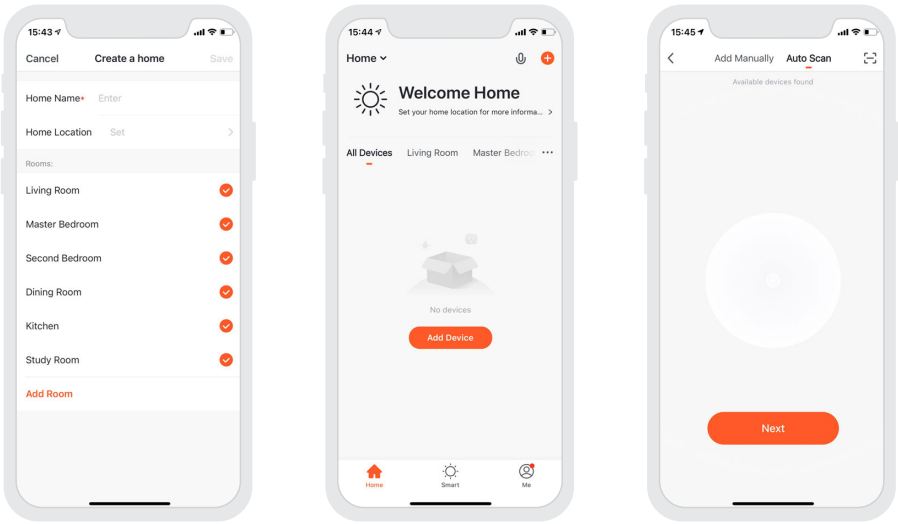
Tuya Smart App is compatible with iOS and Android systems. Scan the QR code below with you mobile phone and follow the prompts to complete the app installation. After installation being completed, you can log in or register an account.

APP support

App download

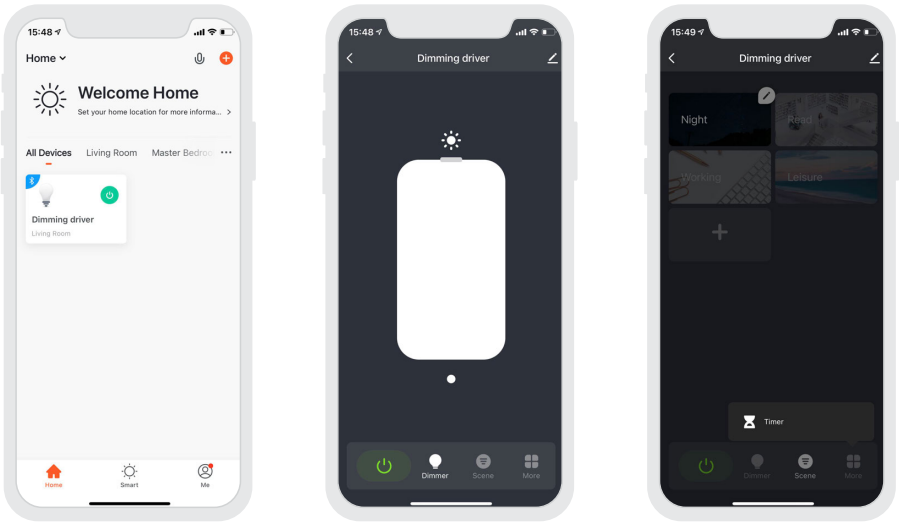
2. Paring instructions

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).



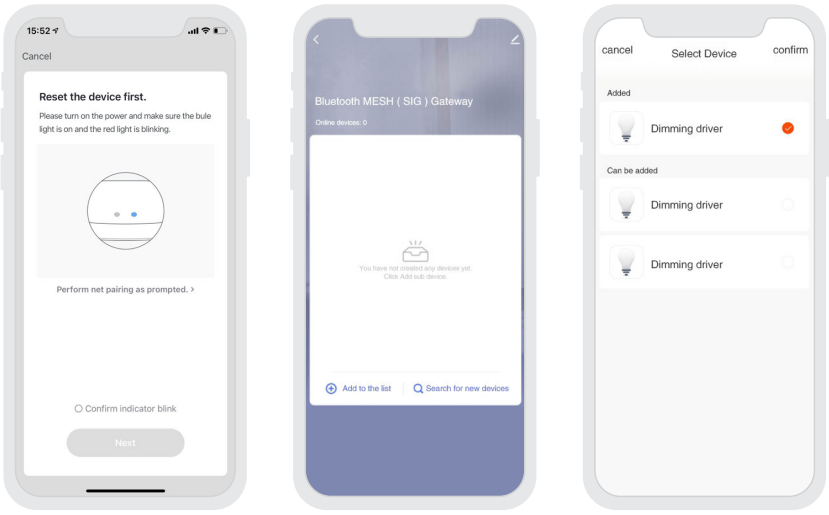
3. Lighting control settings

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

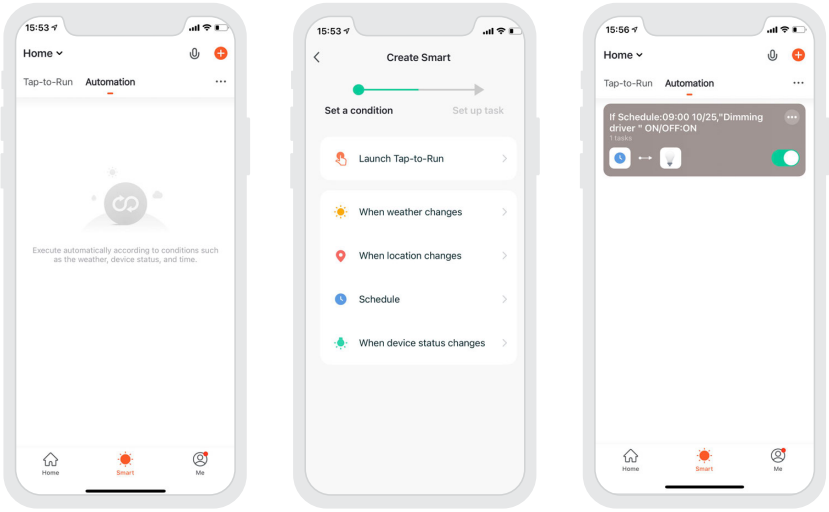


4. Remote control and automation

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.