LTECH

LM-100-24-G2R2 **Tuya Bluetooth Mesh**

Intelligent Tunable White LED Driver(Constant Current)

- Small size and light weight. The housing is made from V0 flame retardant PC materials that SAMSUNG/COVESTRO uses.
- The clamshell design and screwless type for strain-relief. The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- Bluetooth Mesh & Tuya application protocol with high networking capability are reliable and stable.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- Dimming from 0~100%, down to 0.1%.
- Adopt constant power design that can adjust different color temperature while brightness remains the same.
- Color temperature range: 2700-6500K.
- The secure and reliable design for signal isolation.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, over voltage , overload, short circuit protection and automatic recovery.
- Suitable for Class Ⅰ / Ⅱ / Ⅲ indoor light fixtures.
- Up to 50,000-hour life time.
- 5-year warranty (Rubycon capacitor).

Bluetooth® DIM/CT **Flicker-free** IEEE 1789 Dimmable: 0.1%-100%

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:	No visible flicker/High frequency exemption level	Standby power loss:	<0.5W
Dimming range:	0~100%, down to 0.1%	Inrush current:	Cold start 45.2A/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

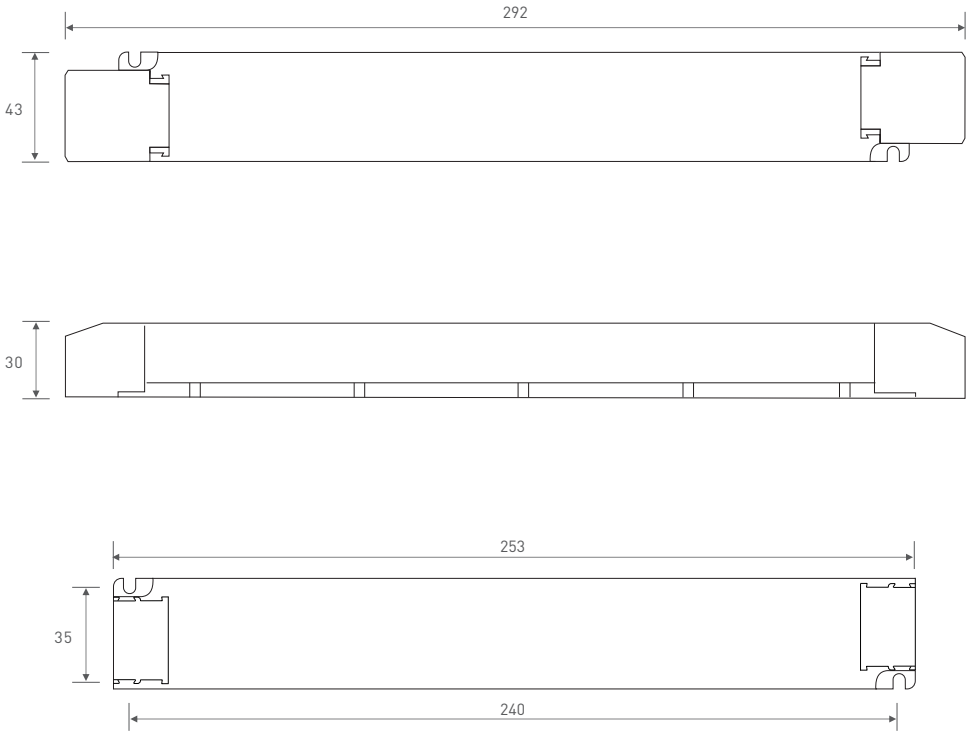
Working temperature:	ta: -20 ~ 50°C tc: 80°C
Working humidity:	20 ~ 95%RH, non-condensing
Storage temperature,Humidity:	-40 ~ 80°C, 10~95%RH
Temperature coefficient:	±0.03%/°C(0-50°C)

Others

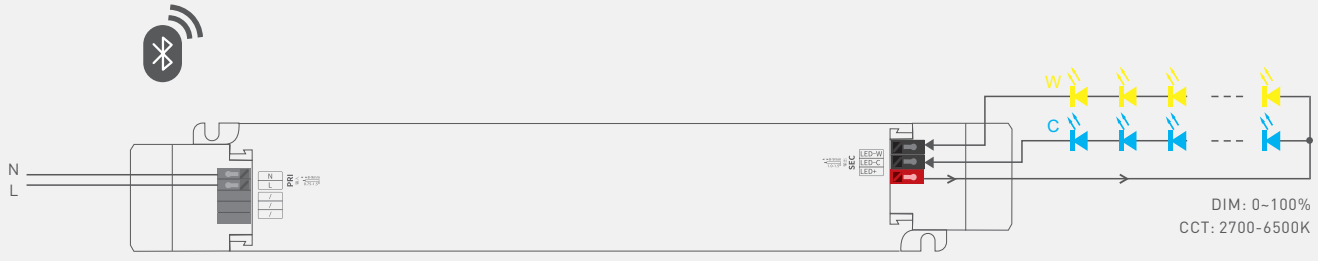
Dimensions(L×W×H):	292×43×30mm(L×W×H)
Package size(L×W×H):	296×44×33mm(L×W×H)
Gross weight:	300g±10g

Product Size

Unit: mm



Wiring Diagram

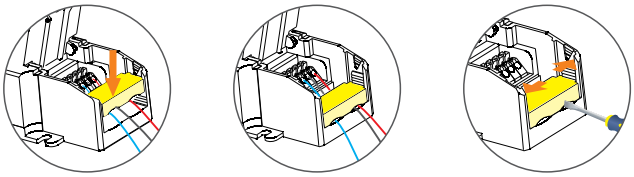


Wire diameter:0.75-1.5□(20-16AWG)
Strip length:8mm-9mm

Wire diameter:1.0-1.5□ (18-16AWG)
Strip length:8mm-9mm

*Access the network to control through App and Bluetooth.

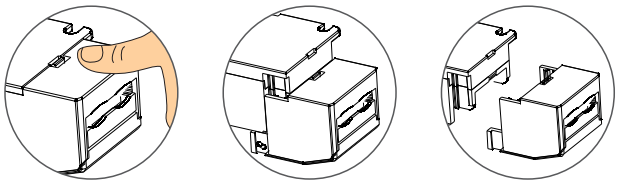
Tension plate



Push the tension plate down to fix the electric wire.

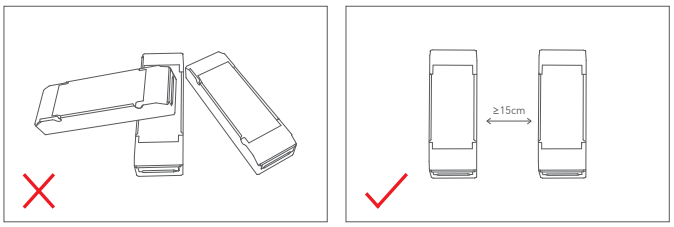
Push the side plate outwards and remove the tension plate by prying it up with a tool at the same time.

Remove the protective housing

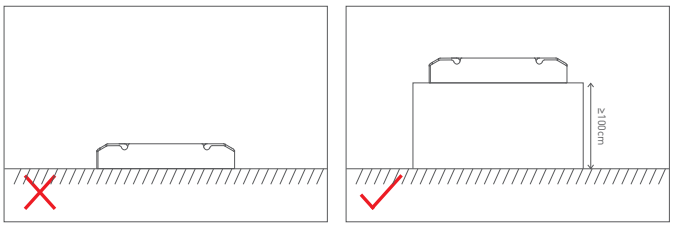


Pull the housing left and right from the bottom to remove it.

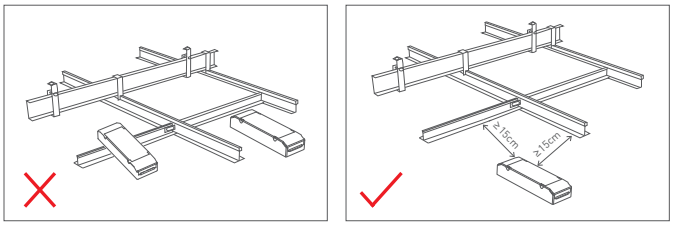
Installation Precautions



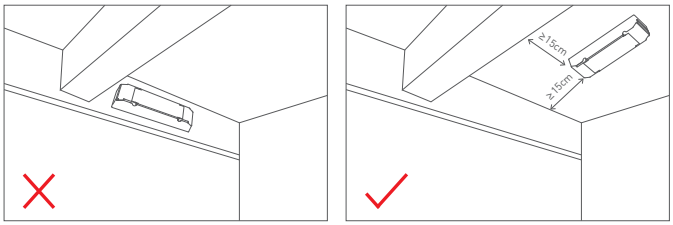
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.



Please do not place the products on the floor. The distance between the product and the floor should be ≥100cm so as to avoid signal interference.



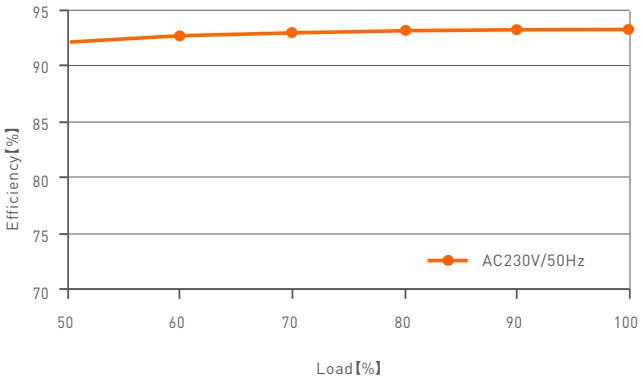
Please do not place the products near a large area of metal objects (such as metal stud ceilings). The distance between the product and the metal object should be ≥15cm so as to avoid signal interference.



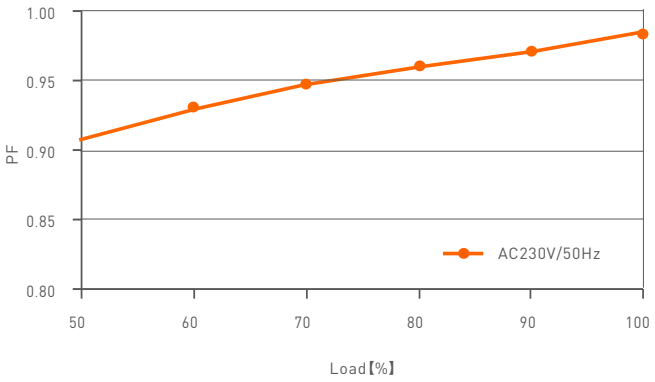
Please do not install the products on beams or near the corners. The distance between the product and the beam or the corner should be ≥15cm so as to avoid signal interference.

Relationship Diagrams

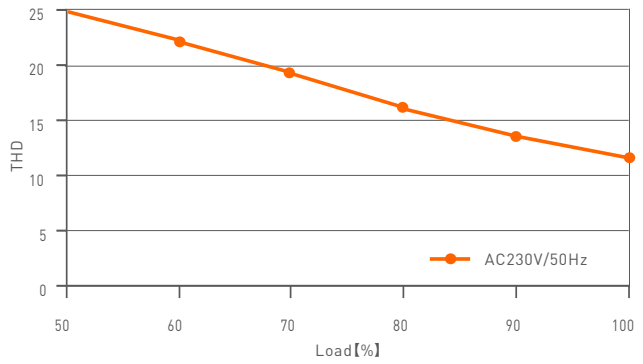
Efficiency VS Load



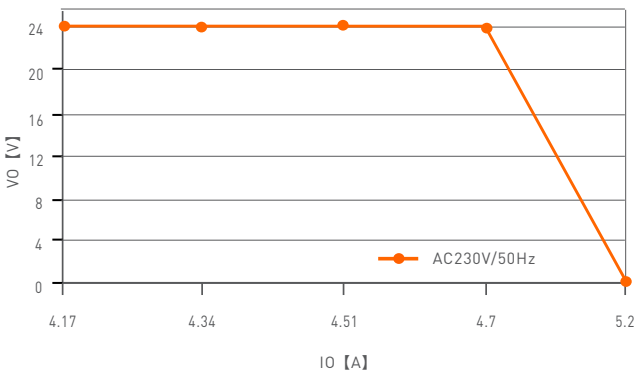
Power Factor Characteristic



THD Characteristic Curve



Over Load Diagram



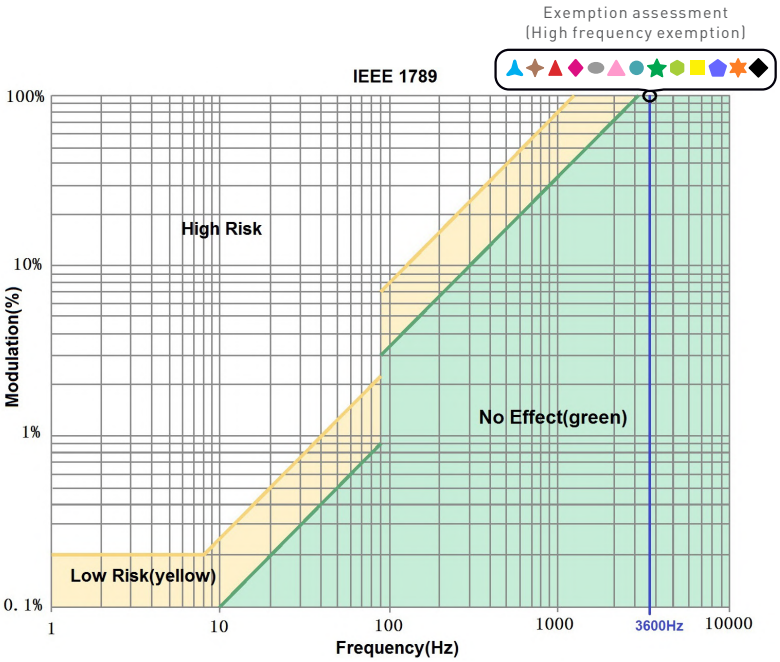
Flicker Test Table

IEEE 1789

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of optical output	Limit value [%]
$f \leqslant 8Hz$	0.2
$8Hz < f \leqslant 90Hz$	$0.025 \times f$
$90Hz < f \leqslant 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of optical output	Limit value [%]
$f \leqslant 10Hz$	0.1
$10Hz < f \leqslant 90Hz$	$0.01 \times f$
$90Hz < f \leqslant 3125Hz$	$(0.08/2.5) \times f$
$f > 3125Hz$	Exemption assessment (High frequency exemption)

Brightness

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



App Operating Instructions

1.Register an account

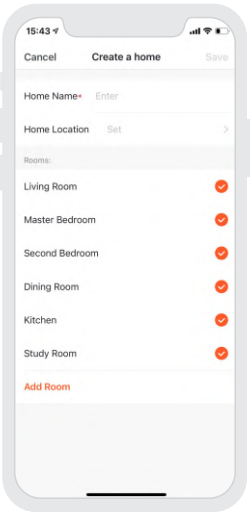
Tuya Smart App is compatible with iOS and Android systems. Scan the QR code below with you mobile phone and follow the prompts to complete the app installation. After installation being completed, you can log in or register an account.

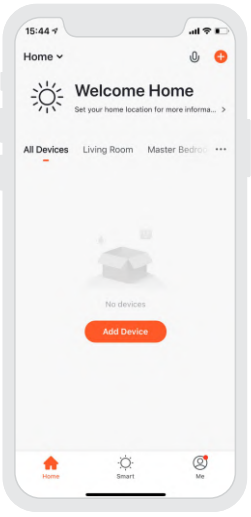
APP support

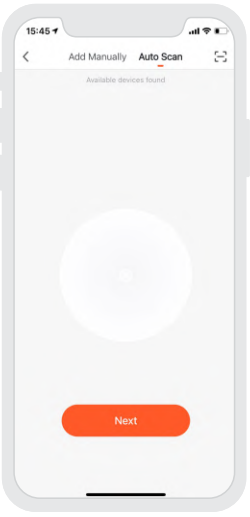
App download

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).

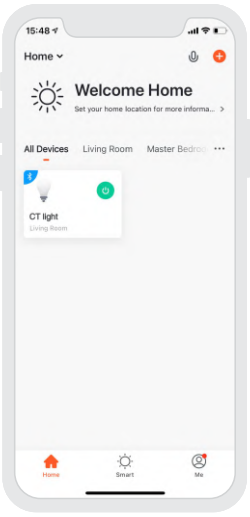


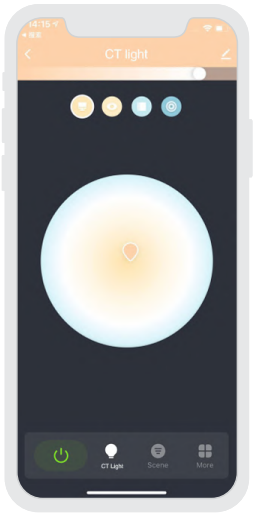


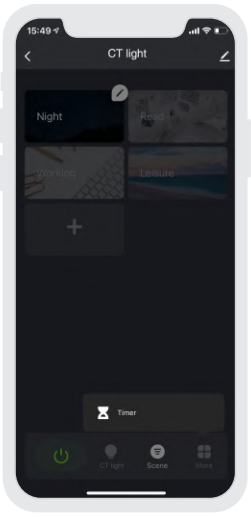


3. Lighting control settings

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.

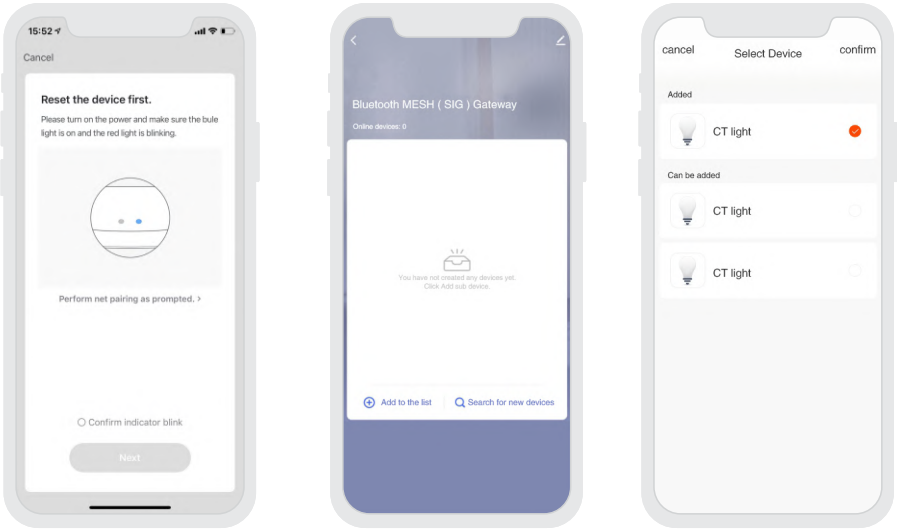




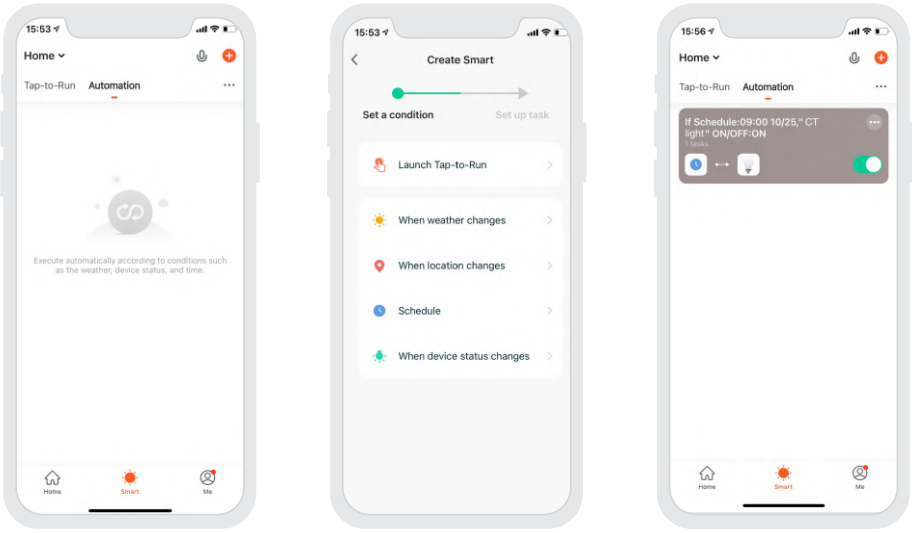


4. Remote control and automation

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.

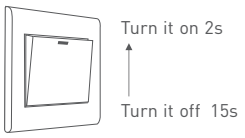


4.2 Automation settings: After adding Tuya Bluetooth MESH (SIG) Gateway , you'll be able to control the lighting remotely by clicking "Automation" in the "Smart" menu. In "Automation", set up conditions from weather, location and timing to other device status so as to trigger the lighting effects you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



Reset The Device (Reset to factory defaults)

When the driver is power-on, turn it off and after 15s 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.



Under the driver being power-on

Turn it off —15s— Turn it on —2s— .....

(Repeat 5 times)

Attentions

- This product must be installed and adjusted by a qualified professional.
- This product is 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 life the product. Please install the product in a environment with good ventilation.
- When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
- Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
- Please check whether the working voltage used complies with the parameter requirements of the product.
- before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

✻ 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.

Update Log

Version	Updated Time	Update Content	Updated by
A0	2021.10.29	Original version	Liu Weili