LTSYS

LM-150-24-G1T2F
LM-150-12-G1T2F

Triac/ELV Push DIM

Intelligent LED Driver (Constant Voltage)

- 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.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- Parameters such as lighting voltage, PWM frequency and power transition time can be changed through the mobile APP.The drive data interaction function is realized
- High frequency exemption level.
- Dimming from 0~100%, down to 0.1%.
- Support Leading edge (Triac), Trailing edge (ELV) and Push DIM.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, over voltage , overload, short circuit protection and automatic recovery.
- Suitable for ClassⅠ/Ⅱ/Ⅲ indoor light fixtures.
- Up to 50,000-hour life time.
- 5-year warranty (Rubycon capacitor).

T-PWM
Dimming Technology

Flicker-Free
IEEE 1789
Achieve the exemption level.

Dimmable:
1:10000

NFC



Triac/ELV Push DIM | PWM Digital Dimming | Over Temp. Protection | Short Circuit Protection | Over Load Protection | Over voltage protection

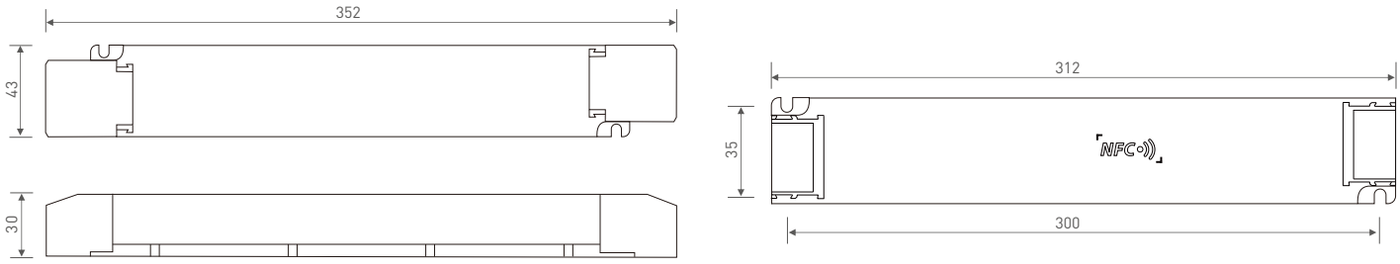
Technical Specs

Model		LM-150-24-G1T2F			LM-150-12-G1T2F
OUTPUT	Output Voltage	24Vdc			12Vdc
	Output Voltage Range	24Vdc ± 0.5Vdc			12Vdc ± 0.5Vdc
	Output Current	Max. 6.25A			Max. 12.5A
	Output Power	Max. 150W			
	Output Power Range	0~150W			
	Strobe Level	High frequency exemption level			
	Dimming Range	0~100%, down to 0.1%			
	Overload Power Limitation	≥102%			
	Ripple	≤200mV			
	PWM frequency	≤22000Hz(NFC setting range: 300-22000Hz)			
INPUT	Dimming Interface	Triac/ELV, Push DIM			
	Dc voltage	220-240Vdc			
	Input Voltage	220-240Vac			
	Frequency	0/50/60Hz			
	Emergency output coefficient	EoFi =99.6%			
	Input Current	≤0.75A/230Vac			
	Power Factor	PF>0.98/230Vac (at full load)			
	THD	THD＜6%@230Vac (at full load)			
	Efficiency (typ.)	91%			90%
	Inrush Current	Cold start 45A/230Vac			
	Anti Surge	L-N: 2KV			
	Leakage Current	Max. 0.5mA			
ENVIRONMENT	Working Temperature	ta: -20 ~ 50°C tc: 90°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)			
	Vibration	10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively			
PROTECTION	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically			
	Overload Protection	Shut down the output when current load≥102%, and recover automatically			
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically			
	Overvoltage Protection	Shut down the output when non-load voltage≥28V, and recover automatically			Shut down the output when non-load voltage≥16V, and recover automatically
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac			
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH			
	Safety Standards	CCC	China	GB19510.1, GB19510.14, GB19510.213	
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493	
		CB	CB member states	IEC61347-1, IEC61347-2-13	
		CE	European Union	EN61347-1, EN61347-2-13, EN62384, EN61547	
		KC	Korea	KC61347-1, KC61347-2-13	
		EAC	Russia	IEC61347-1, IEC61347-2-13	
		RCM	Australia	AS 61347-1, AS 61347-2-13	
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384	
		BIS	India	IS 15885 (PART 2/SEC 13)	
	EMC Emission	CCC	China	GB/T17743, GB17625.1	
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		KC	Korea	KN15, KN61547	
		EAC	Russia	IEC62493, IEC61547, EH55015	
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547			
	Strobe Test Standard	IEEE 1789			
ErP	Power Consumption	No-load power consumption			
	Flicker/Stroboscopic Effect	IEEE1789		Meet IEEE 1789 standard/High frequency exemption level	
		CIE SVM		Pst LM≤1.0, SVM≤0.4	
	DF	Phase factor		DF≥0.9	
OTHERS	Gross weight(G.W)	460g±10g			
	Dimensions	352×43×30mm(L×W×H)			
	Package size	355×44×33mm(L×W×H)			
	Carton Size	370×340×93mm(L×W×H) 20pcs/ctn 9.4kg±5%/ctn			

The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), so that we can prepare them with special procedures.

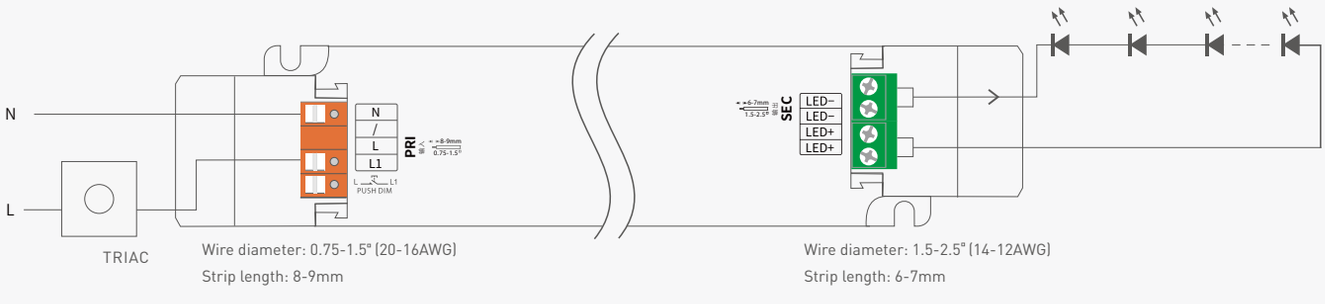
Product Size

Unit: mm



Wiring Diagram

Triac Connection

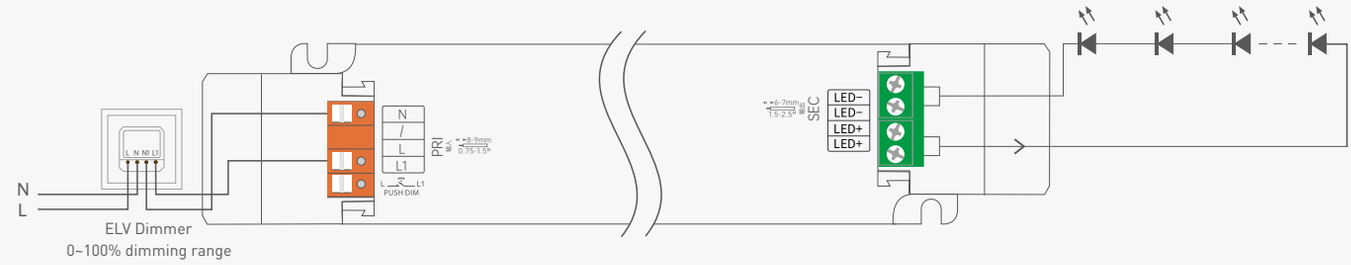


Wire diameter: 0.75-1.5² (20-16AWG)
Strip length: 8-9mm

Wire diameter: 1.5-2.5² (14-12AWG)
Strip length: 6-7mm

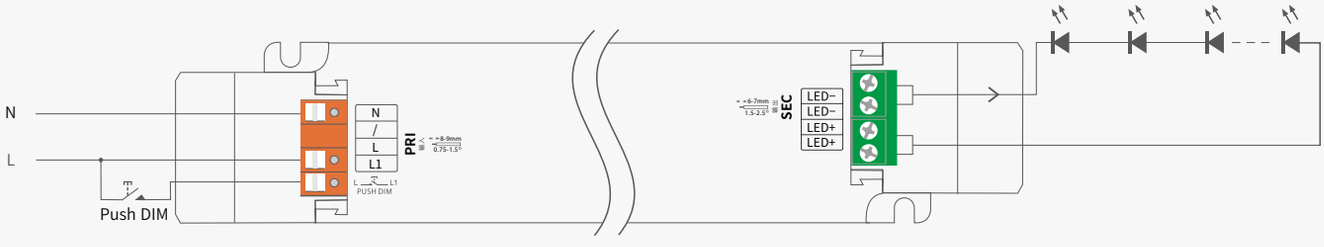
0~100% dimming range

ELV Connection



0~100% dimming range

Push DIM Connection



0~100% dimming range
Short press to turn on/off
Long press to dim

* Push Dim is invalid under DC voltage input.
* Dimming interface priority: Triac first , Push DIM next.

Push DIM



Reset switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: The lights will return to its previous brightness value when short press on PUSH DIM button.

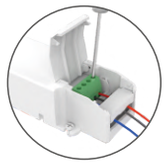
  Power on again after power cut, the output brightness is subjected to the input voltage of drivers.

Protective Housing Application Diagram

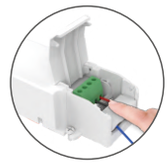
Tension plate



1. Pry up the protecting housing in the side plate position with a tool.



2. Connect to electrical wires with a screwdriver as wiring diagram shows.

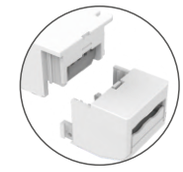


3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

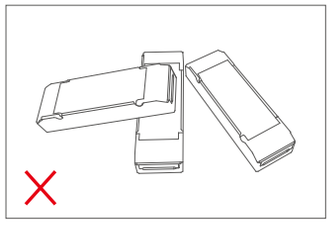


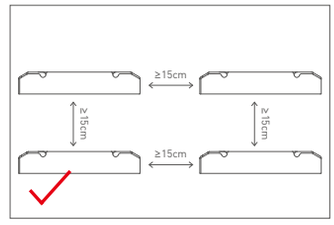




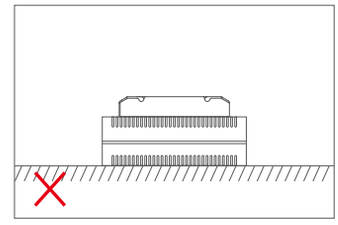
Pull the housing left and right from the bottom to remove it.

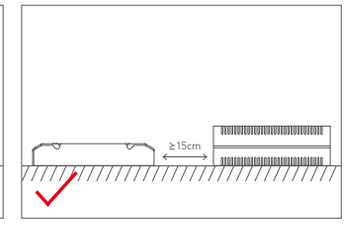
Installation Precautions



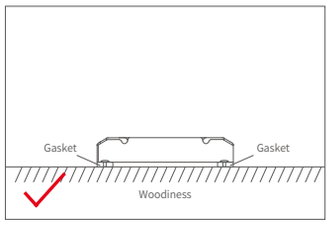


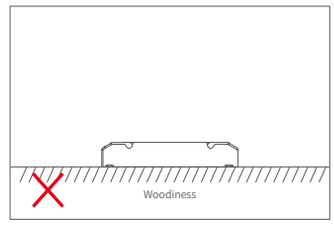
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.





Please not place the products on LED drivers. The distance between the product and the driver should be ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.





Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws.
Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).

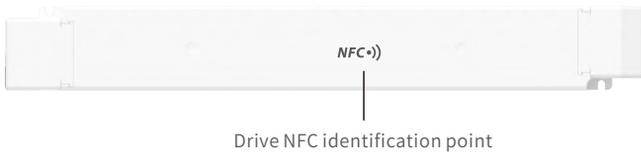
✱ Before you begin setting the parameters of the driver, please make sure the driver is powered off.

Read/Write the LED driver

Use your NFC-capable phone to read LED driver data, then edit the parameters and they can be directly written to the driver.

1. Read the LED driver

On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.



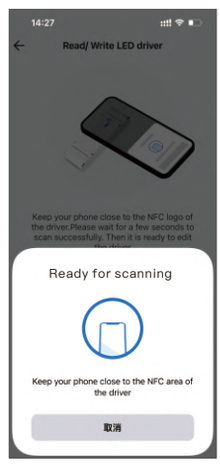
2. Edit the parameters

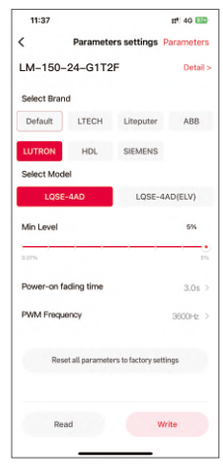
Click【Parameter Management】to edit the Min level, power-on fading time, PWM frequency and other parameters.

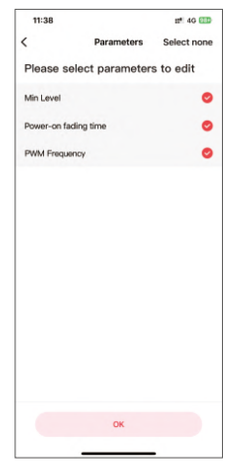
3. Write to the driver

After completing the parameter settings, click 【Write】 in the upper right corner, and keep the programmer's sensing area close to the NFC logo of the driver, so the parameters can be written to the driver.

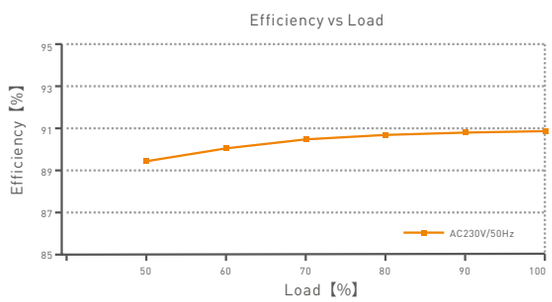


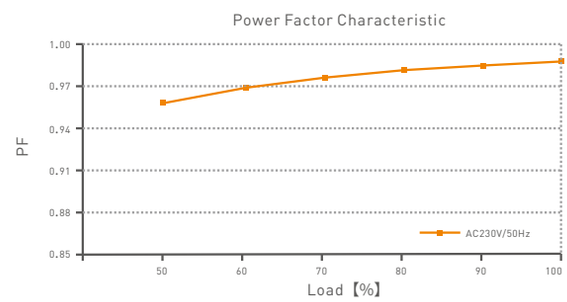


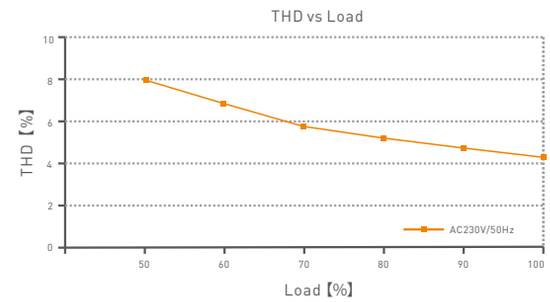


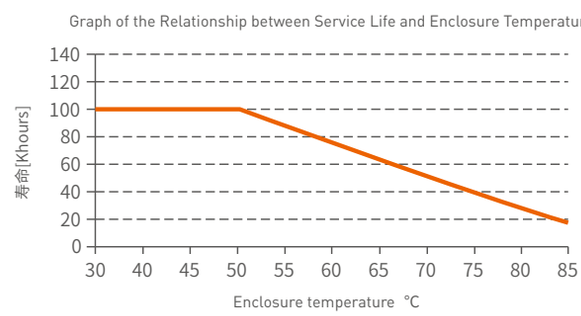


Relationship Diagrams

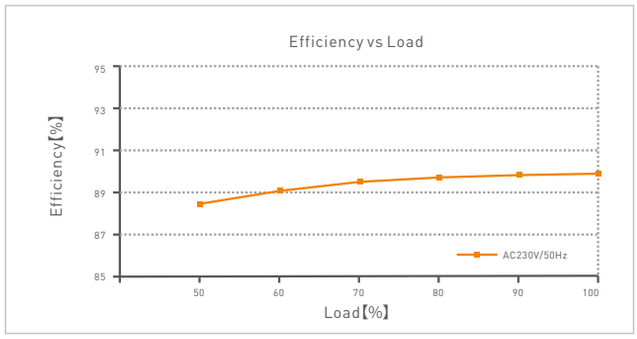


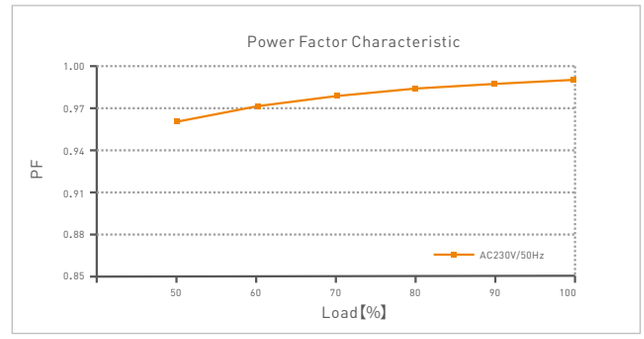


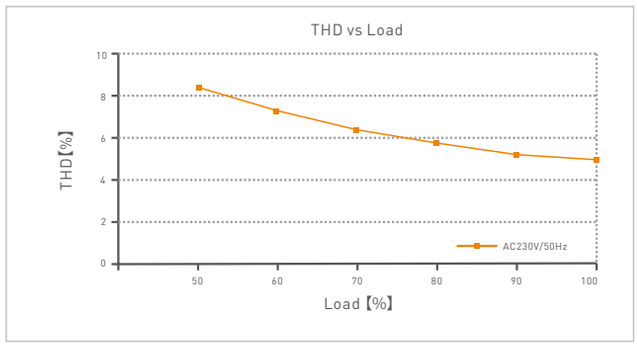


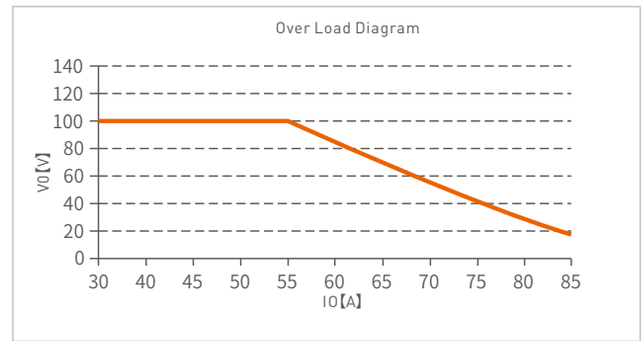


LM-150-24-G1T2F









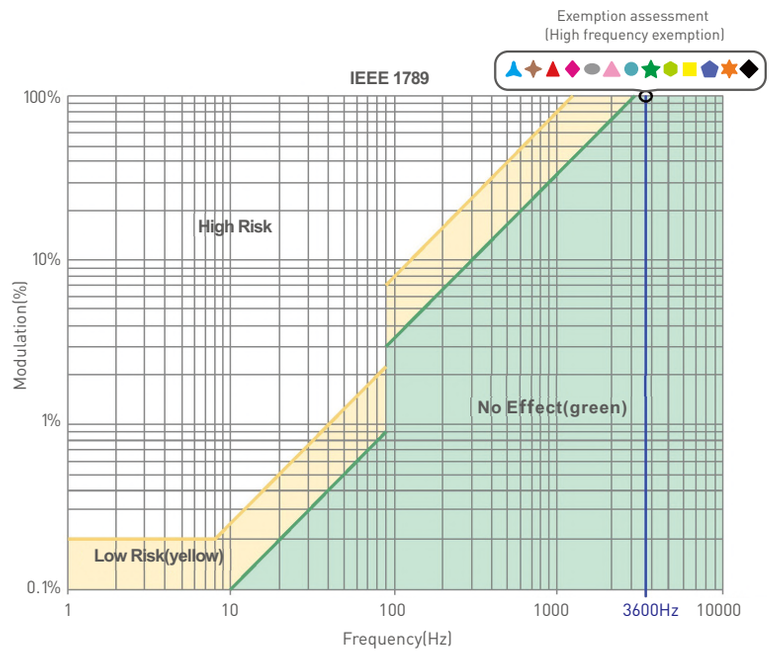
LM-150-12-G1T2F

Flicker Test Table

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ⩽ 8Hz	0.2
8Hz < f ⩽ 90Hz	0.025 × f
90Hz < f ⩽ 1250Hz	0.08 × f
f > 1250Hz	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ⩽ 10Hz	0.1
10Hz < f ⩽ 90Hz	0.01 × f
90Hz < f ⩽ 3125Hz	(0.08/2.5) × f
f > 3125Hz	Exemption assessment (High frequency exemption)

IEEE 1789 Brightness

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

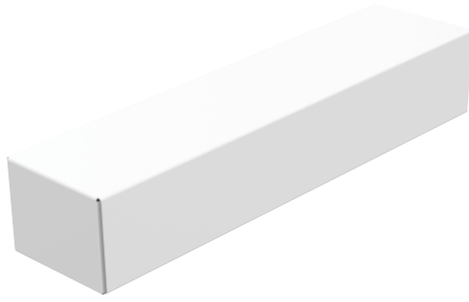


Marks in the right chart are tested results of different current levels. The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

Packing Specification

Model	LM-150-12-G1T2F、LM-150-24-G1T2F
Carton Dimensions	370×340×93mm(L×W×H)
Quantity	10 PCS/Layer; 2 Layers/Carton; 20 PCS/Carton
Weight	0.43 kg/PC; 9.4 kg/Carton

Packaging Pattern Drawing



Inner box



FCL packing

Transport and Storage

1. Transportation

The product is suitable for vehicle, ship and aircraft transportation.

During transportation, the awning should be kept in and out of the sun, and maintained.

There should be no violent vibration, impact, etc., during loading and unloading.

2.storage

Storage meets the requirements of Class I environment. Products with a storage period of more than 6 months are recommended to be re-inspected before they can be used.

Matters Needing Attention

- Please be commissioned and installed by professionally qualified personnel;
- Ltech products (except proprietary models) can not be waterproof and lightning protection, to avoid the sun and rain, if installed outdoors, please use water tank and lightning protection devices;
- Good heat dissipation conditions will extend the service life of the product, please install the product in a well-ventilated environment;
- Please check whether the working voltage used meets the parameter requirements of the product;
- The diameter of the wire used must be enough to load the connected LED lamps and ensure that the wiring is firm;
- Before power commissioning, ensure that all wiring is correct to avoid damage to the lamp due to wiring errors;
- If there is a fault, please do not repair it. If in doubt, contact the supplier.

* The contents of this manual are subject to change without prior notice. If the content is different from the function you are using, the physical version shall prevail. If you have any questions, please consult our authorized dealers.

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	20230130	Original version	Yang Weiling
A1	20251115	Update company logo and laser engraving/screen printing	HaipengLi
A2	20260119	Update certification-related labels	HaipengLi