

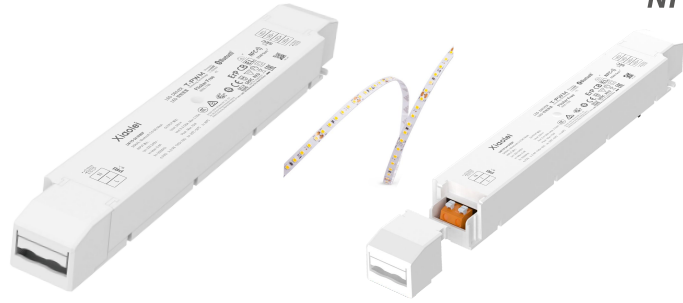
Intelligent LED Driver (Constant Voltage)

- The housing is made of V0 flame-retardant PC material, sourced from SAMSUNG/COVESTRO.
- Features a tool-free clamshell design with detachable end caps, allowing length adjustment as needed.
- The gradient time, PWM, Power-on Status, etc. can be changed through NFC via the mobile phone APP to achieve the data interaction function of the driver.
- Bluetooth 5.0 SIG Mesh with high networking capability are reliable and stable.
- Support control iOS or Android smart devices through Bluetooth connection.
- It is equipped with a soft-start gradually brightening function, making the visual experience more comfortable for the human eyes.
- Supports deep dimming from 0-100%, with a minimum dimming level of 0.0001%.
- Supports Over-The-Air (OTA) online updates for device firmware.
- Complies with the EU ERP Directive on energy efficiency, with no-load power consumption < 0.5W and network standby power consumption < 0.5W.
- Equipped with an advanced thermal management system to protect internal components.
- Includes protections against overheating, overload, short circuit, and open circuit.
- Suitable for Class I / II / III indoor luminaires.
- Designed for a service life exceeding 100,000 hours under normal operating conditions.
- 5-year warranty (Rubycon capacitor).



Flicker-Free
IEEE 1789

Dimmable:
1:1000000



The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product

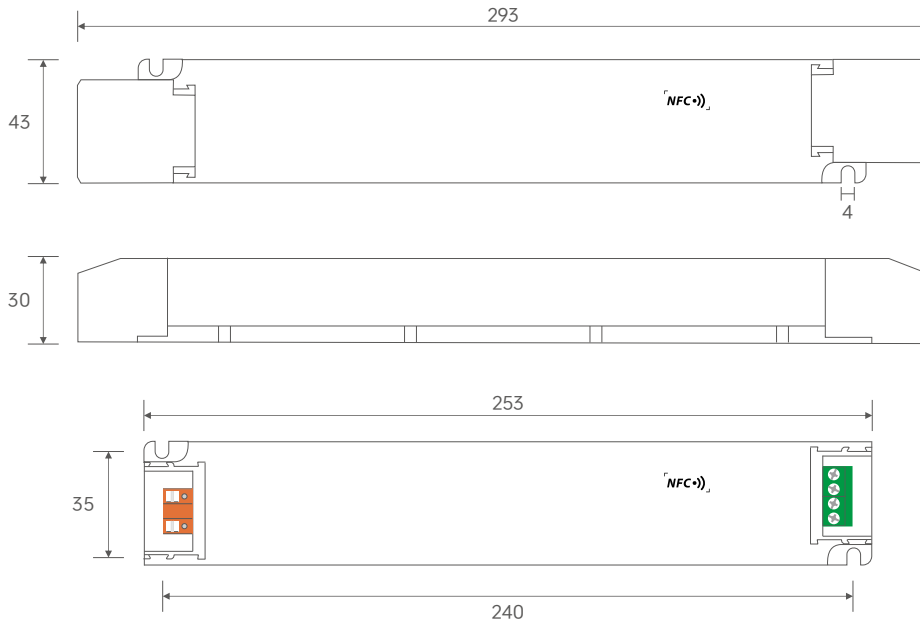
Technical Specs

Model	LM-75-24-G1B2F			
Features	Output Type	Constant voltage		
	Dimming Interface	Bluetooth 5.0 SIG Mesh		
	Output Feature	Isolation		
	Protection Grade	IP20		
OUTPUT	Insulation Grade	Class II (Suitable for class I / II / III light fixtures)		
	Output Voltage	24V $\overline{=}$		
	Output Voltage Range	24V \pm 0.5V $\overline{=}$		
	Output Current	Max. 3.125A		
	Output Power	Max. 75W		
	Output Power Range	0-75W		
	Strobe Level	High frequency exemption level		
	Dimming Range	0-100%, down to 0.0001%		
	Overload Power Limitation	\geq 102%		
INPUT	Ripple	300mV		
	PWM Frequency	300-22000Hz		
	Input AC Voltage	220-240V~		
	Input DC Voltage	220-240V $\overline{=}$ (EMI needs to be evaluated after the lamp is equipped.)		
	Frequency	50/60Hz		
	Input Current	Max. 0.4A/230V~		
	Power Factor	PF>0.98/230V~ (at full load)		
	THD	THD<10%@ 230V~(at full load)		
	Efficiency (Typ.)	92%		
ENVIRONMENT	Inrush Current	Cold start 45A(Test twidth=300us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.5mA		
	Working Temperature	ta: -20 ~ 50°C tc: 80°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
PROTECTION	Storage Temperature/Humidity	-40 ~ 80°C, 10~95%RH		
	Temperature Coefficient	\pm 0.03%/°C(-20°C-50°C)		
	Vibration	10~500Hz, 2G 12 mins/cycle, 72 min for X, Y and Z axes respectively		
	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature \geq 110°C, and recover automatically		
SAFETY & EMC	Overload Protection	Automatically protect the device when the load exceeds 102% of the rated power. Automatically recover once load is reduced		
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically		
	Overvoltage Protection	Shut down the output when no-load voltage \geq 28V, and recover automatically		
	Withstand Voltage	I/P-O/P:3750V~		
ErP	Insulation Resistance	I/P-O/P: 100M Ω /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
		EAC	Russia	IEC61347-1, IEC61347-2-13
		RCM	Australia	AS 61347-1, AS 61347-2-13
	EMC Emission	ENEC	Europe	EN61347-1, EN61347-2-13, EN62384
		CCC	China	GB/T17743, GB17625.1
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547
EAC		Russia	IEC62493, IEC61547, EH55015	
EMC Immunity	RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
	EN61000-4-2,3,4,5,6,8,11	EN61547		
	Power Consumption	Networked standby	< 0.5W (After shutdown by command)	
OTHERS	No-load power consumption	< 0.5W(When the lamp is not connected)		
	Flicker/Stroboscopic Effect	IEEE1789	Meet IEEE 1789 standard/High frequency exemption level	
	DF	CIE SVM	PstLM \leq 1.0, SVM \leq 0.4	
OTHERS	Weight(N.W.)	Phase factor	DF \geq 0.9	
	Dimensions	290g \pm 10g	293 \times 42.5 \times 30mm(L \times W \times H)	

This driver is suitable for connecting LED lighting fixtures with resistor current limiting (such as LED light strips). If it is connected to a fixture with built-in constant current IC for current limiting, an instantaneous inrush current dozens of times higher will be generated, causing the driver to activate overload protection (hiccup and strobing). When placing an order, such fixtures with built-in constant current IC for current limiting (e.g., MR16 bulbs, underground lights, wall washers, constant current hard light strips, etc.) need to be specified to facilitate the burning of a special program.

Product Size

Unit: mm



Wiring Diagram

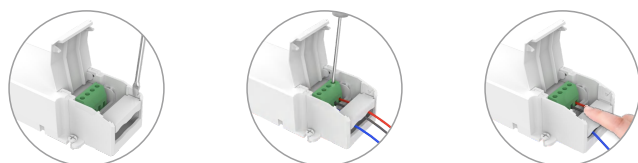
Wireless connection method



* Control through Bluetooth network access via the APP
 *Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

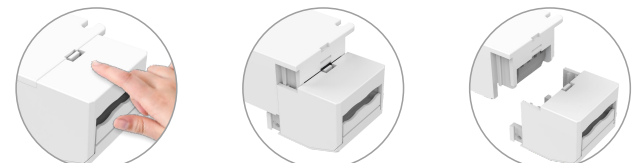
Protective Housing Application Diagram

Tension plate



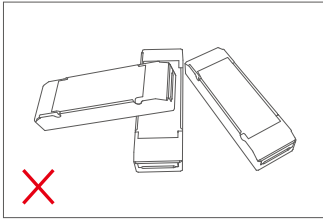
1. Pry up the protecting housing in the side plate position with a tool.
2. Connect to electrical wires with a screwdriver as wiring diagram shows.
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

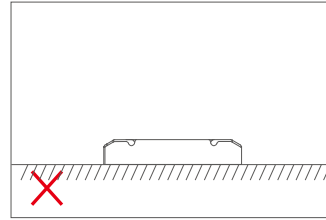
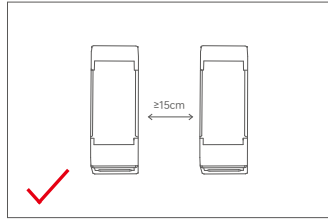


Pull the housing left and right from the bottom to remove it.

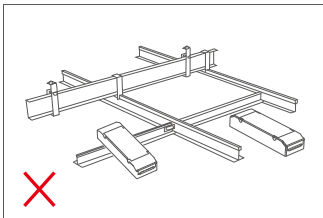
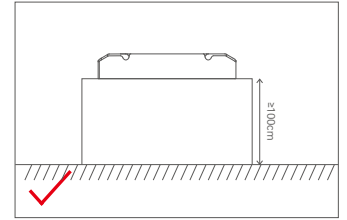
Installation Precautions



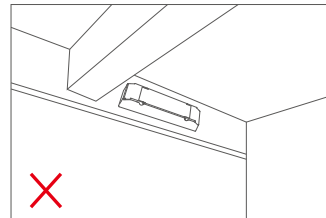
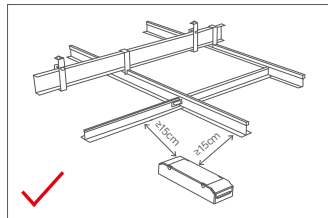
Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.



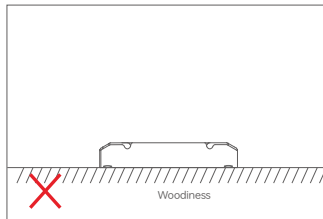
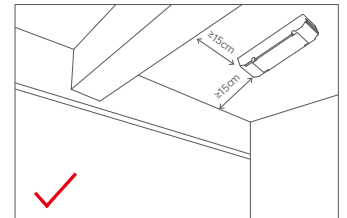
Please do not place the products on the floor. The distance between the product and the floor should be $\geq 100\text{cm}$ so as to avoid signal interference.



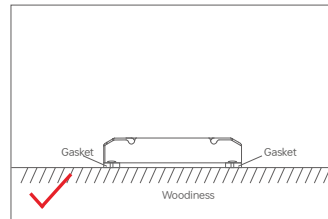
Please do not place the products near a large area of metal objects (such as metal stud ceilings). The distance between the product and the metal object should be $\geq 15\text{cm}$ so as to avoid signal interference.



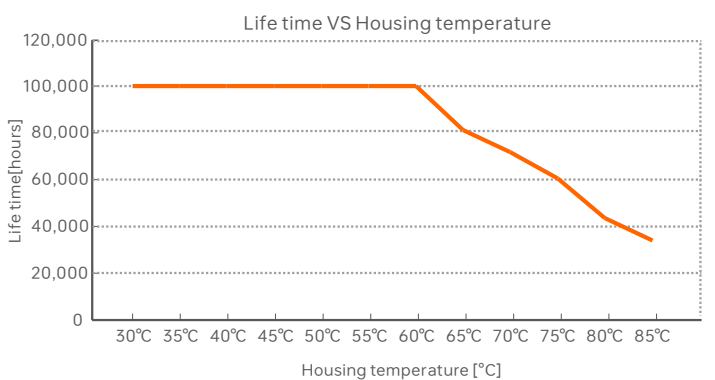
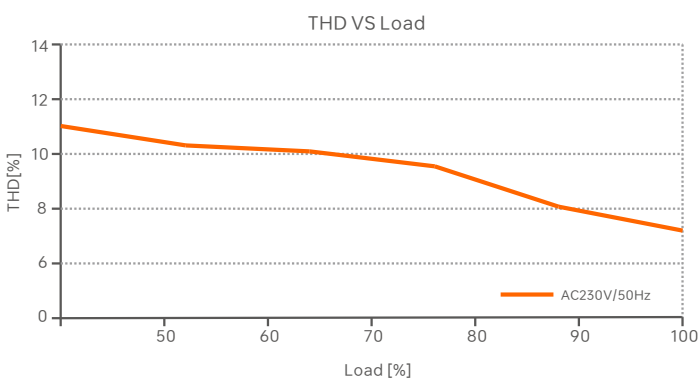
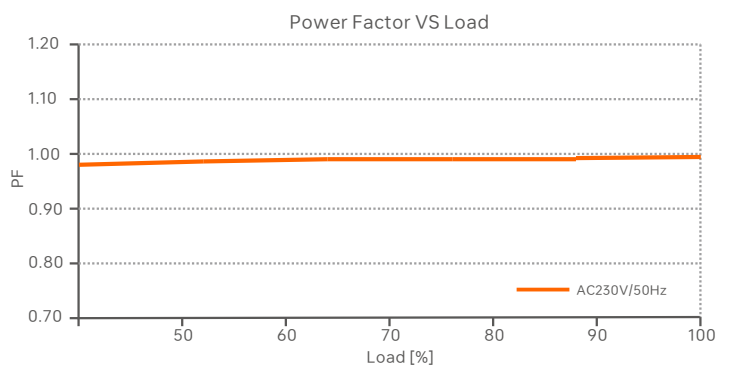
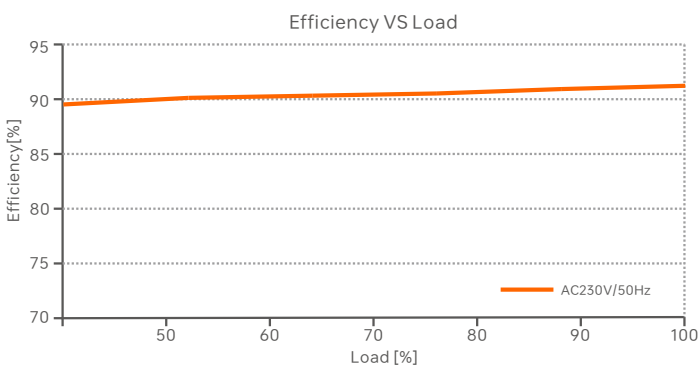
Please do not install the products on beams or near the corners. The distance between the product and the beam or the corner should be $\geq 15\text{cm}$ so as to avoid signal interference.



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



Relationship Diagrams



Surge Current & Corresponding Miniature Circuit Breaker (MCB) Load Capacity Table

MCB Model	B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
Maximum Load Capacity	5	7	8	10	13	8	9	10	12	15	11	12	13	16	19

Remarks:

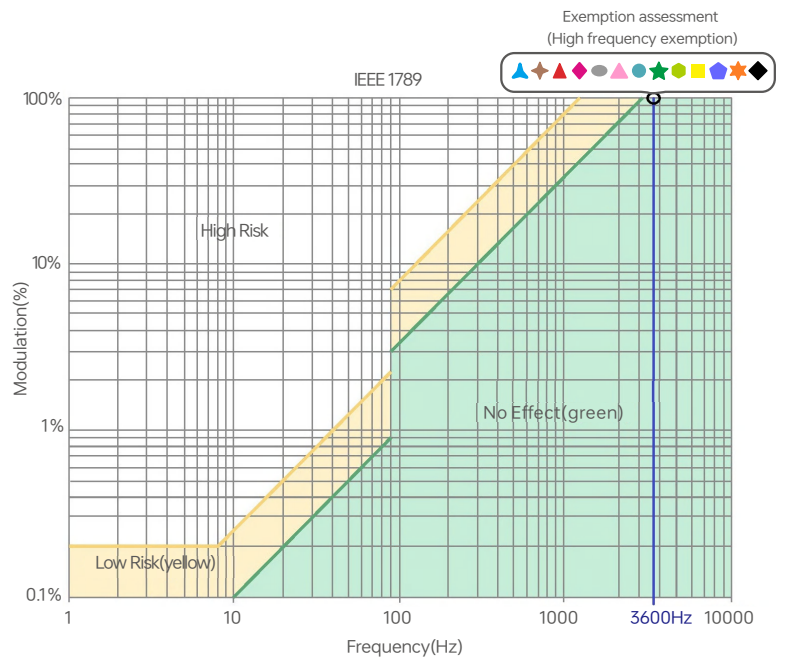
1. Test Conditions: Cold start 45A(Test twidth=300us tested under 50% Ipeak)/230V ~ .
2. The number of supported drivers may vary depending on the brand and model of the MCB.
3. It is recommended not to exceed the specified load capacity during on-site installation. The actual load should be determined based on field conditions.
4. If the ambient temperature exceeds 30°C or multiple MCBs are installed side by side, the number of installed drivers must be reduced and recalculated accordingly.
5. Electricians typically use Type B MCBs for residential lighting and Type C MCBs for commercial lighting applications.
6. Different testing equipment may yield variations in measured current peaks and pulse widths. Always use professional-grade instruments for accurate testing.

Flicker Test Table

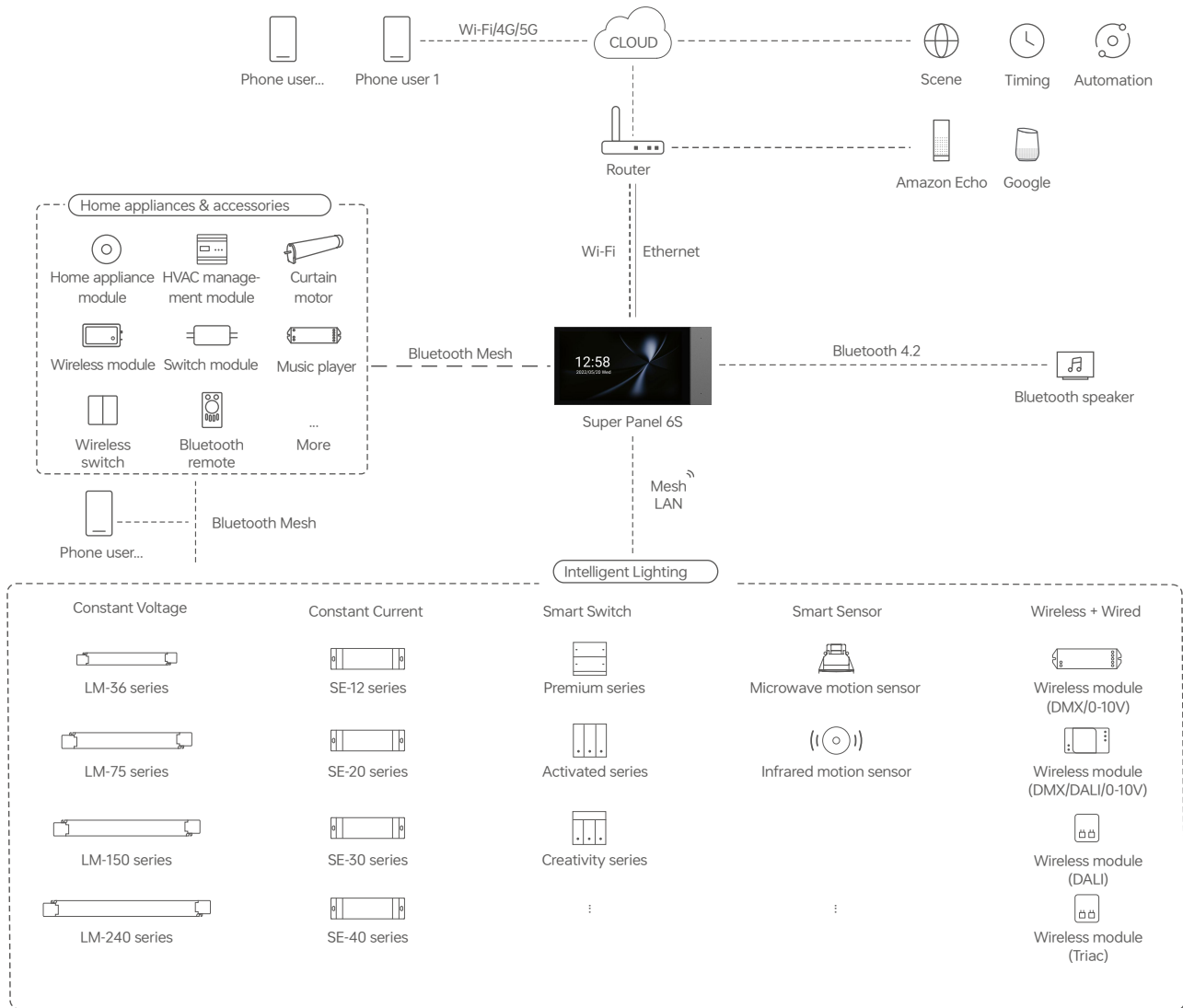
IEEE 1789	
Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ≤ 8Hz	0.2
8Hz < f ≤ 90Hz	0.025 × f
90Hz < f ≤ 1250Hz	0.08 × f
f > 1250Hz	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output (f)	Limit 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)

Brightness

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

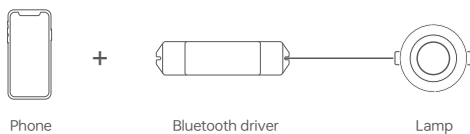


Recommend Applications

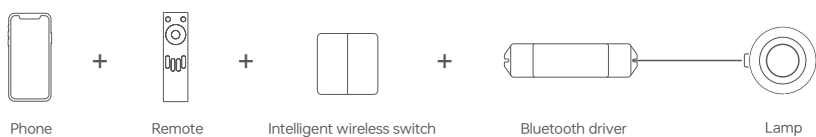


Recommend Applications

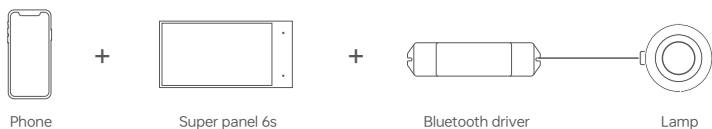
1. Achieve fast dimming control.



2. Both App and remote can control the driver after connecting the remote to the driver with App.



3. Both App and Super Panel 6S can control the driver simultaneously after connecting the Super Panel 6S to the driver with App. By connecting the Super Panel to network, you are allowed to control the driver, cloud scenes and automation remotely with App.



4. More applications of intelligent control are waiting for you to set up.

Use with Bluetooth L-Home APP

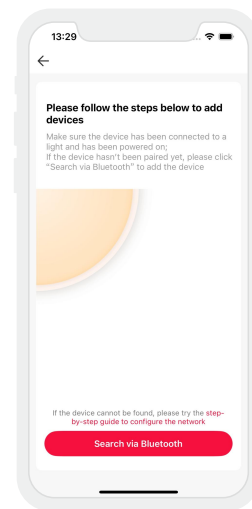
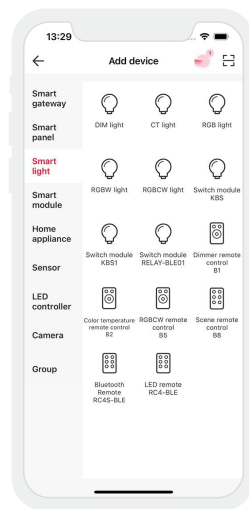
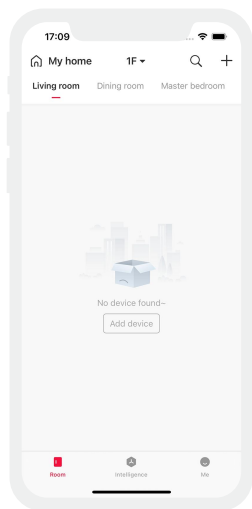
1. Register an account

The App is available on iOS or Android devices. Scan the QR code below with you mobile phone and follow the prompts to complete the App installation. Open the App to log in or register an account.



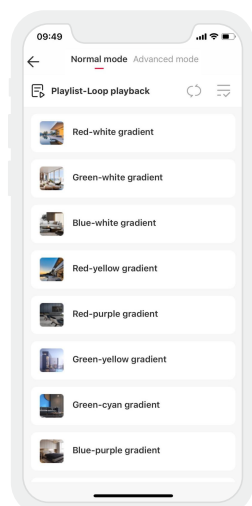
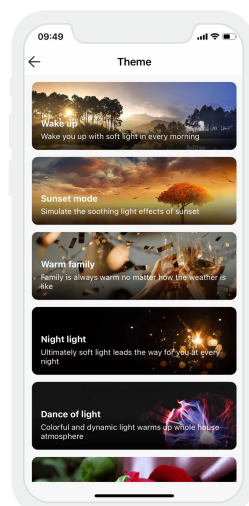
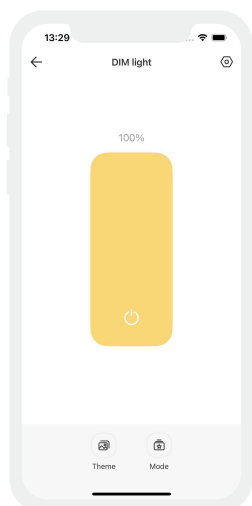
2. Paring instructions

Open the APP and create a home if you are a new user. Click “+” icon in the upper right corner and access the “Add Device” list, then follow the prompts to add the device. Pick “Smart lighting-DIM light” from the list and follow the prompts to power on the device firstly. Make sure the device is not connected to the network. Then click “Bluetooth Search” and follow the prompts to add the device.



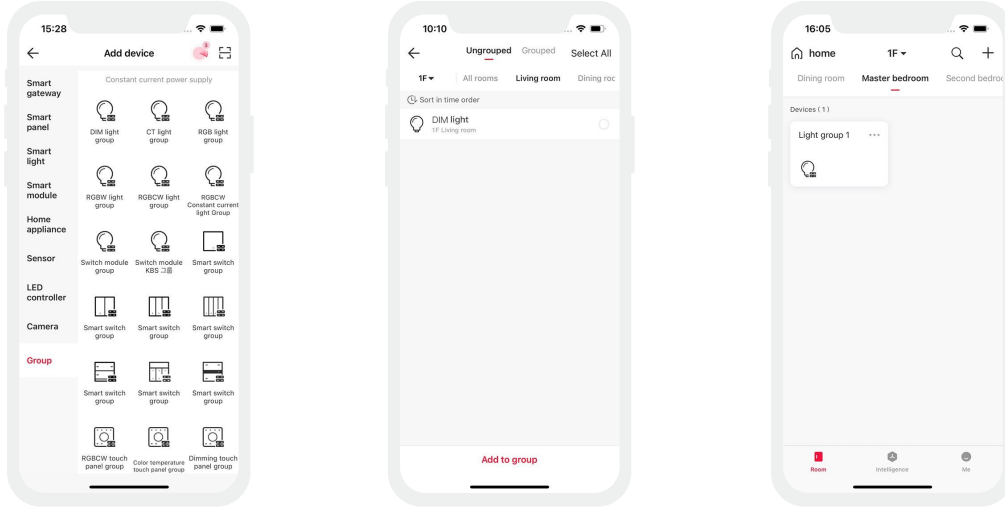
3. Control interface settings

After pairing up your device, go to the control interface. You'll be able to achieve your desired lighting effects by changing brightness and color temperature. Click “Theme” and you'll easily switch to multiple theme lighting effects with one tap. Click “Mode” and the App provides you editable advanced modes. Customize dynamic modes to put you into a more colorful life.



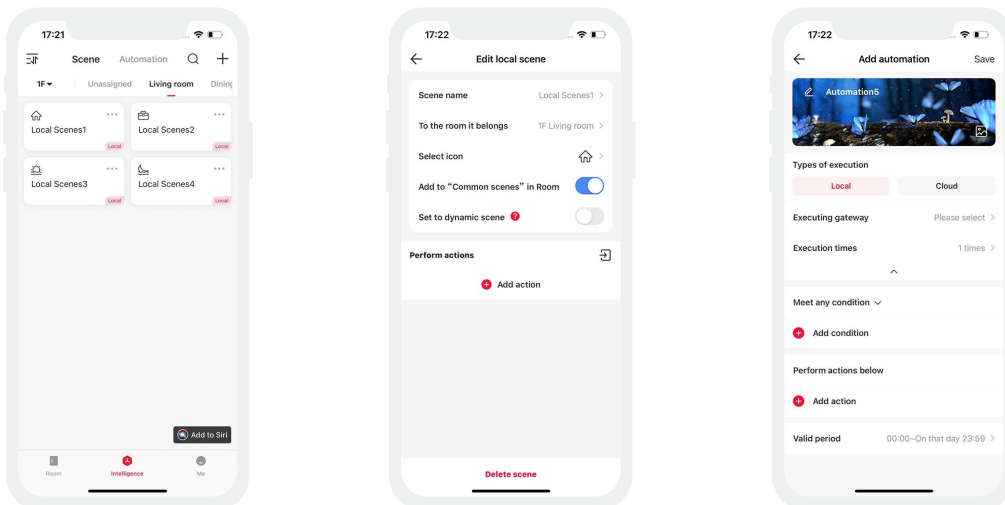
4. Light groups

Users are able to combine the same type of light fixtures into a group to control them simultaneously. Once you create the group, you can set the dim level more easily. Pick "Group-DIM light group" from the list. Follow the prompts to rename the group and click "Next" to pick the lights you are going to group together and click "Save".



5. Advanced functions

This driver can be linked up with gateway function devices (such as Super Panel 12S) to achieve the advanced functions from local scenes and cloud scenes to automation.



6. More Features

Interstellar Technology

- It has achieved an innovative breakthrough of no power-on required and no on-site debugging required. Staff can deploy smart home solutions in advance, preconfigure network access, grouping, scenarios, and other settings in the early stage, which greatly shortens the project cycle and reduces project costs.

Device Replacement

- When a device is damaged, lost, or offline, you can select a device of the same model to replace it. The new device will synchronize the configuration of the old one, including name, group, mode, scene, automation, and more.

Device Log

- Record the operation logs of the device.

Fade Time

- Power-on fading time: The fading time for the light to go from off to on when the device is powered on.
- Light-on fading time: The fading time for the light to go from off to on when the light fixture is turned on.
- Light-off fading time: The fading time for the light to go from on to off when the light fixture is turned off.
- Scene fading time: The fading time for the light's brightness and color during scene switching.

Power-On State

- The state maintained by the device (full brightness / off / memory / custom) when the device is powered on.

Dimming Depth

- The default dimming depth is one ten-thousandth, and the maximum achievable dimming depth is one millionth.

Brightness Range

- Customizable adjustable brightness range.

FAQs

1. What should I do if device addition fails?

- 1.1 Ensure the device is powered on normally and in an activated state;
- 1.2 Ensure the device to be added has not been added to any other account. If it has, manually restore it to factory settings;
- 1.3 Ensure the mobile phone and the device are as close as possible, with a recommended distance of no more than 20 meters;
- 1.4 If the device has been forcibly deleted, manually restore it to factory settings first, then add the device again.

2. What should I do if the device goes offline?

- 2.1 Please check if the device is powered on normally;
- 2.2 Please check if the router is working properly and the network is smooth;
- 2.3 If using remote control, please check if the mobile phone network is working properly and the network is smooth.

3. How to perform remote control / set up cloud scenes?

To use remote control / add and set up cloud scenes, it is necessary to use the company's super panel together.

4. How to Share a Device?

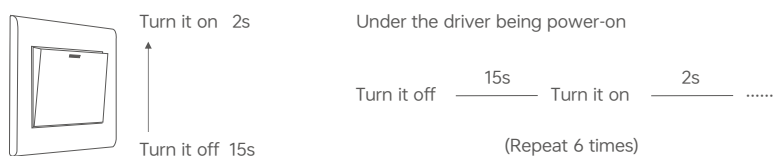
Please go to "My" -> "Family Management", select the family for which you want to share devices, then click "Add Member". Follow the prompts to add the family member or friend with whom you want to share the device to this family, and the sharing process will be completed.

5. Inconsistent dimming for light films or groups in the same area?

There may be differences between hardware of different models. It is necessary to use the same model for group dimming to achieve better dimming consistency.

Reset The Device (Reset to factory defaults)

Make sure the driver is well-connected to a lamp and the lamp is on, turn it off with the switch and after 15s turn it on. After 2s, turn it off again. Repeat the same operation 6 times. When the lamp flashes 5 times, reset the device to factory defaults successfully.



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).



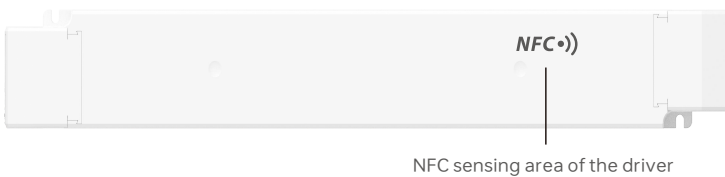
* Before you begin setting the parameters of the driver, please make sure the driver is powered off.

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 sensing area of the driver to read the driver parameters.

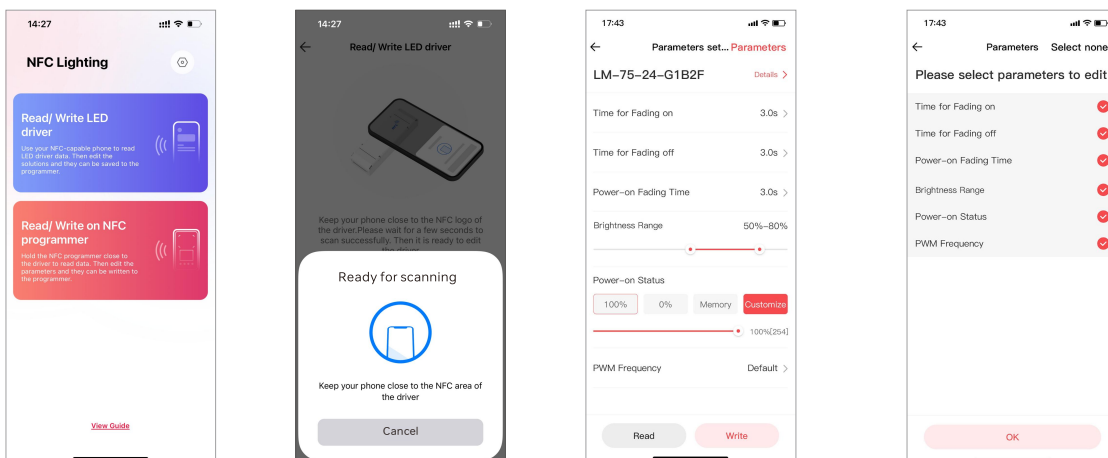


2. Edit parameters

Click on [Parameter Management] to edit more advanced parameters such as Time for Fading on, Time for Fading off, Power-on Fading Time, Brightness Range, Power-on Status and PWM Frequency.

3. Write to the drive

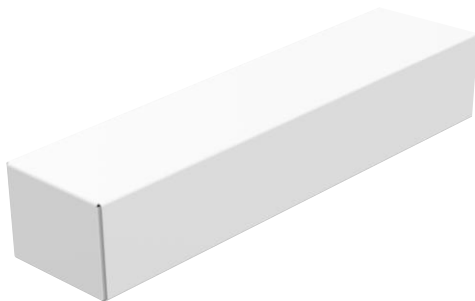
After completing the parameter settings, click **[Write]** in the upper right corner, and keep the programmer's sensing area close to the NFC sensing area of the driver, so the parameters can be written to the driver



Packaging specification

Model	LM-75-24-G1B2F
Packaging box size	315×215×240mm(L×W×H)
Quantity	10 PCS per layer, 3 layers per box, 30 PCS per box
Weight	0.29kg per PC, 9.6kg±5% per box

Packaging style drawing



Inner packaging box



Full box packaging

Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong 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.

Update Log

Version	Updated Time	Update Conten	Updated by
A0	20250731	Original version	Simin Zhong