LTSYS

LM-100-24-G1M2F

DMX512/RDM Push DIM

Intelligent LED Driver (Constant Voltage)

- The housing is made of V0 flame-retardant PC material, sourced from SAMSUNG/COVESTRO.
- 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.
- Supports full-command NFC fast programming. Mobile app via NFC enables changing DMX address, dimming curve, brightness range and other parameters, realizing driver data interaction.
- Support the RDM remote Device Management Protocol.
- Supports DMX512/RDM, Push DIM and corridor light DIM.
- Supports deep dimming from 0–100%, with a minimum dimming level of 0.01%.
- It is equipped with a soft-start gradually brightening function, making the visual experience more comfortable for the human eye.
- Supports Over-the-Air (OTA) online firmware updates for devices
- Complies with the EU ERP Directive on energy efficiency, with no-load power consumption < 0.5W and network standby power consumption < 0.5W
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Includes protections against overheating, overload, short circuit, and open circuit.
- Suitable for ClassⅠ/Ⅱ/Ⅲindoor light fixtures.
- Designed for a service life exceeding 100,000 hours under normal operating conditions.
- 5-year warranty (Rubycon capacitor).

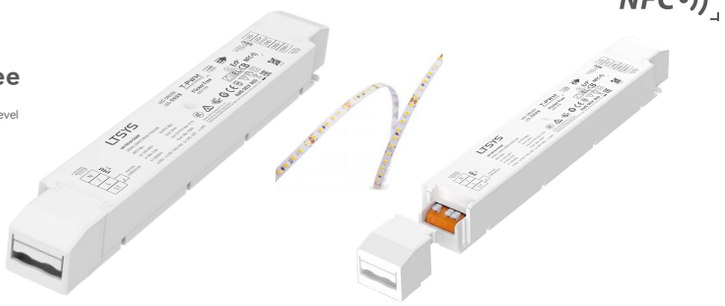
RDM DMX

Flicker-Free
IEEE 1789
Achieve the exemption level

Dimmable:
1:10000

CORRIDOR DIM

NFC



ErP RED SELV RoHS

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

PWM Digital dimming

Over Temp. Protection

Over voltage protection

Over Load Protection

Short Circuit Protection

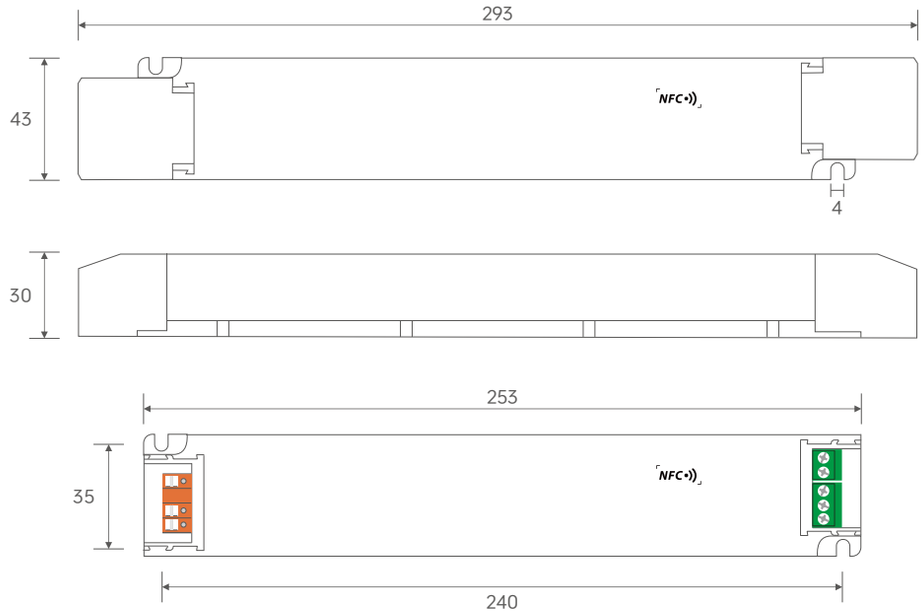
Technical Specs

Model		LM-100-24-G2M2F		
Features	Output Type	Constant voltage		
	Dimming Interface	DMX512/RDM, Push DIM		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class Ⅱ (Suitable for class Ⅰ/ Ⅱ /Ⅲ light fixtures)		
OUTPUT	Output Voltage	24V⎓		
	Output Voltage Range	24V ± 0.5V⎓		
	Output Current	Max. 4.17A		
	Output Power	Max. 100W		
	Output Power Range	0-100W		
	Strobe Level	High frequency exemption level		
	Dimming Range	0-100%, down to 0.01%		
	Overload Power Limitation	≥102%		
	Ripple	≤300mV		
	PWM Frequency	300-22000Hz		
INPUT	Input AC Voltage	220-240V~		
	Input DC Voltage	220-240V⎓ (EMI needs to be evaluated after the lamp is equipped.)		
	Frequency	50/60Hz		
	Input Current	Max. 0.5A/230V~		
	Power Factor	PF>0.98/230V~ (at full load)		
	THD	THD<10%@ 230V~(at full load)		
	Efficiency (Typ.)	93%		
	Inrush Current	Cold start 45A(Test twidth=300us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.5mA		
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(-20°C-50°C)		
	Vibration	10~500Hz, 2G 12mins/cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	Overheat Protection	Intelligently adjust or turn off the current output if the PCB temperature ≥110°C. When the PCB temperature <90°C, automatically recover normal output		
	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	No-load voltage ≥ 28V; output turns off and can recover automatically.		
SAFETY & EMC	Withstand Voltage	I/P-O/P:3750V~		
	Insulation 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
		EAC	Russia	IEC61347-1，IEC61347-2-13
		RCM	Australia	AS 61347-1，AS 61347-2-13
		ENEC	Europe	EN61347-1，EN61347-2-13，EN62384
		/		
		/		
	EMC Emission	CCC	China	GB/T17743，GB17625.1
		CE	European Union	EN55015，EN61000-3-2，EN61000-3-3，EN61547
		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		
ErP	Power Consumption	Networked standby		< 0.5W (After switching on/off via command)
		No-load power consumption		< 0.5W(When the lamp is not connected)
	Flicker/Stroboscopic Effect	IEEE1789		Meet IEEE 1789 standard/High frequency exemption level
		CIE SVM		PstLM≤1.0，SVM≤0.4
	DF	Phase factor		DF≥0.9
OTHERS	Weight(N.W.)	300g±10g		
	Dimensions	293×43×30mm(L×W×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.

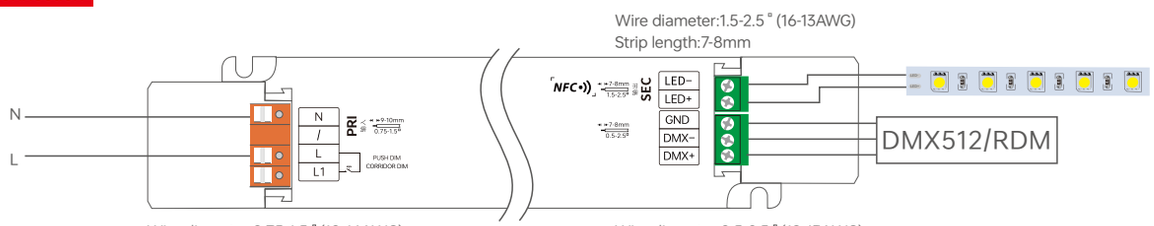
Product Size

Unit: mm



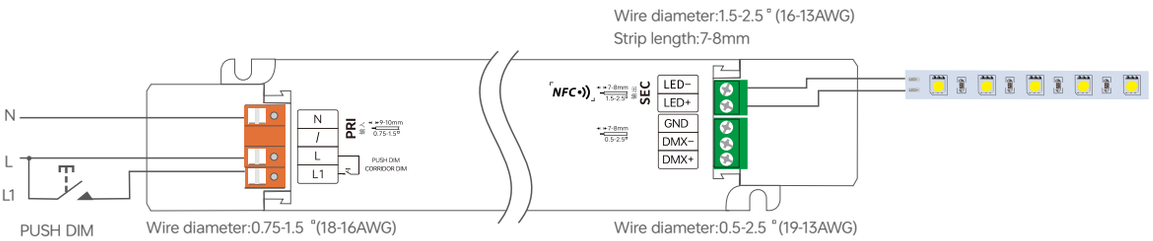
Wiring Diagram

DMX512/RDM Connection



*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.

PUSH DIM Connection



*Dimming interface priority: DMX512/RDM first , PUSH DIM next.
Only when the system failure status setting is set to "Memory" and no DMX data is received, it can be allowed to switch to PUSH DIM.
*The system failure status can be set through NFC lighting/WiFi-RDM.
*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.

Switch to PUSH DIM Mode:

Method 1: If it has been switched to the corridor dimming mode, connect the wires according to the PUSH DIM wiring diagram. Press the switch briefly 5 times within 3 seconds of reset button, then press and hold it for 6 seconds, and then press it briefly 5 times within 3 seconds. The driver will automatically switch to the PUSH DIM dimming mode.
Method 2: If it is switched to the corridor mode, you can switch to the PUSH DIM dimming mode through the NFC Lighting app.

PUSH DIM



Reset Switch

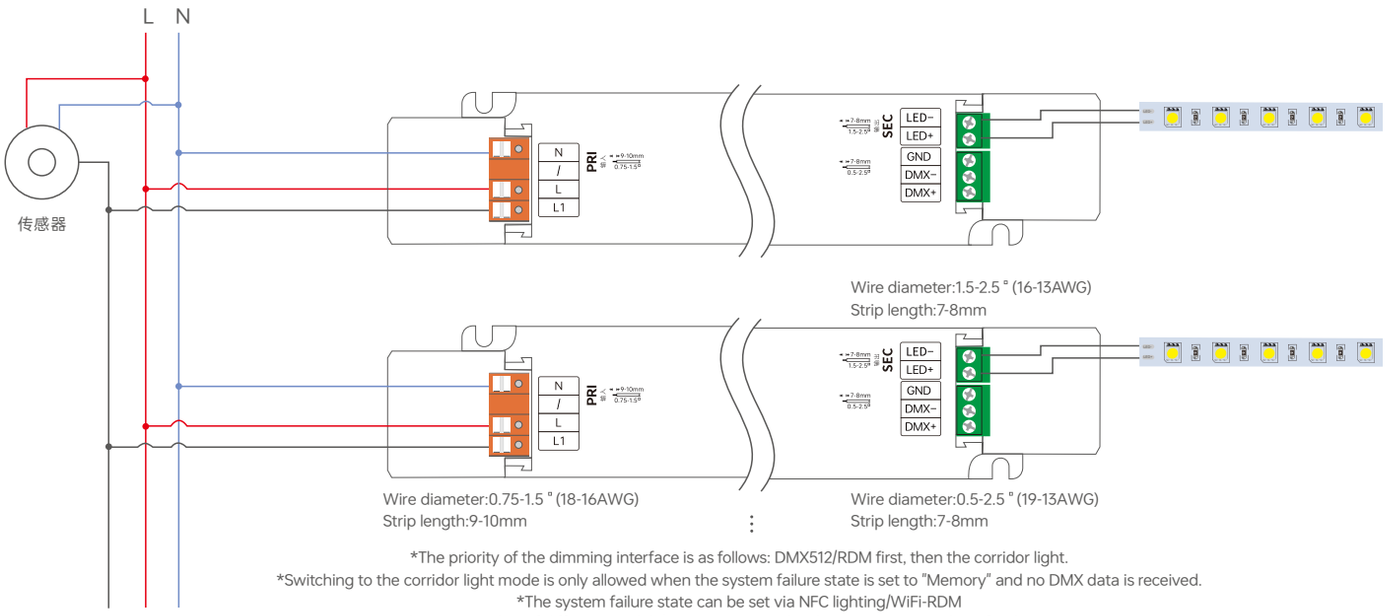
Short press: on/off control.

Double-click: Not available.

Long press: Adjust the current brightness.

Dimming memory: When the light is switched on/off again, the light will resumes to the previously set brightness level.

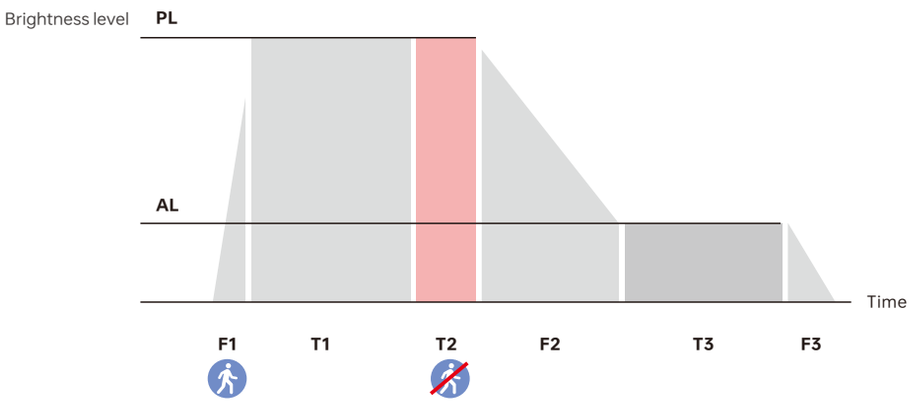
Corridor Dimming Application



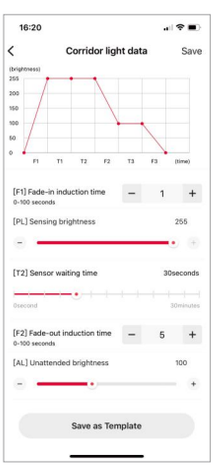
*The priority of the dimming interface is as follows: DMX512/RDM first, then the corridor light.
*Switching to the corridor light mode is only allowed when the system failure state is set to "Memory" and no DMX data is received.
*The system failure state can be set via NFC lighting/WiFi-RDM
*Power supplies 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.

Switch to the corridor light mode
Method 1: Configure and switch the corridor light function via NFC, and the Push DIM function will be turned off.
Method 2: After connecting the wires according to the corridor dimming wiring diagram, keep moving within the effective sensing area for more than 2 minutes, and it will automatically switch to the corridor dimming mode with all lights on at full brightness.
Method 3: After connecting the wires according to the corridor dimming wiring diagram, first replace the sensor with a common switch, then turn on the common switch and keep it conducting for 2 minutes. The driver will automatically switch to the corridor dimming mode. After that, remove the common switch and replace it with the sensor again.
Note: During normal operation, it is recommended to set the hold-time of the motion sensor to the minimum.
It is necessary to select a motion sensor with an AC switch.

Corridor Dimming: Working Process



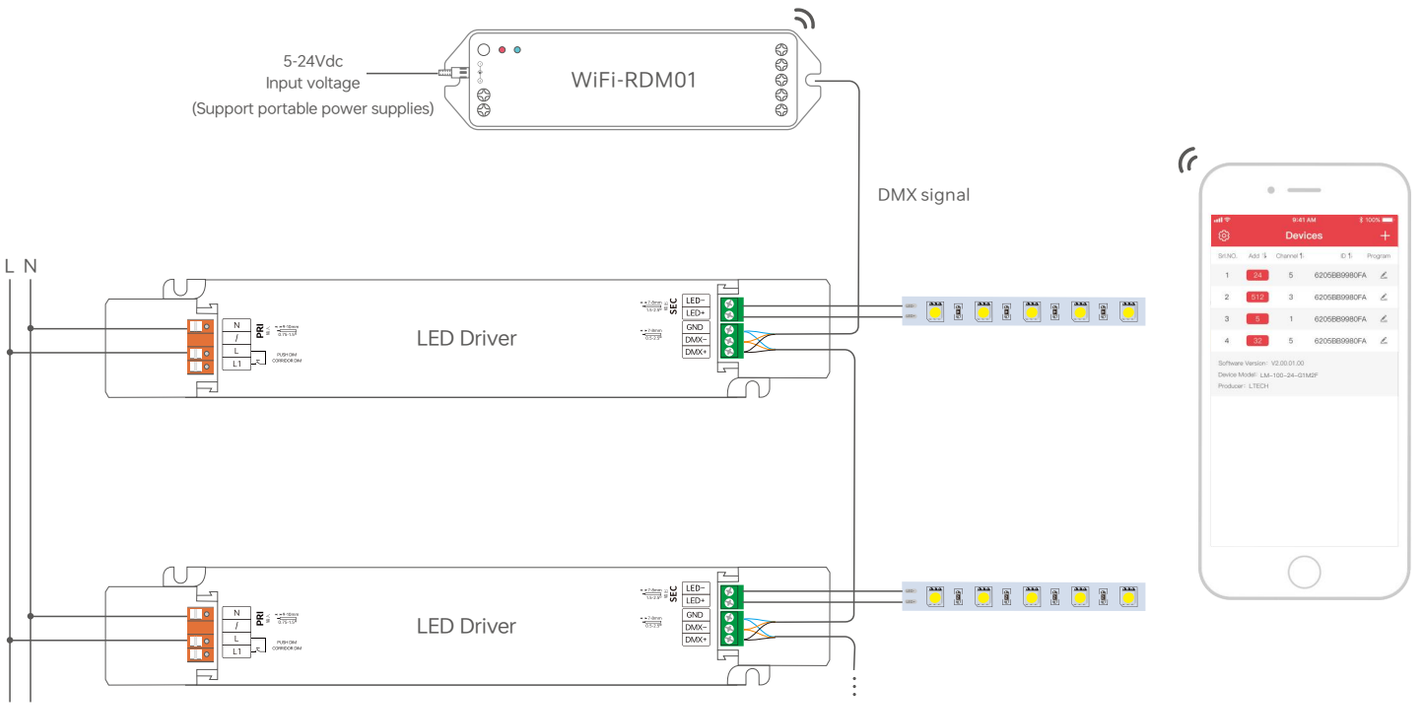
Name	Default	Setting Range
(F1) Gradual Entry Sensing Time	1 s	0-100 s
(PL) Sensing Brightness	255	0-255
(T1) Sensing Holding Time	Set through the sensor	
(T2) Delay Time	30 s	0 s,5 s,10 s,20 s,30 s,45 s,1 min, 2 min, 3 min,5 min,10 min,20 min,30 min
(F2) Gradual Exit Sensing Time	1 s	0-100 s
(AL) Standby Brightness	100	0-255
(T3) Sensing Standby Time	30 s	0 s,5 s,10 s,20 s,30 s,45 s,1 min,2 mins,3 mins,5 mins, 10 mins,20 mins,30 mins,Permanent
(F3) Gradual Exit to Off Time	1 s	0-100 s



Note: *If the lamp needs to be on standby at a low brightness level, the [T3] Sensing Standby Time should be set to "Permanent".
*The above parameters are set through the NFC lighting APP.

Use with RDM Editor

The DMX driver can work with a DMX address programmer that follows the standard RDM protocol.
It is recommended to use LTECH RDM Programmer (Model: WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting.
Wiring diagramas below:

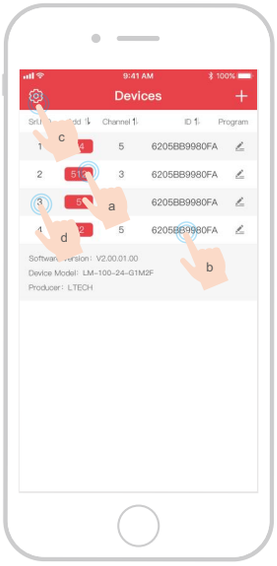


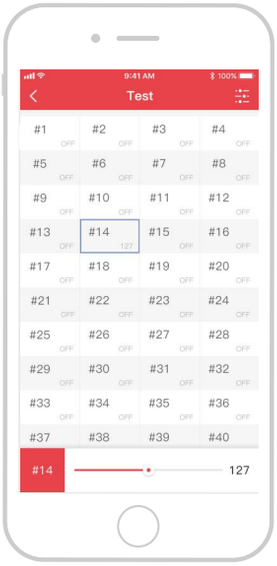
*The default of DMX address of the LED driver is 1

*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.

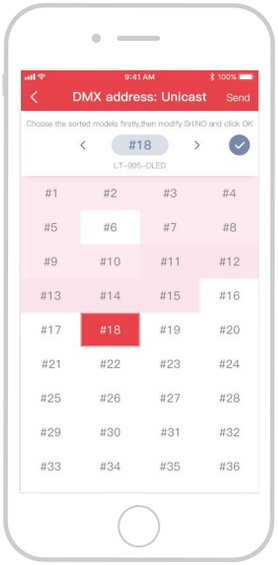
LTECH RDM Programmer APP interface introduction

Download the App with your mobile phone and connect the RDM Programmer successfully, then you are allowed to set parameters through the APP.
Please refer to the WiFi-RDM01 manual fo more details.





Testing



DMX address setting

a : Click“Add”, edit the address in corresponding box ;
b: Click“ID”, get more product details ;
c: Click “⚙”, enter the settings interface
d: Click“No.”, issue the recognizing command.

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.



NFC sensing area of the driver

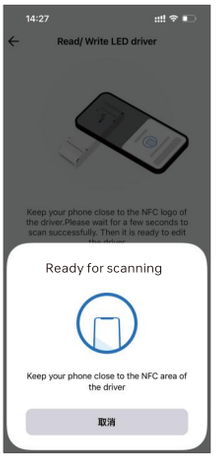
2. Edit parameters

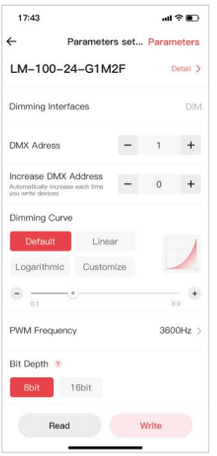
Click on [Parameter Management] to edit more advanced parameters such as DMX Address, Dimming Curve, PWM Frequency, Bit Depth, Brightness Range, Time for Fading to Dim Level, Power-on Status System Failure Level, and Corridor Lights.

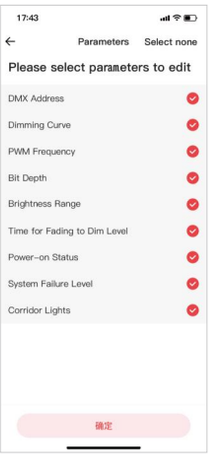
3. Write to the driver

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









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.

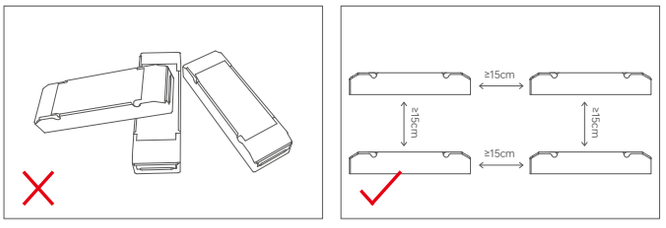
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

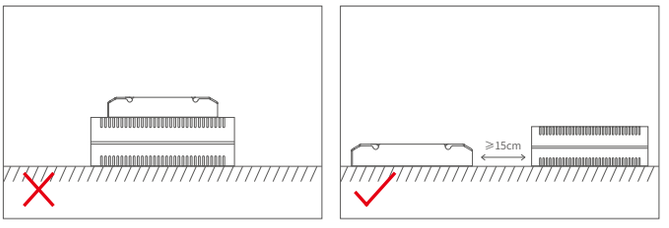


Pull the housing left and right from the bottom to remove it.

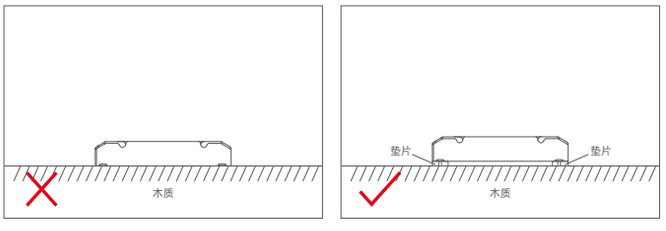
Installation Precautions



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.

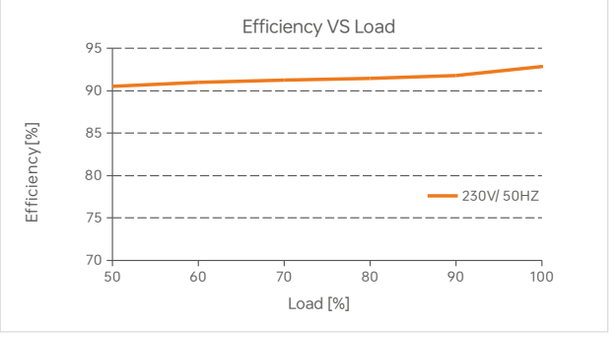


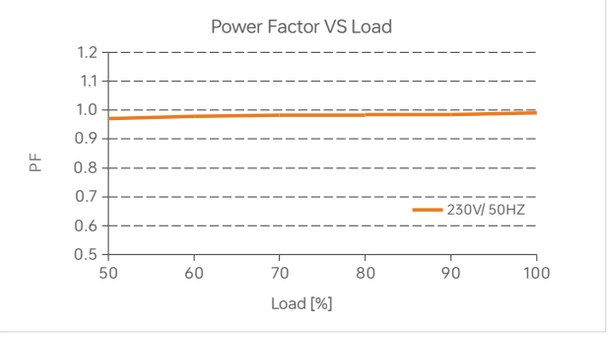
Please not place the products on power supplies. The distance between the product and the power supplies should be ≥15cm so as not to affect heat dissipation or shorten the lifetime of the products.

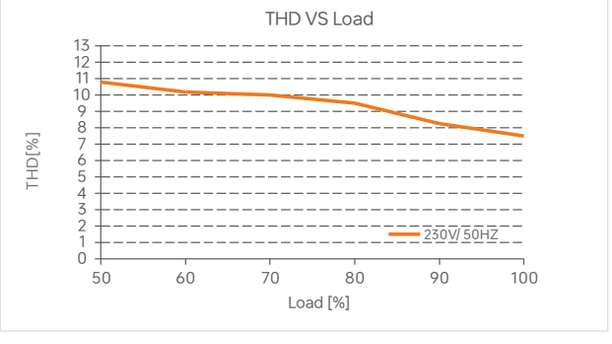


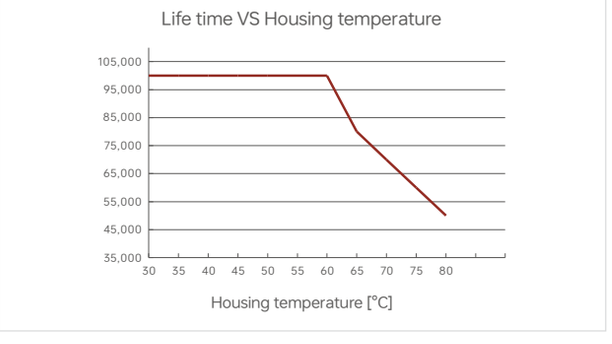
Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws. Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

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.

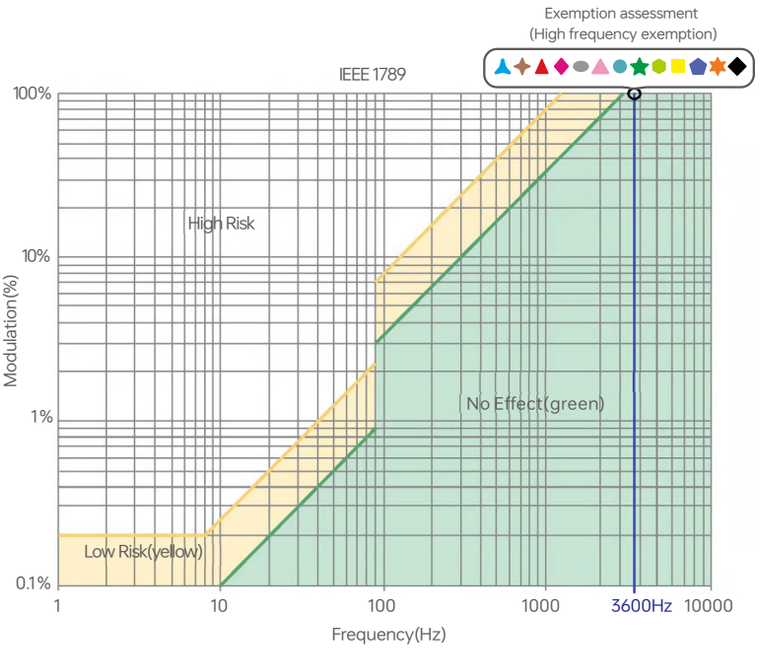
Flicker Test Table

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

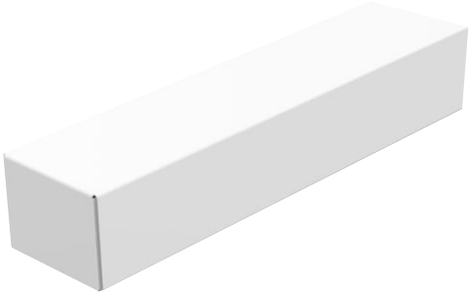
- 0.1%
- 1%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%



Packaging specification

Model	LM-100-24-G1M2F
Packaging box size	315×215×240mm(L×W×H)
Quantity	10PCS per layer, 2 layers per box, 20PCS per box
Weight	0.3kg per PC, 10kg±5% per box

Packaging style drawing



Inner packaging box



Full box packaging