LTSYS

LM-100-24-G2A2F

0-10V
Push DIM/CCT

Intelligent Tunable White 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.
- Via NFC-enabled mobile app, users can adjust dimming mode, PWM frequency, brightness range, and interact with driver data.
- Supports 0-10V, PUSH DIM/CCT and corridor light DIM/CCT.
- Provides two-channel independent SELV outputs.
- Constant power design ensures consistent brightness across color temperature adjustments.
- 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.
- The dimming interface is equipped with photoelectric isolation and complies with the latest safety regulations and standards, making it safer and more reliable.
- 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.
- Over-temperature, over-voltage, overload, and short-circuit protection, with automatic recovery.
- Suitable for Class I / II / III indoor luminaires.
- The service life can reach 100,000 hours under normal use.
- 5-year warranty (Rubycon capacitor).

Flicker-Free
IEEE 1789
Achieve the exemption level.

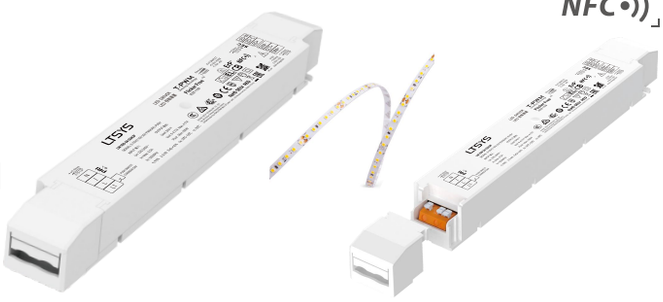
5 in 1 dimming
0-10V
1-10V
10V PWM
RX
PUSH DIM/CCT

Current consumption of the 0-10V interface < 0.05mA

Dimmable:
1:10000

CORRIDOR DIM

NFC



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

PWM Digital Dimming
Overheat Protection
Over voltage protection
Over Load protection
Multi current setting
Short circuit protection

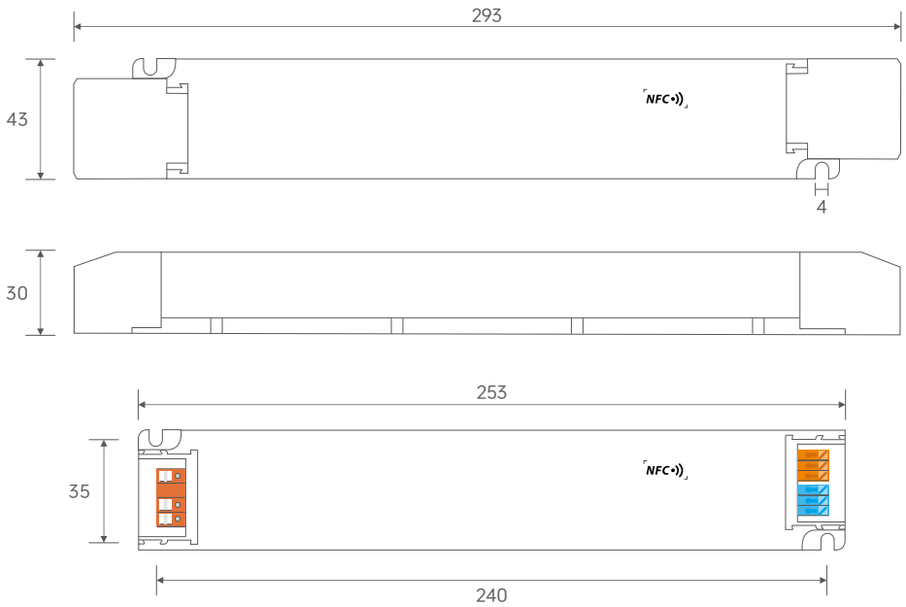
Technical Specs

Model		LM-100-24-G1A2F		
Features	Output Type	Constant voltage		
	Dimming Interface	0/1-10V, Push DIM/CCT		
	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℃ tc: 80℃		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temperature/Humidity	-40 ~ 80℃, 10~95%RH		
	Temperature Coefficient	±0.03%/℃(-20℃-50℃)		
	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℃. When the PCB temperature <90℃, 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℃/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

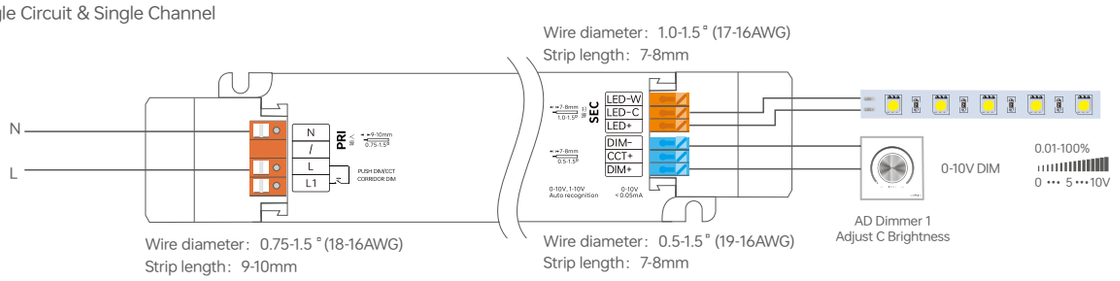
Unit：mm



Wiring Diagram

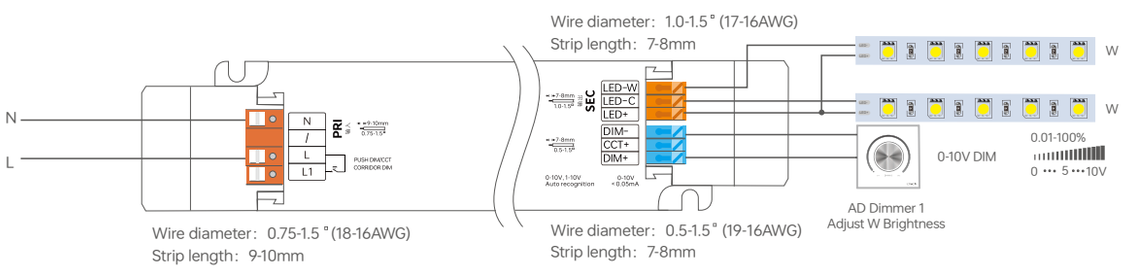
0-10V Connection

1.Dimming: Single Circuit & Single Channel



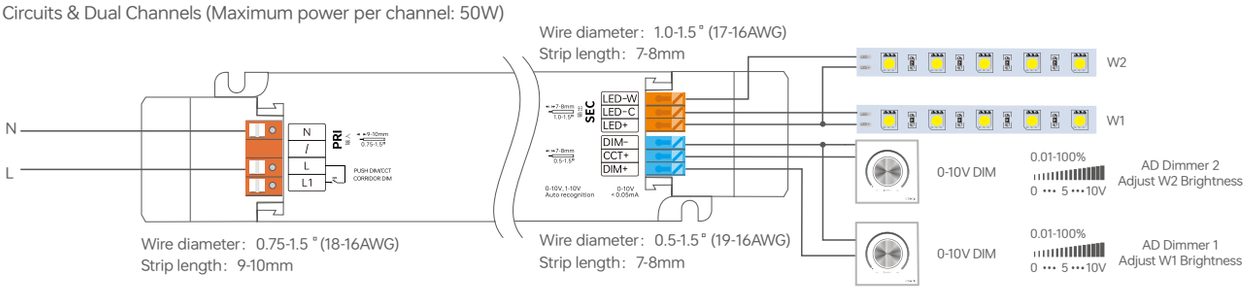
*Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

2.Dimming: Single Circuit & Dual Channels (Maximum power per channel: 50W)



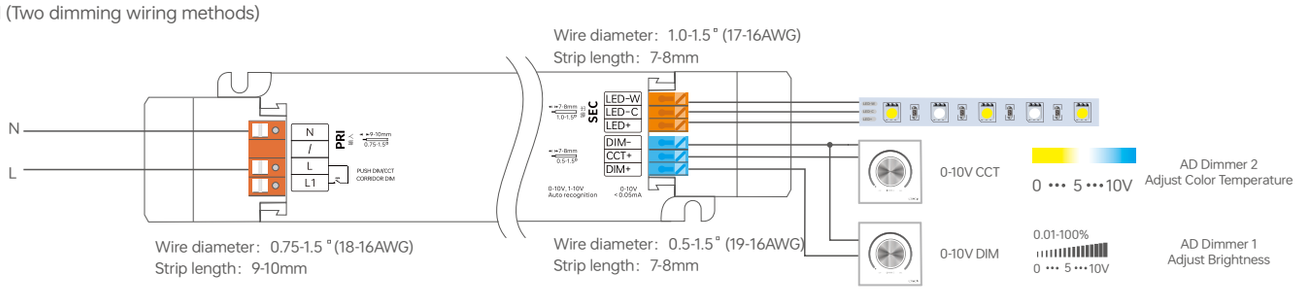
*Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

3.Dimming: Two Circuits & Dual Channels (Maximum power per channel: 50W)



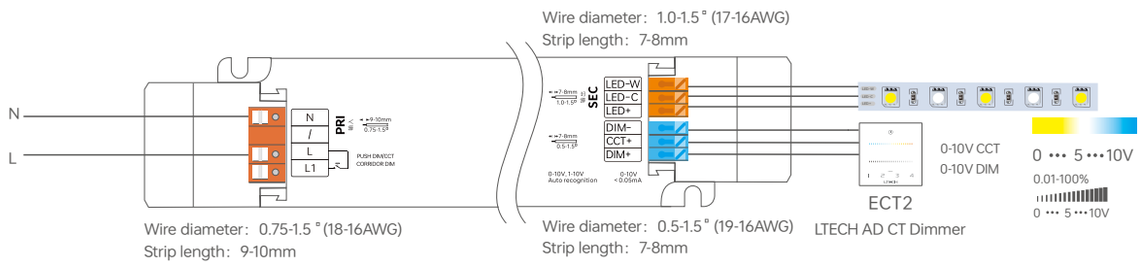
*Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

4.CT Mode: 2CH (Two dimming wiring methods)



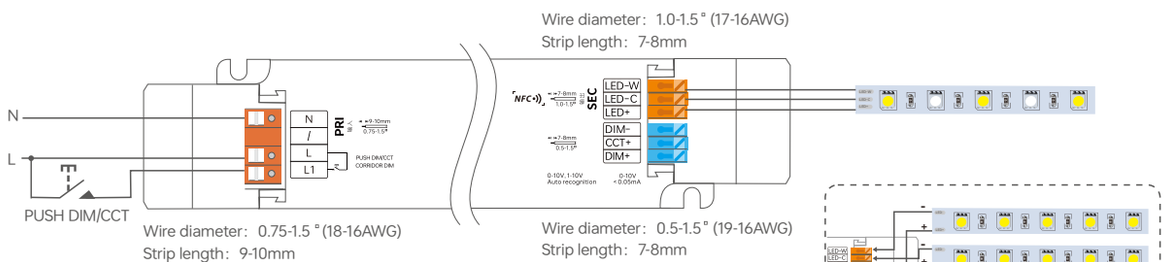
*Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

5.CT Mode: 2CH (Using a dimming wiring method)

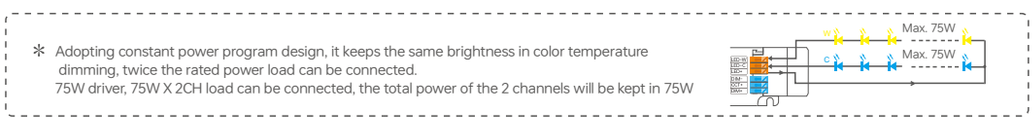


*Power supplies of different models/wattages vary in hardware. Do not use them for dimming the same light film/light box to avoid inconsistent light activation and dimming. Recommend matching the same light film/light box with a power supply of the same model for consistent dimming.

PUSH DIM/CCT Connection



*Dimming interface priority: First 0-10V, next PUSH DIM/CCT.



*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 Mode:

Method 1: If the corridor light has been switched to the PUSH mode, you can connect the circuit according to the Push DIM wiring diagram. Press the reset switch briefly 5 times within 3 seconds, then hold it down for 6 seconds, and then press it briefly 5 times within 3 seconds. The driver will automatically switch to the PUSH mode.

Method 2: If the corridor light has been switched to the PUSH mode, it can be switched to the PUSH mode through the NFC Lighting app.

PUSH DIM/CCT



Reset Switch

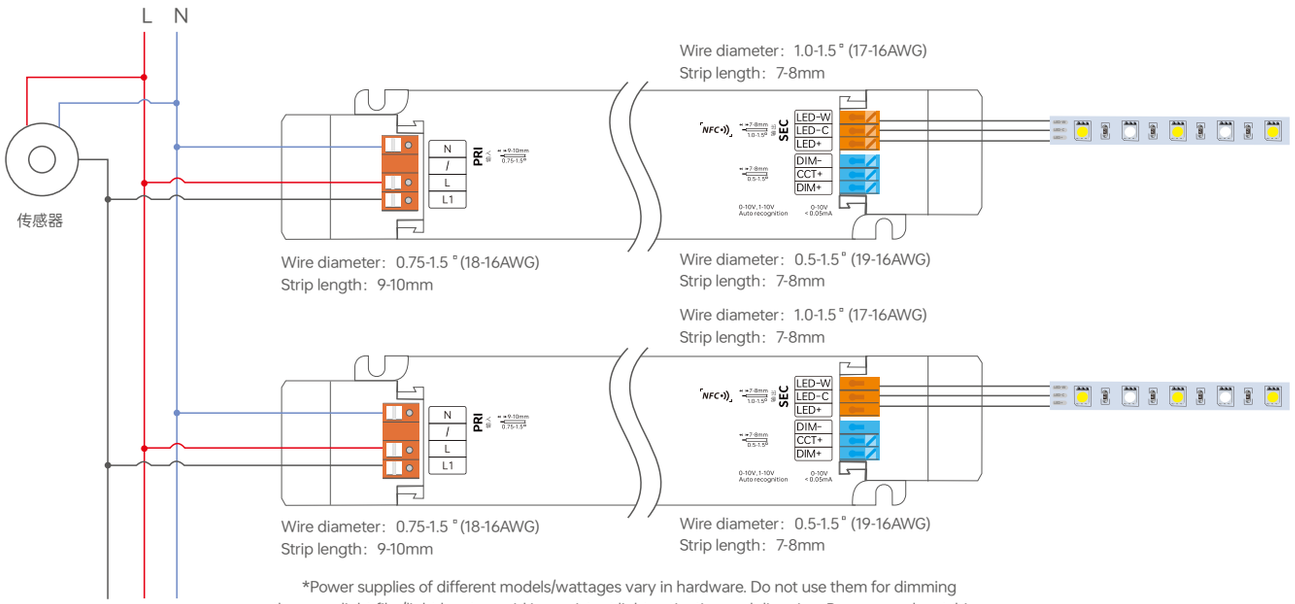
Short press : on/off control.

Double-click: Double press: Switch brightness/color temperature mode.

Long press : Adjust the current mode.

Dimming memory : Upon being switched on again, the light resumes the previously set brightness level.

Corridor Dimming Application



*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

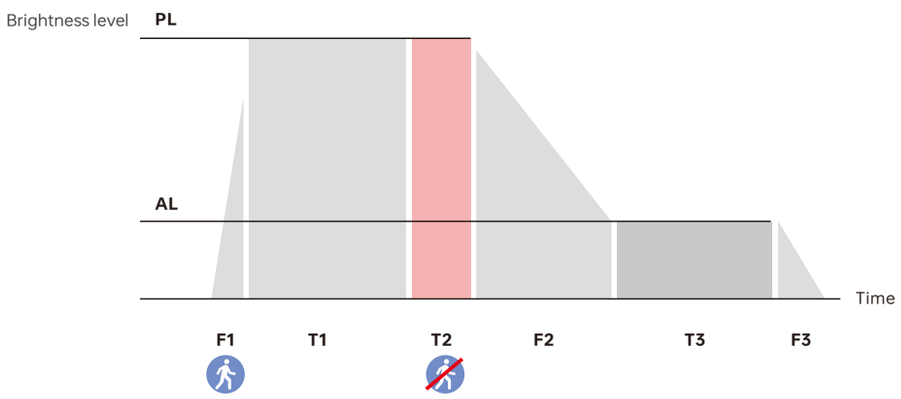
Method 1: Configure and switch the corridor light function via NFC, and the Push function will be turned off.

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.

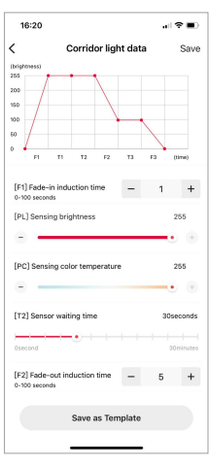
Method 3: After connecting the wires according to the corridor dimming wiring diagram, first replace the sensor with a common switch, then turn on the common switch and keep it conducting for 2 minutes. The driver will automatically switch to the corridor dimming mode. After that, remove the common switch 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) Fade-in Detection Time	1 s	0-100 s
(PL) Detection Brightness	255	0-255
(PC) Detection Color Temperature	0	0-255
(T1) Induction Hold Time	Set via 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) Hold Brightness Level	100	0-255
(AL) Hold Color Temperature	0	0-255
(T3) Detection Hold 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) Fade-out Time to Off	1 s	0-100 s



Note: *If the light needs to maintain a low brightness hold, please set the [T3] Detection Hold Time to Permanent.

*The above parameters are set through the NFC lighting APP.

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).

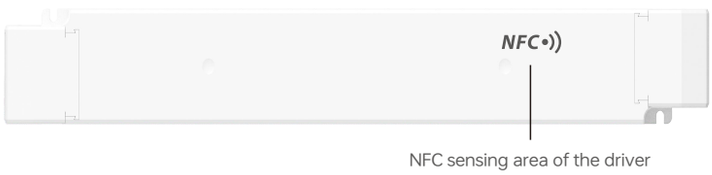
✱ Before you begin setting the parameters of the driver, please make sure the driver is powered off.

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.



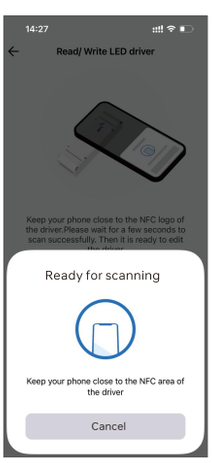
2. Edit parameters

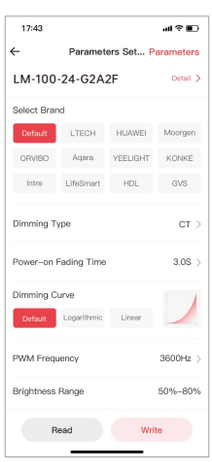
Click on [Parameter Management] to edit more advanced parameters such as Select Brand, Dimming Type, Power-on Fading Time, Dimming Curve, PWM Frequency,and Brightness Range.

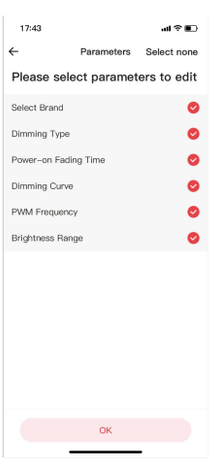
3. Write to the drive

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.







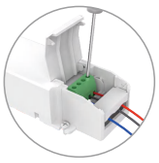


Protective Housing Application Diagram

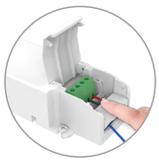
Tension plate



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

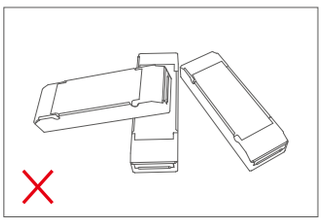


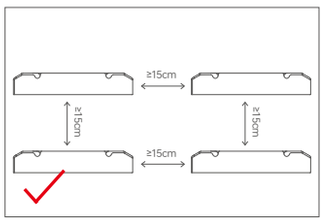




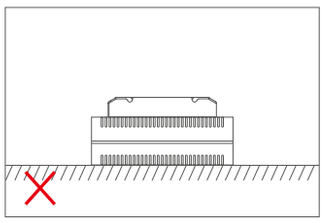
Pull the housing left and right from the bottom to remove it.

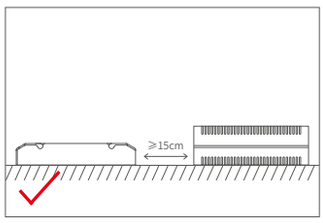
Installation Precautions



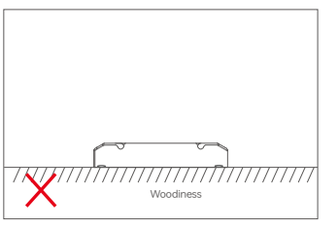


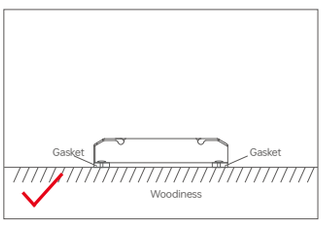
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation or the lifetime of the products.





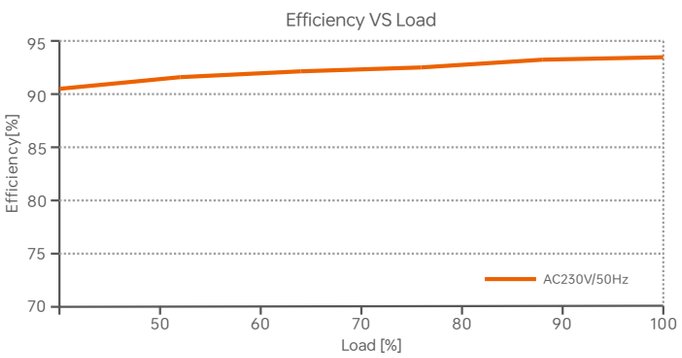
Please not place the products on power supplies. The distance between the product and the power supplies should be ≥15cm so as not to aśect heat dissipation or shorten the lifetime of the products.

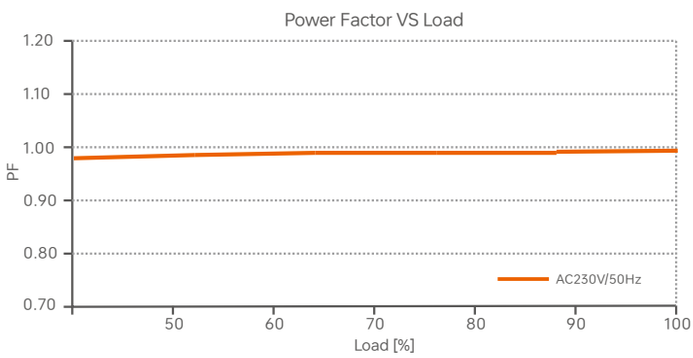


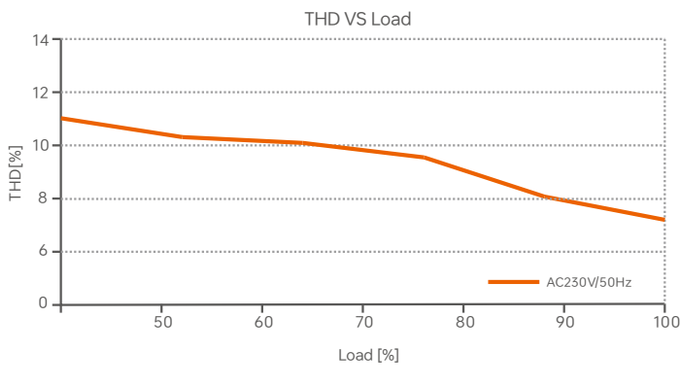


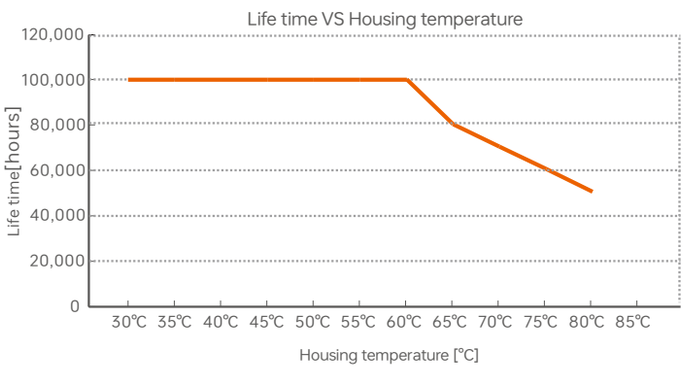
Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws. Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

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.

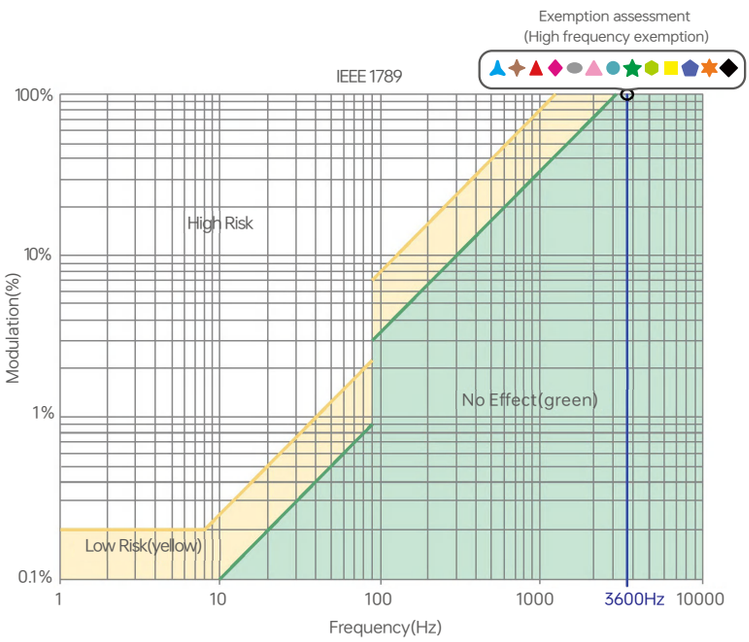
Flicker Test Table

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

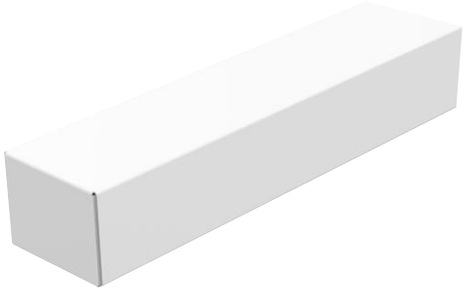
- 0.1%
- 1%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%



Packaging Specification

Model	LM-100-24-G2A2F
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

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	20250730	Original version	Haipeng Li