LTSYS

LED Technologies
Creative LED & Effect Technology for the Trade Professional

LM-150-24-G1A2F
LM-150-12-G1A2F

0-10V Push DIM

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.
- Via NFC-enabled mobile app, users can adjust dimming mode, PWM frequency, brightness range, and interact with driver data.
- Supports 0-10V, Push DIM, and corridor light DIM modes.
- The ultra-low consumption of the 0-10V port is less than 0.05mA.
- 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.
- High-efficiency driver with 93% efficiency, power factor > 0.98, and THD < 6%.
- In compliance with the EU ERP Directive, standby power consumption is below 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
Achieve the exemption level.

5 in 1 dimming
0-10V
1-10V
10V PWM
RX
Push DIM

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
Over Temp. Protection
Over voltage protection
Over Load Protection
Short Circuit Protection

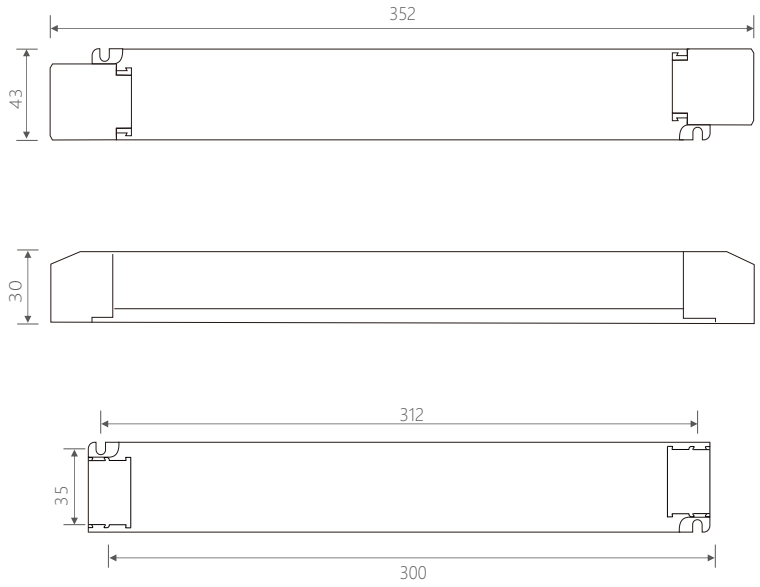
Technical Specs

Model		LM-150-24-G1A2F			LM-150-12-G1A2F
OUTPUT	Output Voltage	24V⎓			12V⎓
	Output Voltage Range	24V ± 0.5V⎓			12V ± 0.5V⎓
	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 0.01%			
	Overload Power Limitation	≥102%			
	Ripple & Noise	Switch ripple≤200mV, noise≤500mV			Switch ripple≤200mV, noise≤800mV
	PWM Frequency	300-22000Hz			
INPUT	Dimming Interface	0-10V(1-10V/10V PWM/RX), Push DIM			
	AC Voltage Range	220-240V~			
	DC Voltage Range	220-240V⎓ (EMI needs to be evaluated after the luminaire is installed)			
	Frequency	50/60Hz			
	Input Current	Max. 0.75A/230V~			
	Power Factor	PF>0.98/230V~ (at full load)			
	THD	THD<6%@ 230V~ (at full load)			
	Efficiency (Typ.)	93%			92%
	Standby Power Loss	< 0.5W			
	Inrush Current	Cold start 45.6A(Test twidth=500us tested under 50% Ipeak)/230V~			
	Anti Surge	L-N: 2KV			
	Leakage Current	Max. 0.5mA			
ENVIRONMENT	Working Temperature	ta: -20 ~ 50°C tc: 85°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	Overload Protection	Shut down the output when rated power≥102%, auto recovers			
	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			
	Overvoltage Protection	Shut down the output when no-load voltage≥28V, and recover automatically			Shut down the output when no-load voltage≥16V, and recover automatically
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750V~			
	Insulation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH			
	SafetyStandards	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	
		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	
	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	
ErP	Power Consumption	Networked standby		< 0.5W(After shutdown by command)	
		No-load power consumption		No no-load mode	
	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.)	430g±10g			
	Dimensions	352×43×30mm(L×W×H)			

This driver is suitable for connecting to resistor-limited LED fixtures (e.g., LED strips). If connected to fixtures with built-in constant-current ICs, it may generate instantaneous surge currents dozens of times higher, triggering overload protection (hiccup-mode flickering). For such fixtures (e.g., MR16 bulbs, buried lights, wall washers, constant-current rigid strips), please specify during ordering to enable firmware reprogramming.

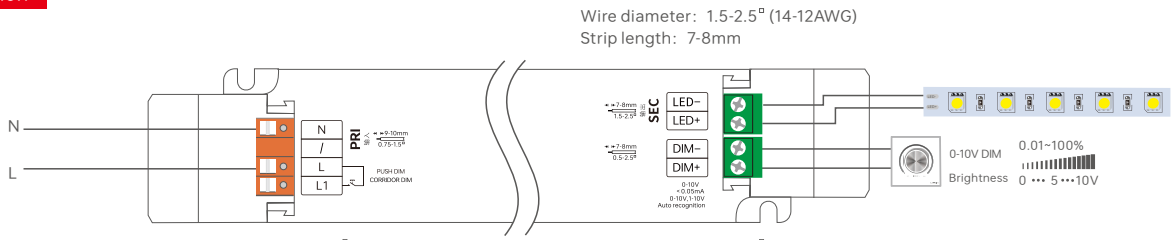
Product Size

Unit： mm

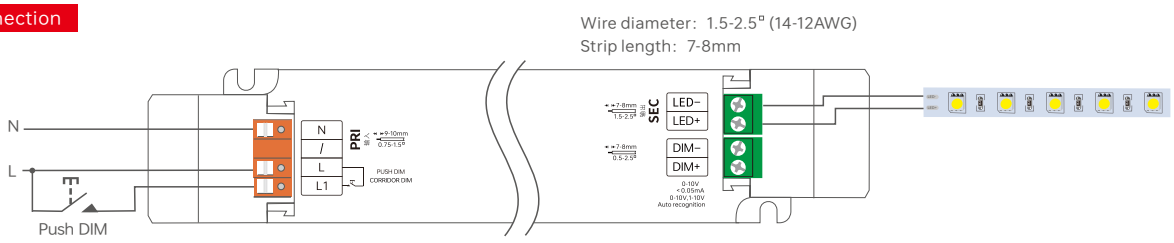


Wiring Diagram

0-10V Connection



Push DIM Connection



0~100%Dimming
Press the switch briefly and press the dimming button long

The priority of the dimming interface is: First 0-10V, and then Push DIM

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 briet y 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.



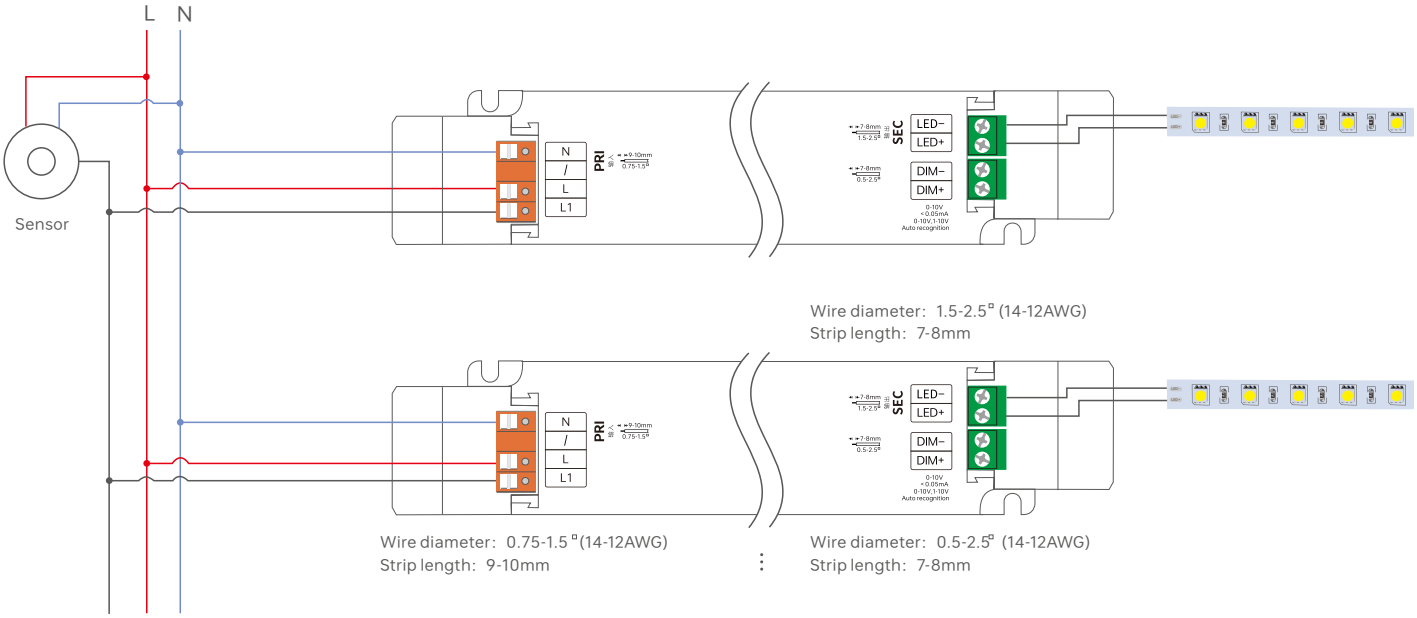
Short press : on/off control.

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



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.

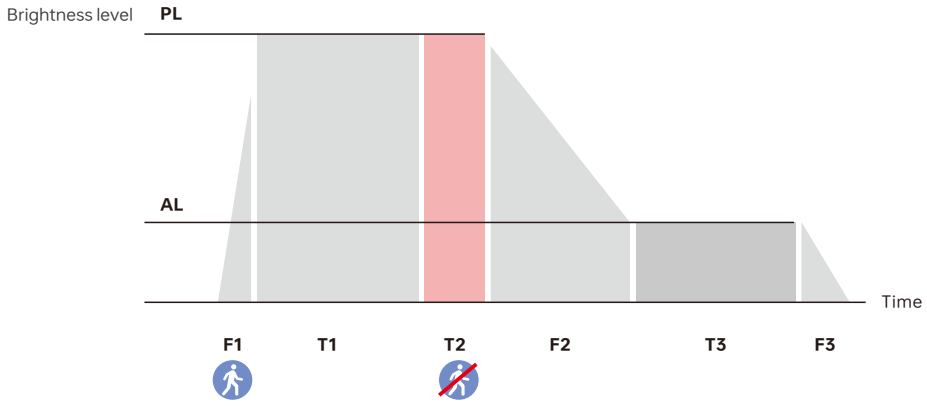
Method 2: After connecting the wires according to the corridor dimming wiring diagram, keep moving within the effective sensing area for more than 2 minutes, and it will automatically switch to the corridor dimming mode with all lights on at full brightness.

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.

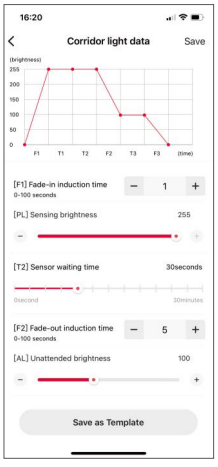
Note: During normal operation, it is recommended to set the hold-time of the motion sensor to the minimum.

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

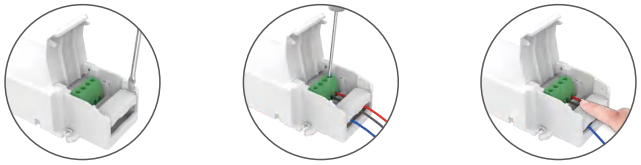


Note: *If the lamp needs to be on standby at a low brightness level, the [T3] Sensing Standby Time should be set to "Permanent".

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

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.

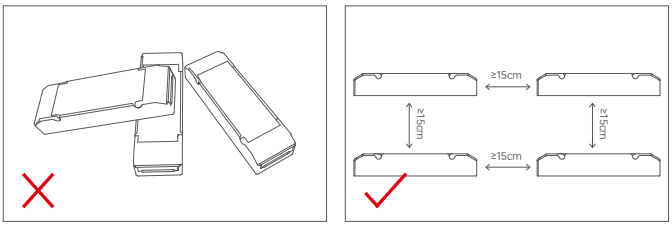
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

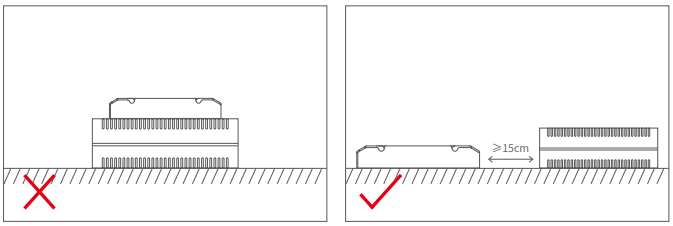


Pull the housing left and right from the bottom to remove it.

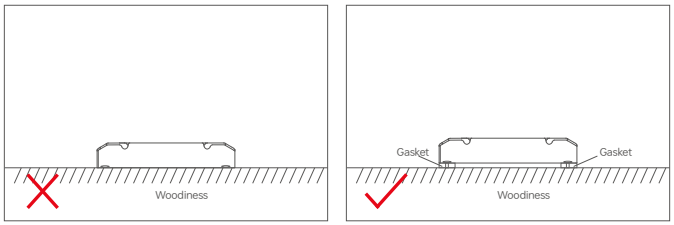
Installation Precautions



Please do not stack the products. The distance between two products should be ≥15cm so as not to aśect 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.

Use the NFC Lighting APP

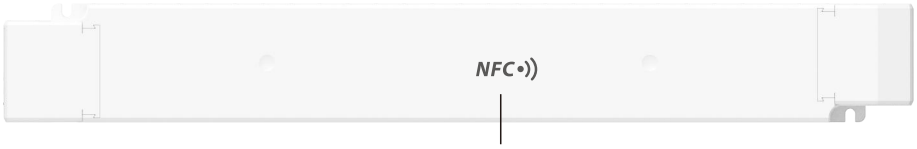
Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).

✱ 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

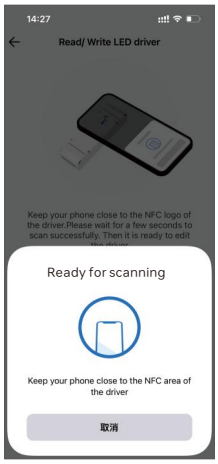
1.Read the LED driver
On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.

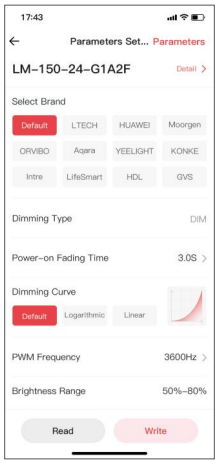


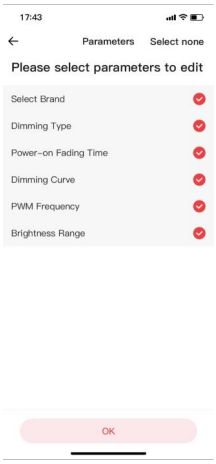
2. Edit parameters
Click on [Parameter Management] to edit more advanced parameters such as Select Brand, Dimming Type, Power-on Fading Time, Dimming Curve, PWM Frequency,and Brightness Range.

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 logo of the driver, so the parameters can be written to the driver

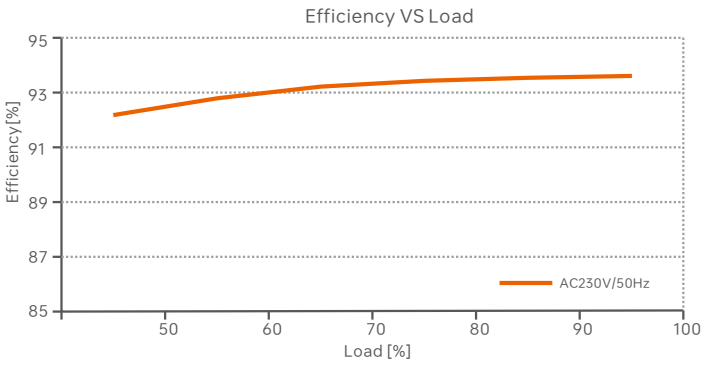


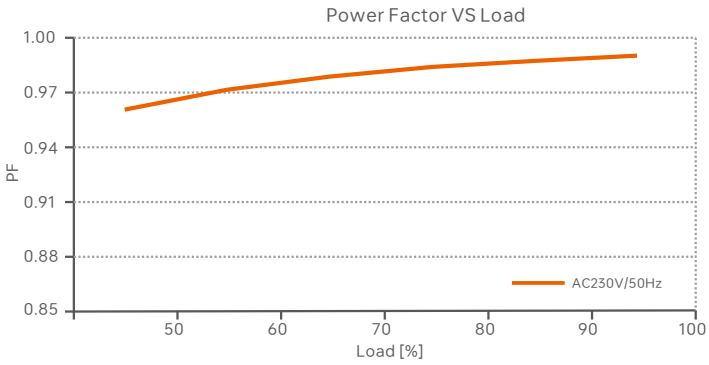


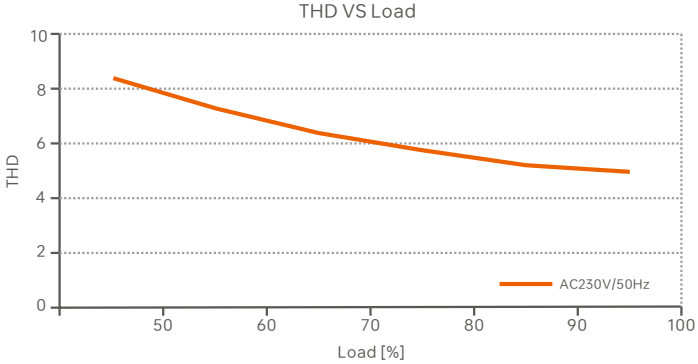


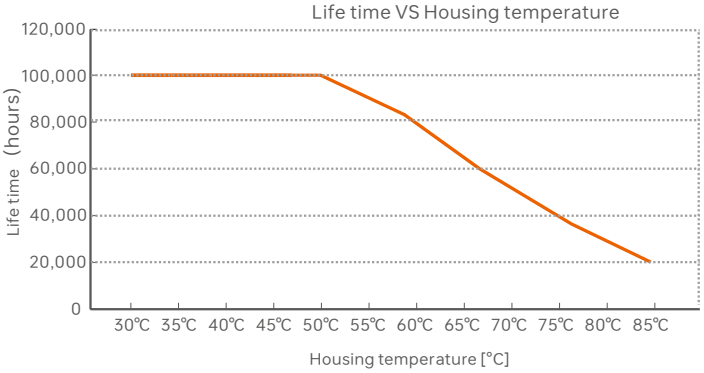


Relationship Diagrams

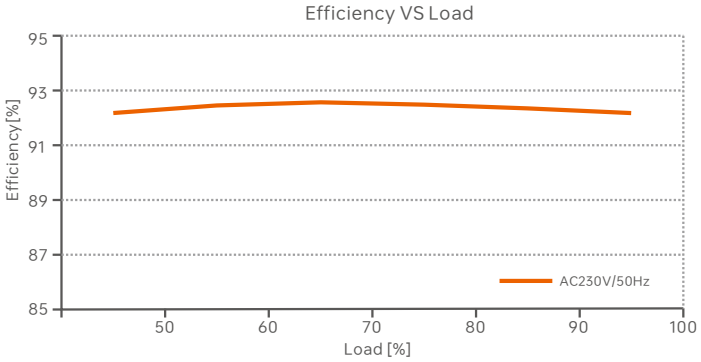


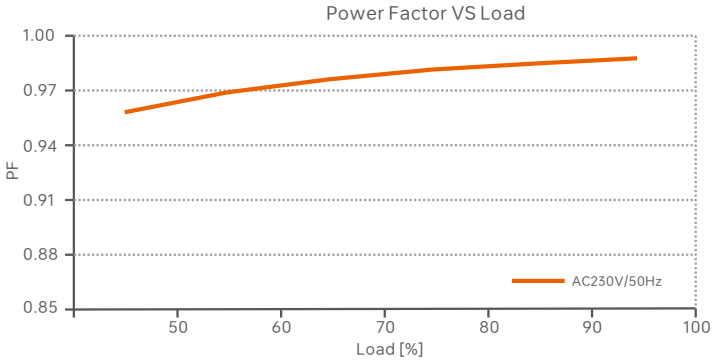


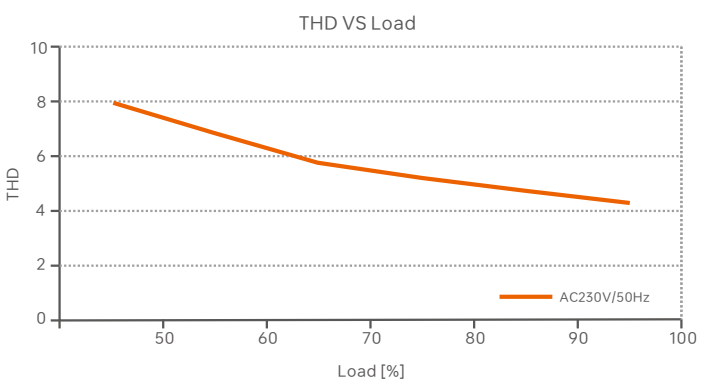


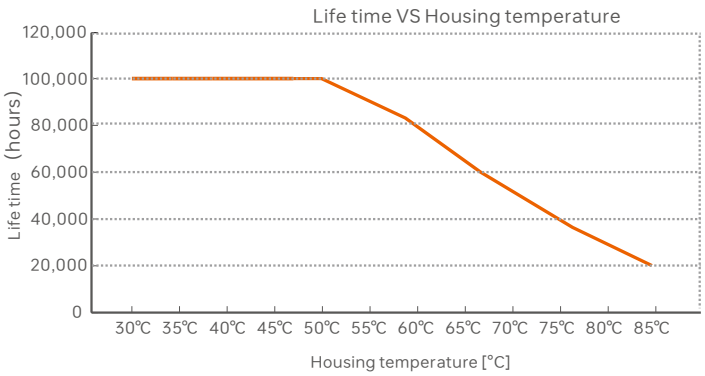


LM-150-24-G1A2F









LM-150-12-G1A2F

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	4	5	6	8	11	7	9	11	14	18	9	11	15	20	26

Remarks:

1. Test Conditions: Cold start 45.6A(Test twidth=500us 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

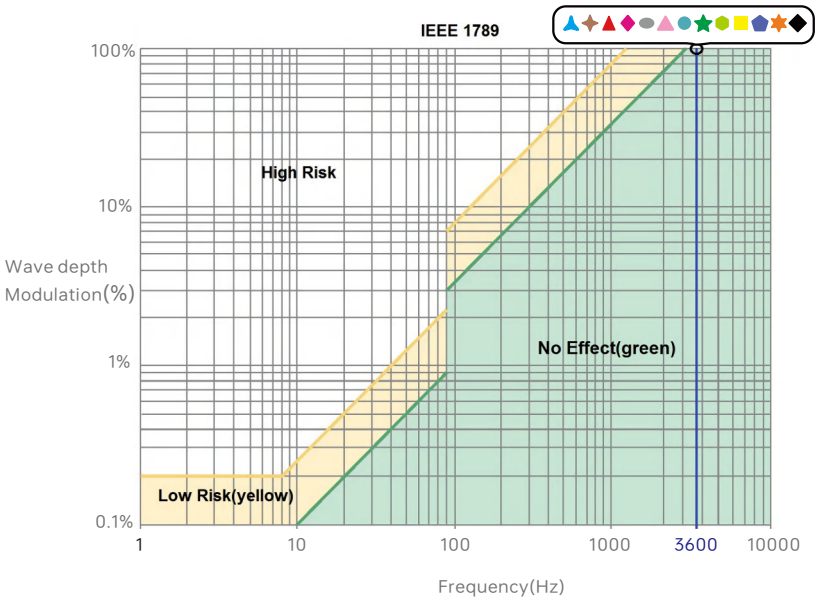
IEEE 1789

Modulation (depth of fluctuation) limits for low-risk areas	
Optical output waveform frequency *f*	Limit value (%)
f ≤ 8Hz	0.2
8Hz < *f* ≤ 90Hz	0.025× *f*
90Hz < *f* ≤ 1250Hz	0.08× *f*
f > 1250Hz	Exemption from examination
The depth of Modulation (Modulation) limit for the no-effect zone	
Optical output waveform frequency *f*	Limit value (%)
f ≤ 10Hz	0.1
10Hz < *f* ≤ 90Hz	0.01 × *f*
90Hz < *f* ≤ 3125Hz	(0.08/2.5)× *f*
f > 3125Hz	Test exemption (high frequency exemption)

luminance

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

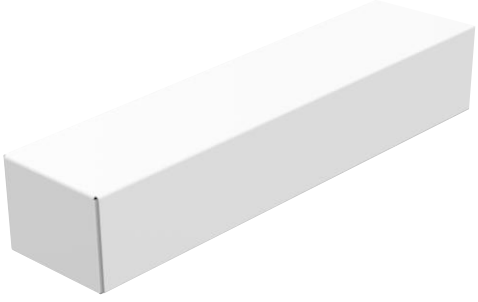
Test exemption
(high frequency exemption)



Packaging specification

Model	LM-150-24-G1A2F、LM-150-12-G1A2F
Packaging box size	370×340×93mm(L×W×H)
Quantity	10PCS per layer 2 layers per box 20PCS per box
Weight	0.43kg/PC;9.4kg±5%/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 Content	Updated by
A0	2025.06.06	Original version	Li Haipeng