LTSYS

LED Technologies
Creative LED & Effect Technology for the Trade Professional

LM-150-24-G2D2F
LM-150-12-G2D2F

DALI-2 DT6/DT8
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.
- Dimming mode, brightness range, and DALI configuration templates can be set via NFC using the mobile app.
- Provides two-channel independent SELV outputs.
- Supports DALI-2 DT6/DT8, Push DIM/CCT, and corridor light DIM/CCT modes.
- Compatible with i-Data and DALI Part 251, 252, 253.
- Constant power design ensures consistent brightness across color temperature adjustments.
- Supports deep dimming from 0–100%, with a minimum dimming level of 0.01%.
- Color temperature range is configurable from 1000K to 10000K, with a default range of 2700K to 6500K.
- 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).

DIM/CCT

DALI 2

Flicker-Free
IEEE 1789
Achieve the exemption level.

Dimmable:
1:10000

CORRIDOR DIM

iData

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

Multi current setting

Short Circuit Protection

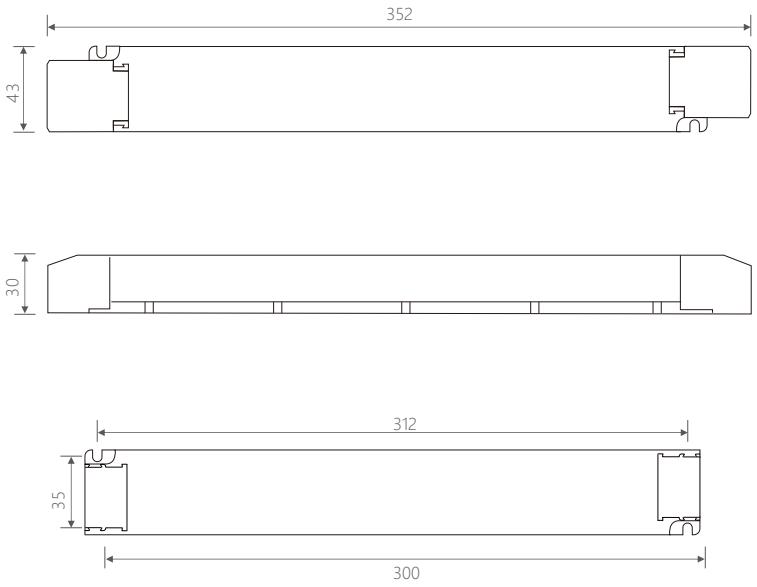
Technical Specs

Model		LM-150-24-G2D2F			LM-150-12-G2D2F
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	DALI-2 DT6/DT8，Push DIM/CCT			
	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.

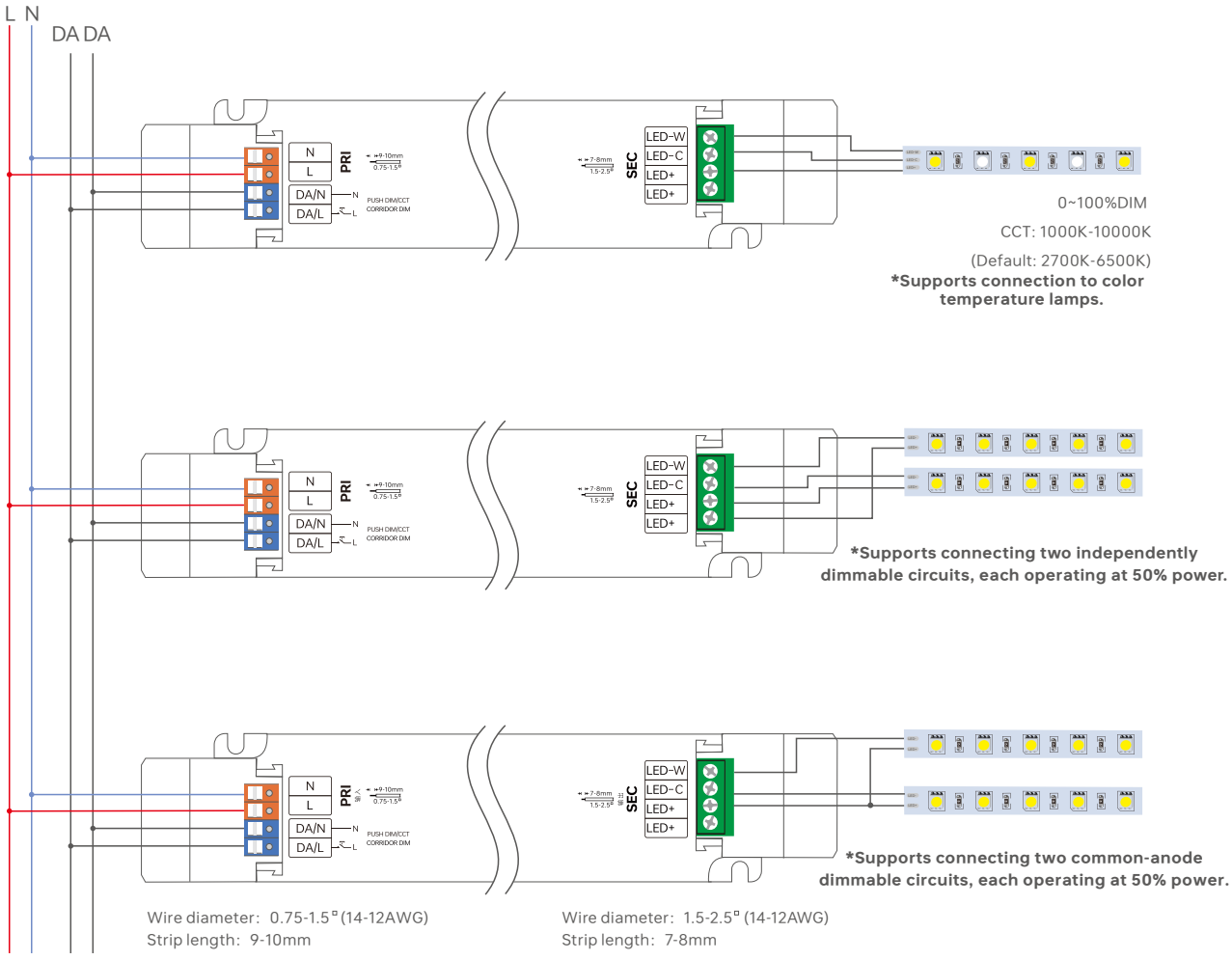
Product Size

Unit： mm



Wiring Diagram

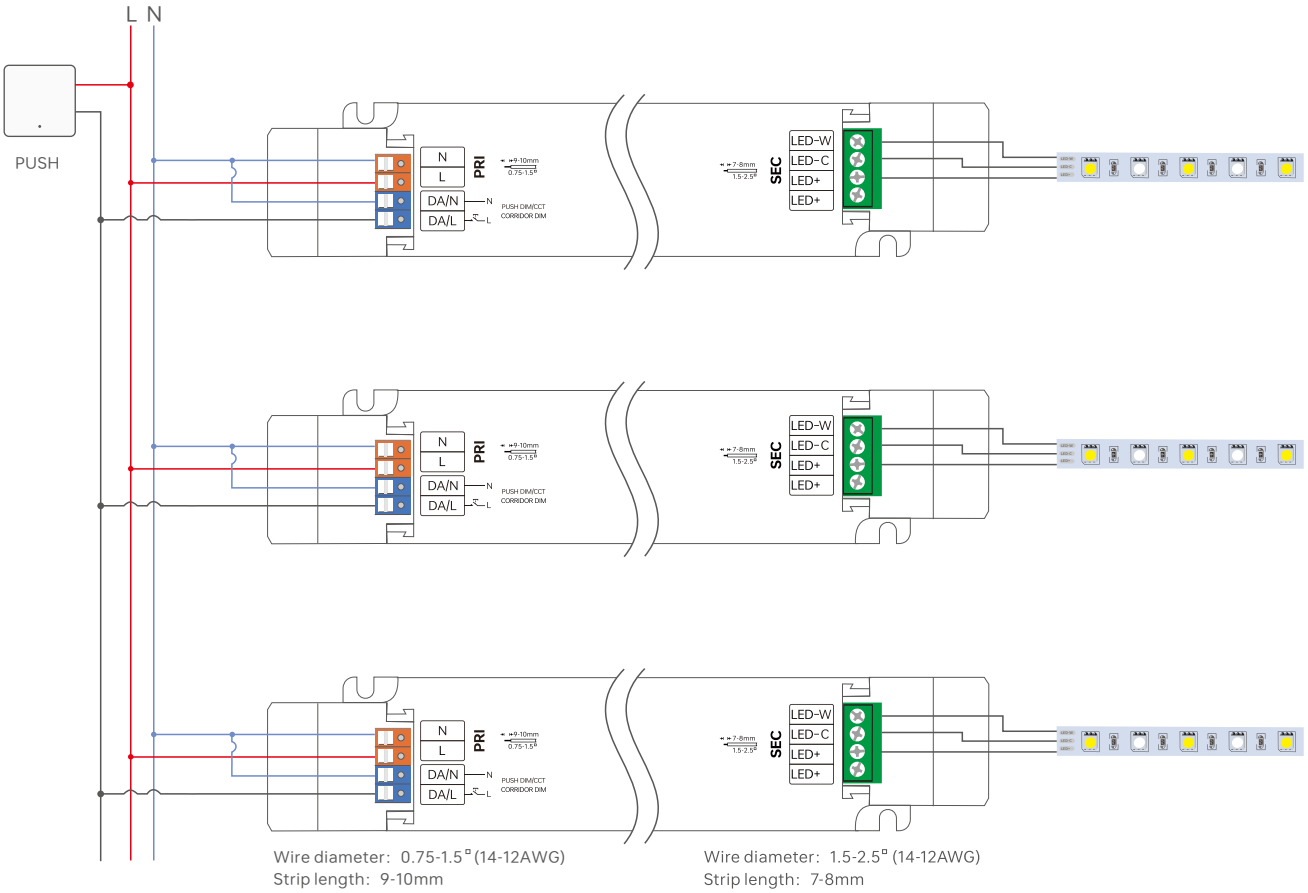
DALI Connection



Wire diameter：0.75-1.5㎟ (14-12AWG)
Strip length：9-10mm

Wire diameter：1.5-2.5㎟ (14-12AWG)
Strip length：7-8mm

PUSH DIM/CCT Connection



Wire diameter: 0.75-1.5㎟ (14-12AWG)
Strip length: 9-10mm

Wire diameter: 1.5-2.5㎟ (14-12AWG)
Strip length: 7-8mm

* Dimmer buttons are disabled under DC voltage input.
* Dimming interface priority: DALI takes precedence over Push Dimming/CCT.

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.

Note: If it is not connected to the DALI main controller, the factory default mode is PUSH.

Push DIM/CCT



Reset Switch

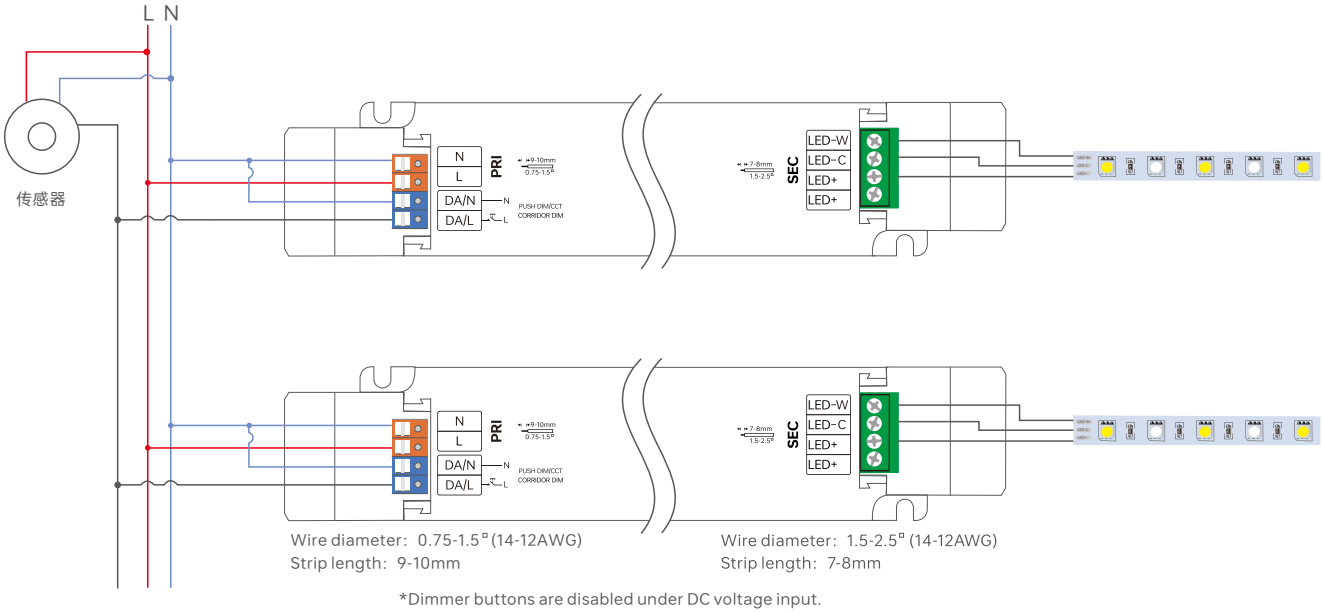
Short press : on/off control.

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 light Connection



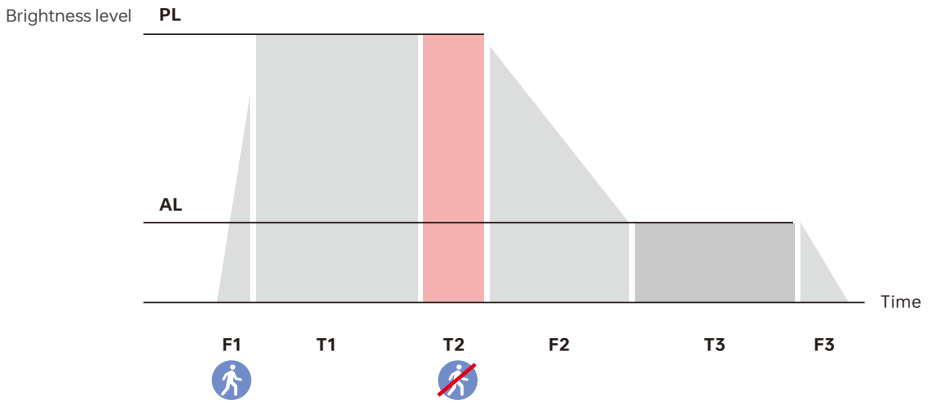
Wire diameter: 0.75-1.5㎡(14-12AWG)
Strip length: 9-10mm

Wire diameter: 1.5-2.5㎡ (14-12AWG)
Strip length: 7-8mm

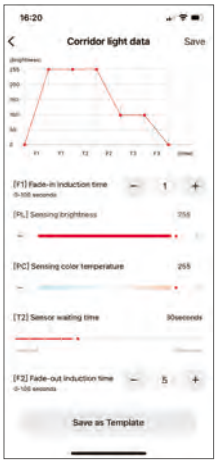
*Dimmer buttons are disabled under DC voltage input.
*Dimming interface priority: DALI takes precedence over Corridor Mode.

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



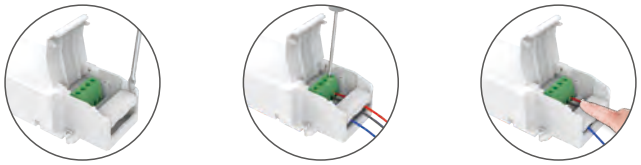
Name	Default	Setting Range
(F1) Fade-in Detection Time	1 s	0-100 s
(PL) Detection Brightness	255	0-255
(PC) Detection Color Temperature	0	0-255
(T2) Delay Time	30 s	0 s,5 s,10 s,20 s,30 s,45 s,1 min, 2 min, 3 min,5 min,10 min,20 min,30 min
(F2) Gradual Exit Sensing Time	1 s	0-100 s
(AL) Hold Brightness 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.

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.

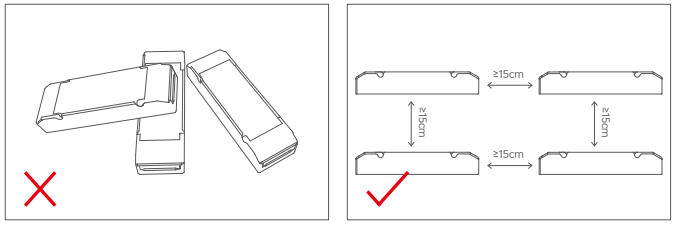
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

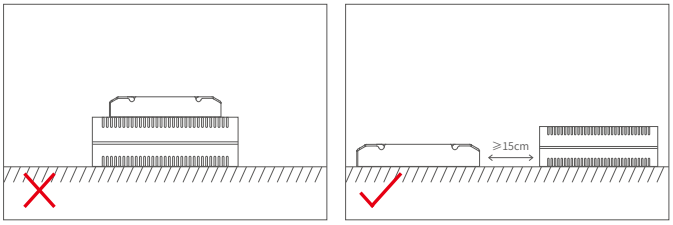


Pull the housing left and right from the bottom to remove it.

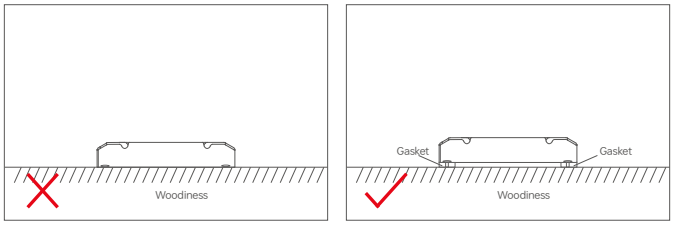
Installation Precautions



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

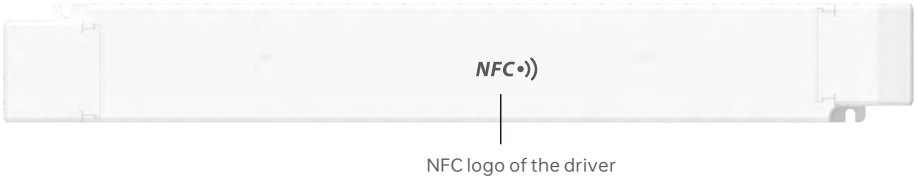
Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).

✱ 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

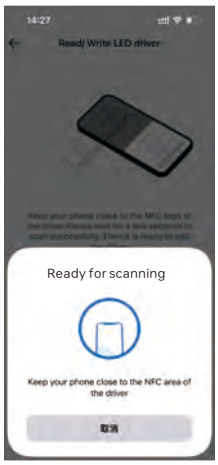
1.Read the LED driver
On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.



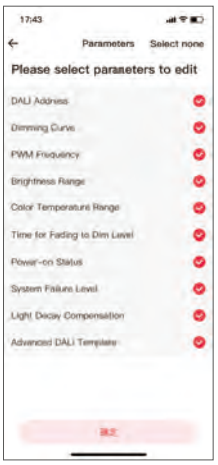
2. Edit parameters
Click on [Parameter Management] to edit more advanced parameters such as DALI address, dimming curve, PWM brightness range, brightness range, color temperature range, dimming gradient time, power status, system failure status, corridor light, and DALI template Settings.

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





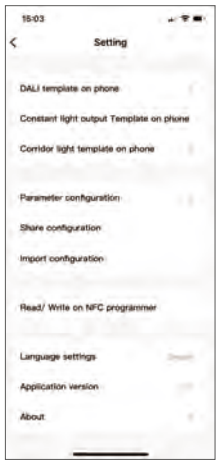




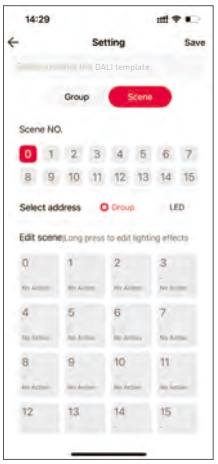
Advanced DALI template

Integrate the functions of the DALI lighting system, edit the DALI group and lighting effects for scenes, then save them in the advanced template to achieve lighting programming.

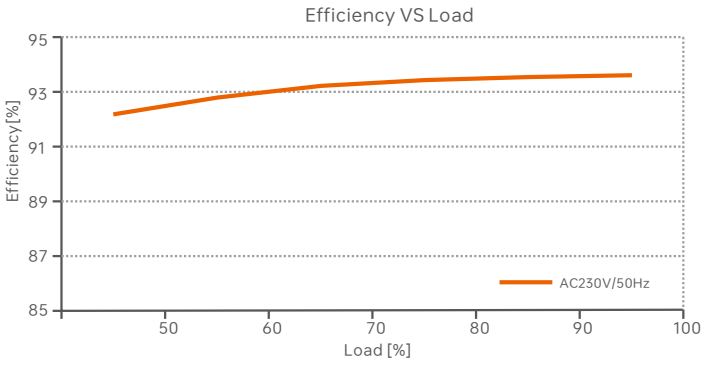
Setup page (for Read/Write LED driver) : Go to App home page — 【⚙】 icon in the top right — 【DALI template on pnone】.

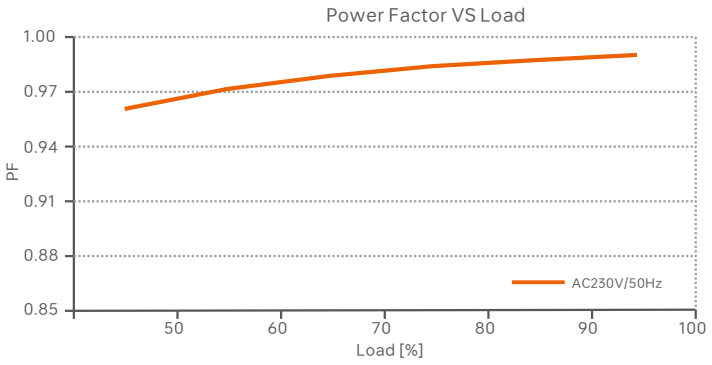


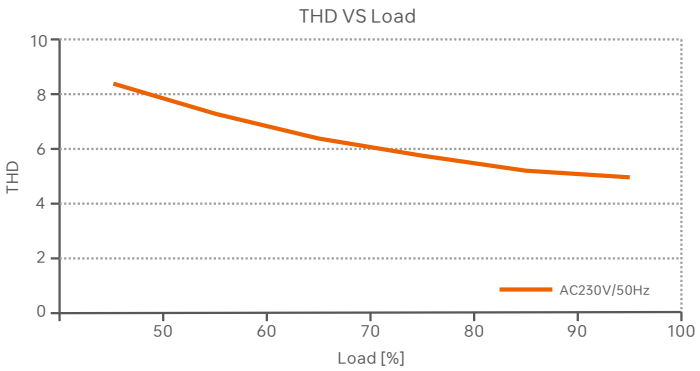


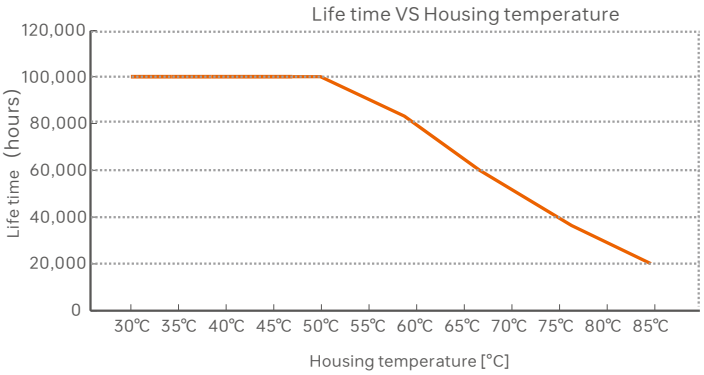


Relationship Diagrams

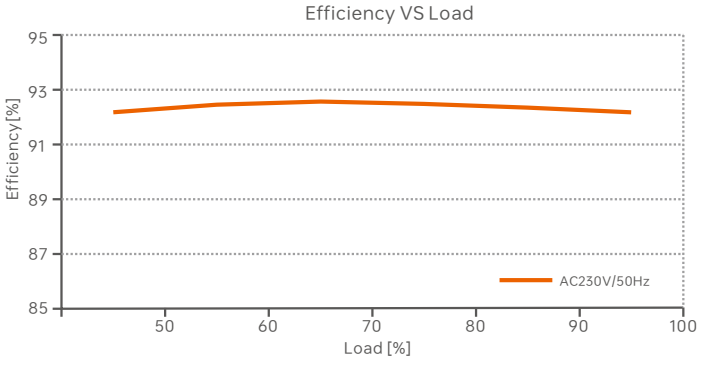


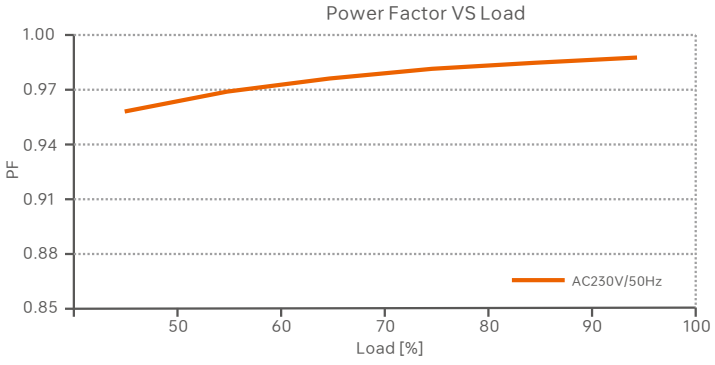


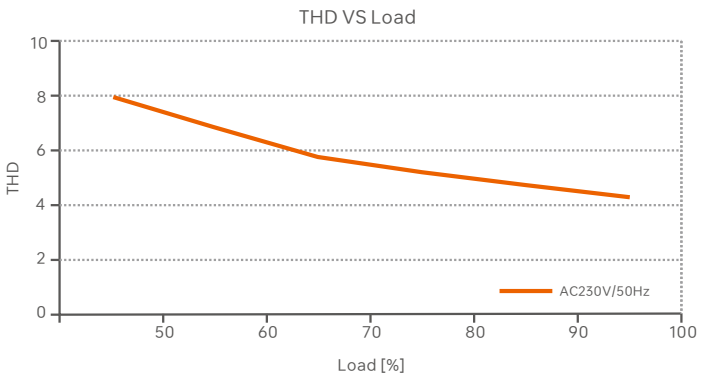


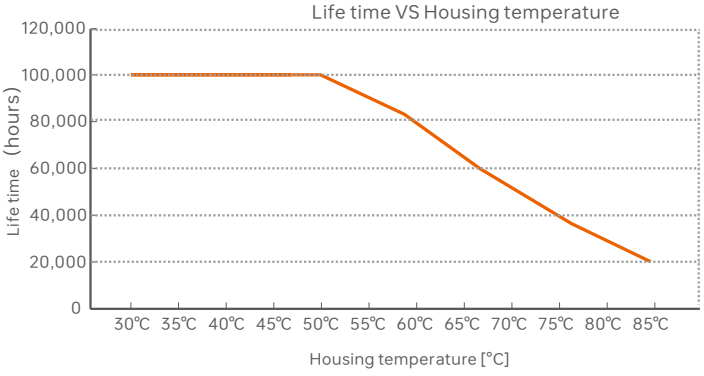


LM-150-24-G2D2F









LM-150-12-G2D2F

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

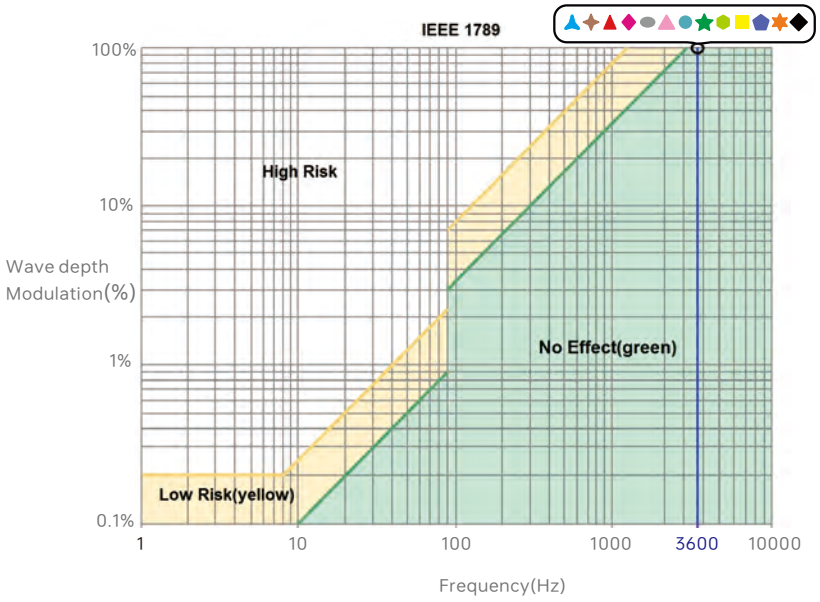
IEEE 1789

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%

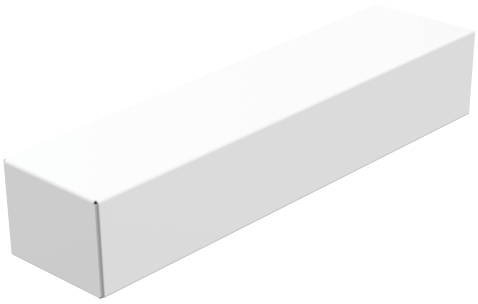
Test exemption
(high frequency exemption)



Packaging specification

Model	LM-150-24-G2D2F、LM-150-12-G2D2F
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