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.

- 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
- 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).



LM-150-24-G1A2F

LM-150-12-G1A2F

0-10V

Push DIM

Technical Specs

	· · · · · · · · · · · · · · · · · · ·										
Model		LM-15	0-24-G1A2F			LM-150-12-G1A2F					
	Output Voltage	24V				12V					
	Output Voltage Range	24V ± 0.5V				12V ± 0.5V -					
	Output Current	Max. 6	Max. 6.25A Max. 12.5A								
	Output Power	Max. 1	50W								
	Output Power Range	0~150	W								
001201	Strobe Level	High f	requency exemption le	evel							
	Dimming Range	0~100	0%, down to 0.01%								
	Overload Power Limitation	≥102%	6								
	Ripple & Noise	Switch	Switch ripple≤200mV, noise≤800mV								
	PWM Frequency	300-22	2000Hz								
	Dimming Interface	0-10V(0-10V(1-10V/10V PWM/RX), Push DIM								
	AC Voltage Range	220-24	220-240V~								
	DC Voltage Range	220-24	220-240V== (EMI needs to be evaluated after the luminaire is installed)								
	Frequency	50/60Hz									
	Input Current	Max. 0	Max 0 75A/230V~								
	Power Factor	PF>0.9	PF>0.98/230V~ (at full load)								
INPUT	THD	THD<6%@ 230V~ (at full load)									
	Efficiency (Typ.)	93%		,		92%					
	Standby Power Loss	75.70 92.70 < 0.5W									
	Inrush Current	Cold st	~ U.UVV 								
	Anti Surge	UUU SLATL 45.0A(TEST LWIQTN=5UUUS TESTED UNDER 50% IPEAK)/25UV~									
	Lookage Current	Max (L-1Y: ZNV								
	Working Temperature										
	Working Humidity	เส 20 ~ วบ ป เป. เว ป									
	Storage Temperature/Humiditu	20 707011, 1001 CONCERNING 									
		±0.03%/°C(0-50°C)									
	Vibratian	10~50	10~500Hz, 2G 12min/1cvcle, 72 min for X. Y and Z axes respectively								
		Shut down the output when rated nower 210% auto recovere									
	Overload Protection										
PROTECTION	Overneat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically									
	Short Circuit Protection	Enter niccup mode il snort circuit occurs, and recover automatically Shit down the output turben he lead veltees 2007 and recover automatically Shit down the output turben he lead veltees 2107 and recover automatically Chit down the output turben he lead veltees 2107 and recover automatically									
	With stored Vieltone	Shut down the output when no-load voltage=28V, and recover automatically Shut down the output when no-load voltage=16V, and recover automatically									
	withstand voltage	1/P-0/	P: 5750V~	0017	-0% PLL						
	Insulation Resistance	//P-O/P: 100MΩ/500VDC/25°C/70%RH									
			China		GB19510.1, GB19510.14, GB19510.2 EN61347-1 EN61347-2-13 EN6249	۲۵ ۶					
	SafetyStandards	CB	CB MEMBER STATES		IEC61347-1, IEC61347-2-13, IEC6247	5					
		CE	European Union		EN61347-1, EN61347-2-13, EN6238	4					
		KC	Korea		KC61347-1, KC61347-2-13						
CALETY		EAC	Russia		IEC61347-1, IEC61347-2-13						
SAFEIT 2.		RCM	Australia		AS 61347-1, AS 61347-2-13						
∝ FMC		ENEC	Europe		EN61347-1, EN61347-2-13, EN6238	4					
LIVIC	EMC Emission	CCC	C China		GB/T17743, GB17625.1						
		CE	European Union		EN55015, EN61000-3-2, EN61000-3-3, EN61547						
		KC	Korea		KN15, KN61547						
		RCM	Australia		EC62495, EC61547, EF155015 EN55015 EN61000-3-2 EN61000-	3-3 EN61547					
		Networked standby		<	< 0.5%(After shutdown by command)						
	Power Consumption	No-loa	No-load power consumption		No no-load mode						
ErD		IEEE1789		M	Meet IEEE 1789 standard/High frequency exemption level						
ErP	Flicker/Stroboscopic Effect	CIE SV	CIE SVM		PstLM≤1.0, SVM≤0.4						
-	DF	Phase factor		DF	DF≥0.9						
OTHERS	Weight(N.W.)	430g±	:10g								
UTHERS	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. www.ltech-led.com





Product Size

Unit: mm



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.

Push DIM



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.

Reset Switch





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		
ł					
	(F1) Gradual Entry Sensing Time	1s	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.

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

Protective Housing Application Diagram

Tension plate







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 asect heat dissipation or the lifetime of the products.



≥15cn 77777777

Please not place the products on power supplies. The distance between the product and the power supplies should be ${\geq}15 {\rm cm}$ so as not to a sect 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





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% lpeak)/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.





Exemption assessment

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)						

Marks in the right chart are tested results of different current levels.

modulation is 0%, which could not be shown in the right chart.

The output frequency is 0Hz in 100% brightness and its corresponding



(High frequency exemption) **IEEE 1789** 100% High Risk 10% Modulation(%) No Effect (green 1% Low Risk(yellow) 0.1% 10 100 1000 3600Hz 10000 1 Frequency(Hz)

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