

LED Intelligent Driver (constant voltage)

- Adopt SAMSUNG/COVESTRO V0 flame resistant polycarbonate protective housings with small size and light weight.
- Dimming interfaces: 0-10V(1-10V/10V PWM/RX), Push DIM.
- Automatically recognize 0-10V and 1-10V input signals.
- Ultra-low consumption of 0-10V ports < 0.05mA.
- Dimming range: 0-100%, LED dimming starts at 0.1%.
- Flicker-free with high frequency exemption level in 0-100% dimming process.
- With soft-on and fade-in function, bring more comfortable visual experiences.
- High-performance drivers: Efficiency 93%, PF>0.98, THD<6%.
- Dimming interfaces have photoelectric isolation that are compliant with the latest safety standards and more secure and reliable.
- Comply with the ERP directive of EU energy efficiency, stand-by power consumption 0.5W.
- Innovative thermal management technology, has intelligent protection of driver lifetime.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- The design of dismountable end covers is for convenient adjustments of length of drivers.
- Suitable for lamp applications of indoor I /II/III types.
- Up to 50000-hour life time.
- 5 years warranty (Rubycon Capacitor).

Flicker-free
IEEE 1789
Achieve the exemption level.

Dimmable:
0.1%-100%



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

Ultra-low consumption of 0-10V ports: < 0.05mA.



SELV Class 2
RoHS



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



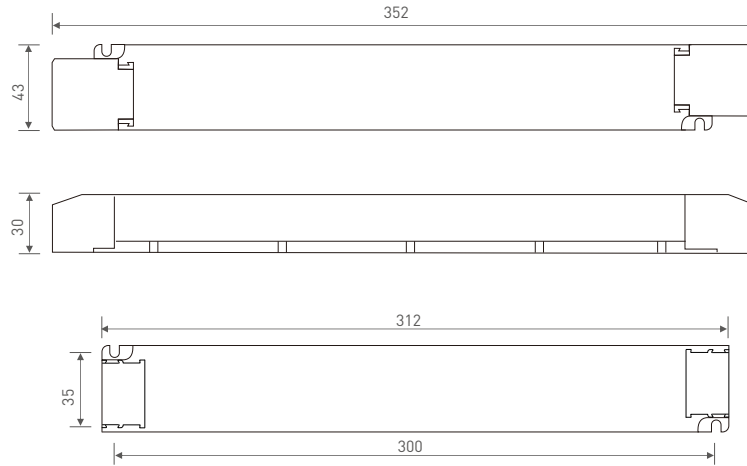
Specification

Model	LM-150-24-G1A2	LM-150-12-G1A2	
OUTPUT	Output Voltage	24Vdc	12Vdc
	Output Voltage Range	24Vdc ± 0.5Vdc	12Vdc ±0.5Vdc
	Output Current	Max. 6.25A	Max. 12.5A
	Output Power	Max. 150W	
	Output Power Range	0-150W	
	Strobe Level	High frequency exemption level.	
	PWM Frequency	3600Hz	
	Dimming Range	0-100%, dimming depth: Max. 0.1%	
	Overload Power Limitation	≥ 102%	
	Ripple & Noise	Switch ripple≤200mV, noise≤500mV	Switch ripple≤200mV, noise≤800mV
INPUT	Dimming Interface	0-10V(1-10V/10V PWM/RX), Push DIM	
	Interface consumption	<0.05mA @ 0-10V	
	Input Voltage	220-240Vac	200-280Vdc
	Frequency	50/60Hz	
	Input Current	Max. 0.75A/230Vac	
	Power Factor	PF>0.98/230Vac, at full load	
	THD	<6% at 230Vac, at full load	
	Efficiency (typ.)	93%	92%
	Standby Power Loss	0.5W	
	Inrush Current(typ.)	Cold start 45A at 230Vac	
Control surge capability	L-N:2KV		
Leakage Current	Max. 0.5mA		
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 85°C	
	Working Humidity	20 ~ 95%RH, non-condensing	
	Storage Temp., Humidity	-40°C ~ 80°C, 10-95%RH	
	Temp. Coefficient	±0.03%/°C (0-50°C)	
	Vibration	10-500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.	
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers.	
	Over Voltage Protection	Shut down the output when non-load voltage ≥28V, re-power on to recover after fault condition is removed.	Shut down the output when non-load voltage ≥16V, re-power on to recover after fault condition is removed.
	Over Load Protection	Shut down the output when current load ≥102%, auto recovers.	
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, auto recovers.	
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac	
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH	
	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13	
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547	
	Strobe Test Standard	IEEE 1789	
OTHERS	Dimension	352×43×30mm[L×W×H]	
	Packing	355×44×33mm[L×W×H]	
	Weight[G.W.]	430g±10g	

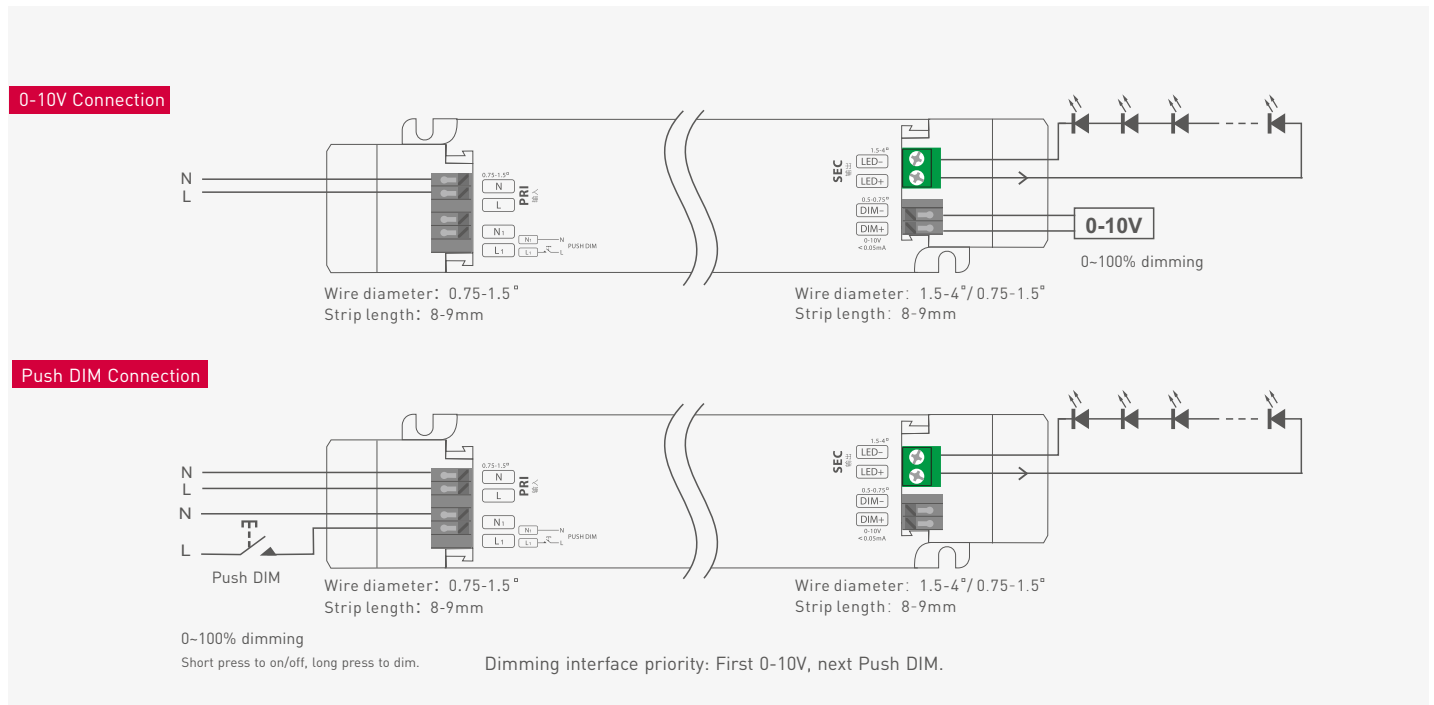
* The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccup flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), then we can prepare the special programs.

Dimensions

Unit: mm



Wiring Diagram



Push Dimming

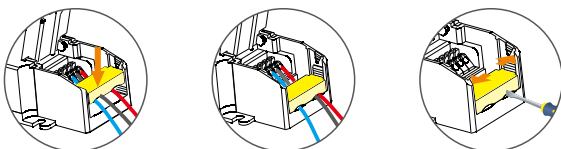


Reset switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the light level goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.

Application of Protective Cover

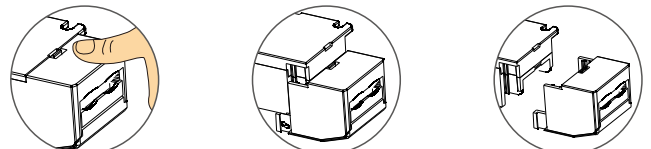
Wire pressing board:



Push the wire pressing board to fix the wire.

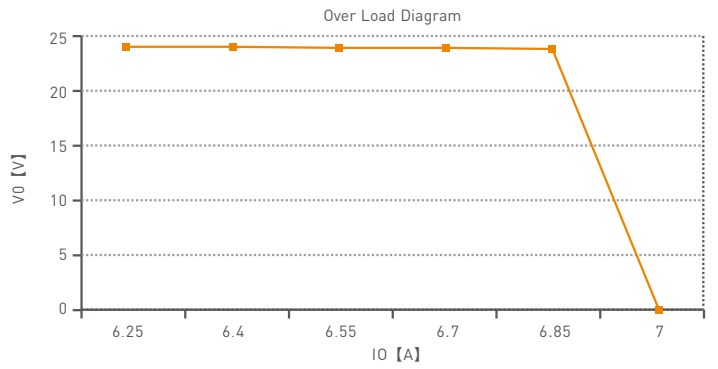
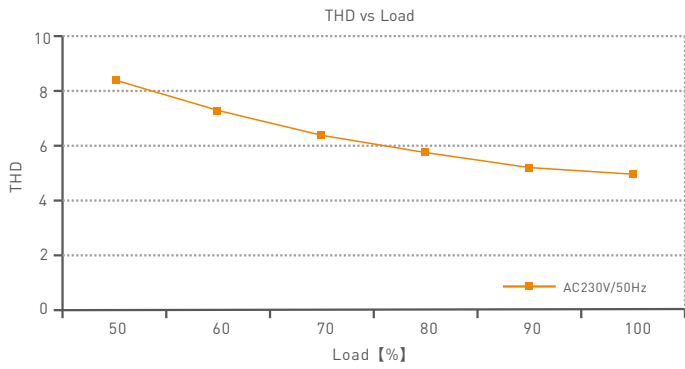
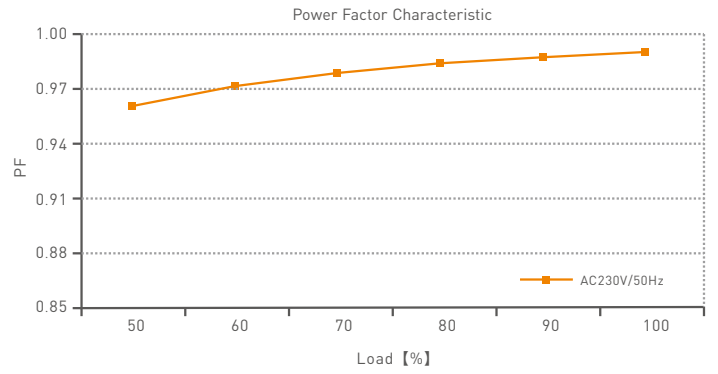
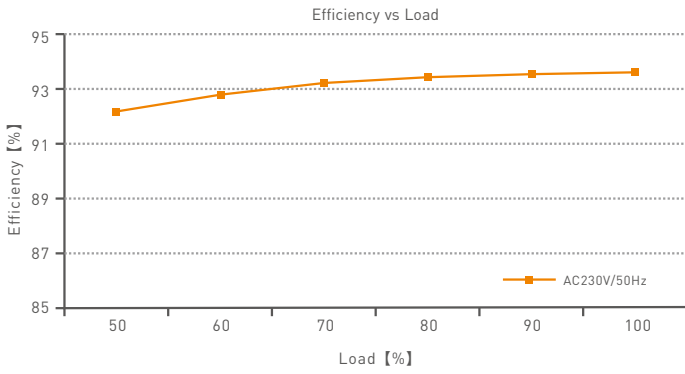
Push outward the side plate, meanwhile use the tool to uninstall the wire pressing board.

Uninstall protective cover:

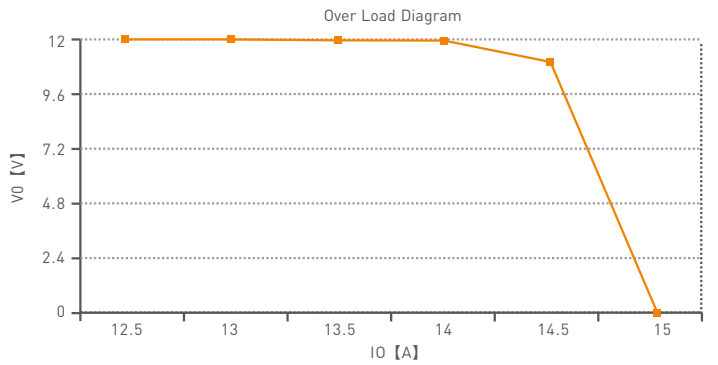
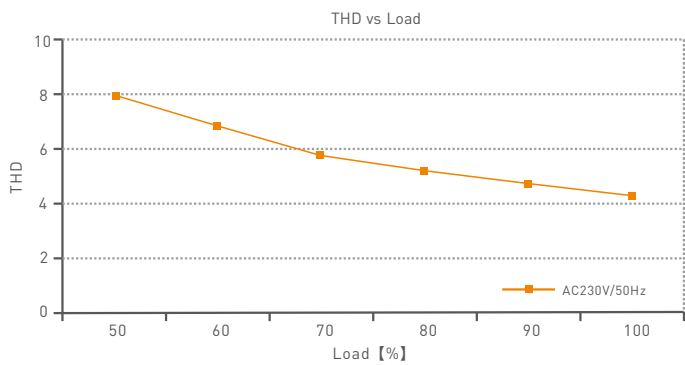
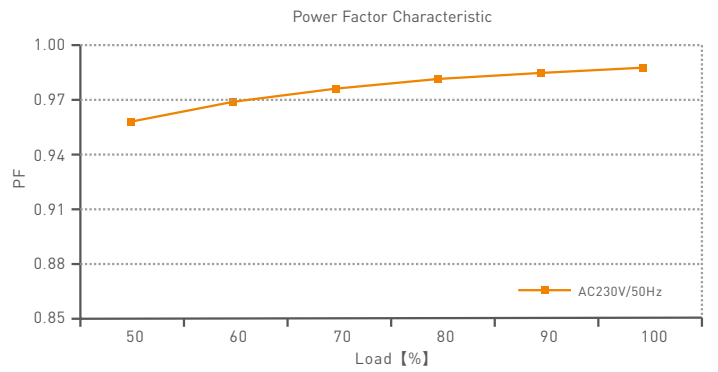
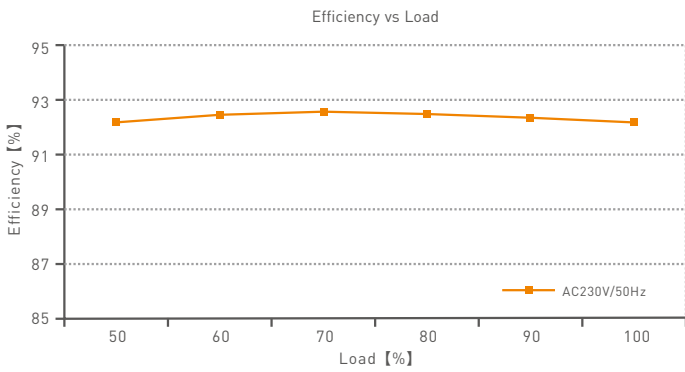


Break off the bottom left and right to remove the protective cover.

Relationship Diagrams



LM-150-24-G1A2



LM-150-12-G1A2

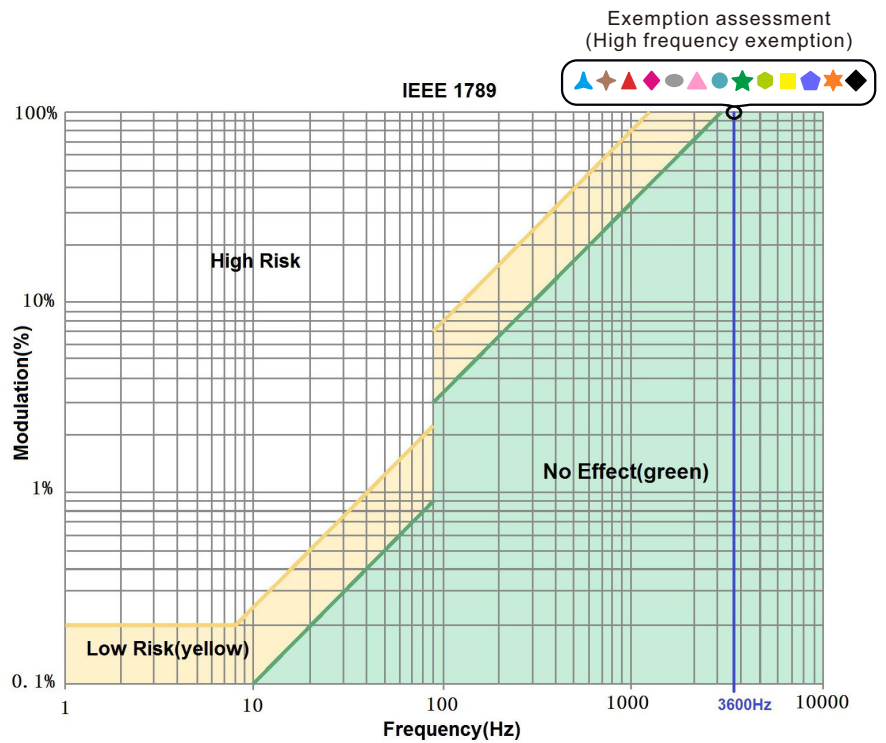
Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit (%)
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$[0.08/2.5] \times f$
$f > 3125\text{Hz}$	Exemption assessment (High frequency exemption)

Brightness

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



Attentions

- Products shall be installed by qualified professionals.
 - LTECH products are non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
 - Good heat dissipation will extend 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.