

LED Intelligent Driver (constant voltage)

- Small size and light weight. Adopt SAMSUNG/COVESTRO V0 flame resistant polycarbonate protective housings.
- The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- Dimming interfaces: DALI-2, Push DIM
- Dimming range: 0~100%, dimming down to 0.1%
- Flicker-free with high frequency exemption level in 0~100% dimming process.
- High-performance drivers: Effeciency 88%, PF>0.95, THD<8%.
- Comply with the EU's ErP Directive, stand-by power consumption < 0.5W.
- The secure and reliable design for signal isolation.
- Innovative thermal management technology intelligently protects the lifetime the driver.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- DALI bus standard IEC62386-101,102,207.
- Suitable for lamp applications of indoor $\mathbb{I}/\mathbb{I}/\mathbb{I}$ types.
- Up to 50000-hour life time.
- 5 year warranty (Rubycon Capacitor).



Flicker-free IEEE 1789 Achieve high frequency exemption level.

Dimmable: 0.1%-100%





DALI

Push DIM



0.1%



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Technical Specs

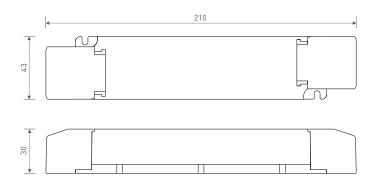
Model		LM-36-	24-G1D2		LM-36-12-G1D2			
	Output Voltage	24Vdc			12Vdc			
оитрит	Output Voltage Range	24Vdc ± 0.5Vdc			12Vdc ± 0.5Vdc			
	Output Current	Max. 1.5			Max. 3A			
	Output Power	Max. 1.5A						
	Output Power Range	0-36W						
	Strobe Level	U-36W High frequency exemption level.						
	PWM Frequency	3600Hz						
	Dimming Range	0~100%, dimming down to 0.1%						
	Overload Power Limitation	≥102%						
	Ripple & Noise	Switch ripple \$200mV, noise \$500mV Switch ripple \$200mV, noise \$800mV						
	Dimming Interface Input Voltage	DALI-2, Push DIM 200-240Vdc / 200-280Vdc						
	Frequency	50/60Hz						
INPUT	Input Current	Max. 0.26A/230Vac						
	Power Factor	PF>0.95/230Vac, at full load						
	THD	<8% at 230Vac, at full load						
	Efficiency (typ.)	88% 87%						
	Standby Power Loss	<0.5W						
	Inrush Current(typ.)	Cold start 25A at 230Vac						
	Control Surge Capability	L-N:2KV						
	Leakage Current	Max. 0.5mA						
	Working Temperature	ta: -20°C - 50°C tc: 90°C						
	Working Humidity	20 ~ 95%RH, non-condensing						
ENVIRONMENT	Storage Temperature Humidity	-40°C ~ 80°C, 10-95%RH						
	Temperature Coefficient	±0.03%/°C [-20-50°C]						
	Vibration	10~500Hz, 2G 12min./1cycle, 72 min for X, Y and Z axes respectively.						
	Over-heat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically.						
PROTECTION	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.						
PROTECTION	Over Load Protection	Shut down the output when current load ≥ 102%, and recover automatically.						
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically.						
	Withstand Voltage	I/P-0/P:3750Vac						
	Insulation Resistance	I/P-0/P	:500VdC/25°C/70%RF	00VdC/25°C/70%RH≥100MΩ				
	Safety Standards	ccc	China	GB19510.1, GB19510.14				
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493				
		CE	European Union	EN61347-1, EN61347-2-13, EN62384				
		KC	Korea	KC61347-1, KC61347-2-13				
		RCM	Australia	AS61347-1, AS61347-2-13				
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384				
SAFETY &		СВ	CB member states	IEC61347-1, IEC61347-2-13				
EMC		EAC	Russia	IEC61347-1, IEC61347-2-13				
	EMC Emission	ccc	China	GB/T17743, GB17625.1				
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547				
		KC	Korea	KN15, KN61547				
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547				
		EAC	Russia	IEC62493, IEC61547, EH55015				
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547						
	Strobe Test Standard	IEEE 1789						
OTHERS	Weight(G.W.)	210g±10g						
	Dimensions	210×43×30mm(L×W×H)						
	Package Size	213×44×33mm(L×W×H)						
	Carton Size	440×218×235mm[L×W×H] 60pcs/ctn 13.4kg±5%/ctn						
		rent limiting LED fixture (e.g. LED ctrin). The insuch current will be decore of times increased if connecting built in constant current (C current limiting LED fixtures the driver will						

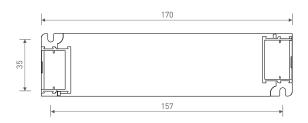
^{*} The driver is suitable for connecting resistor current-Limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-Limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). When 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



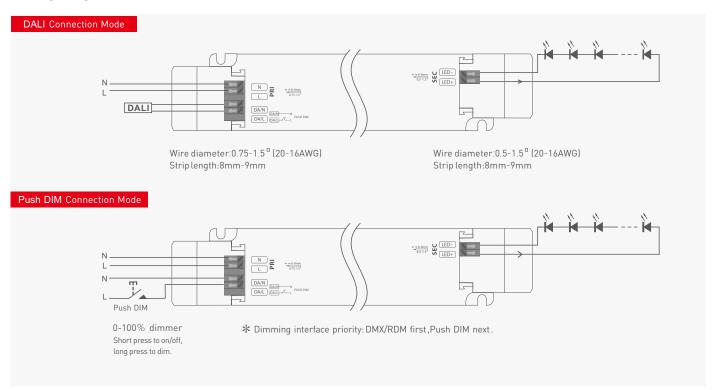
Product Size

Unit: mm





Wiring Diagram



Push DIM

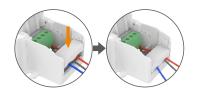


Reset switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness level goes to the opposite direction.
- Dimming memory: Go to the brightness level adjusted previously when lights are turned on.

Protective Housing Application Diagram

Tension plate



Push the tension plate down to fix the electric wires.



Push the side plate outwards and remove the tension plate by prying it up with a tool at the same time.

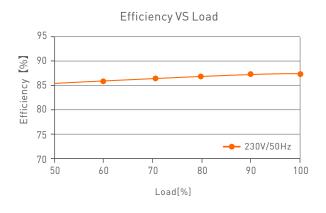
Remove the protective housing

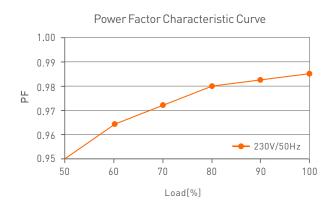


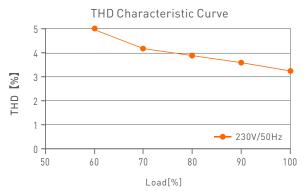


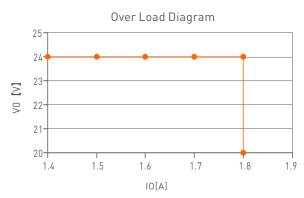


Relationship Diagrams



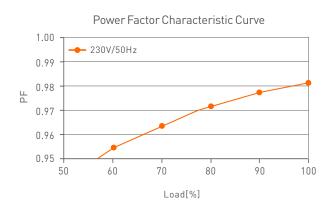


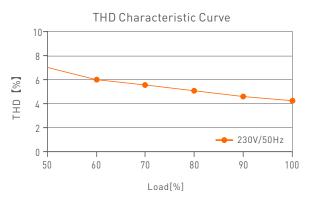


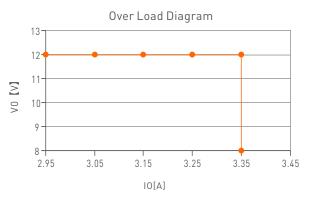


LM-36-24-G1D2









LM-36-12-G1D2

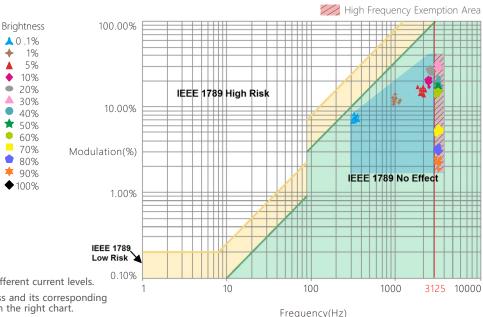
Modulation Area



Flicker Test Table



Limit Value of Modulation in Low Risk Areas						
Waveform frequency of Optical output	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 ≤ 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.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

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.

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- 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
Α0	2021.03.22	Original version	Xu Shujun