LTSYS

LED Technologies
Creative LED & Effect Technology for the Trade Professional

LM-36-24-G1T2
LM-36-12-G1T2

Triac/ELV Push DIM

# 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.
- With soft-on and fade in function, visual more comfortable.
- Dimming range: 0~100%, dimming down to 0.1%.
- 0-100% flicker-free, High frequency exemption level.
- Leading edge (Triac), Trailing edge (ELV) phase-cut and Push DIM.
- The secure and reliable design for signal isolation.
- Innovative thermal management technology intelligently protects the lifetime the driver.
- Over load / Over temp. / Short circuit / Over voltage protection, recover automatically.
- Suitable for internal lights application for Ⅰ/Ⅱ/Ⅲ.
- Up to 50000-hour life time.
- 5 year warranty (Rubycon capacitor).

Flicker-free
IEEE 1789
Achieve high frequency exemption level.

Dimmable:
0.1%-100%



SELV RoHS ErP

Triac/ELV Push DIM | Overheat protection | Short circuit protection | Overload protection | Over voltage protection

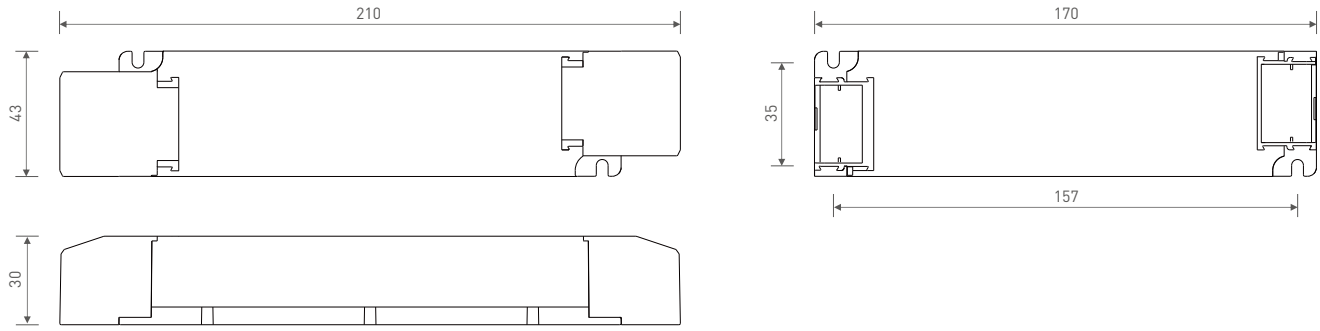
## Technical Specs

| Model | | LM-36-24-G1T2 | | | LM-36-12-G1T2 |
|---|---|---|---|---|---|
| OUTPUT | Output voltage | 24Vdc | | | 12Vdc |
| | Output voltage range | 24Vdc ± 0.5Vdc | | | 12Vdc ± 0.5Vdc |
| | Output current | Max. 1.5A | | | Max. 3A |
| | Output power | Max. 36W | | | |
| | Output power range | 0~36W | | | |
| | Strobe level | High frequency exemption level. | | | |
| | Dimming range | 0~100%, dimming down to 0.1% | | | |
| | Overload power limitation | ≥102% | | | |
| | Ripple & Noise | ≤200mV | | | |
| | PWM frequency | 3600Hz | | | |
| INPUT | Dimming interface | Leading edge (Triac), Trailing edge (ELV) phase-cut and Push DIM. | | | |
| | Input voltage | 220-240Vac | | | |
| | Frequency | 50/60Hz | | | |
| | Input current | ≤0.2A/230Vac | | | |
| | Power factor | PF>0.95/230Vac , at full load | | | |
| | THD | 230Vac@THD＜10%, at full load | | | |
| | Efficiency (typ.) | 85% | | | 84% |
| | Inrush current(typ.) | Cold start 30A at 230Vac | | | |
| | Control surge capability | L-N: 2kV | | | |
| | Leakage current | Max. 0.5mA | | | |
| ENVIRONMENT | Working temperature | ta: -20 ~ 50°C tc: 90°C | | | |
| | Working humidity | 20 ~ 95%RH, non-condensing | | | |
| | Storage Temperature humidity | -40°C ~ 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 | Over-heat protection | Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically . | | | |
| | Over load protection | Shut down the output when current load≥102%, and recover automatically . | | | |
| | Short circuit protection | Shut down automatically if short circuit occurs, and recover automatically . | | | |
| | Over voltage protection | Shut down the output when non-load voltage≥26V, re-power on to recover after fault condition is removed. | | | Shut down the output when non-load voltage ≥13V, re-power on to recover after fault condition is removed. |
| SAFETY & EMC | Withstand voltage | I/P-O/P: 3750Vac | | | |
| | Isolation resistance | I/P-O/P: 100MΩ/500VDC/25°C/70%RH | | | |
| | 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 | |
| | | CB | CB member states | IEC61347-1, IEC61347-2-13 | |
| | | BIS | India | IS 15885 (PART 2/SEC 13) | |
| | EMC Emission | EAC | Russia | IEC61347-1, IEC61347-2-13 | |
| | | 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 | | | |
| | Dimension | 210×43×30mm(L×W×H) | | | |
| | Package Size | 213×44×33mm(L×W×H) | | | |
| | Carton Size | 440×218×235mm(L×W×H) 40pcs/ctn 9kg±5%/ctn | | | |

※ 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 can prepare the special programs.

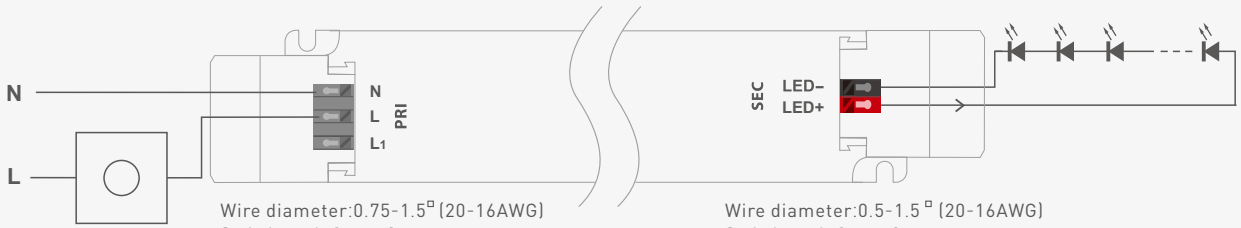
## Dimensions

Unit: mm

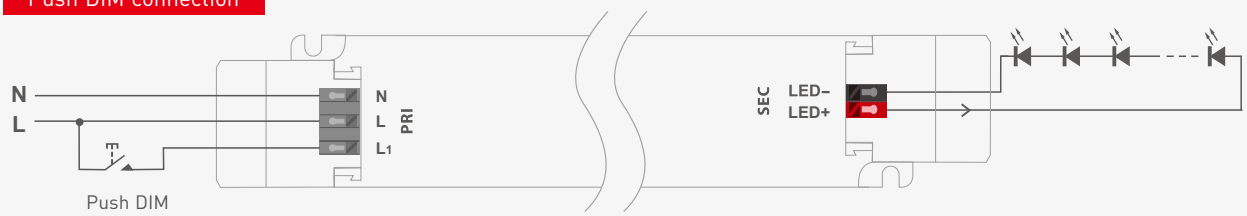



## Wiring Diagram

### Triac connection




### Push DIM connection




✻ Push DIM is invalid for DC voltage input.
Dimming interface priority: Triac first, Push DIM next.

## Push Dimming



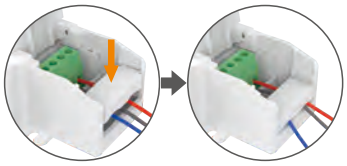
Reset switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: The lights will return to its previous brightness value when short press on PUSH DIM button.

  Power on again after power cut, the output brightness is subjected to the input voltage of drivers.

## Protective Housing Application Diagram

Tension plate



Push the tension plate down to fix the electric wires.



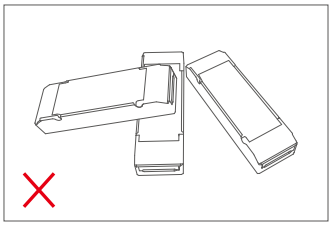
Push the side plate outwards and remove the tension plate by prying it up with a tool at the same time.

Remove the protective housing

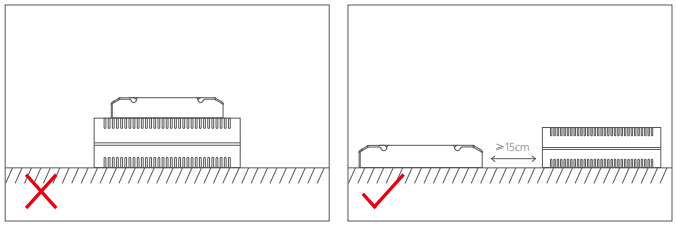


Pull the bottom left and right from the bottom to remove it.

## Installation Precautions

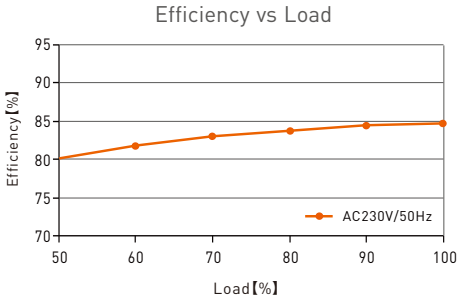


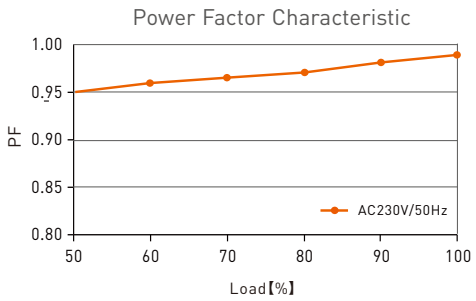
Please do not stack the products. The distance between two products should be≥15cm so as not to affect heat dissipation and the lifespan of the products.

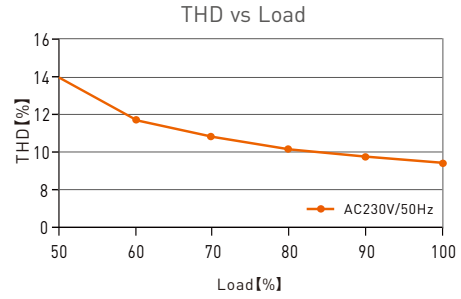


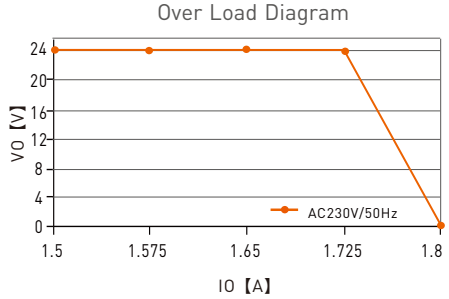
Please not place the products on LED drivers. The distance between the product and the driver should be ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.

## Relationship Diagrams

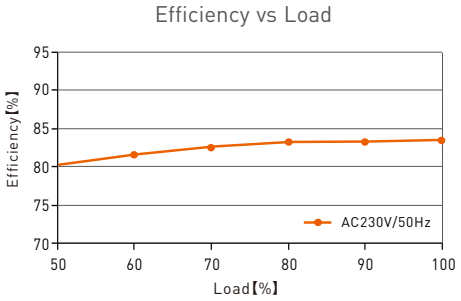


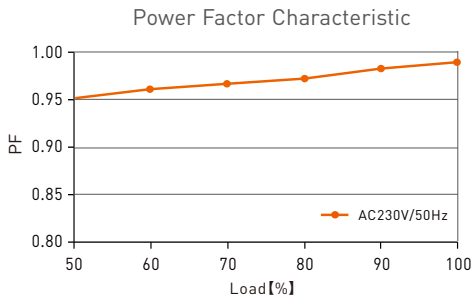



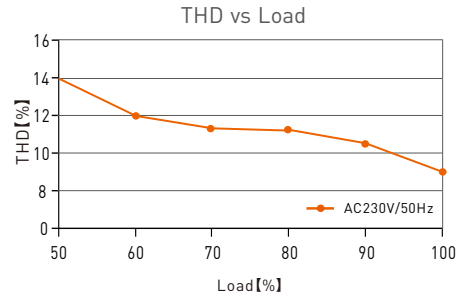



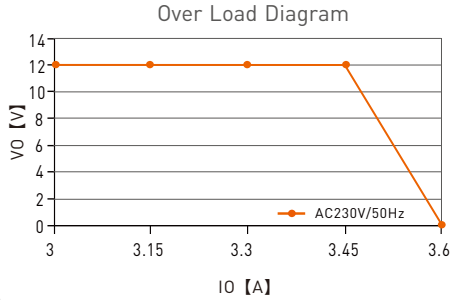




LM-36-24-G1T2



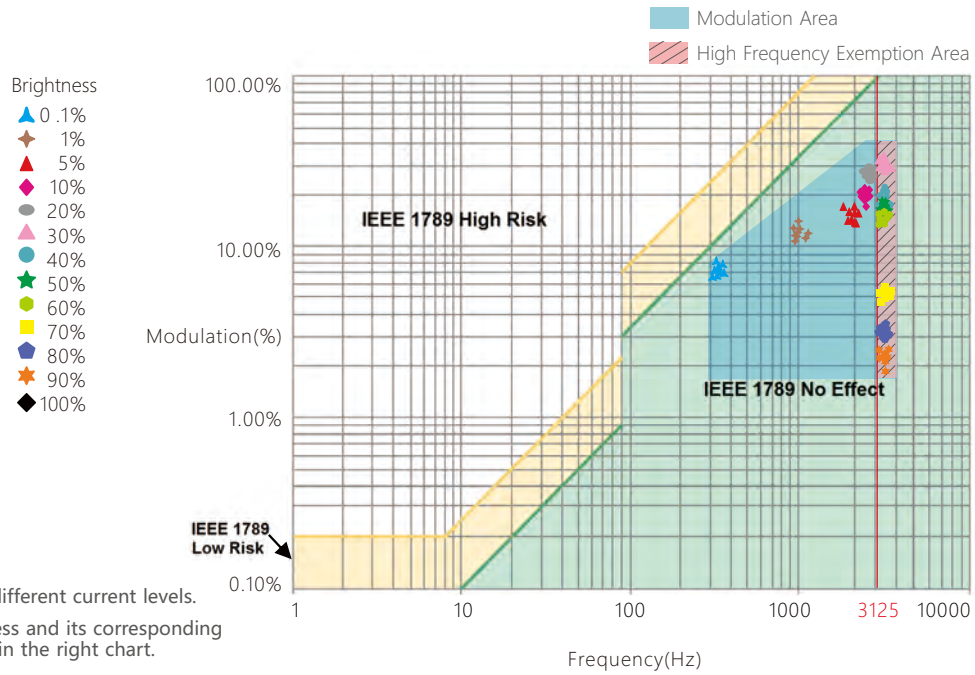




LM-36-12-G1T2

## Flicker Test Table

IEEE 1789

| Limit Value of Modulation in Low Risk Areas | |
|---|---|
| Waveform frequency of Optical output | Limit value (%) |
| $f \leq 8Hz$ | 0.2 |
| $8Hz < f \leq 90Hz$ | $0.025 \times f$ |
| $90Hz < f \leq 1250Hz$ | $0.08 \times f$ |
| $f > 1250Hz$ | Exemption assessment |
| **Limit Value of Modulation in No Effect Areas** | |
| Waveform frequency of Optical output | Limit value (%) |
| $f \leq 10Hz$ | 0.1 |
| $10Hz < f \leq 90Hz$ | $0.01 \times f$ |
| $90Hz < f \leq 3125Hz$ | $(0.08/2.5) \times f$ |
| $f > 3125Hz$ | 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.
- 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 | 2021.04.12 | Original version. | Xu Shujun |
| A1 | 2021.12.27 | Updated the silkscreen on the product. | Xu Shujun |
| A2 | 2026.01.19 | Update company logo and laser engraving/screen printing | Li Haipeng |