

#### General

| Product Type     | Constant Voltage Driver |
|------------------|-------------------------|
| Length (mm)      | 352                     |
| Width (mm)       | 43                      |
| Height (mm)      | 30                      |
| Housing Color    | White                   |
| Housing Material | PC                      |
| Mounting         | Surface mounted         |
| Weight (g)       |                         |

### **Electronics**

| Input Domain                   | AC              |  |  |
|--------------------------------|-----------------|--|--|
| Input Voltage                  | 220 ~ 240V AC   |  |  |
| Input Current max (A)          | 0.75A @ 230V AC |  |  |
| Output Voltage                 | 24V DC          |  |  |
| Output Current (mA) max/output | 6250            |  |  |
| Output Current Max. (A)        | 6.25            |  |  |
| Output Power Range (W)         | 0~150           |  |  |
| Power Factor at Full Load      | +0.98 @ 230VAC  |  |  |
| Power Supply                   | Internal        |  |  |
| Efficiency                     | 91%             |  |  |
| Standby Power Loss Max. (W)    | 0.5             |  |  |
| THD (at full load)             | 6% @ 230V AC    |  |  |
| Input Frequency                | 50 ~ 60Hz       |  |  |
| Inrush Current                 | 45A @ 230VAC    |  |  |

### Lighting

| Color Range | Single Color |
|-------------|--------------|
|-------------|--------------|

### Control

| Output Signal      | PWM-CV |
|--------------------|--------|
| Control            | TRIAC  |
| Dimming Range      | 0~100% |
| Number of Channels | 1      |

### **Protection**

| Overload                 | Yes |
|--------------------------|-----|
| Restart after Protection | Yes |
| Protection Class         | II  |

### **Environmental**

| Storage Temperature   | -40 ~ +80 °C |
|-----------------------|--------------|
| Operating Temperature | -20 ~ +50 °C |
| Ingress Protection    | IP20         |





CE ROHS IP20 5 year warranty

#### Disclaimer

Due to the technical evolution and improvement of our products, the data provided in this document may be updated on a regular basis, and as such, confirmation of this information is strongly recommended prior to the order process. OneEightyOne is not responsible for any discrepancies in this document following changes in our products. We reserve the right to make technical changes to our products and to change information, at its sole discretion, without notice.

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## Intelligent LED Driver (Constant Voltage)

- The housing is made from V0 flame retardant PC materials that SAMSUNG/COVESTRO uses.
- The clamshell design and screwless type for strain-relief. The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- High frequency exemption level.
- Dimming from 0~100%, down to 0.1%.
- Support Leading edge (Triac), Trailing edge (ELV) and Push DIM.
- The secure and reliable design for signal isolation.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- · Overheat, over voltage , overload, short circuit protection and automatic recovery.
- Suitable for Class I/II/III indoor light fixtures.
- Up to 50,000-hour life time.
- 5-year warranty (Rubycon capacitor).

Flicker-free IEEE 1789 Achieve the exemption level.





























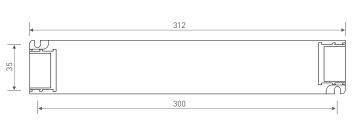


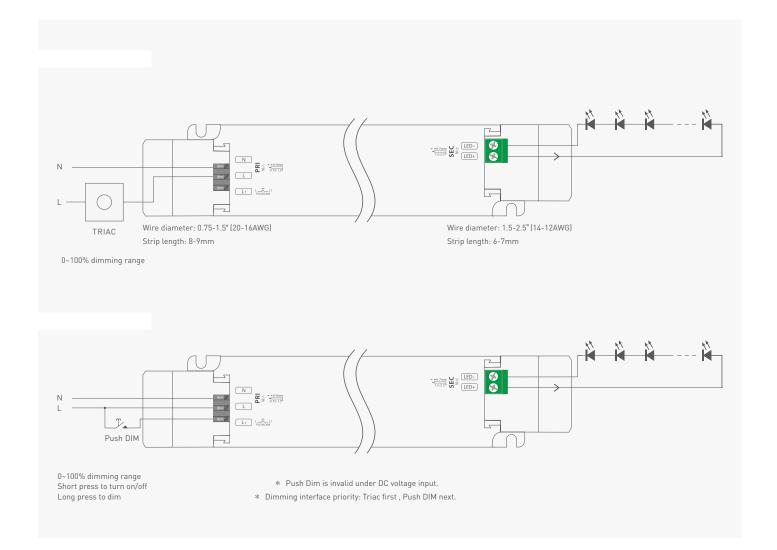


| Model       |                              | LM-150   | -24-G1T2                |  | LM-150-12-G1T2  |
|-------------|------------------------------|--|-------------------------|--|---|
|             | Output Voltage               | 24Vdc  |                         |  | 12Vdc   |
|             | Output Voltage Range         |  | ± 0.5Vdc                |  | 12Vdc ± 0.5Vdc  |
|             | Output Current               |  |                         |  |   |
|             |                              | Max. 6.2   |                         |  | Max. 12.5A  |
|             | Output Power                 | Max. 15  |                         |  |   |
| оитрит      | Output Power Range           | 0~150W   |                         |  |   |
|             | Strobe Level                 | High frequency exemption level   |                         |  |   |
|             | Dimming Range                | 0~100%, down to 0.1%   |                         |  |   |
|             | Overload Power Limitation    | ≥102%  |                         |  |   |
|             | Ripple                       | <200mV   |                         |  |   |
|             | PWM frequency                | 3600Hz   |                         |  |   |
|             | Dimming Interface            | Triac/ELV, Push DIM  |                         |  |   |
|             | Input Voltage                | 220-240  | Vac                     |  |   |
|             | Frequency                    | 50/60H   | Z                       |  |   |
|             | Input Current                | <0.75A   | /230Vac                 |  |   |
|             | Power Factor                 | PF>0.98  | /230Vac (at full load)  |  |   |
| INPUT       | THD                          |  | %@230Vac (at full lo    | ad)  |   |
|             | Efficiency (typ.)            | 91%  |                         |  | 90%   |
|             | Inrush Current               |  | art 45A/230Vac          |  | 1-2-12  |
|             |                              | L-N: 2K  |                         |  |   |
|             | Anti Surge                   |  |                         |  |   |
|             | Leakage Current              | Max. 0.  |                         |  |   |
|             | Working Temperature          |  | - 50°C tc: 90°C         |  |   |
|             | Working Humidity             |  | %RH, non-condensing     |  |   |
| ENVIRONMENT | 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   |                         |  |   |
|             | Overheat Protection          | Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically   |                         |  |   |
| PROTECTION  | Overload Protection          | Shut down the output when current load>102%, and recover automatically   |                         |  |   |
| ROTECTION   | Short Circuit Protection     | Enter hiccup mode if short circuit occurs, and recover automatically   |                         |  |   |
|             | Overvoltage Protection       | Shut down the output when non-load voltage > 28V, and recover automatically   Shut down the output when non-load voltage > 16V, and recover automatically  |                         |  |   |
|             | Withstand Voltage            | I/P-0/P:   | 3750Vac                 |  |   |
|             | Isolation Resistance         | I/P-0/P:   | 100MΩ/500VDC/25°C/      | 70%RH  |   |
|             |                              | CCC China GB19510.1, GB19510.14  |                         |  |   |
|             |                              | TUV  | Germany                 | EN61347-1, EN61347-2-13, EN62493                         |   |
|             |                              | СВ   | CB member states        | IEC61347-1, IEC61347-2-13                                |   |
|             |                              | CE   | European Union          | EN61347-1, EN61347-2-13, EN62384, EN6154                 | 47  |
|             | E                            | KC   | Korea                   | KC61347-1, KC61347-2-13                                  |   |
|             |                              | EAC  | Russia                  | IEC61347-1, IEC61347-2-13                                |   |
| SAFETY      |                              | RCM  | Australia               | AS 61347-1, AS 61347-2-13                                |   |
| &<br>EMC    |                              | EMEC   | Europe                  | EN61347-1, EN61347-2-13, EN62384                         |   |
| 2.510       |                              | UKCA   | Britain                 | BS EN 61347-2-13:2014+A1:2017, BS EN 613                 | 347-1:2015+A1:2021  |
|             |                              | CCC  | China                   | GB/T17743, GB17625.1                                     | 5/7   |
|             |                              | CE<br>KC   | European Union<br>Korea | EN55015, EN61000-3-2, EN61000-3-3, EN61<br>KN15, KN61547 | 047   |
|             | EMC Emission                 | EAC  | Russia                  | IEC62493, IEC61547, EH55015                              |   |
|             |                              | RCM  | Australia               | EN55015, EN61000-3-2, EN61000-3-3, EN61                  | 547   |
|             |                              | UKCA   | Britain                 |  | 47:2009, BS EN IEC 61000-3-2:2019, BS EN 61000-3-3:2013/A1:2019 |
|             | EMC Immunity                 | EN61000-4-2,3,4,5,6,8,11, EN61547  |                         |  |   |
|             | Strobe Test Standard         | IEEE 1789  |                         |  |   |
|             | Gross weight(G.W)            | 430g±10  | )g                      |  |   |
|             | Dimensions                   | 352×43×30mm(L×W×H)   |                         |  |   |
| OTHERS      | Package size                 | 355×44×33mm(L×W×H)   |                         |  |   |
|             | Carton Size                  | 370×340×93mm(L×W×H) 20pcs/ctn 9.4kq±5%/ctn   |                         |  |   |
|             |                              | 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 |                         |  |   |

#### Unit: mm







# Push DIM



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

Reset switch

### Tension plate



1. Pry up the protecting housing in the side plate position with a



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.

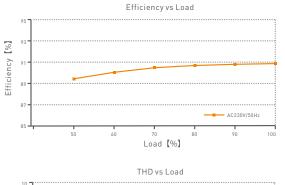
### Remove the protective housing





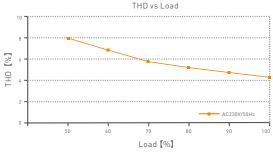


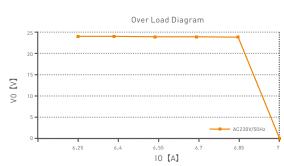
Pull the housing left and right from the bottom to remove it.



Power Factor Characteristic

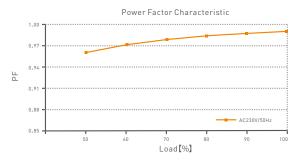
1.00
0.97
0.94
0.91
0.88
0.88
0.85
50
60
70
80
90
100
Load [%]

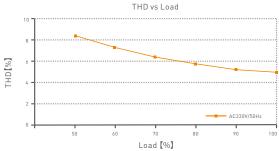


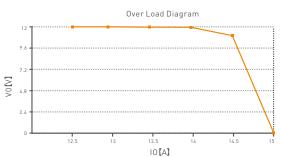


LM-150-24-G1T2









IEEE 1789

Limit Value of Modulation in Low Risk Areas 0.025 × f 90Hz < f ≤ 1250Hz 0.08 × f f > 1250Hz Exemption assessment Limit Value of Modulation in No Effect Areas f ≤ 10Hz 10Hz < f ≤ 90Hz 0.01 × f 90Hz < f ≤ 3125Hz  $(0.08/2.5) \times f$ Exemption assessment (High frequency exemption f > 3125Hz



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.

- 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 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.
- $2. \ \, \text{LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.}$

# Update Log

| Version | Updated Time | Update Content                                     | Updated by |
|---------|--------------|--|------------|
| A0      | 2021.04.27   | Original version                                   | Liu Weili  |
| A1      | 2021.09.10   | Modify the product and add UKCA certification icon | Liu Weili  |