

Intelligent Tunable White LED Driver (Constant Voltage)

- Small size and light weight. The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- 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.
- Adopt constant power design that can adjust different color temperature while brightness remains the same.
- Adjustable color temperature: 1000-10000K (factory default: 2700-6500K)
- Dimming from 0~100%, down to 0.1%.
- 2 SELV output channels with common anode.
- The secure and reliable design for signal isolation.
- 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

Dimmable:
0.1%-100%



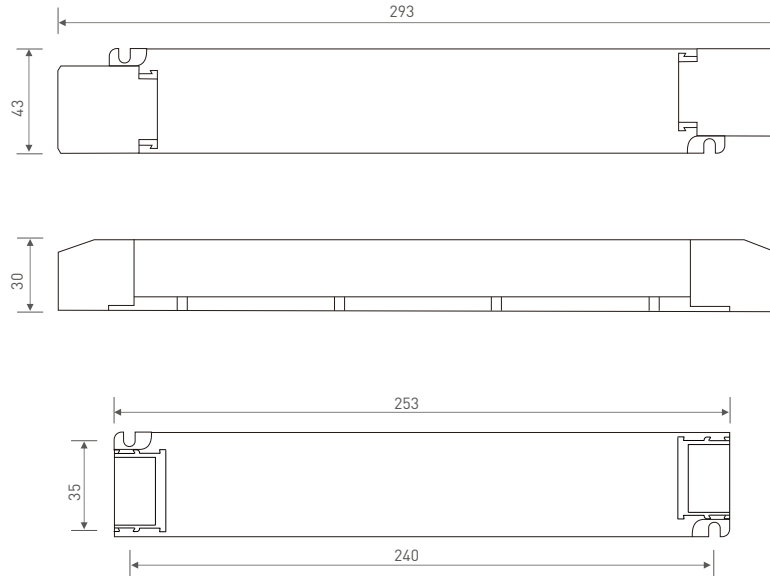
Specification

| Model | LM-75-12-G2D2 | LM-75-24-G2D2 | LM-100-24-G2D2 | |
|----------------------|---------------------------|--|--|---|
| OUTPUT | Output Voltage | 12Vdc | 24Vdc | |
| | Output Voltage Range | 12Vdc ±0.5Vdc | 24Vdc ±0.5Vdc | |
| | Output Current | Max. 6.25A | Max. 3.125A | Max. 4.17A |
| | Output Power | Max. 75W | | Max. 100W |
| | Output Power Range | 0~75W | | 0~100W |
| | Strobe Level | High frequency exemption level. | | |
| | Dimming Range | 0~100%, dimming depth: Max. 0.1% | | |
| | Overload Power Limitation | ≥102% | | |
| | Ripple & Noise | ≤200mV | ≤300mV | |
| PWM Frequency | 3600Hz | | | |
| INPUT | Dimming Interface | DALI-2 DT6/DT8, Push DIM/CCT | | |
| | Input Voltage | 220-240Vac | | |
| | Frequency | 50/60Hz | | |
| | Input Current | Max. 0.4A/230Vac | Max. 0.5A/230Vac | |
| | Power Factor | PF>0.97/230Vac, at full load | | PF>0.98/230Vac, at full load |
| | THD | ≤14% at 230Vac, at full load | | ≤12% at 230Vac, at full load |
| | Efficiency (typ.) | 91% | 92% | 93% |
| | Inrush Current(typ.) | Cold start 30A at 230Vac | | 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: 80°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 ≥13V, re-power on to recover after fault condition is removed | Shut down the output when non-load voltage ≥26V, 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 | Shut down automatically 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 | CCC | China | GB19510.1, GB19510.14 |
| | | CB | CB member states | IEC61347-1, IEC61347-2-13 |
| | | RCM | Australia | AS 61347-1, AS 61347-2-13 |
| | | UKCA | Britain | BS EN 61347-2-13:2014+A1:2017, BS EN 61347-1:2015+A1:2021 |
| | | TUV | Germany | EN61347-1, EN61347-2-13, EN62493 |
| | | CE | European Union | EN61347-1, EN61347-2-13, EN62384 |
| | EMC Emission | CCC | China | GB/T17743, GB17625.1 |
| | | RCM | Australia | EN55015, EN61000-3-2, EN61000-3-3, EN61547 |
| | | UKCA | Britain | BS EN IEC 55015:2019/A11:2020, BS EN 61547:2009, BS EN IEC 61000-3-2:2019, BS EN 61000-3-3:2013/A1:2019 |
| | | CE | European Union | EN55015, EN61000-3-2, EN61000-3-3, EN61547 |
| | EMC Immunity | EN61000-4-2,3,4,5,6,8,11 EN61547 | | |
| Strobe Test Standard | IEEE 1789 | | | |
| OTHERS | Dimension | 293×43×30mm(L×W×H) | | |
| | Packing | 296×44×33mm(L×W×H) | | |
| | Weight(G.W.) | 300g±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

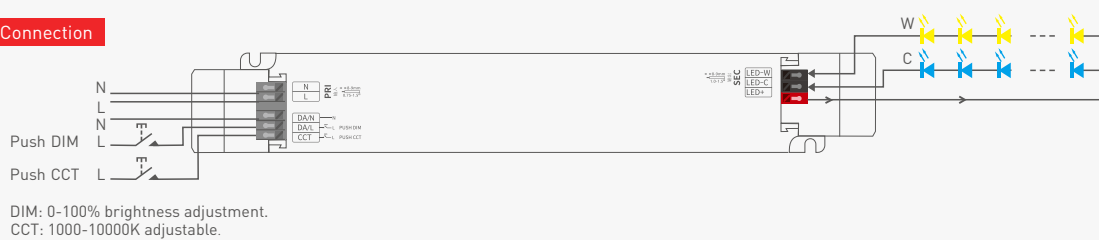


Wiring Diagram

DALI Connection



Push DIM/CCT Connection

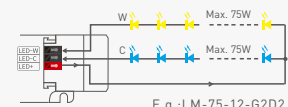


* Dimming interface priority: First DALI, next Push DIM/CCT.

* Adopting constant power program design, it keeps the same brightness in color temperature dimming, twice the rated power load can be connected.

75W driver, 75W X 2CH load can be connected, the total power of the 2 channels will be kept in 75W.

100W driver, 100W X 2CH load can be connected, the total power of the 2 channels will be kept in 100W.



Push DIM/CCT



Reset switch

DIM

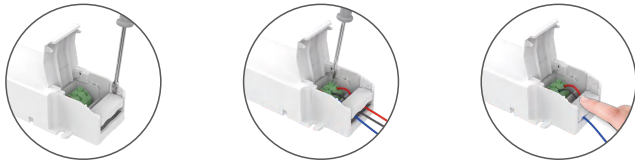
- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the light level goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.

CCT

- Color temperature adjustment: Long press.
- With every other long press, the color temperature level goes to the opposite direction.
- Color temperature memory: Color temperature will be the same as previously adjusted when turning off and on again.

Protective Housing Application Diagram

Tension plate



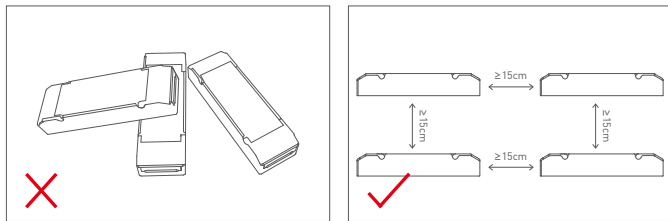
1. Pry up the protecting housing in the side plate position with a tool.
2. Connect to electrical wires with a screwdriver as wiring diagram shows.
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

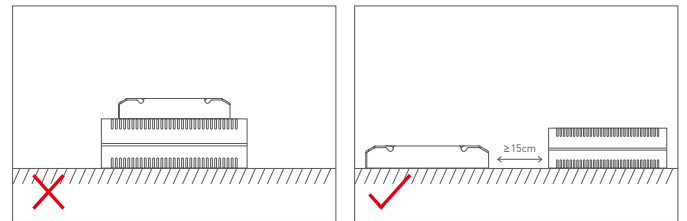


Pull the housing left and right from the bottom to remove it.

Installation Precautions

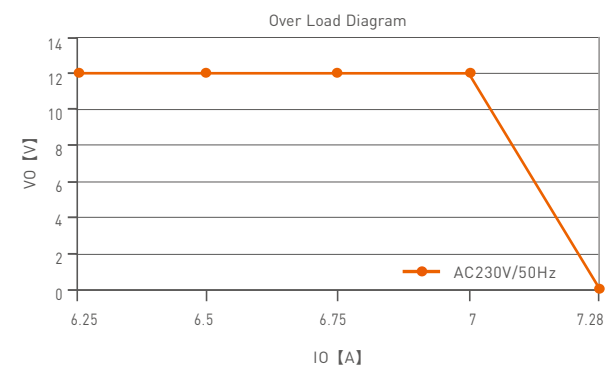
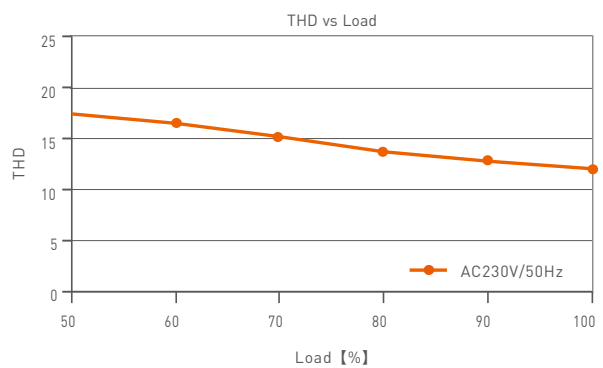
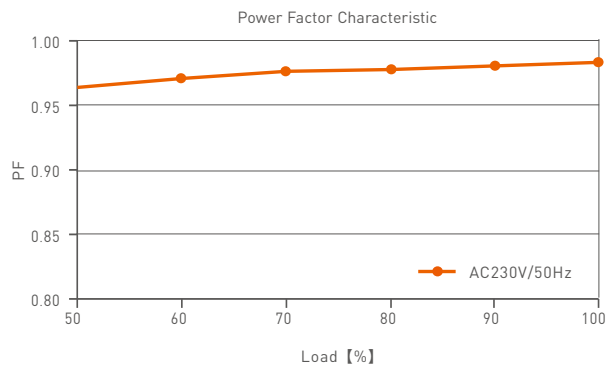
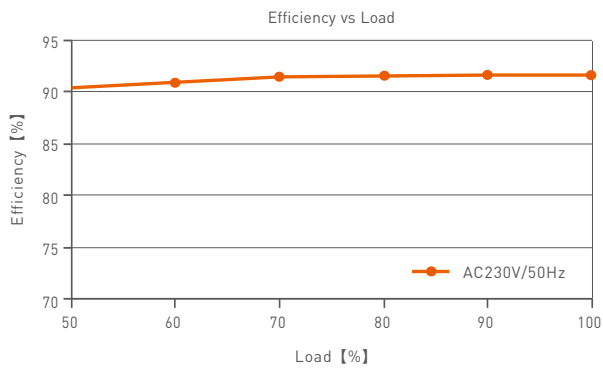


Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.

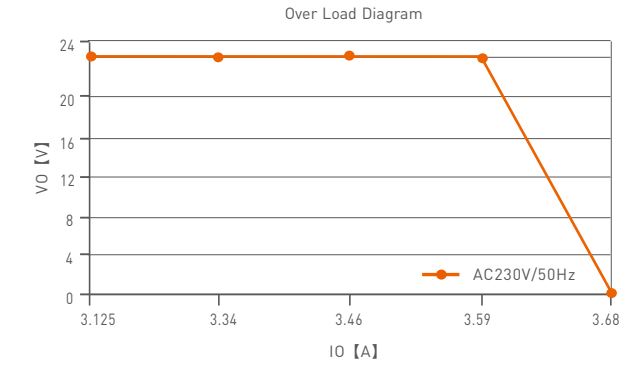
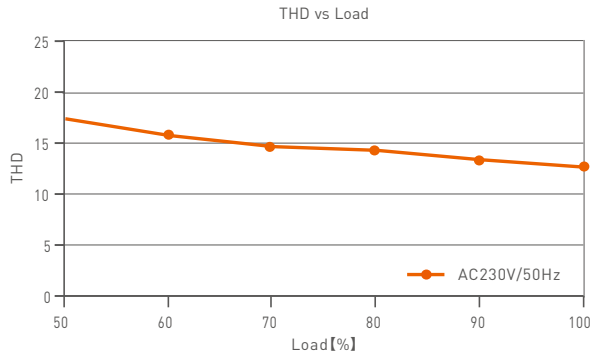
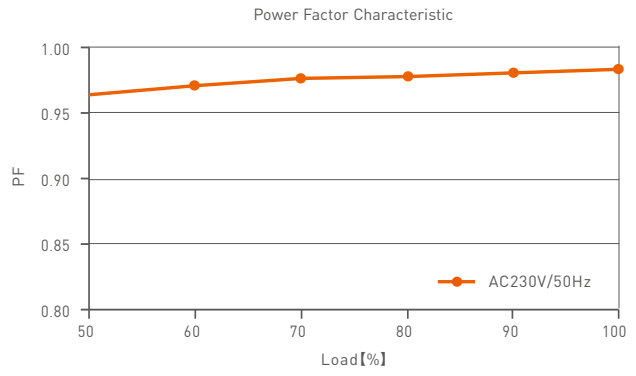
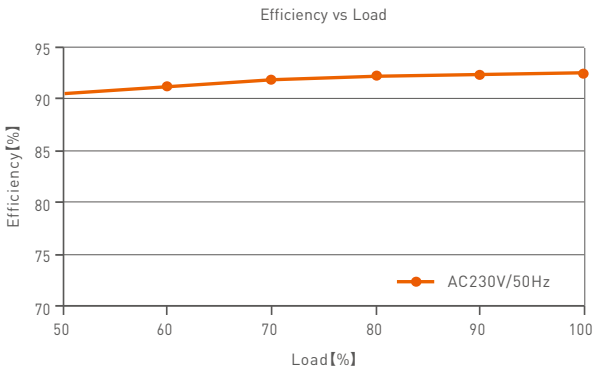


Please not place the products on LED drivers. The distance between the product and the driver should be $\geq 15\text{cm}$ so as not to affect heat dissipation and shorten the lifespan of the products.

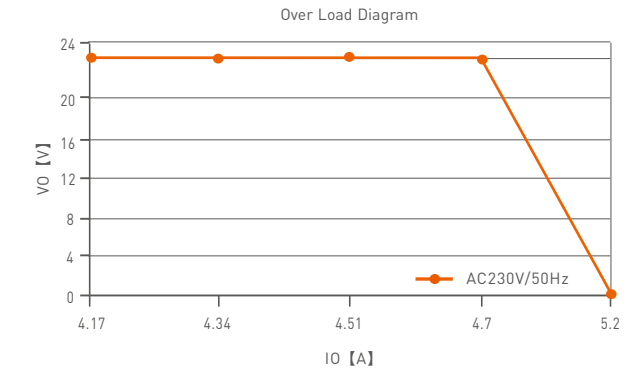
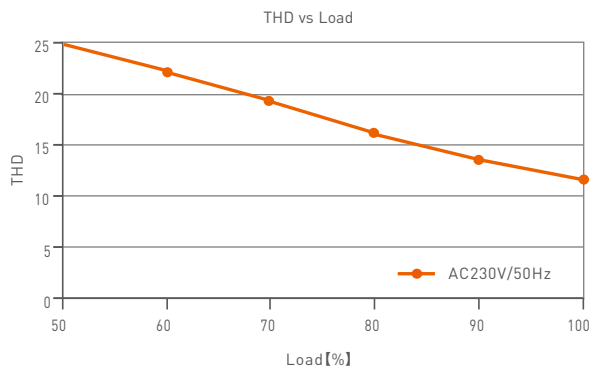
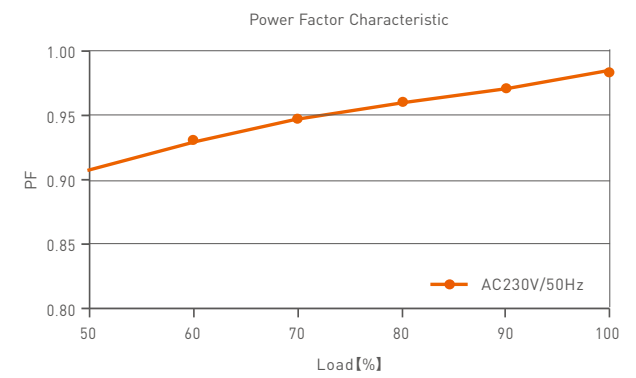
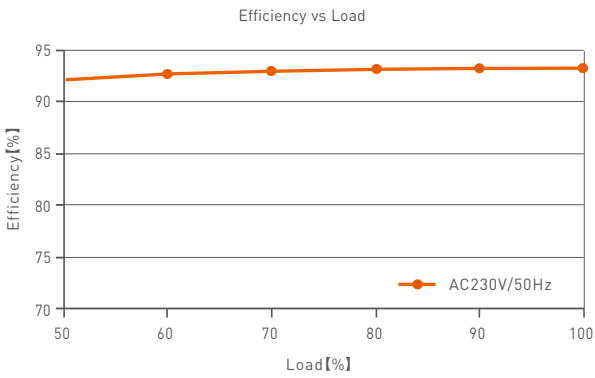
Relationship Diagrams



LM-75-12-G2D2



LM-75-24-G2D2



LM-100-24-G2D2

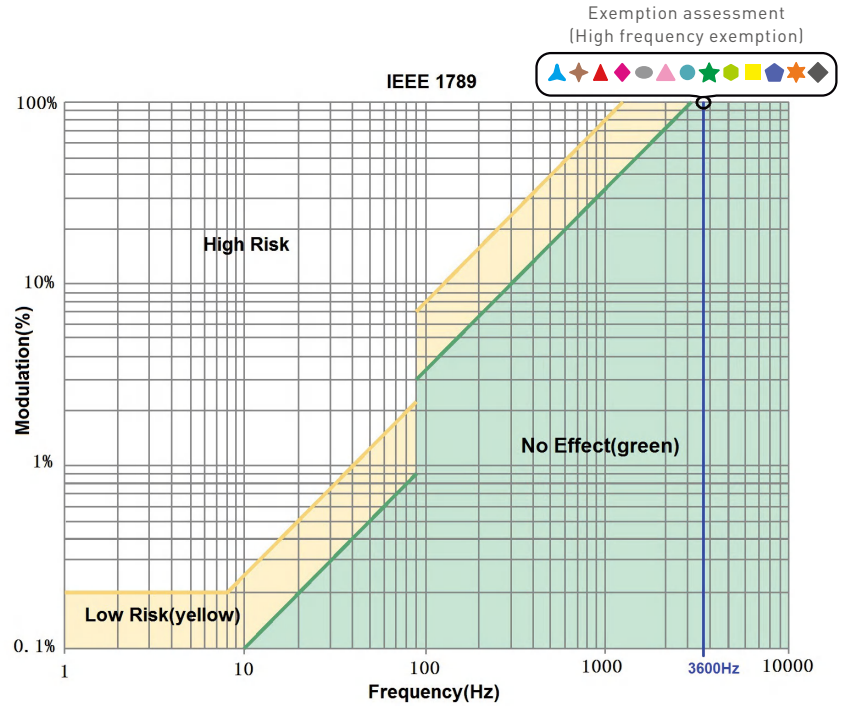
Flicker Test Form

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

- This product must be installed and adjusted by a qualified professional.
- This product is 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 life the product. Please install the product in a environment with good ventilation.
- When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
- Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
- Please check whether the working voltage used complies with the parameter requirements of the product.
- Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

* 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 | 2020.09.10 | Original version | Liu Weili |
| A1 | 2021.04.30 | Add product feature description; update product silk screen, update TUV certification icon | Liu Weili |
| A2 | 2021.12.10 | Update product silk screen | Liu Weili |
| A3 | 2022.06.07 | Update protective housing application diagram | Liu Weili |
| A4 | 2024.02.19 | Updated color temperature range | Li Siyu |