

Intelligent LED Driver (Constant Current)

- Dimming interface: DALI, Push DIM
- T-PWM™ dimming technology allows continuous and flicker-free images under high-speed photography.
- Dimming range: 0~100%, LED start at 0.01% possible.
- 0-100% flicker-free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- DALI dimming curve can be either linear or logarithmic.
- Multi-current & wide voltage, suitable for different power LED.
- Non-load output voltage 0V to prevent damages to LED caused by poor contact.
- Short circuit / Over-heat / Over load / Non-load protection, recover automatically.
- DALI bus standard: IEC62386-101, 102, 207.
- Suitable for internal lights application for I / II / III.
- Up to 50,000-hour life time.
- 5 years warranty (Rubycon capacitor).



T-PWM™
Super depth dimming technology

Flicker-Free
IEEE 1789

Dimmable:
.....
0.01 - 100%

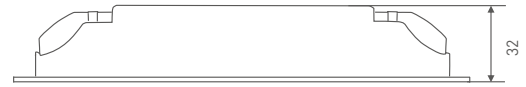
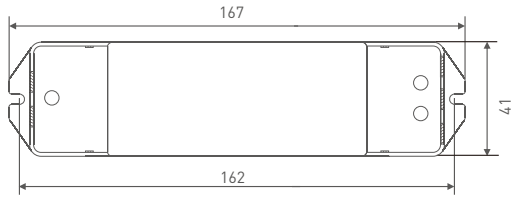


Specification

| Model | | DALI-15-100-700-E1A1 | DALI-25-150-900-E1A1 | DALI-36-200-1200-E1A1 | |
|----------------------|----------------------------------|---|---|---|--|
| OUTPUT | Output Voltage | 10-54Vdc | | | |
| | Max Output Voltage | 58Vdc | | | |
| | Non-load Output Voltage | 0Vdc | | | |
| | Output Current | 100-700mA | 150-900mA | 200-1200mA | |
| | Output Power | 1~15W | 1.5~25W | 2~36W | |
| | Strobe Level | Almost flicker-free / High frequency exemption level | | | |
| | Dimming Range | 0~100%, LED start at 0.01% possible | | | |
| | PWM Dimming Frequency | 3600Hz [frequency conversion dimming] | | | |
| | LF Current Ripple(120Hz) | <2% | | | |
| | Current Accuracy | ±5% | | | |
| Ripple & Noise | ≤2V (no dim) | | | | |
| INPUT | Dimming Interface | DALI, Push DIM | | | |
| | Input Voltage Range | 220-240Vac | | | |
| | Frequency | 50/60Hz | | | |
| | Input Current | <0.15A | <0.2A | <0.3A | |
| | Power Factor | PF>0.90/230Vac, at full load | PF>0.93/230Vac, at full load | PF>0.95/230Vac, at full load | |
| | THD | ≤20% at 230Vac, at full load | | | |
| | Efficiency (typ.) | 83% | 84% | 87% | |
| | Inrush Current (typ.) | Cold start 2.53A at 230Vac [twidth=25.1µs measured at 50% Ipeak] | Cold start 3.01A at 230Vac [twidth=35µs measured at 50% Ipeak] | Cold start 6.31A at 230Vac [twidth=58.4µs measured at 50% Ipeak] | |
| | Anti Surge | L-N: 1kV | | | |
| Leakage Current | <0.5mA/230Vac | | | | |
| ENVIRONMENT | Working Temperature | ta: 50°C tc: 90°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 Load Protection | Shut down the output when rated power>102%, auto recovers | | | |
| | Short Circuit Protection | Shut down automatically if short circuit occurs, auto recovers | | | |
| | Non-load Protection | Shut down the output if no load, auto recovers when load back to normal | | | |
| SAFETY & EMC | Withstand Voltage | I/P-O/P: 3750Vac | | | |
| | Isolation Resistance | I/P-O/P: 100MQ/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 | |
| | | UKCA | Britain | BS EN 61347-2-13:2014+A1:2017 BS EN 61347-1:2015+A1:2021 | |
| | | RCM | Australia | AS61347-1, AS61347-2-13 | |
| | | ENEC | Europe | EN61347-1, EN61347-2-13, EN62384 | |
| | EMC Emission | CCC | China | GB/T17743, GB17625.1 | |
| | | RCM | Australia | EN550515, EN61000-3-2, EN61000-3-3, EN61547 | |
| | | CE | European Union | EN550515, EN61000-3-2, EN61000-3-3 | |
| | | 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 | |
| EMC Immunity | EN61000-4-2,3,4,5,6,8,11 EN61547 | | | | |
| Strobe Test Standard | IEEE 1789 | | | | |
| OTHERS | Dimensions | 167×41×32mm(L×W×H) | | | |
| | Packing | 168×43×35mm(L×W×H) | | | |
| | Weight(G.W.) | 165g±10g | | | |

Dimensions

Unit: mm



LED Current Selection

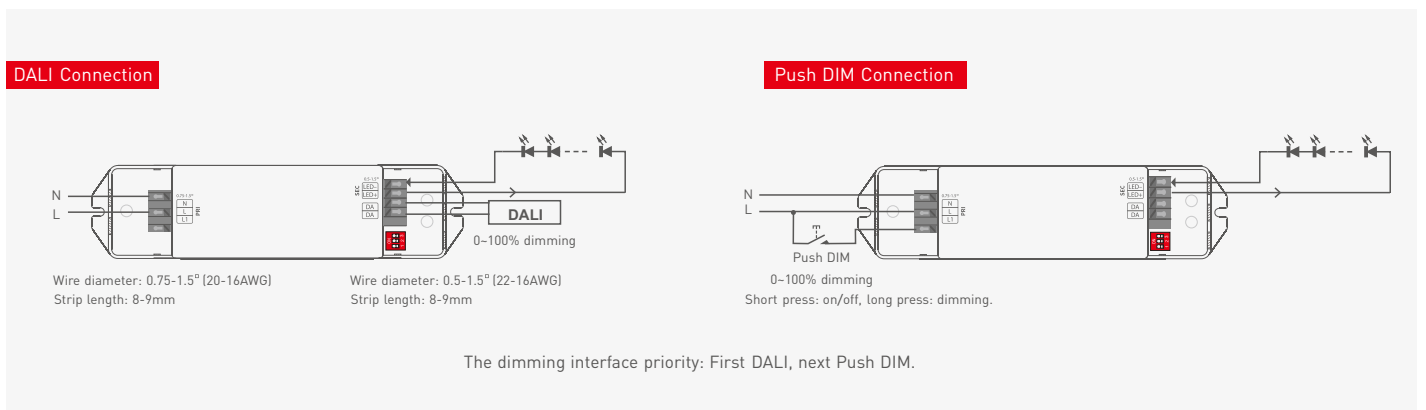
DIP switch for 8 optional currents' quick selection(see the table below).

| | | | | | | | | | | |
|------------------------------|----------------|-----------|------------|----------|-------------|------------|----------|--------------|----------|------------|
| DALI-15-100-700-E1A1 | DIP Switch | ⬇⬇⬇ | ⬇⬇⬆ | ⬇⬆⬆ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ON OFF |
| | Output Current | 100mA | 180mA | 300mA | 350mA | 450mA | 500mA | 600mA | 700mA | |
| | Output Voltage | 10-54V | 10-54V | 10-50V | 10-43V | 10-34V | 10-30V | 10-25V | 10-22V | |
| | Output Power | 1W-5.4W | 1.8W-9.72W | 3W-15W | 3.5W-15.05W | 4.5W-15.3W | 5W-15W | 6W-15W | 7W-15.4W | |
| DALI-25-150-900-E1A1 | DIP Switch | ⬇⬇⬇ | ⬇⬇⬆ | ⬇⬆⬆ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ON OFF |
| | Output Current | 150mA | 250mA | 300mA | 350mA | 500mA | 600mA | 700mA | 900mA | |
| | Output Voltage | 10-54V | 10-54V | 10-54V | 10-54V | 10-50V | 10-42V | 10-36V | 10-28V | |
| | Output Power | 1.5W-8.1W | 2.5W-13.5W | 3W-16.2W | 3.5W-18.9W | 5W-25W | 6W-25.2W | 7W-25.2W | 9W-25.2W | |
| DALI-36-200-1200-E1A1 | DIP Switch | ⬇⬇⬇ | ⬇⬇⬆ | ⬇⬆⬆ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ⬆⬆⬇ | ⬆⬆⬆ | ON OFF |
| | Output Current | 200mA | 350mA | 500mA | 600mA | 700mA | 900mA | 1050mA | 1200mA | |
| | Output Voltage | 10-54V | 10-54V | 10-54V | 10-54V | 10-52V | 10-40V | 10-35V | 10-30V | |
| | Output Power | 2W-10.8W | 3.5W-18.9W | 5W-27W | 6W-32.4W | 7W-36.4W | 9W-36W | 10.5W-36.75W | 12W-36W | |

* After current setting by DIP switch, power off and then power on to make the new current effective.

* E.g. LED 3.2V/pcs: 10-54V can power 3-16pcs LEDs in series, 10-22V can power 3-6pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Wiring Diagram



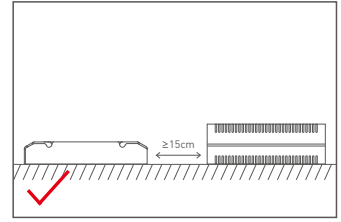
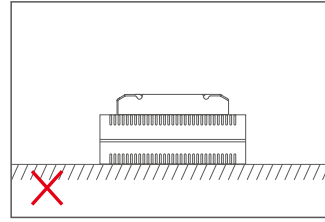
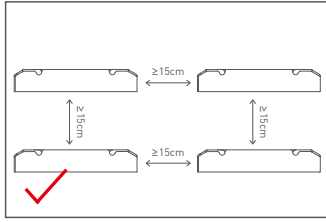
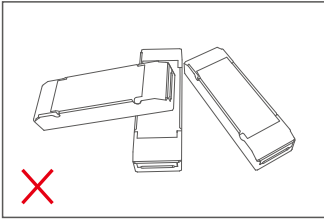
Push DIM



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: Brightness will be the same as previously adjusted when turning off and on again.

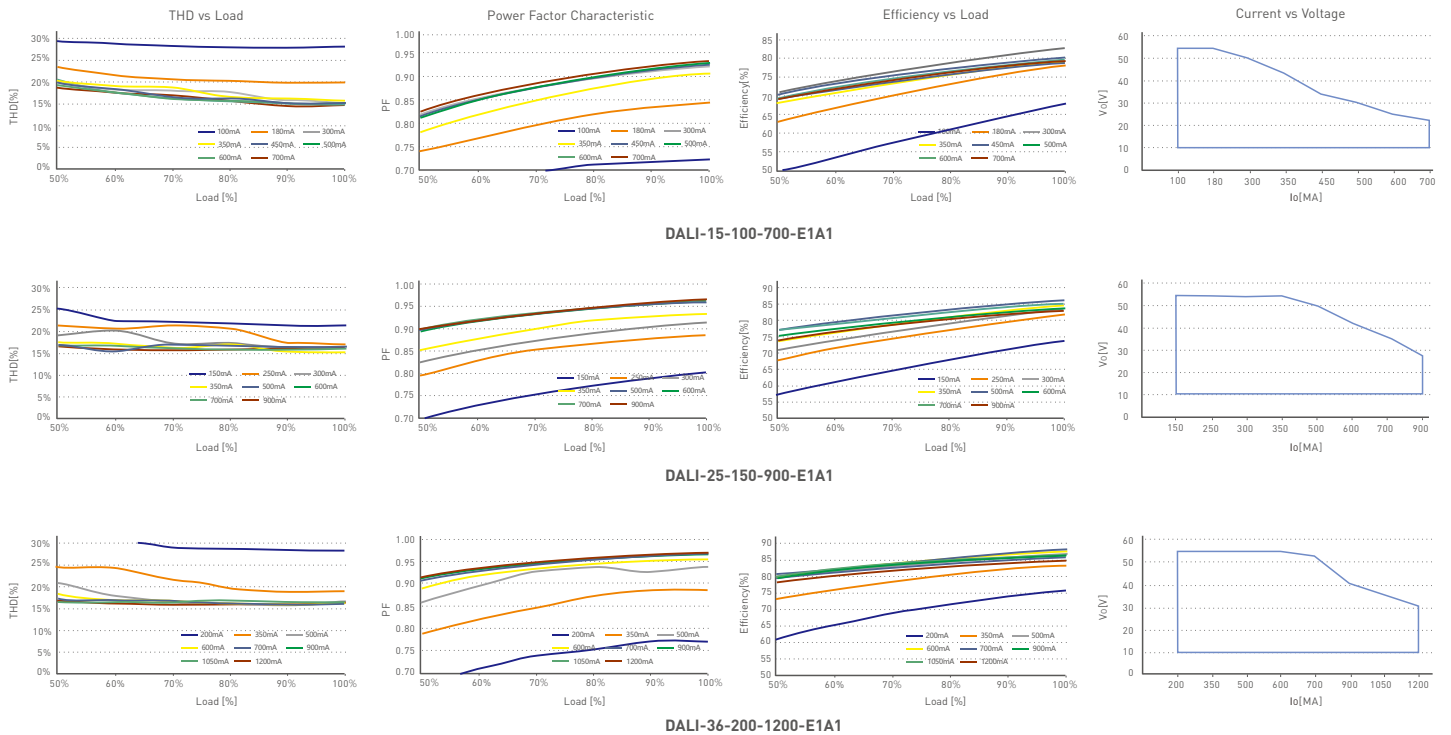
Installation Precautions



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



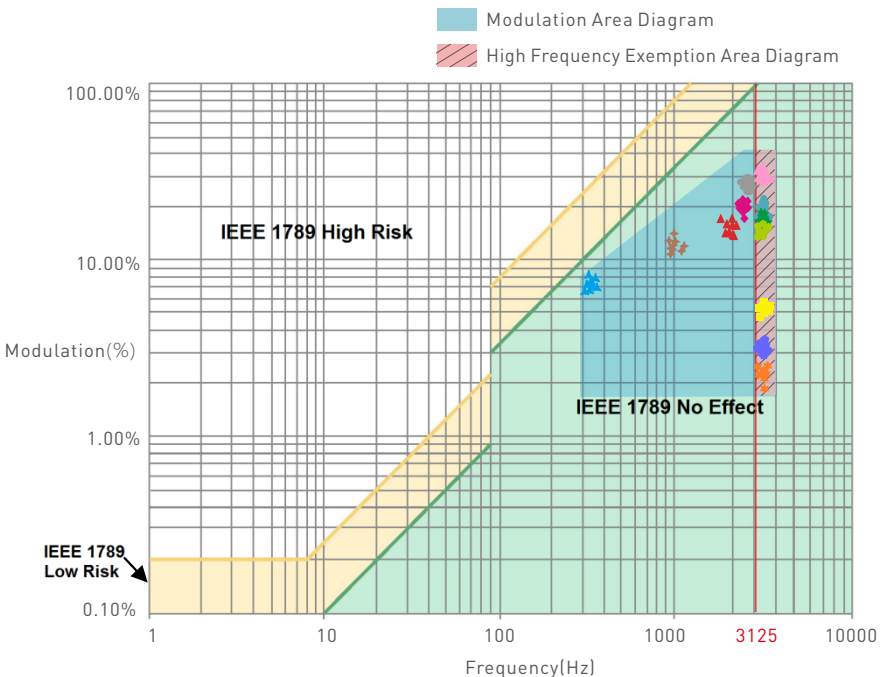
Flicker Test Form

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%



Marks in the right chart were tested results of different current ranges.

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 |
|---------|--------------|---|------------|
| A5 | 2021.12.10 | Update TUV certification icon; update product silk screen | Liu Weili |
| A6 | 2022.04.22 | Update product certification icons | Liu Weili |