

Product Description

LF-GSD015YE series is a 15W constant current LED driver. It has DALI dimming and push dimming functions. It works under the input voltage of 198-264VAC. The output current can be adjusted via the DIP switch from 100mA to 350mA, in steps of 50mA.

Features

- IP20
- Metal casing, suitable for Class I & II light fixtures
- Constant current output. The output current can be adjusted via the DIP switch
- Built-in active PFC function
- Standby power consumption: <0.5W
- Dimming depth: 0.1%
- DALI dimming function. The logarithmic dimming curve or the linear dimming curve can be selected via the software
- Push dimming function
- 5-year warranty (Please refer to the warranty condition.)

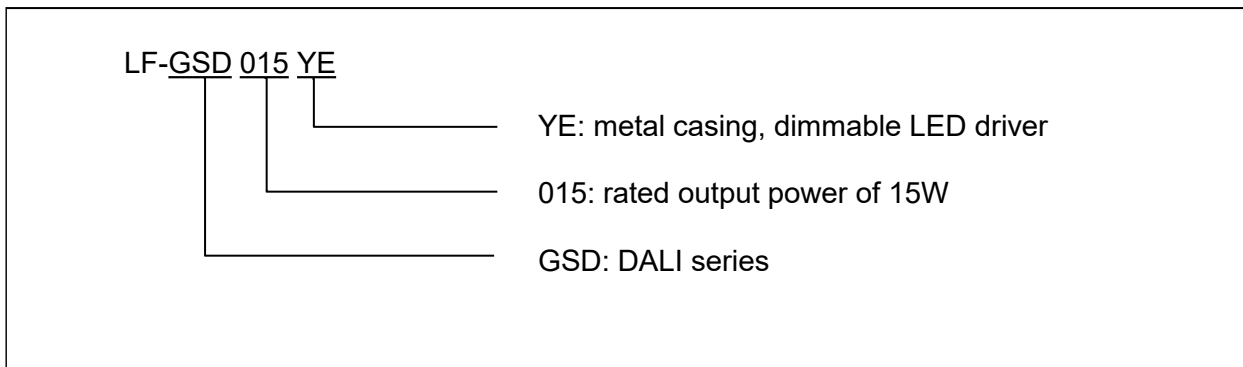


Applications

- Plant lighting
- Indoor office lighting
- Decorative lighting
- Commercial lighting
- Residential lighting



Product Naming



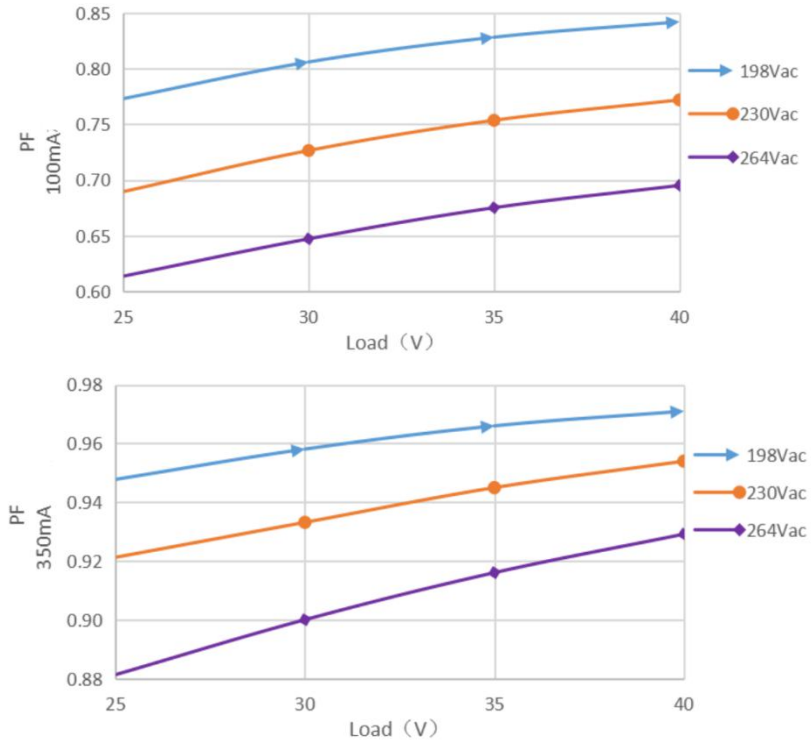
Electrical Characteristics

| Model | | LF-GSD015YE | | | | | |
|----------------------------|--|---|-------------|-------------|--------------|-------------|--------------|
| Output | Output Voltage | 25-40V | | | | | |
| | Output Current | The output current can be adjusted via the DIP switch. Please refer to the DIP switch table. | | | | | |
| | | 100mA | 150mA | 200mA | 250mA | 300mA | 350mA |
| | Flicker Index | IEC-Pst \leq 1, CIE SVM \leq 0.4, Modulation Depth \leq 1% (Meet with flicker free standard: IEEE Std 1789-2015) | | | | | |
| | Ripple Current | <10% (rated current) | | | | | |
| | Current Tolerance | \pm 5% | | | | | |
| | Temperature Drift | \pm 10% | | | | | |
| Start-up Time | <1.5s @230VAC | | | | | | |
| Input | Input Voltage | 220-240VAC (voltage limit : 198-264VAC) | | | | | |
| | DC Input Voltage | 310-340VDC (voltage limit : 280-374VDC) | | | | | |
| | Input Frequency | 47-63Hz | | | | | |
| | Input Current | 0.1A Maximum | | | | | |
| | Power Factor | \geq 0.75 | \geq 0.83 | \geq 0.87 | \geq 0.90 | \geq 0.92 | \geq 0.95 |
| | THD | \leq 15% @230Vac (DC40V full load) | | | | | |
| | Efficiency | \geq 74% | \geq 78% | \geq 81% | \geq 82.5% | \geq 84% | \geq 84.5% |
| | Inrush Current | \leq 60A/350uS@230VAC (Maximum) | | | | | |
| | Load Quantity Carried by the Circuit Breaker | Circuit Breaker Model | B10 | C10 | B16 | C16 | |
| | | Quantity (pcs) | 66 | 66 | 106 | 106 | |
| | Surge Protection | L-N: 1KV; L-N-GND: 1.5KV | | | | | |
| | Leakage Current | \leq 0.7mA | | | | | |
| Stand-by Power Consumption | \leq 0.5W (when the DALI signal is OFF) | | | | | | |
| Protective Feature | Open-Circuit Protection | <55V | | | | | |
| | Short-Circuit Protection | Hiccup mode (auto-recovery) | | | | | |
| Environment Condition | Operating Temperature | -30 $^{\circ}$ C ~ +50 $^{\circ}$ C | | | | | |
| | Operating Humidity | 20-90%RH (no condensation) | | | | | |
| | Storage Temperature/Humidity | -30 $^{\circ}$ C ~ 80 $^{\circ}$ C (six months under class I environment); 10-90%RH (no condensation) | | | | | |
| | Atmospheric Pressure | 86-106KPa | | | | | |

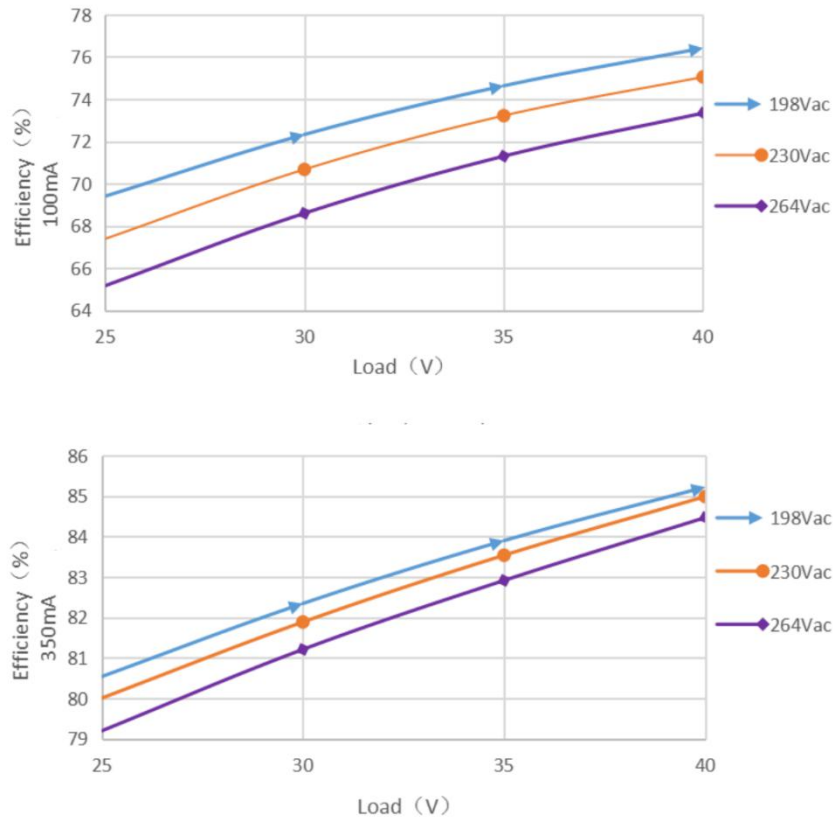
| | | |
|---|--|--|
| Safety & Electromagnetic Compatibility | Certifications | TUV-ENEC, CE, CB, RCM, CCC |
| | Withstanding Voltage | I/P-O/P: 3.75KV, 5mA, 60S |
| | Insulation Resistance | I/P-O/P: >100MΩ @ 500Vdc |
| | Safety Standards | ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009; CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015; SAA: AS 61347.2-13: 2018; CB: IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016; CCC: GB19510.1-2009, GB19510.14-2009 |
| | EMI | CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 CCC:GB/T17743, GB17625.1, GB17625.2 |
| | EMS | CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike 1KV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 1KV), 6, 11 |
| Others | IP Rating | IP20 |
| | RoHS | RoHS 2.0 (EU) 2015/863 |
| | Warranty Condition | 5 yrs (TC≤68℃) |
| | DALI Standard | IEC 62386-101 102 207: DALI 2.0 |
| Remarks | <p>1. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity.</p> <p>2. Please disconnect the AC input before adjusting the output current via the DIP switch.</p> <p>3. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above.</p> <p>4. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer should re-confirm the EMC of the whole LED light fixture.</p> <p>5. Unless otherwise stated, the parameters above are test results under these conditions: ambient temperature 25℃, humidity 50%, input voltage 230Vac and 100% load.</p> | |

Product Characteristic Curve

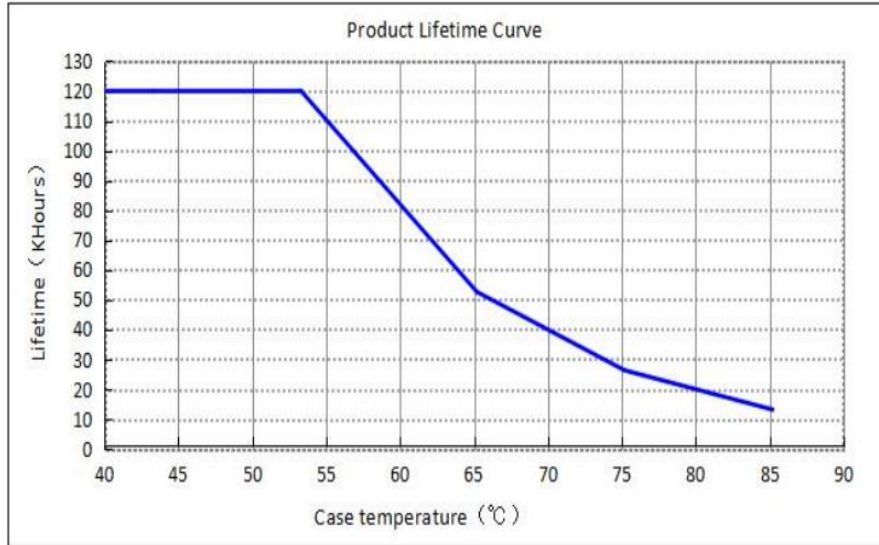
■ **PF Curve**



■ **Efficiency Curve**



■ **Lifetime Curve**



Instruction of Dimming Operation

■ **Definition of the Driver's Terminals**

INPUT

| | |
|----------|--|
| DA2 PUSH | Input terminal of DA2 and push dimming |
| DA1 PUSH | Input terminal of DA1 and push dimming |
| AC-N | Input terminal of AC neutral wire |
| AC-L | Input terminal of AC live wire |
| NC | Vacant |
| ⊕ | Earth wire |

OUTPUT

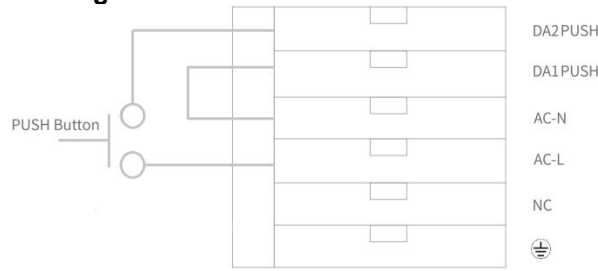
| | |
|------|---|
| LED- | Negative electrode output of the driver |
| LED+ | Positive electrode output of the driver |

■ **DIP Switch Table**

| Rated Current (CC) | 1 | 2 | 3 |
|--------------------|----|----|----|
| 350mA | - | - | - |
| 300mA | - | - | ON |
| 250mA | - | ON | - |
| 200mA | - | ON | ON |
| 150mA | ON | - | - |
| 100mA | ON | - | ON |

Remark: Except the settings mentioned in the table above, other DIP switch settings are default to be the maximum current 350mA.

■ **Wiring Diagram of Push Dimming**



■ **Instruction of Push dimming**

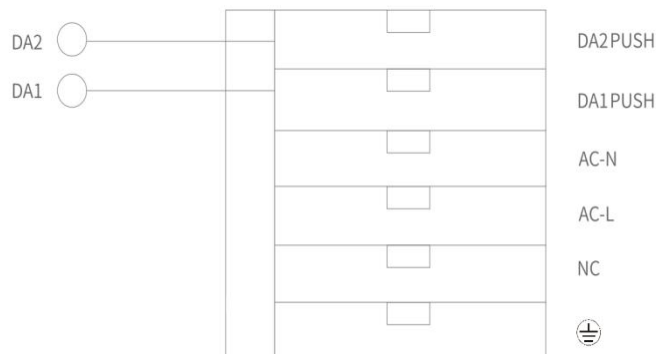
| Operation | Operation Time | Function |
|--------------|-------------------|------------------------------|
| Instant Push | 0.1 ~ 0.5 seconds | Light on / off |
| Long Push | 0.6 ~ 11 seconds | Dim up / down |
| Reset Push | > 11 seconds | Reset to the 100% brightness |

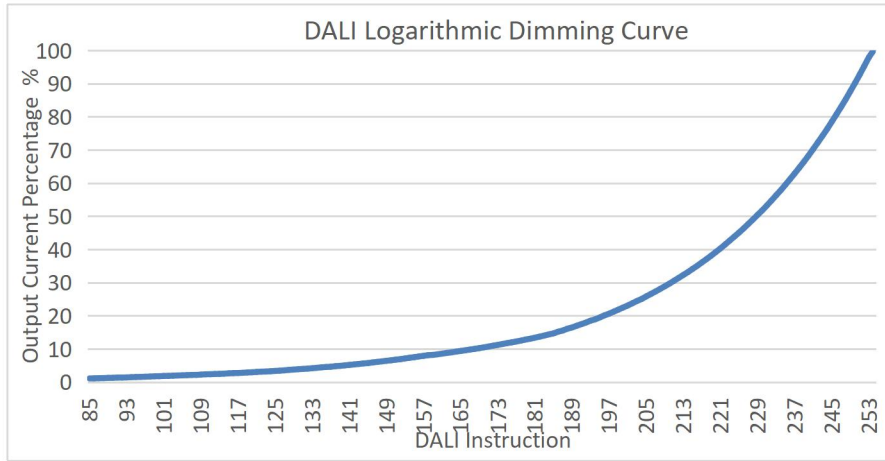
The push operation won't cause any variation if it's less than 0.1 sec.

- Connect the push button in series between the AC-L and the DA1 terminals. Connect the AC-N and DA2 terminals directly.
- The minimum dimming depth of push dimming is 1% (lout).
- The push dimming mode has memory function in case of power failure. When the power supply is restored, the light will return to the exact status before power failure.
- The maximum wire length between the push button and the farthest LED driver is 135 meters. Wire diameter: 16-22AWG.
- In the DALI dimming and push dimming modes, the maximum quantity of the LED drivers connected in parallel is 64 pieces.

■ **Instruction of DALI dimming**

- Factory default setting is of 100% brightness.
- Connect the DALI signal to the DA1 and DA2 terminals.
- DALI protocol includes 16 groups and 64 IP addresses.
- The minimum dimming depth of the DALI dimming is 0.1% (lout).



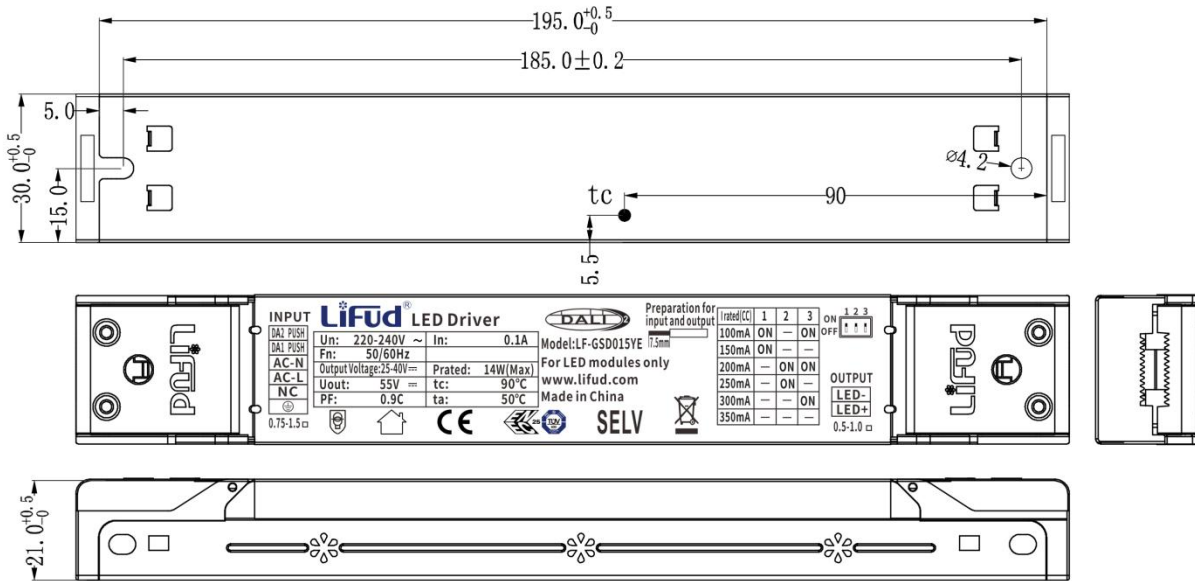


⚠ The DALI dimming function and the push dimming function cannot be used at the same time otherwise the DALI dimmer will be damaged.

Label

| INPUT | | Lifud LED Driver | | DALI | | Preparation for input and output | | <table border="1"> <tr> <th>rated(CC)</th> <th>1</th> <th>2</th> <th>3</th> </tr> <tr> <td>100mA</td> <td>ON</td> <td>—</td> <td>ON</td> </tr> <tr> <td>150mA</td> <td>ON</td> <td>—</td> <td>—</td> </tr> <tr> <td>200mA</td> <td>—</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>250mA</td> <td>—</td> <td>ON</td> <td>—</td> </tr> <tr> <td>300mA</td> <td>—</td> <td>—</td> <td>ON</td> </tr> <tr> <td>350mA</td> <td>—</td> <td>—</td> <td>—</td> </tr> </table> | | | rated(CC) | 1 | 2 | 3 | 100mA | ON | — | ON | 150mA | ON | — | — | 200mA | — | ON | ON | 250mA | — | ON | — | 300mA | — | — | ON | 350mA | — | — | — |
|--------------|-------------------------|-------------------------|--------------------|----------------------|---|----------------------------------|--------|---|-----------|--|-----------|---|---|---|-------|----|---|----|-------|----|---|---|-------|---|----|----|-------|---|----|---|-------|---|---|----|-------|---|---|---|
| rated(CC) | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100mA | ON | — | ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150mA | ON | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200mA | — | ON | ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 250mA | — | ON | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 300mA | — | — | ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 350mA | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DA2 PUSH | Un: 220-240V ~ | In: 0.15A | Model:LF-GSD015YE | For LED modules only | | 7.5mm | | ON OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DA1 PUSH | Fn: 50/60Hz | | www.lifud.com | www.lifud.com | | | | 1 2 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AC-N | Output Voltage:25-40V = | Prated: 14W(Max) | Made in China | | | | | OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AC-L | Uout: 55V = | tc: 90°C | | | | | | 1 2 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | PF: 0.9C | ta: 50°C | | | | | | OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.75-1.5 | SELV | | Dimmable 0.1%-100% | | X | | OUTPUT | | LED- LED+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Dimensions (unit: mm)



Packaging Specification

| | |
|---------------------|---------------------------------------|
| Model | LF-GSD015YE |
| Packaging Dimension | 385×285×210mm (L×W×H) |
| Quantity | 8 pcs/layer; 7 layers/ctn; 56 pcs/ctn |
| Weight | 152 g/pc; 9.2 kg/ctn |

Transportation & Storage

1. Transportation: by means of vehicles, boats and aircraft.
2. In transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.
3. Storage in accordance with the provisions of the Class I environment.
4. Products which have been stored for more than six months must be re-inspected. Use them only if they can pass the re-inspection.

Attention

1. Use this product according to the specifications, please. Otherwise there may be malfunction.
2. Use luminaires that have not been certified or are not compatible with the drivers may cause fire, explosion or other hazards.
3. Man-made damage is not covered by warranty.

Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.

Change Resume

| Version | Content of Change | Date | Remark |
|---------|-------------------|-------------|--------|
| V1.0 | Formal release | 29 APR 2021 | |
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