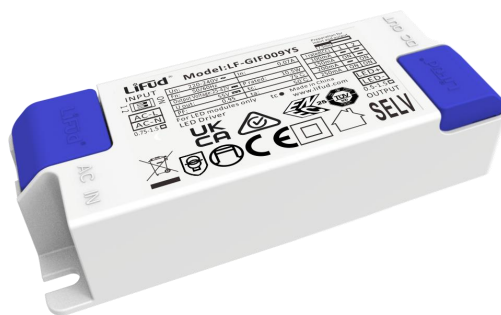


Features

- Flicker free
- Compact size, high PF, external driver
- IP20
- Suitable for Class II light fixtures
- 5-year warranty (please refer to the warranty condition)



Applications

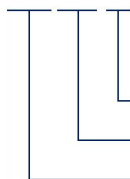
· Indoor office lighting · decorative lighting · residential lighting

Descriptions

LF-GIF009YS is a 9W isolated flicker-free LED driver. Its rated input voltage ranges from 220 to 240Vac and its output current is adjustable from 100 to 250mA via DIP switch with every 50mA as a step.

Product Model

LF - GIF 009 YS



- Y: certificated; S: serial number
- 009: output power: 9W
- G: isolated design; IF: indoor flicker-free LED driver

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■ Electrical Characteristics

| Model | | LF-GIF009YS | | | | |
|---------------------------|-------------------------------------|--|-------|-------|-------|------|
| Output | Output Voltage | 25-42Vdc | | | | |
| | Output Current | Adjustable via DIP switch | | | | |
| | | 100mA | 150mA | 200mA | 250mA | |
| | Ripple Current (100Hz) | <5% | | | | |
| | Flicker | According to IEEE 1789-2015 standard | | | | |
| | CIE SVM | ≤0.4 | | | | |
| | IEC-Pst | ≤1.0 | | | | |
| | Current Tolerance | ± 12% | ± 8% | | | ± 7% |
| | Temperature Drift | ± 10% | | | | |
| Start-up Time | <0.5S | | | | | |
| Input | Rated AC Input Voltage | 220-240Vac | | | | |
| | Input Voltage Range | 198-264Vac | | | | |
| | DC Input Voltage | 180-264Vdc ^① | | | | |
| | Input Frequency | 0/50/60Hz | | | | |
| | Input Current | 0.07A max. | | | | |
| | PF | ≥0.95 ^② | | | | |
| | THD | <20% | | | | |
| | Efficiency | ≥84% ^③ | | | | |
| | Inrush Current | ≤20A ^④ | | | | |
| | Loading Quantity on Circuit Breaker | Model | B10 | C10 | B16 | C16 |
| | | Quantity (pcs) | 47 | 55 | 75 | 88 |
| | Leakage Current | ≤0.7mA | | | | |
| Standby Power Consumption | ≤0.5W | | | | | |
| Protections | Open Circuit | ≤55Vdc | | | | |
| | Short Circuit | Hiccup mode (self-recovery) | | | | |
| | Overload | If the defined internal limit is exceeded, the LED driver will turn off the LED output. The driver will recover automatically once the overload is eliminated. | | | | |
| Environment Descriptions | Operating Temperature | -30°C - +50°C | | | | |
| | Operating Humidity | 10-95%RH (no condensation) | | | | |
| | Storage Temperature/ Humidity | -30°C - 85°C (6 months in Class I environment); 0-95%RH (no condensation) | | | | |
| | Atmospheric Pressure | 86-106kPa | | | | |

■ Electrical Characteristics

| | | |
|------------------|-----------------------|---|
| Surge | L-N | 1kV |
| Safety & EMC | Certifications | ENEC, CE, CB, UKCA, RCM, CCC |
| | Withstanding Voltage | I/P-O/P: 3.75kV&5mA&60S |
| | Insulation Resistance | I/P-O/P: > 100MΩ@500Vdc |
| | Safety Standards | CB: IEC 61347-1:2015, IEC61347-2-3:2014, IEC 61347-2-13:2014/AMD1:2016 CCC: GB19510.1-2009, GB19510.14-2009 CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:2015 ENEC: EN61347-1:2015, EN 61347-2-13:2014/A1:2017, EN 62384:2020 RCM:AS 61347.2-13:2018 UKCA-LVD: EN 61347-1:2015/A1:2021, EN 61347-2-13:2014/A1:2017, EN 62493:2015 |
| | EMI | CCC: GB/T17743, GB17625.1, GB17625.2 CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 UKCA-EMC: EN IEC 55015:2019/A11:2020, EN 61547:2009, EN IEC 61000-3-2:2019/A1:2021, EN 61000-3-3:2013/A2:2021 |
| | EMS | CE-EMC/RCM: EN61000-4-2,3,4,5,6,11 CCC: GB/T17626.2,3,4,5,6,11 |
| Other Parameters | IP Rating | IP20 |
| | RoHS | RoHS 2.0 (EU) 2015/863 |
| | Tc Max | 75°C |
| | Warranty | 5 years ^⑤ |

■ Electrical Characteristics

| Model | | LF-GIF009YSxxxxH | | | | | |
|---------------------------|-------------------------------------|--|-------|-------|-------|-------|-------|
| Output | Output Voltage | 25-42Vdc | | | | | |
| | Output Current | 135mA | 160mA | 180mA | 200mA | 220mA | 250mA |
| | Ripple Current (100Hz) | <5% | | | | | |
| | Flicker | According to IEEE 1789-2015 standard | | | | | |
| | CIE SVM | ≤0.4 | | | | | |
| | IEC-Pst | ≤1.0 | | | | | |
| | Current Tolerance | ±8% | | | | ±5% | |
| | Temperature Drift | ±10% | | | | | |
| | Start-up Time | <0.5S | | | | | |
| Input | Rated AC Input Voltage | 220-240Vac | | | | | |
| | Input Voltage Range | 198-264Vac | | | | | |
| | DC Input Voltage | 220-240Vdc ^⑥ | | | | | |
| | Input Frequency | 0/50/60Hz | | | | | |
| | Input Current | 0.07A max. | | | | | |
| | PF | ≥0.95 ^⑦ | | | | | |
| | THD | <20% | | | | | |
| | Efficiency | ≥84% ^⑧ | | | | | |
| | Inrush Current | ≤20A ^⑨ | | | | | |
| | Loading Quantity on Circuit Breaker | Model | B10 | C10 | B16 | C16 | |
| | | Quantity (pcs) | 47 | 55 | 75 | 88 | |
| | Leakage Current | ≤0.7mA | | | | | |
| Standby Power Consumption | ≤0.5W | | | | | | |
| Protections | Open Circuit | ≤55Vdc | | | | | |
| | Short Circuit | Hiccup mode (self-recovery) | | | | | |
| | Overload | If the defined internal limit is exceeded, the LED driver will turn off the LED output. The driver will recover automatically once the overload is eliminated. | | | | | |
| Environment Descriptions | Operating Temperature | -30℃ - +50℃ | | | | | |
| | Operating Humidity | 10-95%RH (no condensation) | | | | | |
| | Storage Temperature/ Humidity | -30℃ - 85℃ (6 months in Class I environment); 0-95%RH (no condensation) | | | | | |
| | Atmospheric Pressure | 86-106kPa | | | | | |

■ Electrical Characteristics

| | | |
|------------------|-----------------------|---|
| Surge | L-N | 1kV |
| Safety & EMC | Certifications | ENEC, CE, CB, UKCA, 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 CB:IEC 61347-1:2015, IEC61347-2-3:2014, IEC 61347-2-13:2014/AMD1:2016 UKCA-LVD: EN 61347-1:2015/A1:2021, EN 61347-2-13:2014/A1:2017, EN 62493:2015 RCM: AS 61347.2-13:2018 CCC: GB19510.1-2009, GB19510.14-2009 |
| | EMI | CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 UKCA-EMC: EN IEC 55015:2019/A11:2020, EN 61547:2009, EN IEC 61000-3-2:2019/A1:2021, EN 61000-3-3:2013/A2:2021 CCC: GB/T17743, GB17625.1, GB17625.2 |
| | EMS | CE-EMC/RCM: EN61000-4-2,3,4,5,6,11 CCC: GB/T17626.2,3,4,5,6,11 |
| Other Parameters | IP Rating | IP20 |
| | RoHS | RoHS 2.0 (EU) 2015/863 |
| | Tc Max | 75°C |
| | Warranty | 5 years [®] |

■ Electrical Characteristics

| | |
|-------------------|---|
| Testing Equipment | AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test) Everfine LFA-3000, etc. |
| Test Remark | If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, full load and input voltage of 230Vac/50Hz. |
| Remarks | <ol style="list-style-type: none"> 1. It is recommended that user install over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished. 3. The number of LED drivers that can be connected to a circuit breaker and the inrush current are tested under the same conditions. 4. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above. |

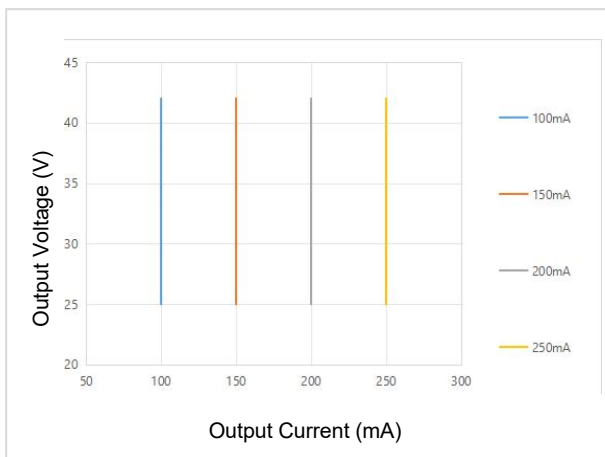
Notice:

- ①: DC input is only for emergency with the maximum time of 90mins.
- ②: When the output voltage is 42V and the output current is 250mA, the PF is ≥ 0.95 .
- ③: When the output voltage is 42V and the output current is 250mA, the efficiency is $\geq 84\%$.
- ④: @150uS
- ⑤: 5 years @Tc $\leq 75^{\circ}\text{C}$
- ⑥: DC input is only for emergency with the maximum time of 90mins.
- ⑦: When the output voltage is 42V and the output current is 250mA, the PF is ≥ 0.95 .
- ⑧: When the output voltage is 42V and the output current is 250mA, the efficiency is $\geq 84\%$.
- ⑨: @ 150uS
- ⑩: 5 years @Tc $\leq 75^{\circ}\text{C}$

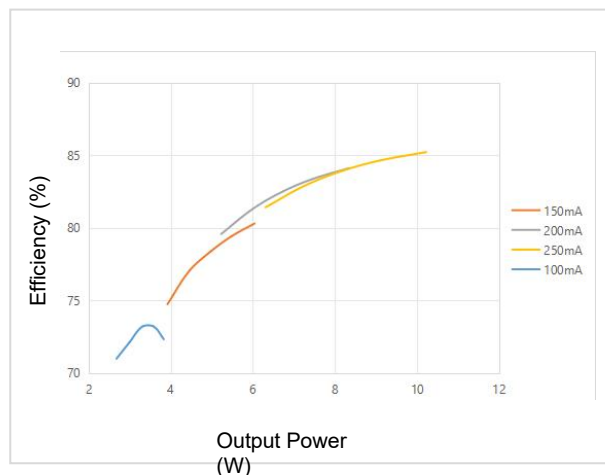
■ Product Characteristics Curves

DIP version

Working Window Curve



Efficiency Curve



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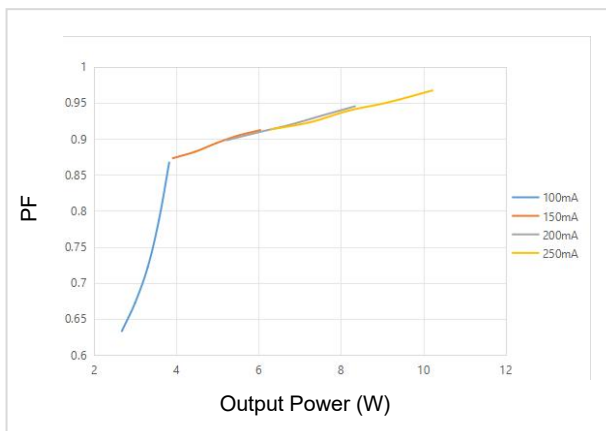
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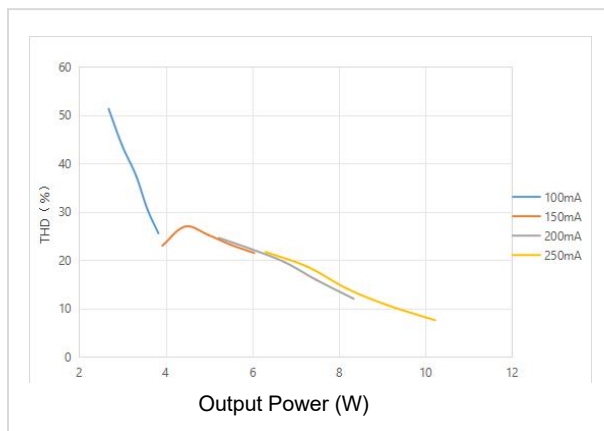
Email: sales@lifud.com

■ Product Characteristic Curves

PF Curve

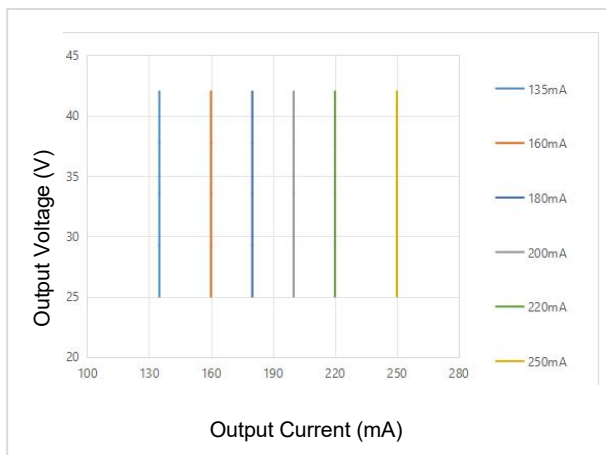


THD Curve

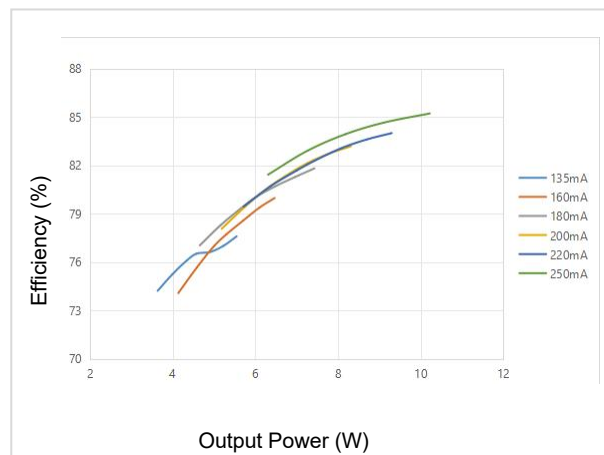


Fixed current version

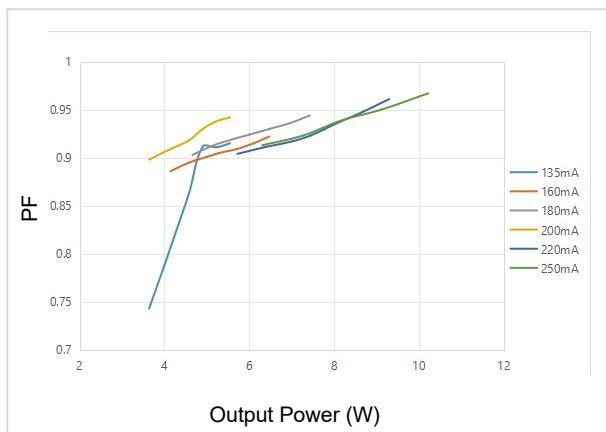
Working Window Curve



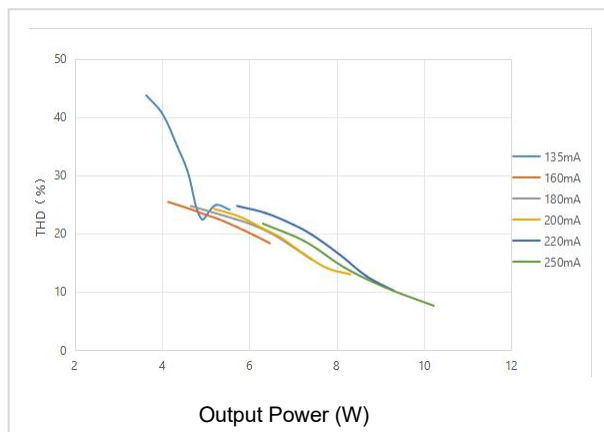
Efficiency Curve



PF Curve

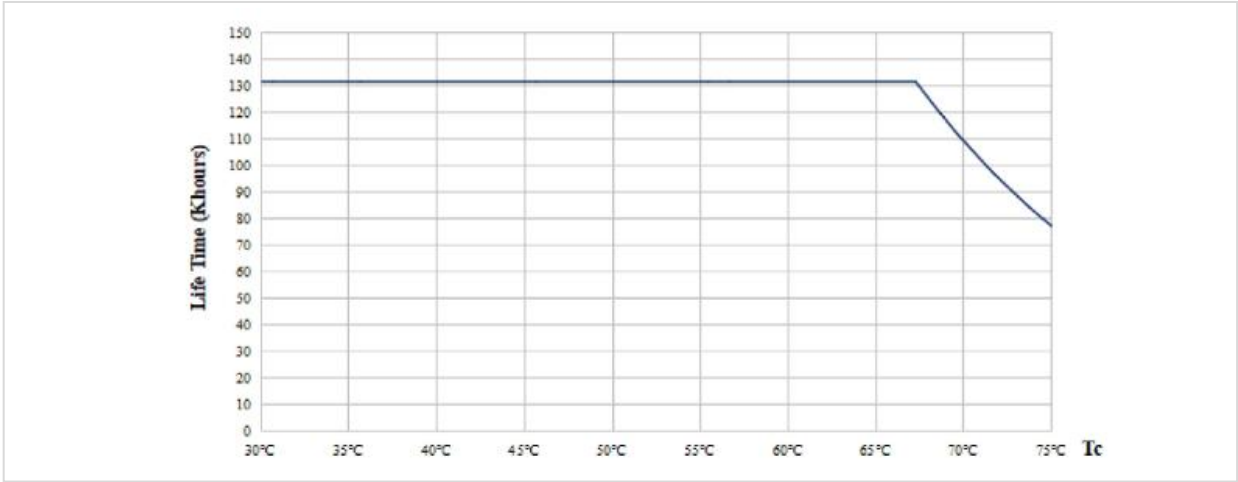


THD Curve

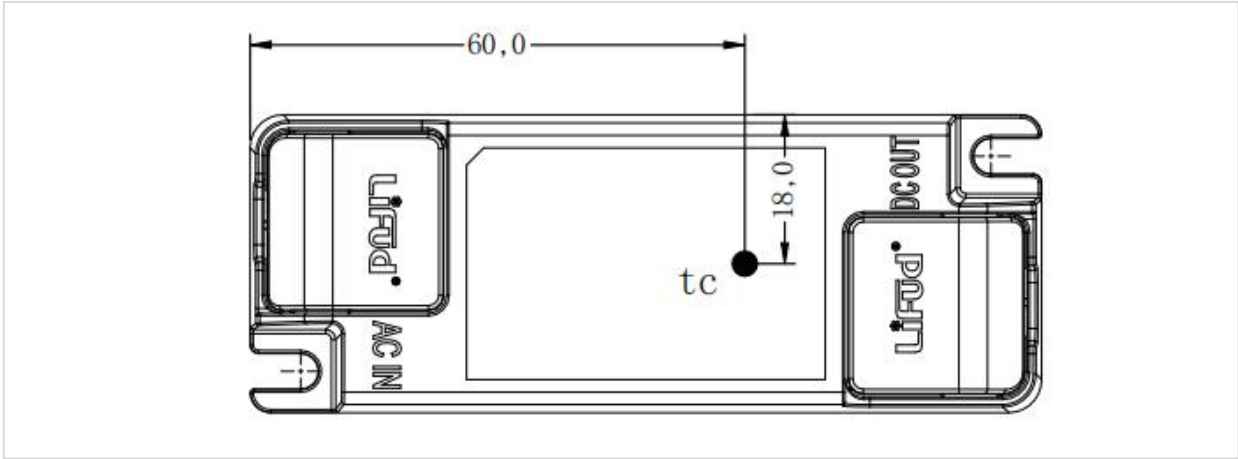


■ Product Characteristic Curves

Lifetime Curve



Tc Point Testing Diagram



■ Product Definitions

Product Terminal

| Input | | Output | |
|-------|-----------------------------------|--------|--|
| AC-L | Input terminal of AC live wire | LED+ | Positive terminal output of LED driver |
| AC-N | Input terminal of AC neutral wire | LED- | Negative terminal output of LED driver |

Product Definition

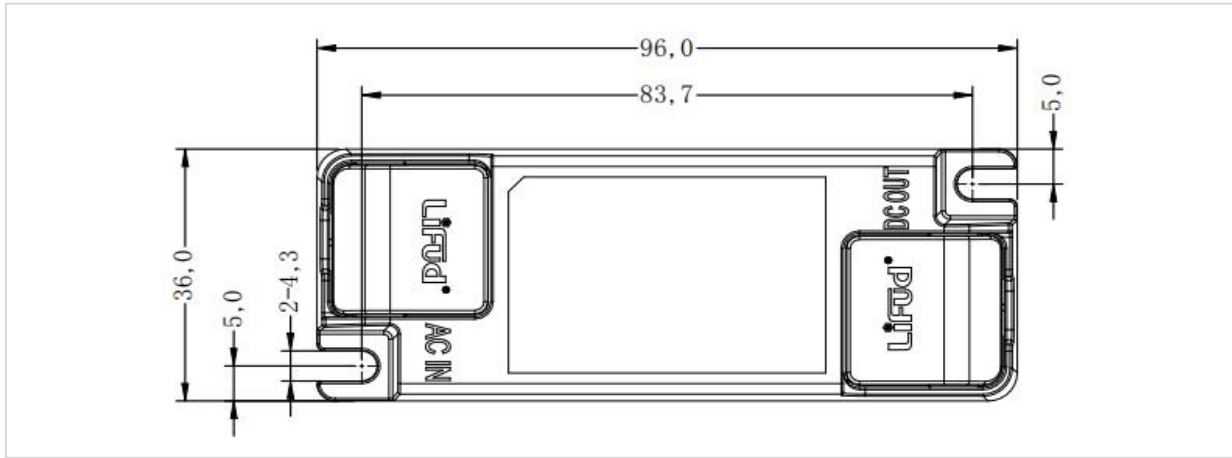
Product DIP Switch

| I rated (CC) | 1 | 2 |
|--------------|----|----|
| 100mA | - | - |
| 150mA | ON | - |
| 200mA | - | ON |
| 250mA | ON | ON |

Remark: "-": shift OFF. This table is only for DIP version. When adjusting the output current via the DIP switch, please disconnect input AC first so as to use the DIP switch without the input AC connected.

Structure & Dimensions (unit: mm)

| Model | Overall Appearance Dimension (L*W*H) | Center-to-center Spacing of Positioning Hole | Diameter of Positioning Hole |
|-------------|--------------------------------------|--|------------------------------|
| LF-GIF009YS | 96*36*24 mm (±0.5mm) | 83.7 mm (±0.2mm) | 4.3 mm |



Packaging Specifications

| Model | LF-GIF009YS |
|-------------|---|
| Carton Size | 385*285*210mm (L*W*H) |
| Quantity | 23 pcs/layer; 7 layers/ctn; 161 pcs/ctn |
| Weight | 0.051 ± 5%kg/pc; 8.56 ± 5%kg/ctn |

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■ Transportation and Storage

1. Transportation

- Suitable transportation means: vehicles, boats and aeroplanes.
- In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact on LED driver as much as possible.

2. Storage

- The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

Cautions

- Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.
- Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.
- Man-made damage is beyond the scope of Lifud warranty service.

Remark: Lifud Tecnology Co., Ltd. reserves the right to interpret any content of this specification.