## Product Description

LF-GIR009YS is a constant current isolated LED driver. Rated output power: 9W; rated input voltage: 220-240Vac. It has small size, suitable for spot light, down light, panel light and etc.

## Features

- Suitable for Class II light fixtures
- High cost performance
- External assembly
- Flicker free
- 5-year warranty (Please refer to the warranty condition.)

## Applications

- Indoor office lighting
- Decorative lighting
- Commercial lighting

## Product Naming

LF-GIR 009 YS xxxx H (L)

- L: output voltage of 8-13V
- H: input voltage of 220-240Vac
- xxxx: output current (e.g. 0700 for 700mA)
- Y: comply with certificates; S: serial number
- 009: maximum output power of 9W
- G: isolated; IR: indoor LED driver

## Electrical Characteristics 1

| Model | | LF-GIR009YSxxxxH | | | | |
|---|---|---|---|---|---|---|
| Output | Output Voltage | 25-42V | | | | 25-36V |
| | Output Current | 135mA | 160mA | 180mA | 200mA | 250mA |
| | Flicker Index | IEC-Pst≤1, CIE SVM≤0.4, Modulation Depth<0.5% (IEEE 1789) | | | | |
| | Current Tolerance | ±7% | | | | |
| | Temperature Drift | ±10% | | | | |
| | Start-up Time | <0.5S | | | | |
| Input | Input Voltage | 220-240Vac (voltage limit: 198-264Vac) | | | | |
| | Input Frequency | 47Hz-63Hz | | | | |
| | Input Current | 0.1A Max. | | | | |
| | Power Factor | ≥0.5 | | | | |
| | DF | >0.9 | | | | |
| | Efficiency | ≥77% | ≥78% | ≥79% | ≥79% | ≥79% |
| | Inrush Current | ≤25A & 60uS @220Vac | | | | |
| | Load Quantity Carried by the Circuit Breaker | Circuit Breaker Model | B10 | C10 | B16 | C16 |
| | | Quantity (pcs) | 60 | 100 | 96 | 160 |
| | Leakage Current | ≤0.7mA | | | | |
| | Standby Power Consumption | ≤0.5W | | | | |
| Protection Characteristics | Open Circuit Protection | <80V | | | | |
| | Short Circuit Protection | Hiccup mode (auto-recovery) | | | | |
| Environment Description | Operating Temperature | -30℃~+50℃ | | | | |
| | Operating Humidity | 20-90%RH (no condensation) | | | | |
| | Storage Temperature/Humidity | -40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation) | | | | |
| | Atmospheric Pressure | 86KPa~106KPa | | | | |

## Electrical Characteristics 2

| Model | | LF-GIR009YSxxxxH | | | | |
|---|---|---|---|---|---|---|
| Output | Output Voltage | 14-24V | | | | |
| | Output Current | 300mA | | 350mA | | |
| | Flicker Index | IEC-Pst≤1, CIE SVM≤0.4, Modulation Depth<0.5% (IEEE 1789) | | | | |
| | Current Tolerance | ±7% | | | | |
| | Temperature Drift | ±10% | | | | |
| | Start-up Time | <0.5S | | | | |
| Input | Input Voltage | 220-240Vac (voltage limit: 198-264Vac) | | | | |
| | Input Frequency | 47Hz-63Hz | | | | |
| | Input Current | 0.1A Max. | | | | |
| | Power Factor | ≥0.5 | | | | |
| | DF | >0.9 | | | | |
| | Efficiency | ≥79% | | | | |
| | Inrush Current | ≤25A & 60uS @220Vac | | | | |
| | Load Quantity Carried by the Circuit Breaker | Circuit Breaker Model | B10 | C10 | B16 | C16 |
| | | Quantity (pcs) | 60 | 100 | 96 | 160 |
| | Leakage Current | ≤0.7mA | | | | |
| | Standby Power Consumption | ≤0.5W | | | | |
| Protection Characteristics | Open Circuit Protection | <55V | | | | |
| | Short Circuit Protection | Hiccup mode (auto-recovery) | | | | |
| Environment Description | Working Temperature | -30℃~+50℃ | | | | |
| | Working Humidity | 20-90%RH (no condensation) | | | | |
| | Storage Temperature/Humidity | -40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation) | | | | |
| | Atmospheric Pressure | 86KPa~106KPa | | | | |

## Electrical Characteristics 3

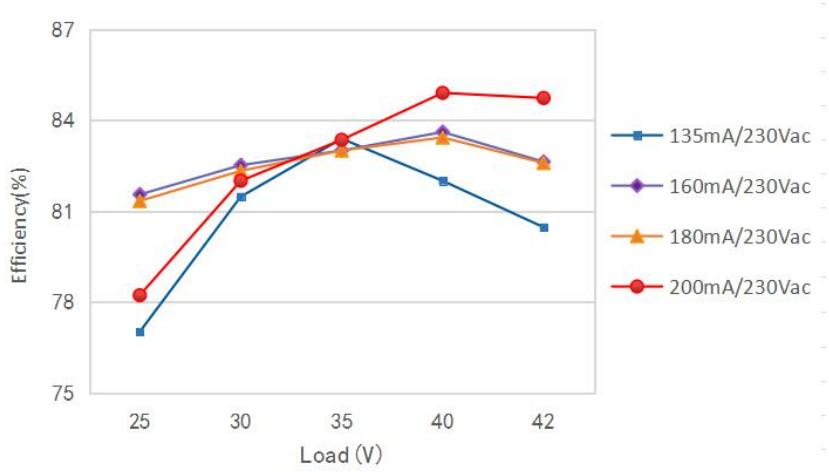
| Model | | LF-GIR009YSxxxxH(L) | | | | | |
|---|---|---|---|---|---|---|---|
| Output | Output Voltage | 8-13V | | | | | |
| | Output Current | 300mA | 350mA | 400mA | 500mA | 600mA | 700mA |
| | Flicker Index | IEC-Pst≤1, CIE SVM≤0.4, Modulation Depth<0.5% (IEEE 1789) | | | | | |
| | Current Tolerance | ±7% | | | | | |
| | Temperature Drift | ±10% | | | | | |
| | Start-up Time | <0.5S | | | | | |
| Input | Input Voltage | 220-240Vac (voltage limit: 198-264Vac) | | | | | |
| | Input Frequency | 47Hz-63Hz | | | | | |
| | Input Current | 0.1A Max. | | | | | |
| | Power Factor | ≥0.5 | | | | | |
| | DF | >0.9 | | | | | |
| | Efficiency | ≥78% | ≥78% | ≥78% | ≥79% | ≥79% | ≥79% |
| | Inrush Current | ≤25A & 60uS @220Vac | | | | | |
| | Load Quantity Carried by the Circuit Breaker | Circuit Breaker Model | | B10 | C10 | B16 | C16 |
| | | Quantity (pcs) | | 60 | 100 | 96 | 160 |
| | Leakage Current | ≤0.7mA | | | | | |
| | Standby Power Consumption | ≤0.5W | | | | | |
| Protection Characteristics | Open Circuit Protection | <30V | | | | | |
| | Short Circuit Protection | Hiccup mode (auto-recovery) | | | | | |
| Environment Description | Working Temperature | -30℃~+50℃ | | | | | |
| | Working Humidity | 20-90%RH (no condensation) | | | | | |
| | Storage Temperature/Humidity | -40℃~+ 80℃ (six months under class I environment); 10-90%RH (no condensation) | | | | | |
| | Atmospheric Pressure | 86KPa~106KPa | | | | | |

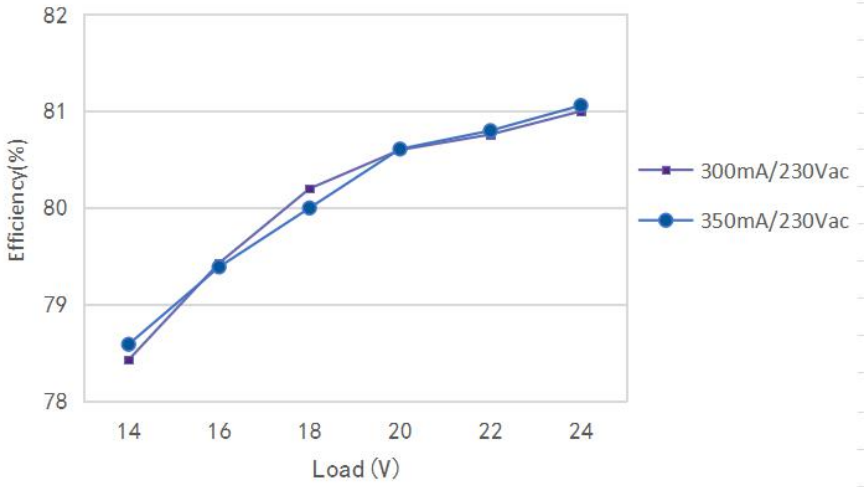
## Other Electrical Characteristics

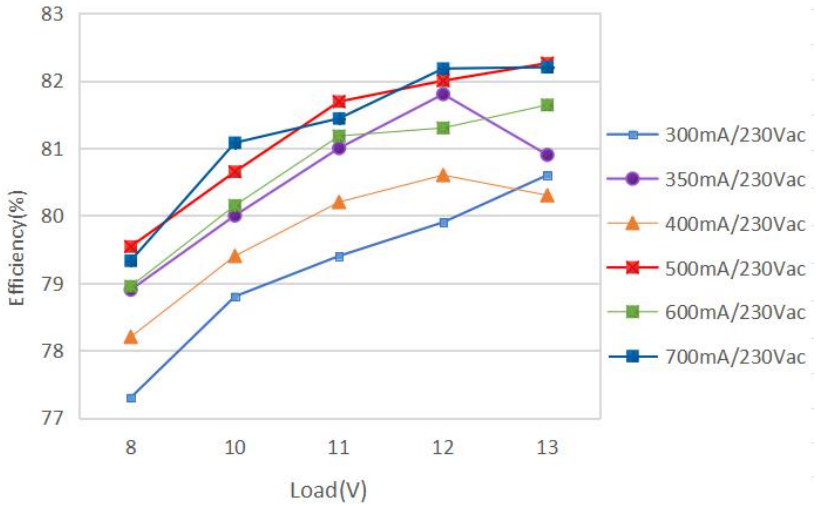
| | | |
|---|---|---|
| Safety & Electromagnetic Compatibility | Certifications | TUV, CCC, RCM, CE, CB |
| | Withstanding Voltage | I/P-O/P: 3.75KV, 5mA, 60S |
| | Insulation Resistance | I/P-O/P: >100MΩ @ 500Vdc |
| | Safety Standards | CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:2015<br>CB: IEC 61347-1:2015, IEC61347-2-3:2014, IEC 61347-2-13:2014/AMD1:2016<br>RCM: AS 61347.2-13:2018<br>CCC: GB19510.1-2009,GB19510.14-2009 |
| | EMI | CE-EMC/RCM: EN55015,EN61000-3-2,EN61000-3-3<br>CCC: GB/T17743,GB17625.1,GB17625.2 |
| | EMS | CE-EMC/RCM: EN61000-4-2,3,4,5(lightning strike 1KV),6,11<br>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≤77℃) |
| Test 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: TH9201B, flicker-free tester (flicker-free coefficient tester) 60N-01, etc. | |
| Remarks | 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.<br>2. 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 re-confirms the EMC of the whole LED light fixture.<br>3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current test.<br>4. Unless otherwise stated, the parameters above were test results under the ambient temperature of 25℃, humidity of 50%, input voltage of 230Vac(50Hz) and full load. | |

## Product Characteristic Curves

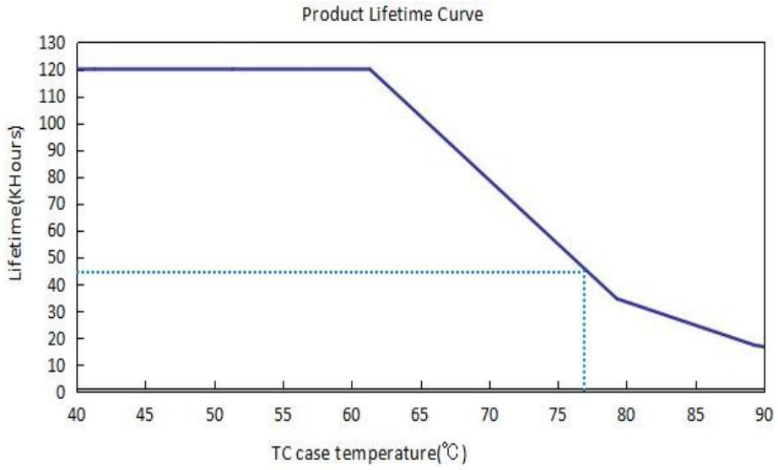
### ■ Efficiency Curve



■ **Lifetime Curve**




## Definition of Terminals

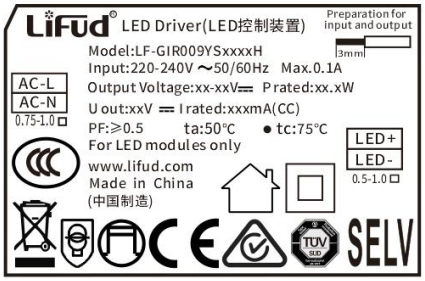
INPUT

| | |
|---|---|
| AC-L | Input terminal of AC live wire |
| AC-N | Input terminal of AC neutral wire |

OUTPUT

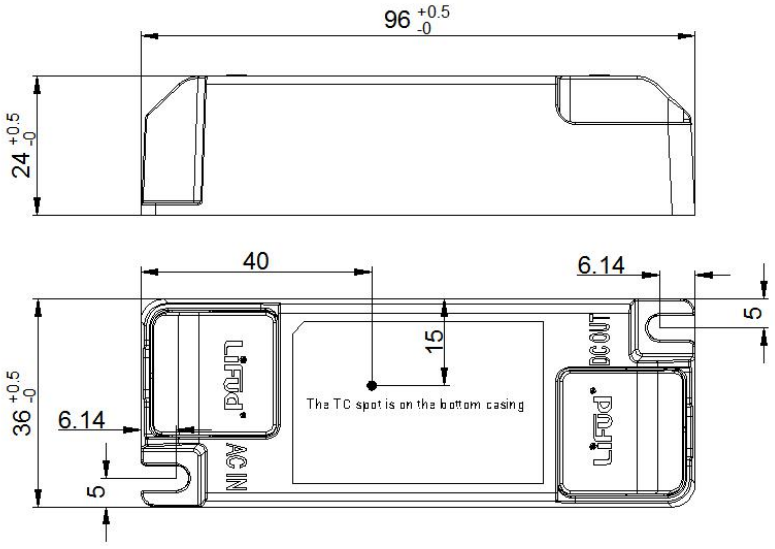
| | |
|---|---|
| LED+ | Positive electrode output of the driver |
| LED- | Negative electrode output of the driver |

## Label





## Dimensions (unit: mm)



## Packaging Specifications

| | |
|---|---|
| Model | LF-GIR009YSxxxxH |
| Packaging Dimensions | 385*285*210 mm (L*W*H) |
| Quantities | 20 pcs/layer; 8 layers/ctn; 160 pcs/ctn |
| Weights | 42 g/pc; 8.5 kg/ctn |

## Transportation & Storage

■ **Transportation**

- Suitable transportation means: vehicles, boats and aircraft.
- During 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.

■ **Storage**

- Storage in accordance with the provisions of Class I environment. For products which have been stored for more than six months, they mustn't be used until they pass the re-inspection.

## Attention

■ Please use this product according to its specifications otherwise there may be malfunction.

■ Use light fixtures that have not been certified or are not compatible with the LED drivers may cause fire or other hazards.

■ Man-made damage, any use beyond the specification and non-original-factory modification are 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 | 21 MAY 2021 | |
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