

## Product Description

LF-GIF050YA II is a 50W isolated constant current LED driver for indoor lighting. It has features of high efficiency, high PF, low THD and low modulation depth.

## Feature

- Suitable for Class II light fixtures
- Input voltage of 220-240V, modulation depth≤0.5%
- PF≥0.95, high efficiency≥90%
- High efficiency, low THD
- 5-year warranty (Please refer to the warranty condition.)

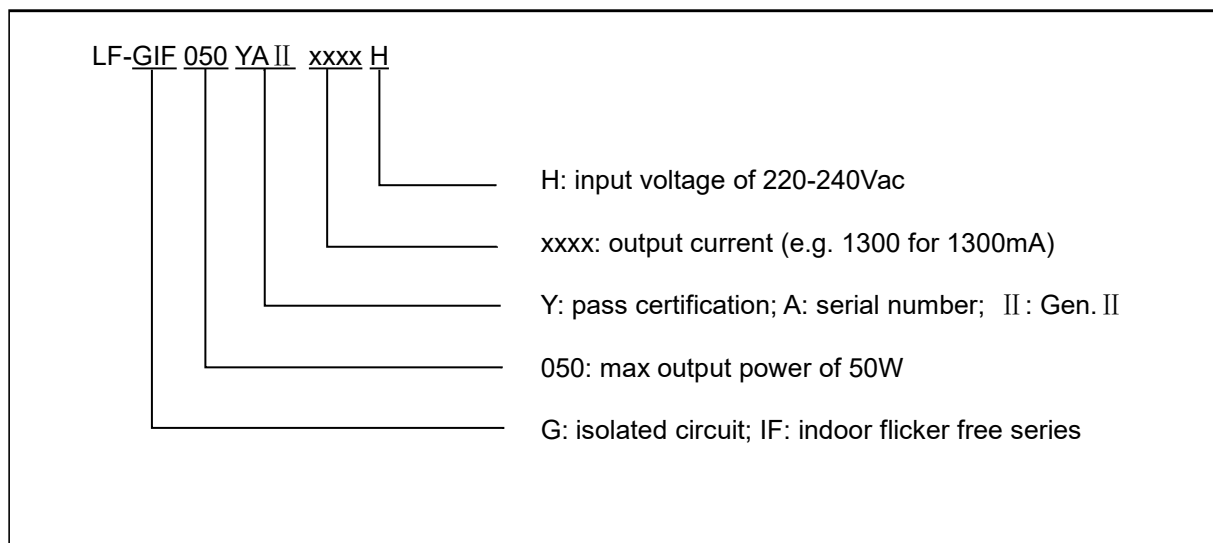


## Application

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



## Product Naming



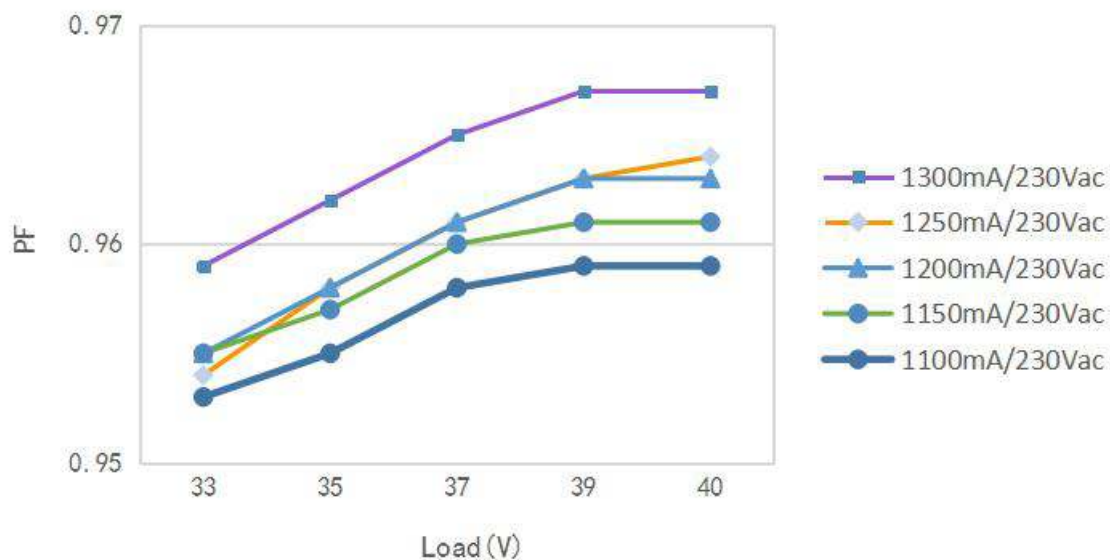
## Electrical Characteristics

| Model                              |                                                    | LF-GIF050YA II xxxxH                                                             |        |        |        |        |  |
|------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------|--------|--------|--------|--------|--|
| Output                             | Output Voltage                                     | 33-40V                                                                           |        |        |        |        |  |
|                                    | Output Current                                     | 1100mA                                                                           | 1150mA | 1200mA | 1250mA | 1300mA |  |
|                                    | Percent Flicker<br>(Modulation Depth)              | <0.5% (IEEE 1789)                                                                |        |        |        |        |  |
|                                    | Current Tolerance                                  | ±5%                                                                              |        |        |        |        |  |
|                                    | Temperature Drift                                  | ±10%                                                                             |        |        |        |        |  |
|                                    | Start-up Time                                      | <0.5S                                                                            |        |        |        |        |  |
| Input                              | Input Voltage                                      | 220-240Vac (limit: 200-264Vac)                                                   |        |        |        |        |  |
|                                    | Input Frequency                                    | 47Hz-63Hz                                                                        |        |        |        |        |  |
|                                    | Input Current                                      | 0.4A Max.                                                                        |        |        |        |        |  |
|                                    | Power Factor                                       | ≥0.95@230Vac                                                                     |        |        |        |        |  |
|                                    | THD                                                | ≤15%@230Vac                                                                      |        |        |        |        |  |
|                                    | Efficiency                                         | ≥90%@230Vac                                                                      |        |        |        |        |  |
|                                    | Inrush Current                                     | ≤60A & 350uS @230Vac                                                             |        |        |        |        |  |
|                                    | Load Quantity<br>Carried by the Circuit<br>Breaker | Circuit Breaker Model                                                            | B10    | C10    | B16    | C16    |  |
|                                    |                                                    | Quantity (pcs)                                                                   | 21     | 35     | 34     | 57     |  |
|                                    | Leakage Current                                    | ≤0.7mA                                                                           |        |        |        |        |  |
| Protection<br>Characteris-<br>tics | Open Circuit<br>Protection                         | <55V                                                                             |        |        |        |        |  |
|                                    | Short Circuit<br>Protection                        | Hiccup mode (auto-recovery)                                                      |        |        |        |        |  |
| Environment<br>Description         | Operating<br>Temperature                           | -30℃~+45℃                                                                        |        |        |        |        |  |
|                                    | Operating Humidity                                 | 20-90%RH (no condensation)                                                       |        |        |        |        |  |
|                                    | Storage<br>Temperature/<br>Humidity                | -40℃~+ 80℃ (six months under class I environment);<br>10-90%RH (no condensation) |        |        |        |        |  |
|                                    | Atmospheric<br>Pressure                            | 86KPa~106KPa                                                                     |        |        |        |        |  |

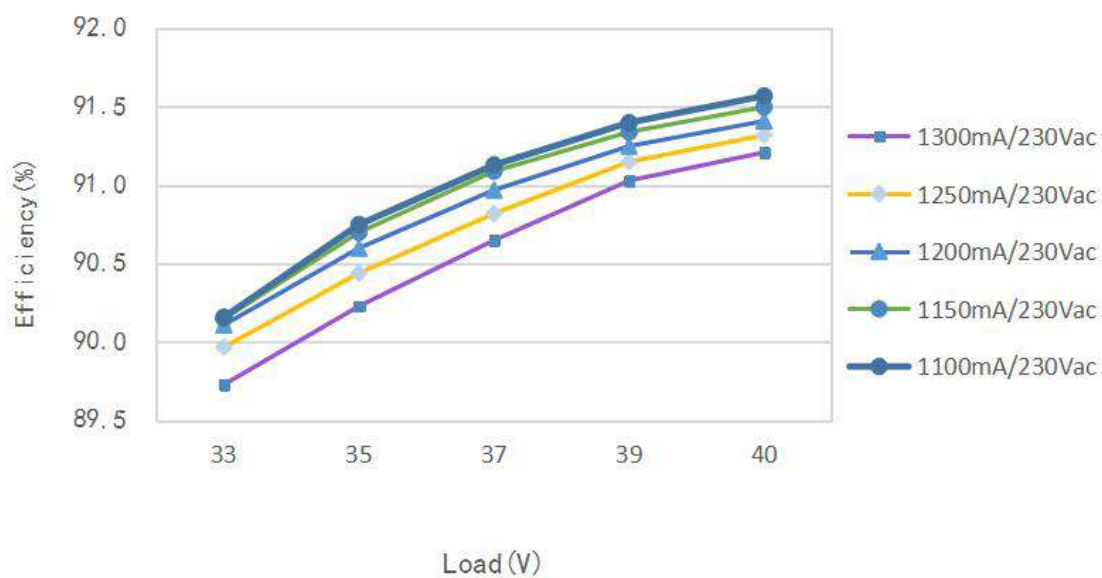
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                           |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Safety &amp; Electromagnetic Compatibility</b> | Certifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 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,<br>EN 62384: 2016/A1:2009<br>CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015,<br>EN 62493:2015<br>CB: IEC 61347-1:2015, IEC61347-2-3:2014,<br>IEC 61347-2-13:2014/AMD1:2016<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                                                                                                                                                             |
| <b>Others</b>                                     | IP Rating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IP20                                                                                                                                                                                                                                                                      |
|                                                   | RoHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RoHS 2.0 (EU) 2015/863                                                                                                                                                                                                                                                    |
|                                                   | Warranty Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5 yrs (TC≤84℃)                                                                                                                                                                                                                                                            |
| <b>Test Equipment</b>                             | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                           |
| <b>Remarks</b>                                    | <ol style="list-style-type: none"> <li>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.</li> <li>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 should re-confirm the EMC of the whole LED light fixture.</li> <li>3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current test.</li> <li>4. Unless otherwise stated, the parameters above are test results under these conditions: ambient temperature 25℃, humidity 50%, 100% load and input voltage 230Vac.</li> </ol> |                                                                                                                                                                                                                                                                           |

## Product Characteristic Curves

### ■ PF Curve

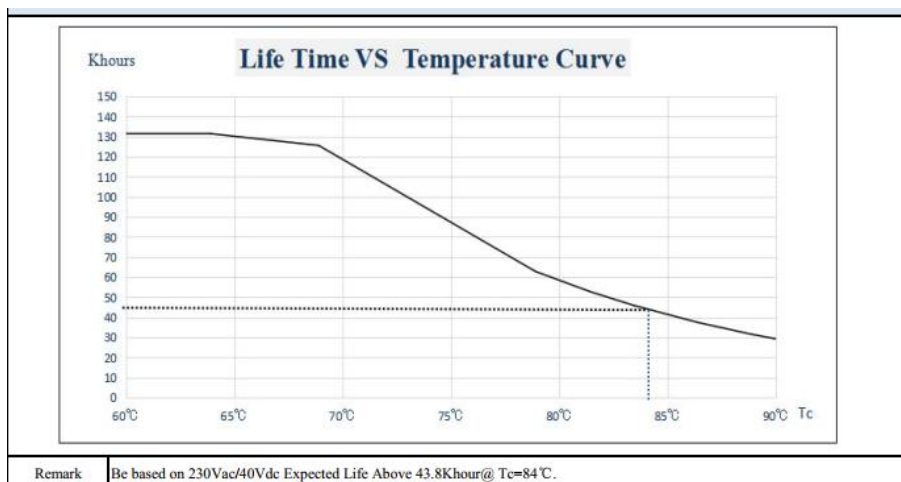


### ■ Efficiency Curve

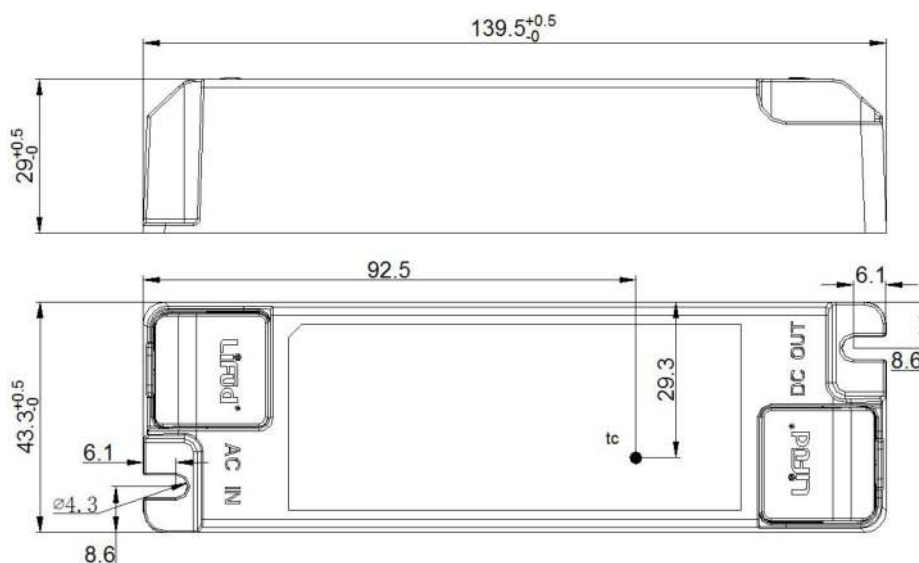


## ■ Lifetime Curve

### ● Lifetime Calculation Curve



### ● Tc Spot



## Definition of the Driver's Terminal

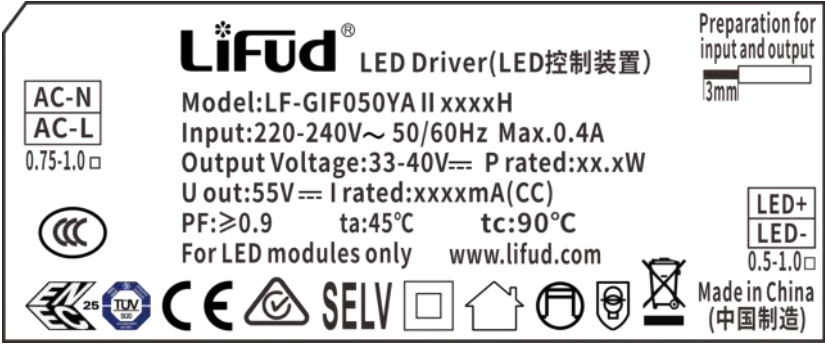
### INPUT

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

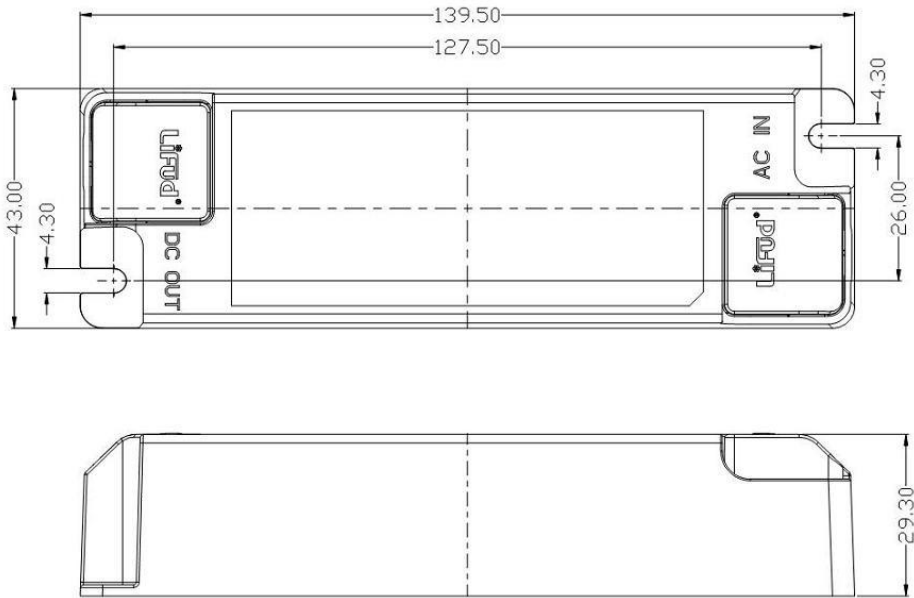
### OUTPUT

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

Label



Structures & Dimensions (Unit: mm)



Packaging Specifications

|                      |                                        |
|----------------------|----------------------------------------|
| Model                | LF-GIF050YA II                         |
| Packaging Dimensions | 385*285*210 mm (L*W*H)                 |
| Quantities           | 11 pcs/layer; 6 layers/ctn; 66 pcs/ctn |
| Weights              | 140 g±5%/pc; 10 kg±5%/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.

