



# 12VDC 200W

## Product Description

LF-GOE200YV012A is a 200W constant voltage LED power supply. Its output voltage is adjustable via a potentiometer. Rated input voltage 100-277VAC. Input voltage limit is 90-305V. This product was specifically designed for outdoor LED lighting, LED flood light and lighting engineering.

Super high efficiency and excellent heat-dissipation properties of this product help to extend the product lifetime. Its high power factor makes better use of the power. Its low harmonic interference means low interference with the power grid and the electric devices in the circuit.

It has surge protection, overvoltage protection, short circuit protection and over temperature protection. All-round protection design improves the product stability which helps to save users' maintenance cost.

The output voltage / power can be conveniently adjusted via the potentiometer at the bottom of the driver so as to meet diverse demands of power or brightness.

## Product Feature

- Efficiency up to 89%
- Input voltage 100-277VAC; THD <15%
- The output voltage / power can be conveniently adjusted via the potentiometer; it simplifies customers' inventory management
- Surge protection: L-N 6KV; L/N-GND 8KV
- All-round protection: overvoltage protection, short circuit protection, over temperature protection & IP67
- Flicker free; percent flicker ≤1%

## Application

- Outdoor LED lighting
- LED flood light
- Lighting engineering

## Technical Data



| Full Model Number     |   | LF-GOE200YV012A  |
|-----------------------|---|--|
| Output                | Output Voltage  | 11.04-12.96V   |
|                       | Output Current  | 16.67A maximum @200-277Vac; 12.5A maximum @100-277Vac  |
|                       | Ripple Voltage  | ≤10% @ 50Hz  |
|                       | Percent Flicker   | ≤1% @ 50Hz or 60Hz   |
|                       | Current Tolerance   | ±2.5%  |
|                       | Temperature Drift   | ±5%/25-60℃   |
|                       | Line Regulation   | ±1%  |
|                       | Start-up Time   | ≤0.5s @ 230VAC   |
| Input                 | Line Regulation   | ±1%  |
|                       | Rated Input Voltage   | 100-277VAC (voltage limit: 90-305VAC)  |
|                       | Input Frequency Range   | 47-63Hz  |
|                       | Input Current   | 2.0A Maximum   |
|                       | Power Factor  | ≥0.97 / 100VAC @full load  |
|                       |   | ≥0.95 / 230VAC @full load  |
|                       |   | ≥0.90 / 277VAC @full load  |
|                       | Total Harmonic Distortion   | ≤15% @full load  |
|                       | Efficiency  | ≥88% / 100VAC @full load   |
|                       |   | ≥89% / 230VAC @full load   |
|                       |   | ≥89% / 277VAC @full load   |
|                       | Inrush Current  | ≤60A & 500uS @ 230VAC (Maximum)  |
|                       | Quantity of the same model of power supply that can be configured by a circuit breaker. | Under the condition of 230VAC, the total quantity of the same model of power supply that can be configured by a type-B 16A circuit breaker is 6 pieces.  |
|                       | Standby Power Consumption   | ≤2W@230VAC   |
|                       | Output Short-Circuit Protection   | Hiccup mode (auto-recovery)  |
| Environment Condition | Output Open-Circuit Protection  | ≤16V   |
|                       | Output Overvoltage Protection   | ≤16V (disconnect output voltage; auto-recovery)  |
|                       | Output Overcurrent Protection   | ≤150% (auto-recovery)  |
|                       | Working Temperature   | -40℃ ~ +60℃  |
|                       | Working Humidity  | 20-90%RH (no condensation)   |
| Safety & Norm         | Storage Temperature/Humidity  | -40℃ ~ 80℃ (six months under class I environment);<br>10-95%RH (no condensation)   |
|                       | Atmospheric Pressure  | 86KPa-106KPa   |
|                       | Vibration   | Displacement amplitude: 5Hz ~ 9Hz 1.2mm; acceleration amplitude: 9Hz ~ 200Hz 1G; sweep-frequency: 1.0oct/min; test time: XYZ, 30 min each; The driver was in operating state and was tested according to system setting. |
| Safety & Norm         | Certificate   | CE, CB, ENEC, SAA, RCM, UL, FCC  |

|  |                                 |  |
|--|---------------------------------|--|
|  | Withstand Voltage               | I/P-O/P: 3.75KV, 5mA, 60s; I/P-FG: 1.5kV 5mA 60S; O/P-FG: 0.5kV 5mA 60S  |
|  | Insulation Resistance           | I/P-O/P, I/P-FG, O/P-FG: 500VDC, >100MΩ  |
|  | Grounding Resistance            | ≤100mΩ   |
|  | Surge Rating                    | IEC61000-4-5 (L-N: 6kV, L/N-PG: 8kV )  |
|  | Electrical Fast Transient/Burst | 2.2KV (Class B)  |
|  | Ringing wave                    | 2.5KV (Class B)  |
|  | Safety Standard                 | EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62384: 2016<br>IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014<br>GB19510.1-2009, GB19510.14-2009, UL8750, AS/NZS 61347-1: 2016 |
|  | Electromagnetic Interference    | Conform to GB17743 / EN55015, EN61000-3-2, CLASS B, FCC Part15   |
|  | Electromagnetic Susceptibility  | EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, IEC61000-4-13   |
|  | Electrostatic Discharge (ESD)   | Air 8KV; touch 4KV (Class B)   |

## Other Statements

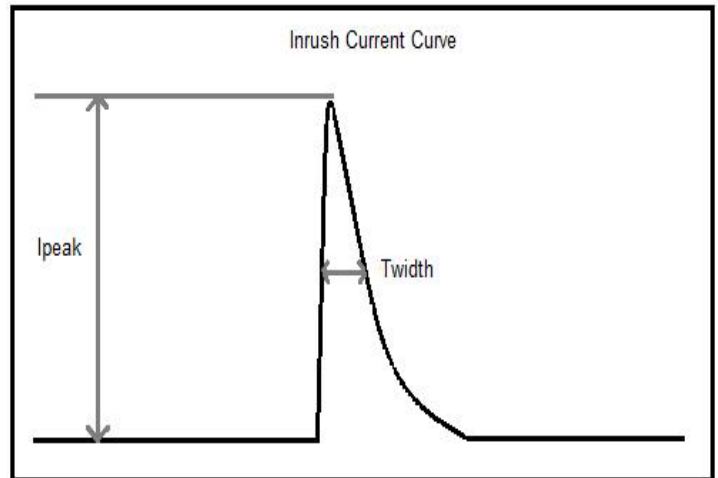
|                          |   |  |
|--------------------------|---|--|
| <b>Others</b>            | IP Rating   | IP67   |
|                          | RoHS  | RoHS 2.0 (EU) 2015 / 863   |
|                          | Warranty Condition  | 5 years (Tc≤75 °C) Please refer to the lifetime curve.                                     |
|                          | Noise Rating  | ≤20db (Tested in a soundproof room and the noise collector was 10cm away from the driver.) |
| <b>Testing Equipment</b> | AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber: MQ-1000-3000, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectrum analyzer: KH3935, hi-pot tester: TH9201B, light flicker analyzer: LFA-3000, etc.   |  |
| <b>Testing Condition</b> | Unless otherwise stated, the parameters of the power factor, THD and efficiency are the test results under the ambient temperature of 25°C and humidity of 50%, AC input of 230V and 100% load.   |  |
| <b>Additional Remark</b> | <ol style="list-style-type: none"> <li>1. It is recommended that customer should install protection devices for surge and for overvoltage &amp; undervoltage to ensure safety before connecting to electricity.</li> <li>2. The PC cover, housing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above.</li> <li>3. 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.</li> </ol> |  |

## Circuit Breaker & Relevant Parameters

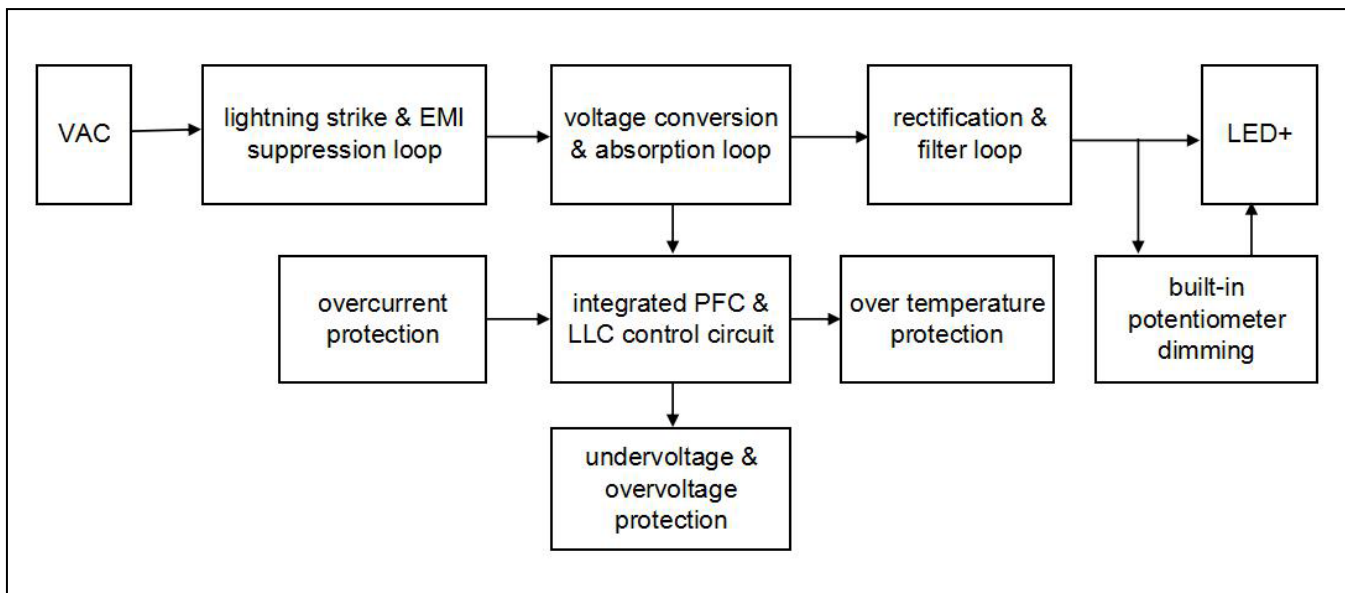
| Name   | Value        | Remark  |
|--|--------------|---|
| Surge peak current (Ipeak)   | 77.2A        | Input voltage 230Vac  |
| Surge half-peak time (Twidth)  | 256μs        | Input voltage 230Vac. Measure the time for Ipeak to drop to its half value. |
| Quantity of the same model of driver that can be configured by a type-B 16A circuit breaker. | 6 pcs (max.) |   |

Driver quantities are below if use another type of circuit breaker.

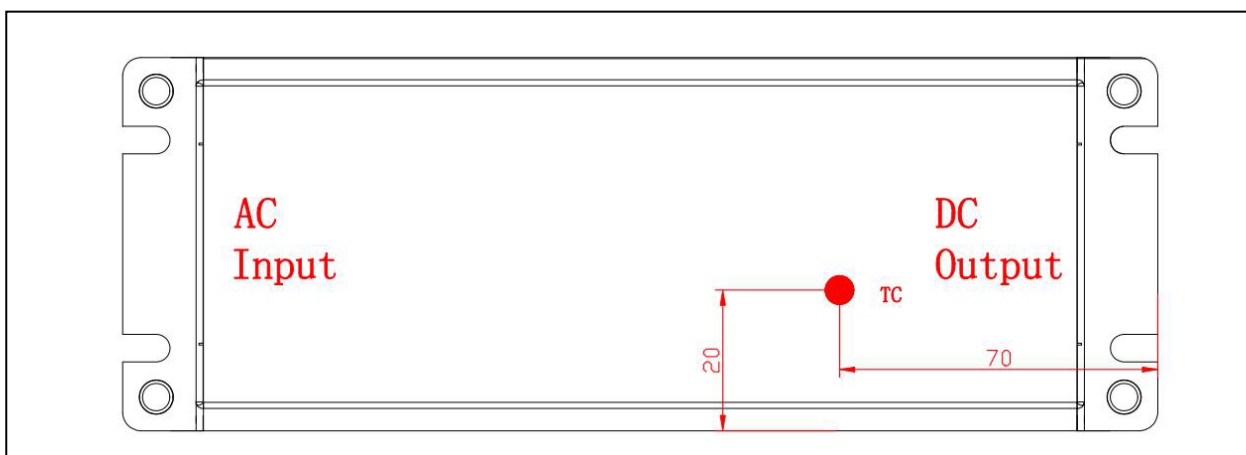
|   | Rank | Qty of accommodated drivers | Relative conversion ratio |
|---|------|-----------------------------|---------------------------|
| B | 10A  | 3 pcs                       | 63%                       |
|   | 13A  | 4 pcs                       | 81%                       |
|   | 16A  | 6 pcs                       | 100% (benchmark)          |
|   | 20A  | 7 pcs                       | 125%                      |
|   | 25A  | 9 pcs                       | 156%                      |
| C | 10A  | 6 pcs                       | 104%                      |
|   | 13A  | 8 pcs                       | 135%                      |
|   | 16A  | 10 pcs                      | 170%                      |
|   | 20A  | 12 pcs                      | 208%                      |
|   | 25A  | 15 pcs                      | 260%                      |

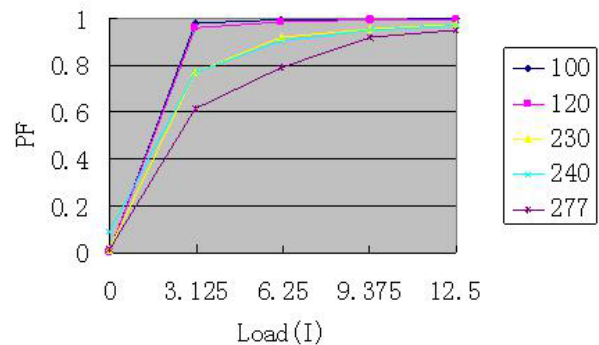


## Function Diagram



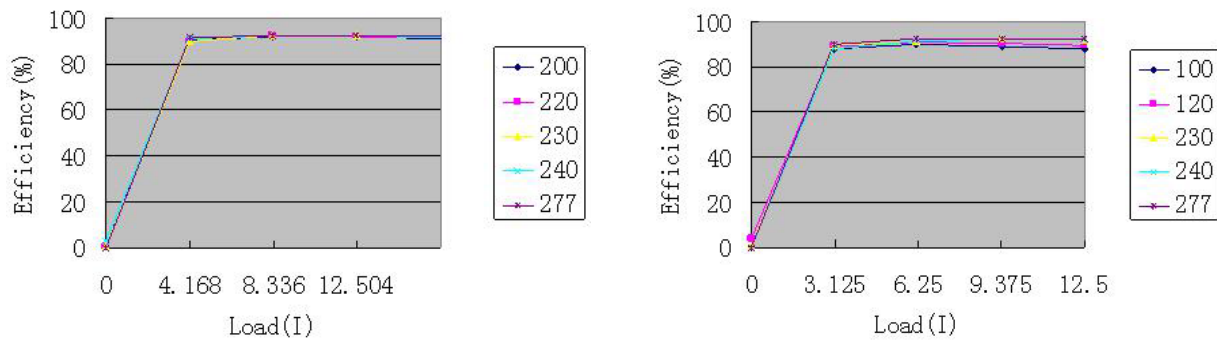
TC Spot (on the upper cover; unti:mm)





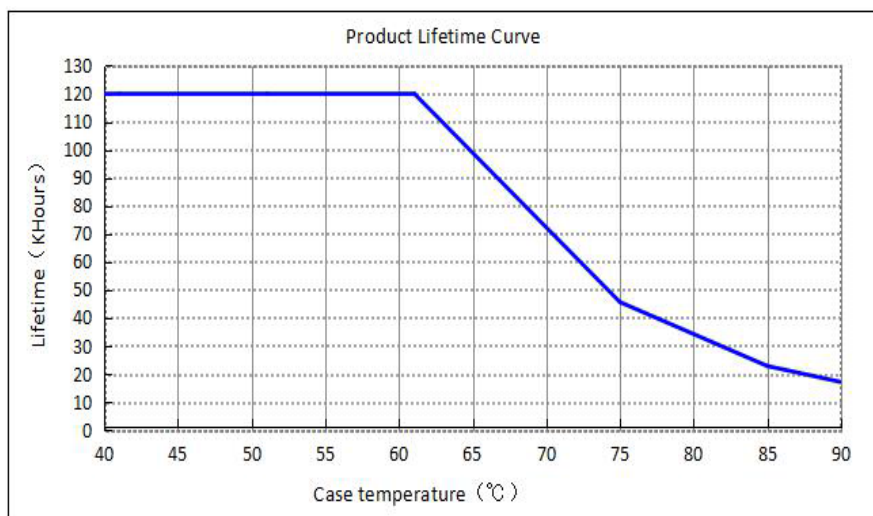
## 2. Efficiency curve

Left picture: 12V 16.67A max@200-277Vac; right picture: 12V 12.5A max@100-277Vac

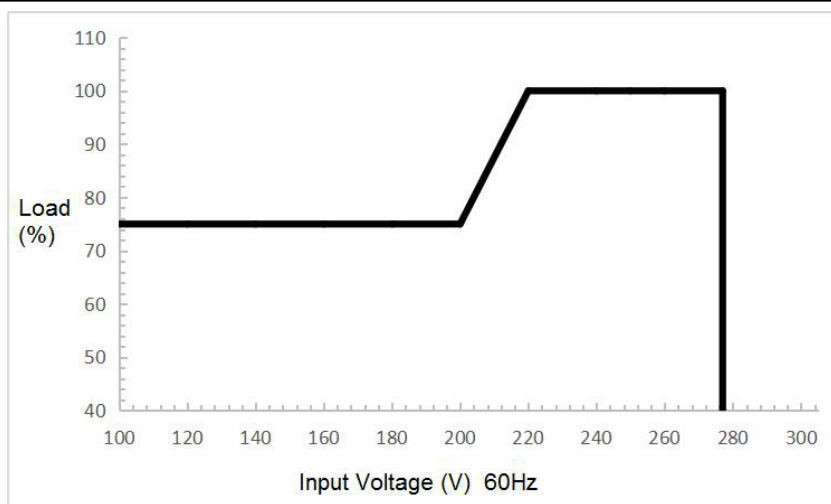


## 3. Lifetime curve

This curve shows the lifetime when the driver is in an airtight space and its casing temperature reaches 40°C, 50°C, 60°C, 70°C, 80°C & 90°C.



## 4. Load derating curve



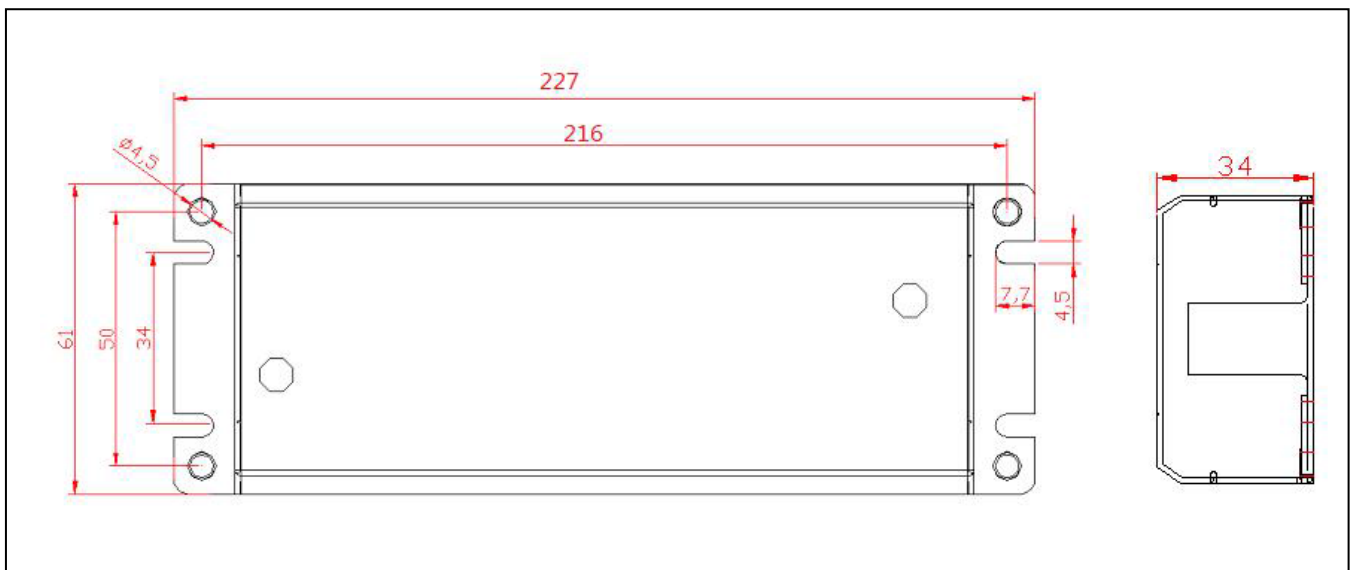
## Dimming Operation

Built-in potentiometer dimming (changing constant voltage)

| Feature  | Min   | Rated | Max   | Remark  |
|--|-------|-------|-------|---|
| The output range of the built-in potentiometer dimming | 11VDC | -     | 13VDC | The total output power of the light fixture should NOT exceed 200W otherwise LIFUD will NOT provide quality assurance.<br>( $V_{out} * I_{out} = P_{out}$ ) |

It's suggested that the user should use a slotted screwdriver or a Phillips screwdriver to adjust the output voltage in case the potentiometer is damaged. The screwdriver with a 2mm slot head is recommended. Torque is no higher than 0.5KNM. Make sure the insulation of the screwdriver is good enough.

## Dimension (unit: mm, tolerance: +0.5mm )



## Packaging Specification

|                  |                                       |
|------------------|---------------------------------------|
| Carton dimension | 420*300*210mm (L*W*H)                 |
| Quantity         | 4 pcs/layer; 4 layers/ctn; 16 pcs/ctn |
| Weight           | 0.92Kg±5%/pc; 15.5Kg±5%/ctn           |