



# 12VDC 150W

## Product Description

LF-GOE150YV012A is a 150W 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  $\leq 1\%$

## Application

- Outdoor LED lighting
- LED flood light
- Lighting engineering

## Technical Data



Full Model Number		LF-GOE150YV012A
Output	Output Voltage	11.04-12.96V
	Output Current	11.5A maximum @200-277Vac; 8.34A maximum @100-277Vac
	Ripple Voltage	≤10% @ 50Hz
	Percent Flicker	≤1% @ 50Hz or 60Hz
	Current Tolerance	±2.5%
	Temperature Drift	±5%/25-60°C
	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	1.35A 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 9 pieces.
	Standby Power Consumption	≤2W@230VAC
Output Short-Circuit Protection	Hiccup mode (auto-recovery)	
Output Open-Circuit Protection	≤16V	
Output Overvoltage Protection	≤16V (disconnect output voltage; auto-recovery)	
Output Overcurrent Protection	≤150% (auto-recovery)	
Environment Condition	Working Temperature	-40°C ~ +60°C
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/Humidity	-40°C ~ 80°C (six months under class I environment); 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 IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014 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

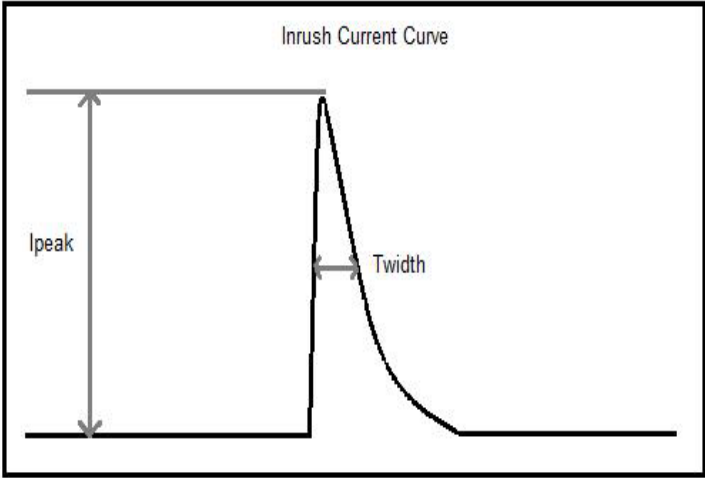
<b>Others</b>	IP Rating	IP67
	RoHS	RoHS 2.0 (EU) 2015 / 863
	Warranty Condition	5 years (Tc≤75 °C) Please refer to the lifetime curve.
	Noise Rating	≤20db (Tested in a soundproof room and the noise collector was 10cm away from the driver.)
<b>Testing Equipment</b>	AC power source: CHROMA6530, digital 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

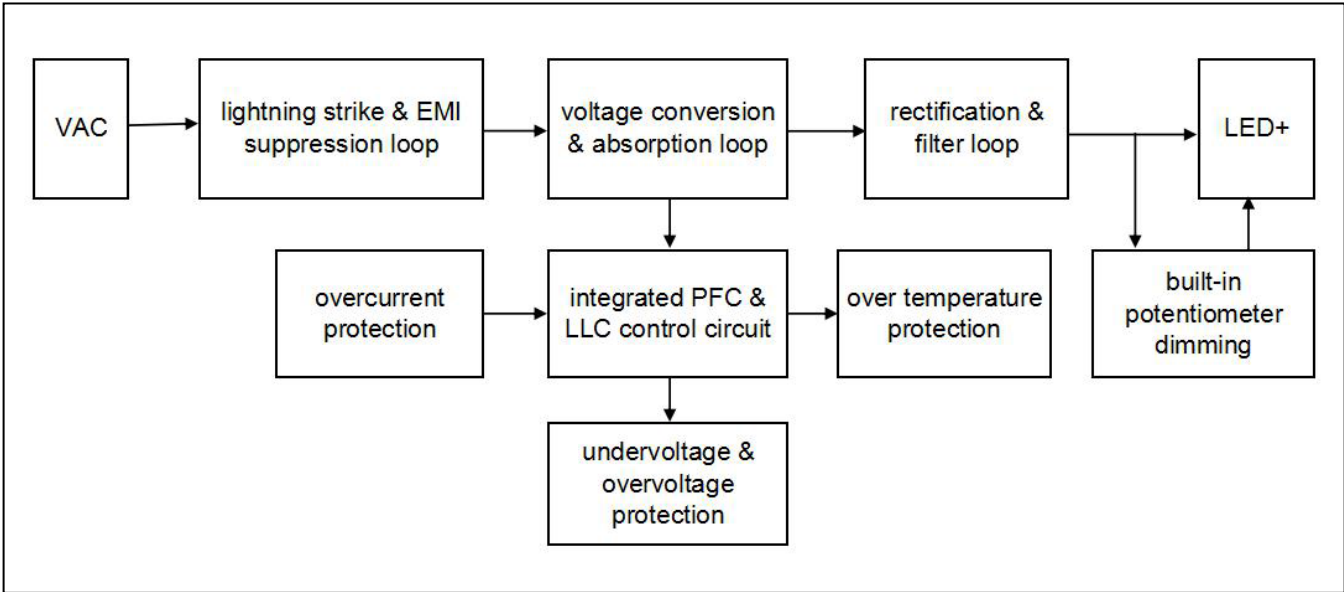
Name	Value	Remark
Surge peak current (I <sub>peak</sub> )	47.8A	Input voltage 230Vac
Surge half-peak time (T <sub>width</sub> )	280μs	Input voltage 230Vac. Measure the time for I <sub>peak</sub> to drop to its half value.
Quantity of the same model of driver that can be configured by a type-B 16A circuit breaker.	9 pcs (max.)	

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

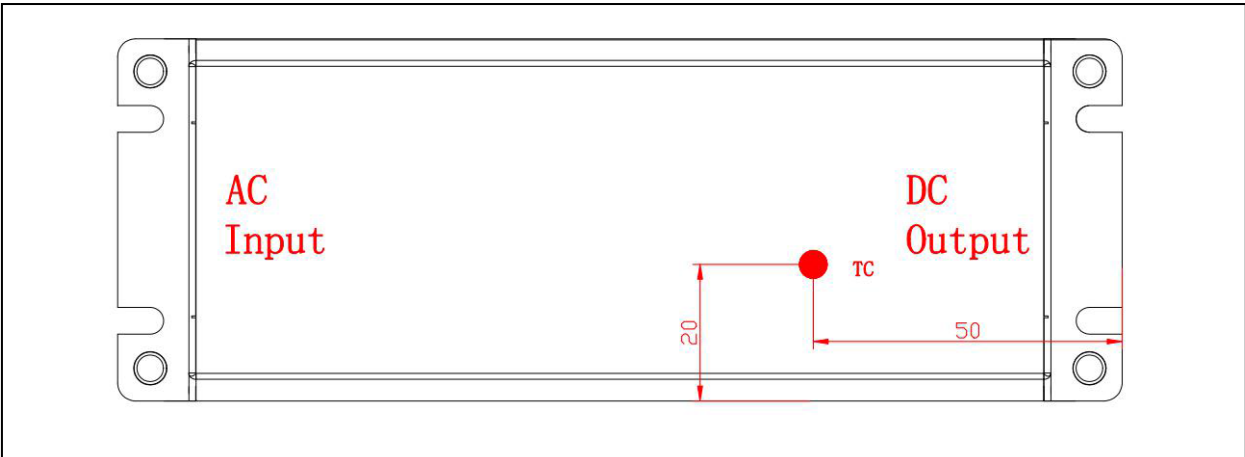
Type	Rank	Qty of accommodated drivers	Relative conversion ratio
B	10A	5 pcs	63%
	13A	7 pcs	81%
	16A	9 pcs	100% (benchmark)
	20A	11 pcs	125%
	25A	14 pcs	156%
C	10A	9 pcs	104%
	13A	12 pcs	135%
	16A	15 pcs	170%
	20A	18 pcs	208%
	25A	23 pcs	260%












**Function Diagram**



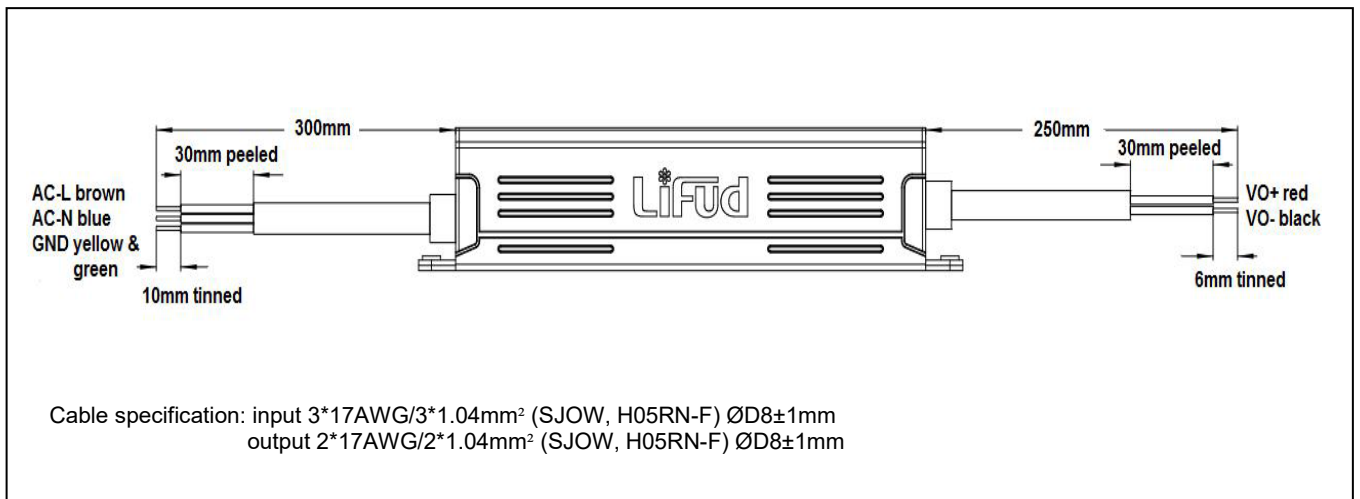
**TC Spot (on the upper cover; unti:mm)**



## Label

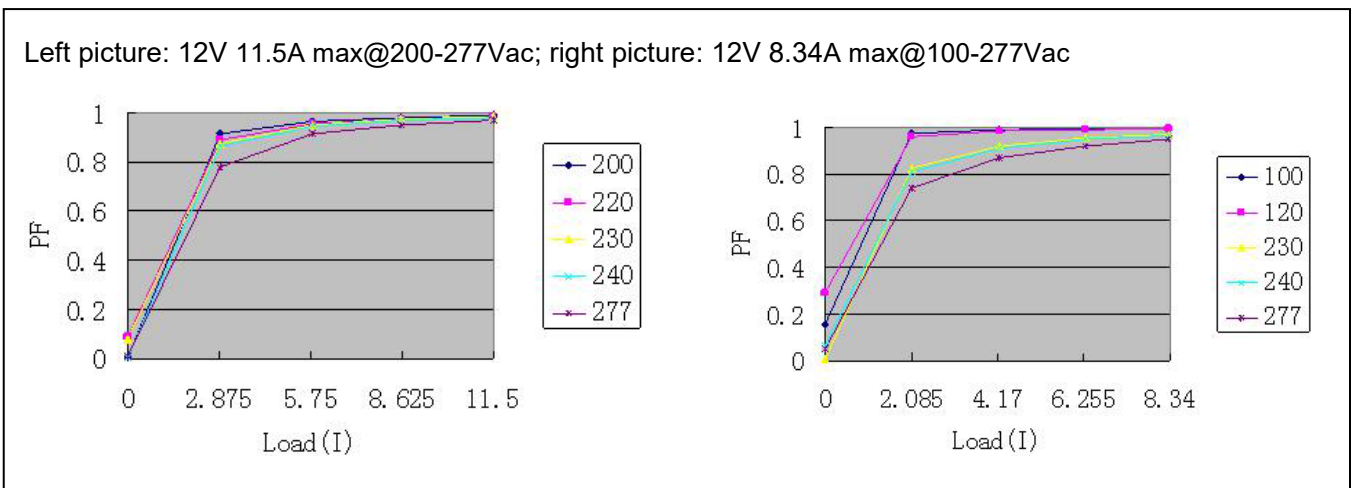
 www.lifud.com <b>INPUT</b> ■ AC-L (BROWN) ■ AC-N (BLUE) ■ PG (YELLOW/GREEN)	<b>LED Driver</b> Model: LF-GOE150YV012A	   	<b>OUTPUT</b> (RED) VO+ ■ (BLACK) VO- ■
	EU/AU: Input: 220-240V ~ 50/60Hz, Max. 0.95A Urated: +12V(CV) --- I rated: 11.5A, P rated: 138W North America: Input 100-220V ~ 50/60Hz, Max. 1.35A Urated: +12V(CV) --- I rated: 8.34A, P rated: 100W 277V ~, I rated: 11.5A, P rated: 138W	  	
Constant Voltage Output Type PF: ≥0.95 Suitable for Wet Locations ta: 60°C For LED modules only Made in China tc: 90°C For Connections Use Wire Rated for at Least 90°C(194°F)			

## Wiring Diagram



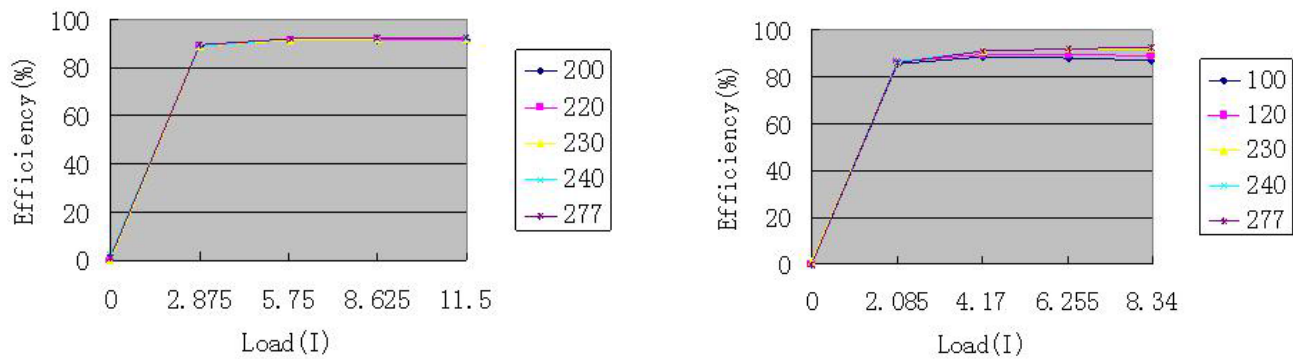
## Product Feature Curve

### 1. PF curve



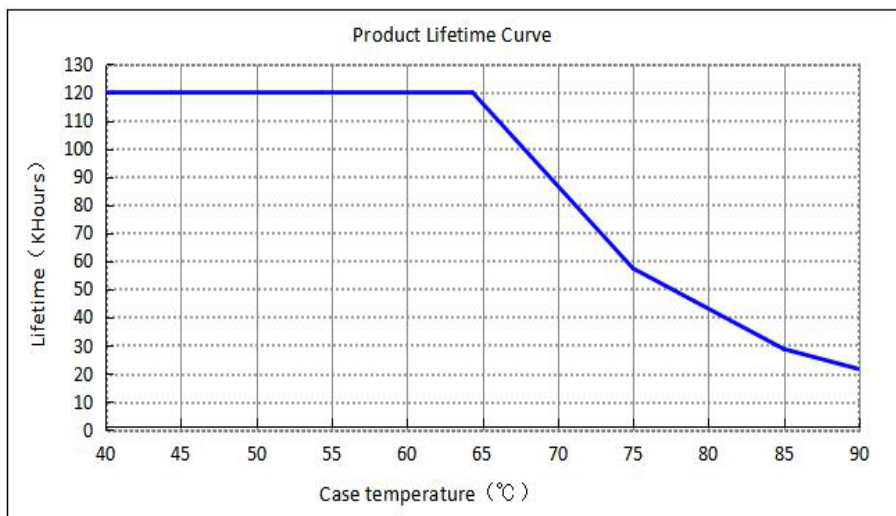
## 2. Efficiency curve

Left picture: 12V 11.5A max@200-277Vac; right picture: 12V 8.34A max@100-277Vac

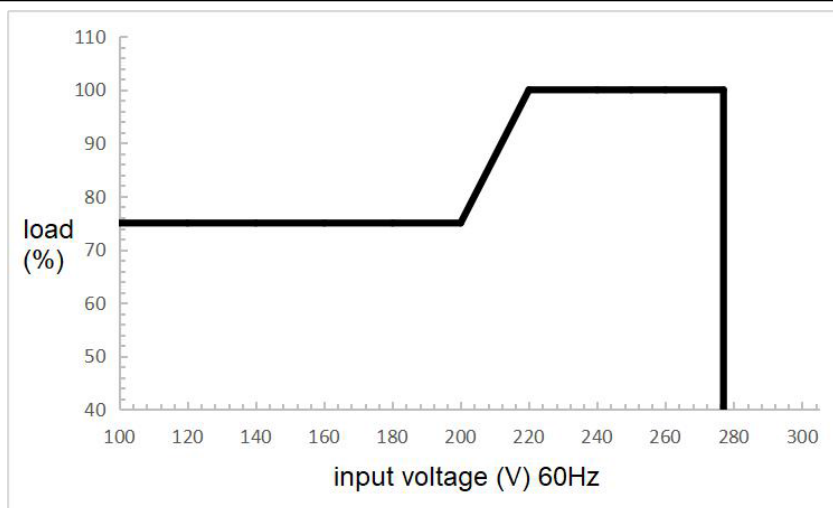


## 3. Lifetime curve

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



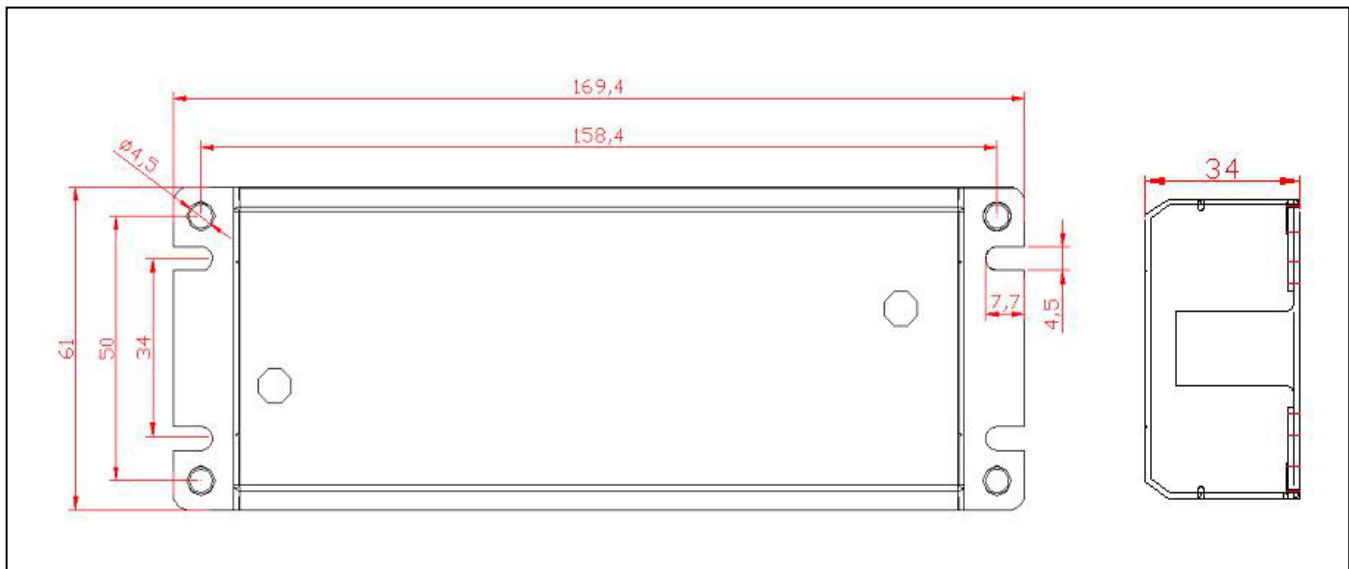
## Dimming Operation

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 138W otherwise LIFUD will NOT provide quality assurance. (Vout * Iout = Pout)

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	6 pcs/layer; 4 layers/ctn; 24 pcs/ctn
Weight	0.7Kg±5%/pc; 17Kg±5%/ctn