

# Specification

Customer: \_\_\_\_\_  
 Product Material No.: \_\_\_\_\_  
 Model No.: LF-GDE030YP  
 Version: V1.4

## Customer Approval

Tested by	Checked by	Approved by

## Lifud Approval

Tested by	Checked by	Approved by
Lin Kaifan	Liao Xinggao	Zhou Xiaoliang

## Full Model Numbers Required by the Customer

Full model No.		Full model No.	
Full model No.		Full model No.	

## E.C. List

Version	Description of Change	Engineer	Date
1.0	Initial version	Lin Kaifan	30 NOV 2017
1.1	Add certificates	Lin Kaifan	5 JAN 2018
1.2	Revised the current accuracy of the current adjusted by the DIP switch	Lin Kaifan	25 JAN 2019
1.3	Revised the efficiency	Lin Kaifan	17 OCT 2019
1.4	Removed the 12V terminal and added the CCC mark.	Liao Xinggao	13 MAY 2020

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<b>Model</b>	LF-GDE030YP	<b>Series</b>	EU-Standard, Dimmable & Flicker-Free
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## 1. Product Description



**Electrical type:** isolated LED driver designed for Class II LED luminaires

**Percent flicker:** ≤ 0.5%

**Function:** 0-10V/PWM/Rx dimming, flicker-free

**Product Property:** active PFC, high PF, low THD, 0-10V/PWM/Rx dimming, flicker free

**Application:** indoor office lighting, decorative lighting, residential lighting and commercial lighting

**Warranty:** 5 years (Please refer to the warranty condition.)

**Certificate:** ENEC, CE, CB, RCM, CCC



## 2. Electrical Specification

Model		LF-GDE030YP				
Output	Output Voltage	25-40VDC				
	Output Current	600mA	650mA	700mA	750mA	800mA
		The output current can be adjusted by the DIP switch on the driver. Please refer to the DIP switch table.				
	Ripple Voltage	< 1V				
	Current Accuracy	±5% (current accuracy of the currents adjusted via the DIP switch: ±7%)				
	Time to Light	230Vac<0.5S				
	Temperature Drift	±10%				
Output Line Regulation	±5%					
Input	Input Line Regulation	±5%				
	Input Voltage	220-240Vac ( voltage limit: 200-264Vac )				
	Frequency	50Hz				
	Input Current	0.2A Max				
	Power Factor	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac
	THD	≤ 20%				
	Efficiency	≥86%/230Vac	≥86%/230Vac	≥86%/230Vac	≥86%/230Vac	≥86%/230Vac
	Inrush Current	< 60A/350uS@230Vac				
Stand-by Power	< 0.5W (when the dimming signal is off)					

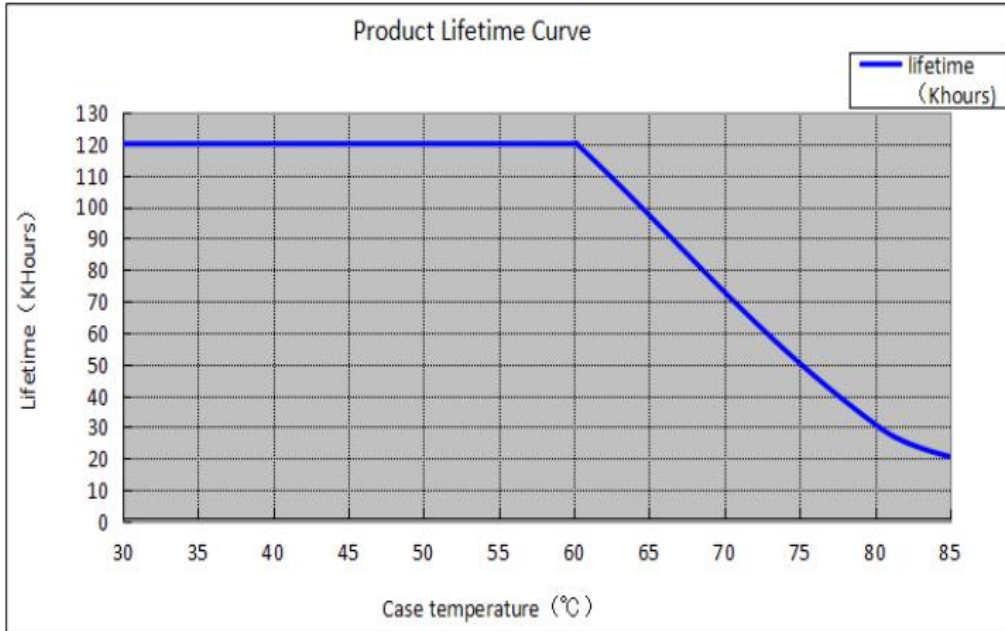
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Protective Feature	Open-Circuit Protection	Open-circuit voltage $\leq 55V_{dc}$
	Short-Circuit Protection	Hiccup mode (auto-recovery)
Environment Condition	Working Temperature	$-30^{\circ}C - +50^{\circ}C$
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/ Humidity	$-40^{\circ}C \sim +80^{\circ}C$ (6 months under the class I environment); 10-90%RH (no condensation)
	Atmospheric Pressure	86-106KPa
Safety & Norm	Certificate	ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P:3.75KVac, <5mA 60S
	Insulation Resistance	I/P-O/P: 500VDC, > 100M $\Omega$
	Surge Rating	Comply with IEC61000-4-5(L-N:2KV)
	EMI	Comply with EN55015, EN61000-3-2
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547
Others	Packing (Weight)	Carton Size: 385*285*210mm(L*W*H) Net weight : 163g $\pm$ 5%/pc ; 10.25kg $\pm$ 5%/ctn ; Quantity: 56 pcs/ctn, 8 pcs/layer
	IP Rating	IP20
	Warranty Condition	5 years (TC $\leq 75^{\circ}C$ ).
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: TH9201B, flicker-free tester (flicker-free coefficient tester) 60N-01, etc.	
Test Condition	Unless otherwise stated, the parameters of the power factor, harmonic and efficiency were test results under the ambient temperature of 25 $^{\circ}C$ , humidity of 50% input voltage of 230Vac and 90% load.	
Remark	<p>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.</p> <p>2. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above.</p> <p>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.</p>	

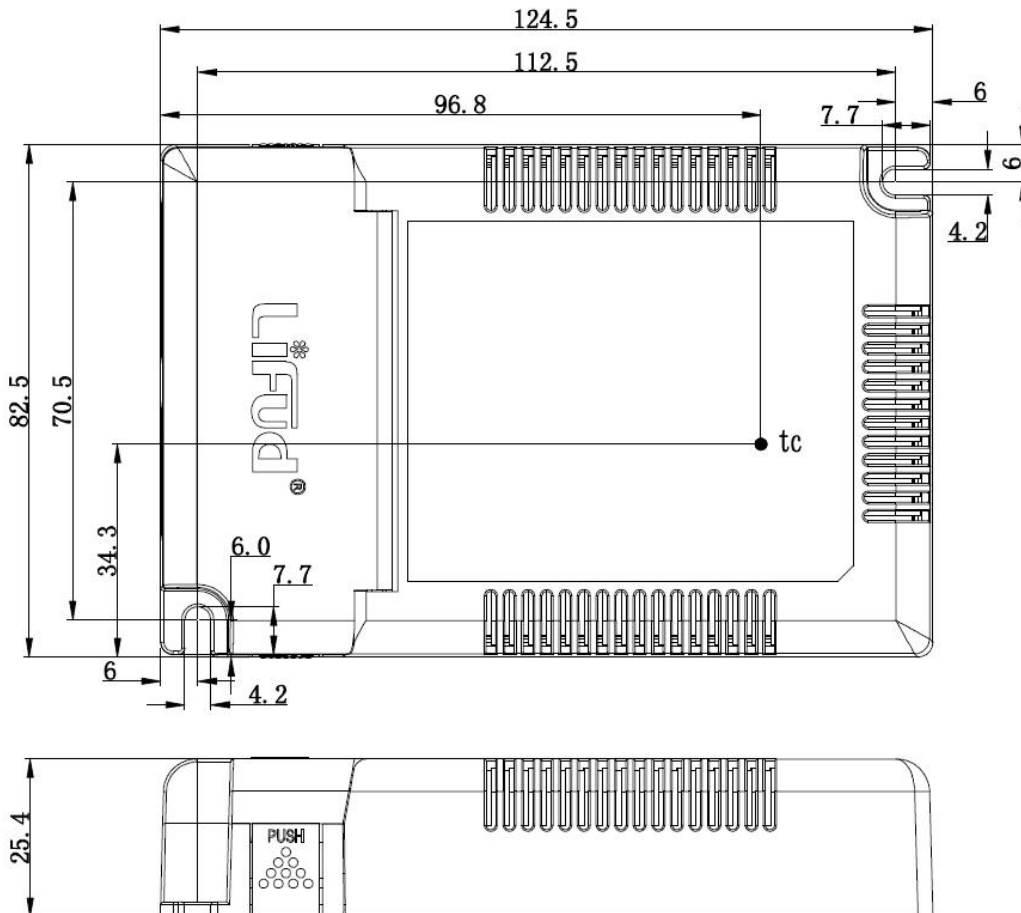
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### 3. Lifetime Curve

The curve below illustrates the driver's lifetime data when its maximum casing temperature in an airtight space reaches 40°C, 50°C, 60°C, 70°C and 80°C.

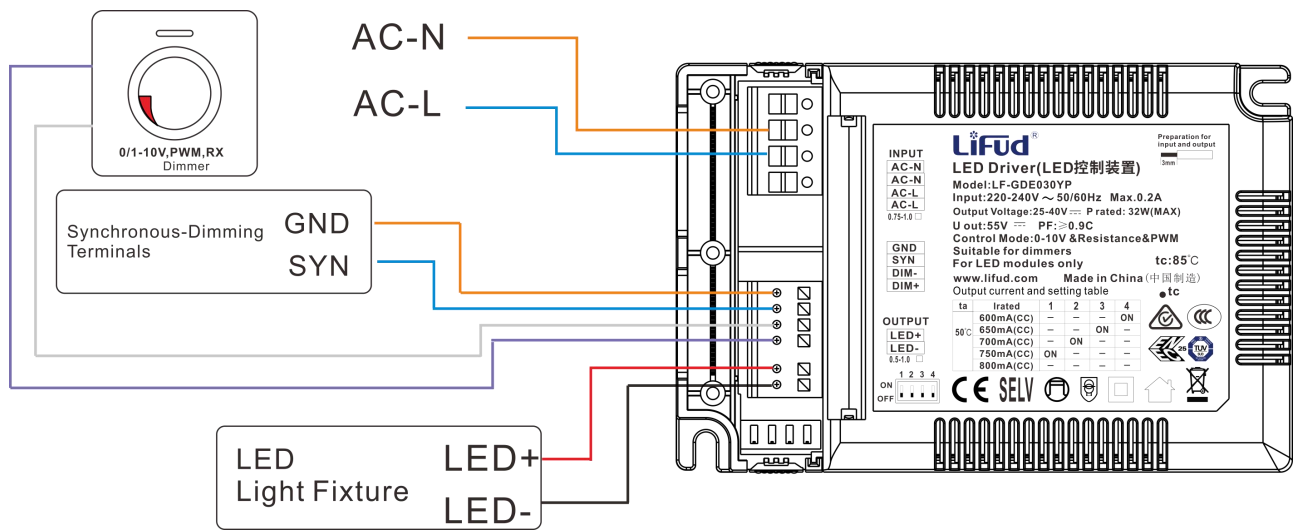


### 4. Dimension (unit: mm; tolerance: ±0.5mm)



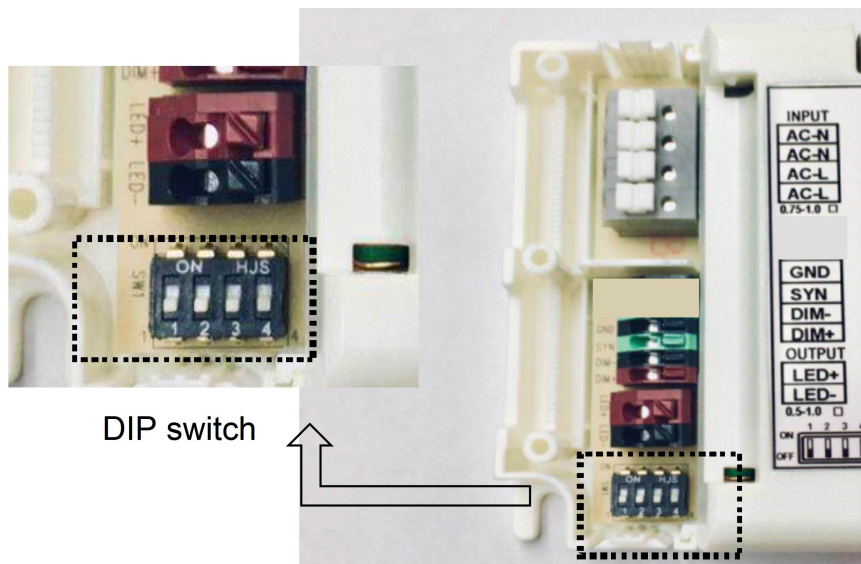
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### 5. Wiring Diagram



### 6. Operation Instruction

1) DIP Switch (Take the 800mA as an example. When the four switches are “OFF”, the output current is 800mA, the maximum value.)



Here's the DIP switch table. The output current is in a gear of 50mA.

DIP Switch Table					
TA	Current	1	2	3	4
50°C	600mA	-	-	-	ON
	650mA	-	-	ON	-
	700mA	-	ON	-	-
	750mA	ON	-	-	-
	800mA	-	-	-	-

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2) Dimming Functions (The test data are for your reference only.)

I. 0-10V dimming: The dimming range is 10%~100%. (Tested with a LIFUD 0-10V dimmer.)

Voltage signal	0V	0.5V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
lout percentage	OFF	ON	8%	18%	29%	40%	51%	62%	73%	84%	95%	100%	95%-105%

II. PWM dimming: The dimming range is 10%~100%. The voltage amplitude is 10V and the frequency of PWM signal is 300Hz~3KHz. (Tested with a PWM signal generator: RIGOL.)

PWM signal	0-5%	6%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
lout percentage	OFF	ON	10%	24%	36%	48%	59%	70%	80%	88%	96%	100%	95%-105%

III. Resistance dimming: The dimming range is 10%~100%. The resistance range is 10kΩ~100kΩ. (Tested with a LEVITON dimmer.)

Resistance	0-5K	6K	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K	OPEN
lout percentage	OFF	ON	15%	27%	38%	49%	60%	71%	82%	94%	99%	99%	95%-105%

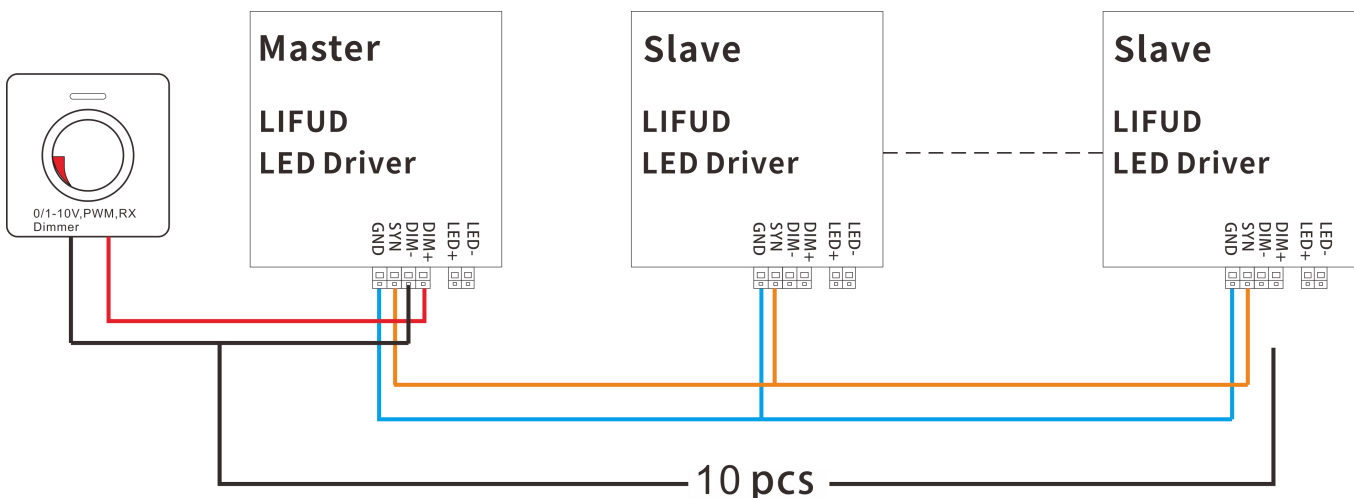
Remark: The "lout percentage" above are typical values.

## 7. SYNC Dim Instruction

Up to 10 drivers can be connected and dimmed synchronously, as long as the wire between each two drivers is within 20 meters.

Q: How to connect these 10 drivers?

A: Connect the SYN terminal of the first driver to that of the second driver. And then connect the SYN terminal of the second driver to that of the third driver, etc. Connect the GND terminal of the first driver to that of the second driver. And then connect the GND terminal of the second driver to that of the third driver, etc. Connect the dimmer to the DIM+ and DIM- terminals of any driver. Then up to ten drivers/lights can be dimmed synchronously. The dimming signals include 0-10V, PWM and Resistance signals. The wiring diagram is shown as below.



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Remarks:

- 1) The master driver is the one connected with the dimmer which sends out the dimming signals. It's automatically recognized by the IC of the LED driver.
- 2) The dimming wires between each driver should be around 22AWG and must NOT exceed 20 meters.
- 3) Disconnect the power supply before wiring. Make sure the wiring is correct before powering up the LED light in case the wrong wiring leads to the damage of the LED driver or dimmer.

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