

1. Product Description

LF-GDE030YG is a 30W Triac dimmable constant current LED driver. It is compatible with main trailing-edge dimmers on the market. Its output current is adjustable via DIP switch from 550mA to 700mA, in steps of 50mA. It is flicker free during the whole process of dimming, which provides comfortable LED lighting for users.

2. Product Features

- Constant current output; current adjustable via DIP switch
- Plastic casing; suitable for Class II light fixtures
- Triac dimmable
- Flicker free during the whole process of dimming
- 5-year warranty (please refer to the warranty condition)
- Certifications: ENEC, CE, RCM, TUV, CCC

3. Applications

- Down light
- Ceiling light

4. Electrical Characteristics

Model		LF-GDE030YG			
Output	Output Voltage	25-40V (within 33-40V, the dimming effect is the best.)			
	Output Current	The output current can be adjusted via DIP switch. Please refer to the DIP switch table.			
		550mA	600mA	650mA	700mA
	Ripple Voltage	<1V (20MHz)			
	Current Tolerance	±6%@230Vac			
	Temperature Drift	±10%			
	Linear Adjustment Rate	±6%			
	Start-up Time	230Vac <0.5S			
Input	Linear Adjustment Rate	±6%			
	Input Voltage	220-240Vac (voltage limit : 198-264Vac)			
	Input Frequency	47-53Hz			
	Input Current	0.18A max.			
	Power Factor	≥0.9@230Vac			
	THD	≤20%			
	Efficiency	≥82%@230Vac			
	Inrush Current	≤30A/350uS@230Vac (max.)			
	Leakage Current	≤0.7mA			
Protection Features	Open Circuit Protection	≤70V (in need of AC voltage restart)			
	Short Circuit Protection	Hiccup mode (in need of AC voltage restart)			
Environment Conditions	Working Temperature	-30°C - +50°C			
	Working Humidity	20-90%RH (no condensation)			
	Storage Temperature/Humidity	-40°C - 80°C (six months under class I environment); 10-90%RH (no condensation)			
	Atmospheric Pressure	86-106kPa			
Safety & EMC	Certificates	ENEC, CE, TUV, RCM, CCC			
	Withstand Voltage	I/P-O/P: 3.75KV 5mA 60s			
	Insulation Resistance	I/P-O/P: 500Vdc, >100MΩ			
	Surge Rating	IEC61000-4-5 (L-N: 1kV)			
	Safety Standard	EN61347, GB19510			
	EMI	EN55015, EN61000-3-2			
	EMS	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547			

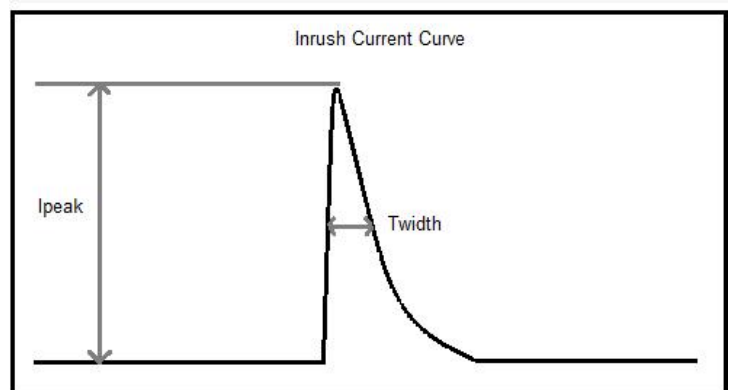
Others	IP Rating	IP20
	Warranty Condition	5 years ($T_c \leq 87^\circ\text{C}$)
Test Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectrum analyzer: KH3935, hi-pot tester: TH9201B, light flicker analyzer: LFA-3000, etc.	
Test Conditions	Unless otherwise stated, the parameters of the power factor and efficiency are the test results under the ambient temperature of 25°C and humidity of 50%, AC input of 230V and 90% load (the results above are tested without any dimmer).	
Remarks	<p>1. It is recommended that customers 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 should re-confirm the EMC of the whole LED light fixture.</p>	

5. Circuit Breaker & Relevant Parameters

Name	Value	Remark
Surge peak current (I_{peak})	6.3 A	Input voltage 230Vac
Surge half-peak time (T_{width})	150 us	Input voltage 230Vac, measure the time for I_{peak} to drop to the half value.
Quantity of the same model driver a type-B 16A circuit breaker can configure.	53 pcs	

This table shows the reference data of other types of circuit breakers.

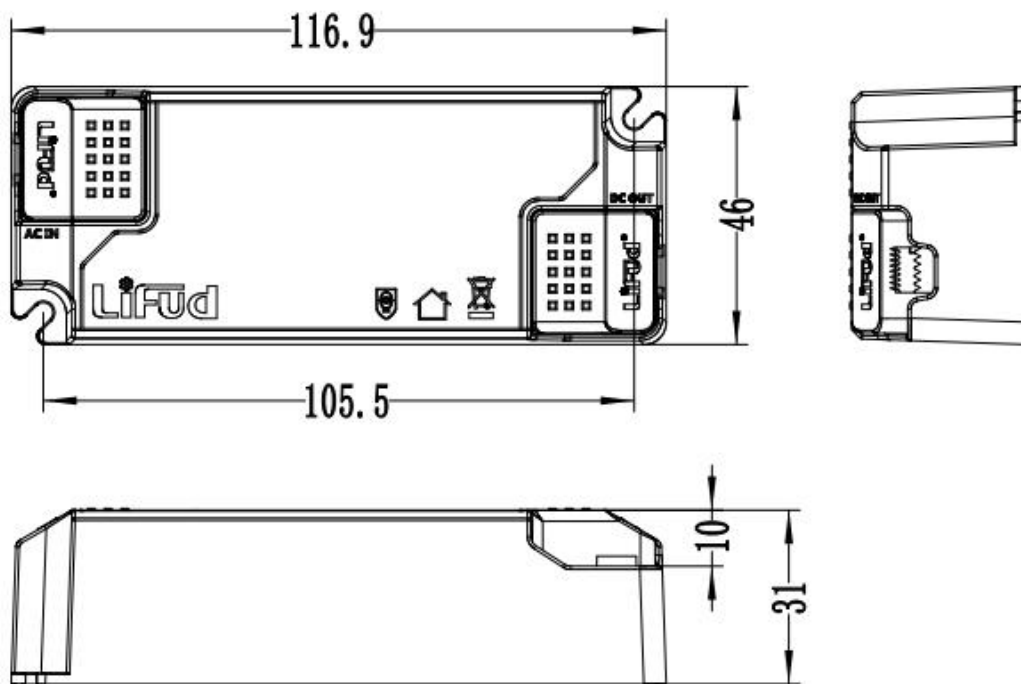
Type	Rank	Relative Driver Quantities
B	10A	33 pcs
	13A	42 pcs
	16A	53 pcs
	20A	66 pcs
	25A	82 pcs
C	10A	55 pcs
	13A	71 pcs
	16A	89 pcs
	20A	110 pcs
	25A	137 pcs



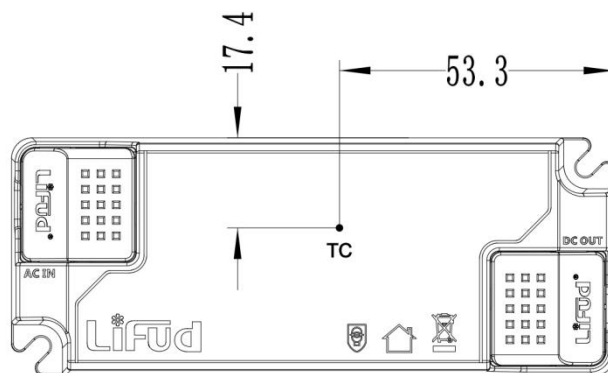
6. DIP Switch Table

DIP switch table				
Ta	Vo DC	Current	1	2
50°C	25-40V	700mA	ON	ON
		650mA	—	ON
		600mA	ON	—
		550mA	—	—

7. Dimensions (unit: mm; tolerance: +0.5mm)



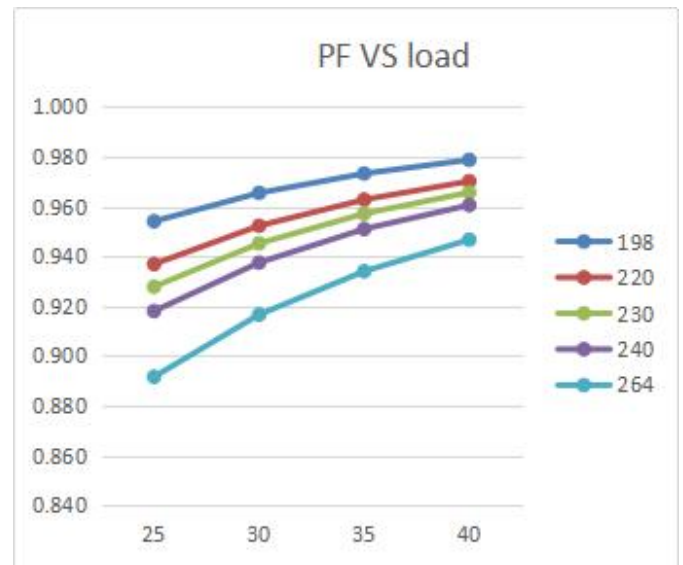
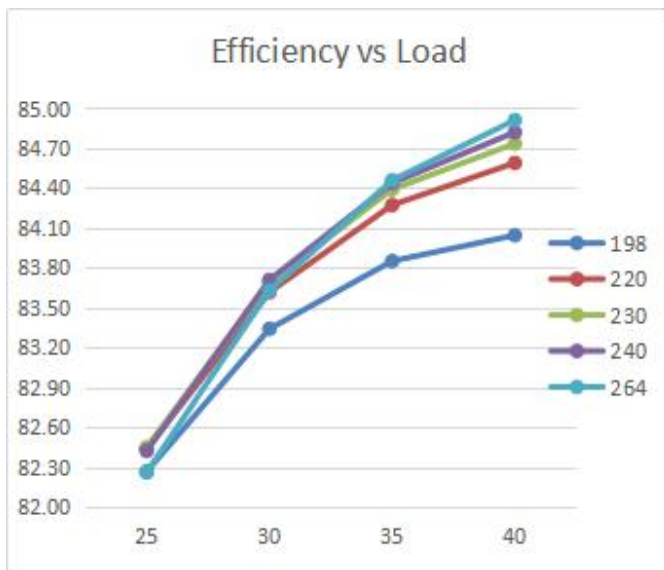
8. TC Point (on the bottom casing)



9. Packaging Specifications

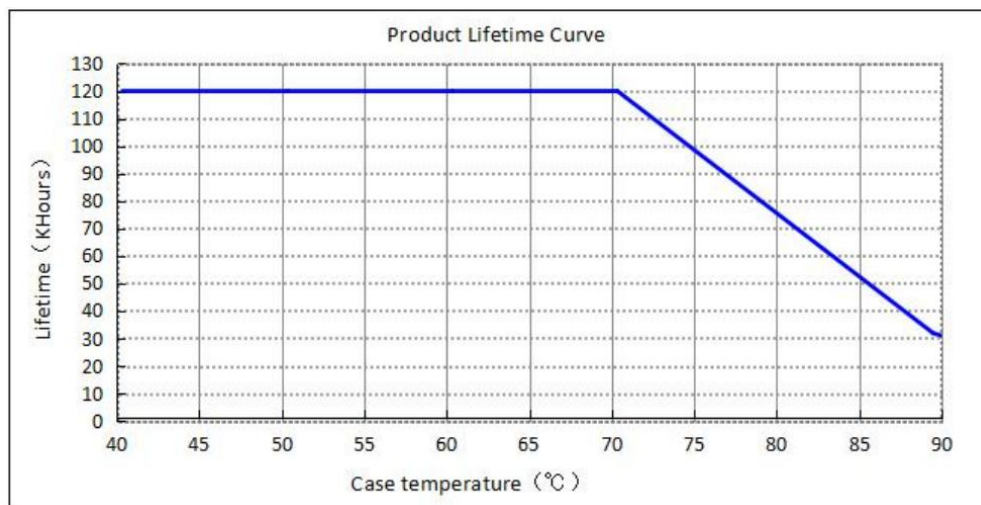
LF-GDE030YG	
Carton Size	385*285*210mm (L*W*H)
Quantity	12 pcs/layer; 72 pcs/ctn
Weight	0.089 kg±5%/pc; 8.95 kg±5%/ctn

10. Product Feature Curves

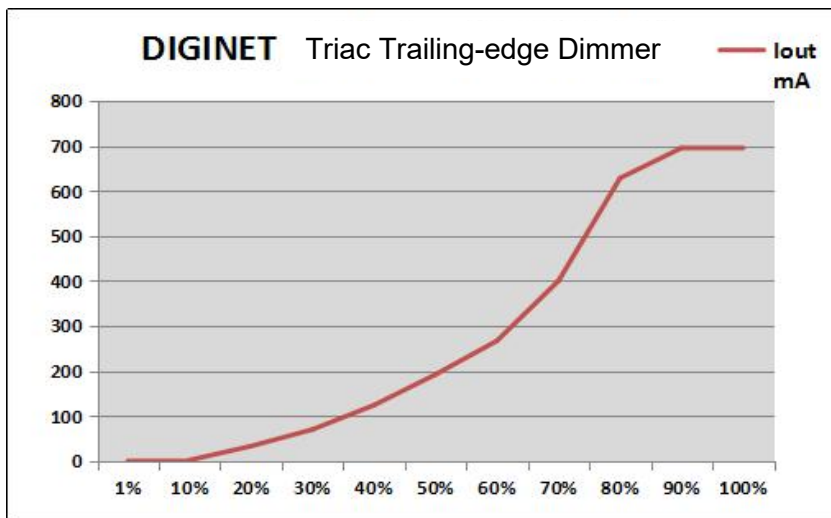
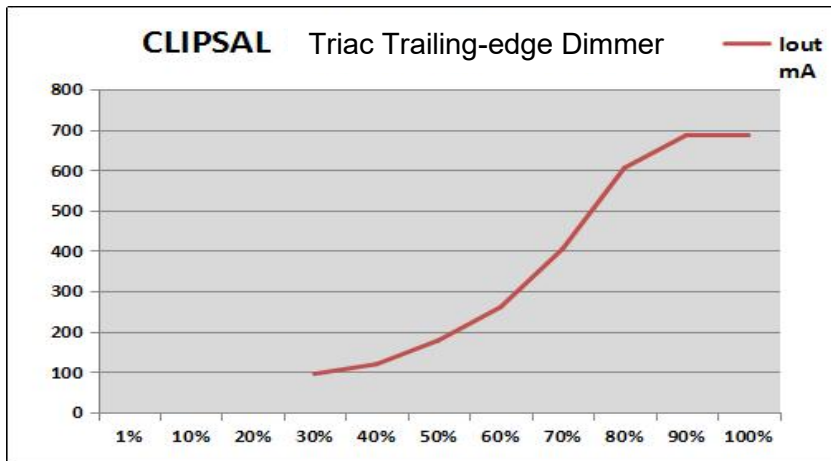


11. Lifetime Curve

The lifetime of driver is calculated on the condition that the casing temperature in an airtight space reaches 40°C, 50°C, 60°C, 70°C, 80°C and 90°C.



12. Dimming Curves



1. Verified by LIFUD team, this driver is compatible with these dimmers:

- CLIPSAL: 32E450UDM

- DIGINET: MEDM

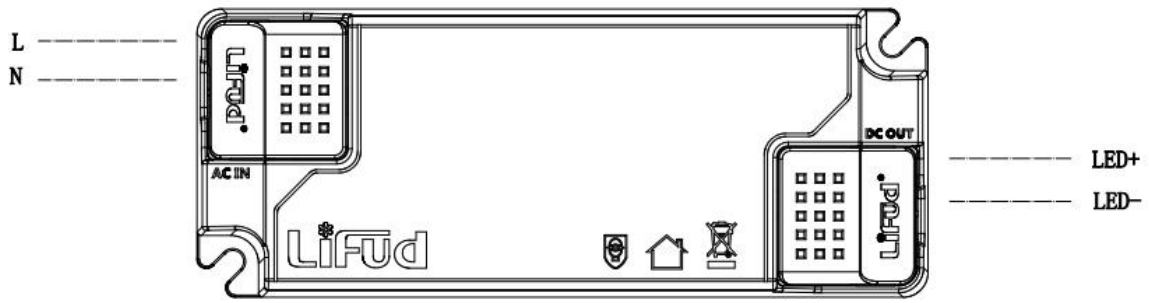
When starting up with a dimmer connected, there will be output current overshooting. The overshooting amplitude is shown as below (please choose proper LEDs according to their specifications; feel free to contact LIFUD team for technical support).

Output Voltage	Output Current			
	550mA	600mA	650mA	700mA
25-33V start-up overshooting amplitude	≤30%	≤30%	≤30%	≤30%
33-40V start-up overshooting amplitude	≤10%	≤10%	≤10%	≤10%

2. If end users do not use the dimmers mentioned above, it's necessary to test if the dimmers are compatible with this driver. End users can conduct the test by themselves or they can send the dimmers to LIFUD team and LIFUD team will conduct the tests for them.

3. The signature of on this specification indicates that the customer has confirmed that this LIFUD driver is compatible with their dimmer. And thus LIFUD will not be responsible for any quality complaint caused by incompatible dimmers.

13. Wiring diagram



14. Label

TRIAC Constant Current Dimming Driver
 Model: LF-GDE030YG LED Driver (LED控制装置)

Input
 AC-L
 AC-N
 0.75-1.5□

Input: 220-240V ~ 50/60Hz Max. 0.18A
 Output Voltage: 25-40V \approx P rated: 28W (Max)
 For Australia and New Zealand, the marking label with " " 
 U out: 70V PF: \geq 0.9C
 ta: 50°C tc: 90°C

Output
 LED+
 LED-
 0.5-1.0□

I rated (CC)	1	2
550mA	-	-
600mA	on	-
650mA	-	on
700mA	on	on

Preparation for input and output
 7.5mm 

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Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.