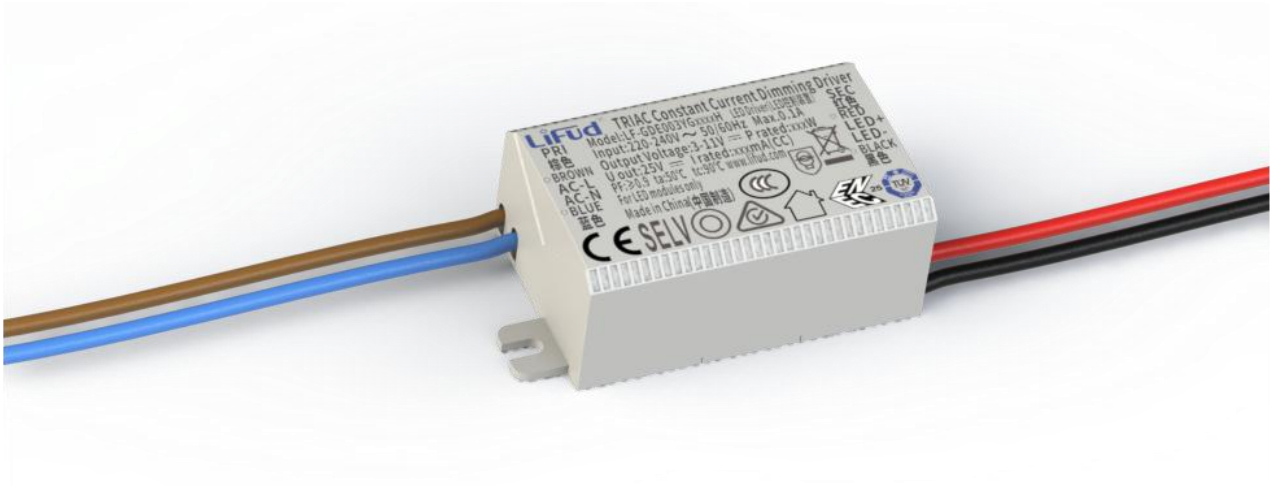


1. Product Description

LF-GDE003YG series is a 3W constant current LED driver. Triac dimming. It's compatible with main trailing-edge dimmers in the market.

2. Product Feature

- Constant current output.
- Plastic casing. Suitable for Class II light fixtures
- Triac dimming
- Warranty: 5 years (Please refer to the warranty condition.)
- Certificate: ENEC, CE, CB, RCM, CCC

3. Application

- LED Down light
- LED Ceiling light

4. Electrical Characteristics

Model		LF-GDE003YG				
Output	Output Voltage	3-11V (Within 6-11V, the dimming effect is the best.)				
	Output Current	150mA	200mA	250mA	300mA	350mA
	Ripple Voltage	<5V (20MHz)				
	Current Accuracy	130mA-170mA @230Vac	165mA-215mA @230Vac	230mA-270mA @230Vac	282mA-318mA @230Vac	329mA-371mA @230Vac
	Temperature Drift	±10%				
	Line Regulation	130mA-170mA @230Vac	165mA-215mA @230Vac	230mA-270mA @230Vac	282mA-318mA @230Vac	329mA-371mA @230Vac
	Start-up Time	230Vac <0.5S				
Input	Line Regulation	130mA-170mA @230Vac	165mA-215mA @230Vac	230mA-270mA @230Vac	282mA-318mA @230Vac	329mA-371mA @230Vac
	Input Voltage	220-240VAC (voltage limit : 198-264VAC)				
	Input Frequency	47-53Hz				
	Input Current	0.1A Max.				
	Power Factor	≥0.9@230VAC (LED load)				
	THD	≤30%	≤25%	≤24%	≤23%	≤21%
	Efficiency	≥63% @230Vac	≥65% @230Vac	≥66% @230Vac	≥67% @230Vac	≥67% @230Vac
	Inrush Current	≤30A/350uS@230VAC				
	Leakage Current	≤0.7mA				
	Stand-by Power Consumption	≤1W				
Protective Features	Open Circuit Protection	≤25V				
	Short Circuit Protection	Hiccup mode				
Environment Conditions	Working Temperature	-30℃ ~ +50℃				
	Working Humidity	20-90%RH (no condensation)				
	Storage Temperature/Humidity	-40℃ ~ 80℃(six months under class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86-106KPa				
Safety & Norms	Certificate	ENEC, CE, CB, RCM, CCC				
	Withstanding 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				

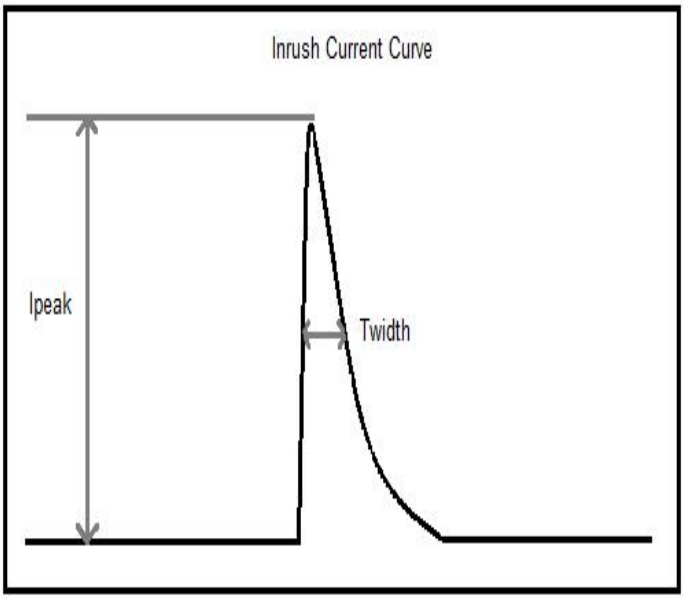
Others	IP Rating	IP20
	Warranty Condition	5 years (Tc ≤ 75 ℃)
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectrum analyzer: KH3935, hi-pot tester: TH9201B, light flicker analyzer: LFA-3000, etc.	
Testing Conditions	Unless otherwise stated, the parameters of the power factor and efficiency are the test results under the ambient temperature of 25℃ and humidity of 50%, AC input of 230V and 90% load. The tests above were without connecting any dimmer.	
Remarks	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. 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. 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.	

5. Circuit Breaker & Relevant Parameters

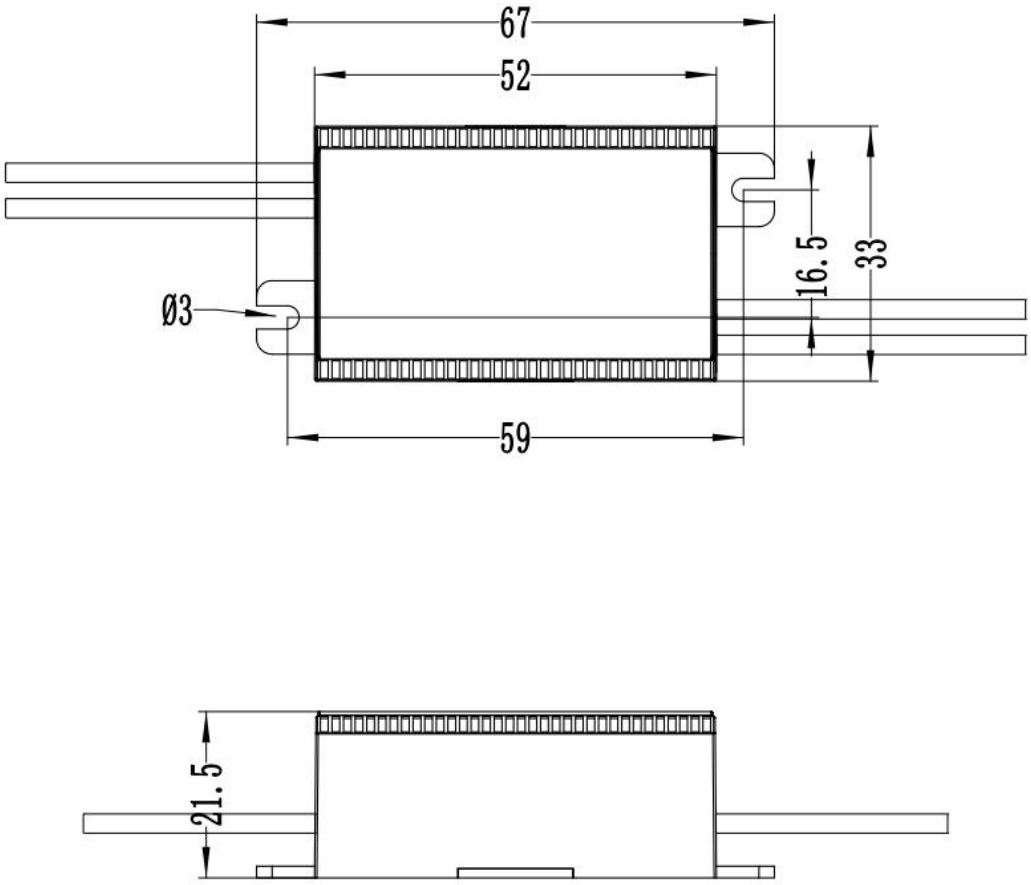
Name	Value	Remark
Surge peak current (Ipeak)	0.9 A	Input voltage 230Vac
Surge half-peak time (Twidth)	18.4 us	Input voltage 230Vac, measure the time for Ipeak to drop to the half value.
Quantity of the same model driver that a type-B 16A circuit breaker can configure.	426 pcs	

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

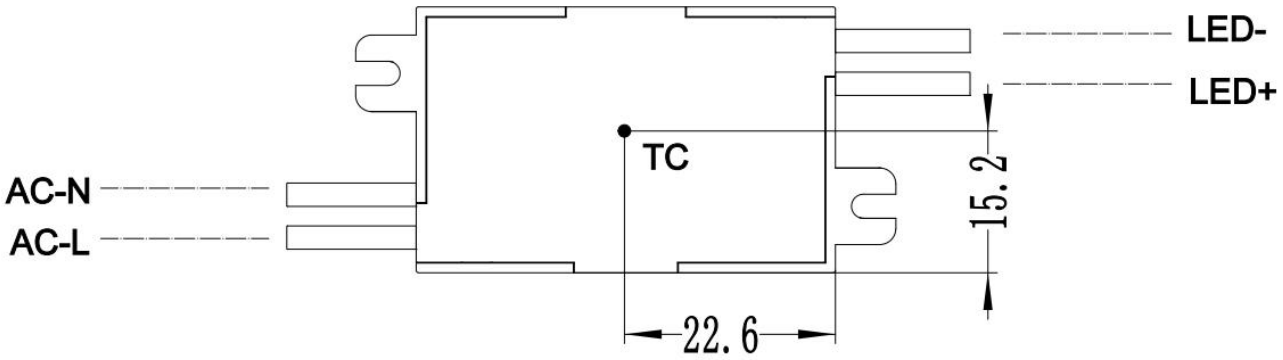
type	rank	relative driver quantities
B	10A	268 pcs
	13A	345 pcs
	16A	426 pcs
	20A	532 pcs
	25A	639 pcs
C	10A	443 pcs
	13A	575 pcs
	16A	724 pcs
	20A	886 pcs
	25A	1107 pcs



6. Dimensions (unit: mm, tolerance: +0.5mm)



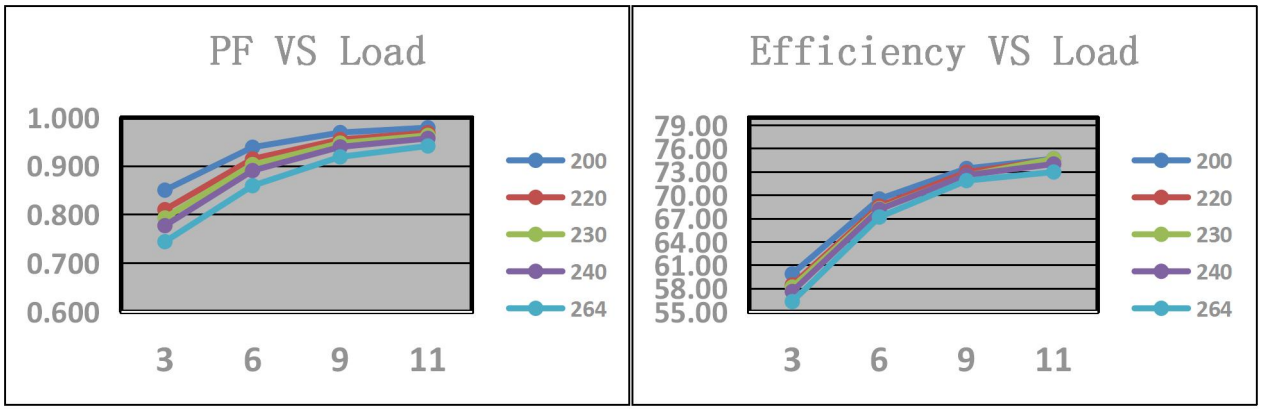
7. TC Spot (on the bottom casing)



8. Packaging Specifications

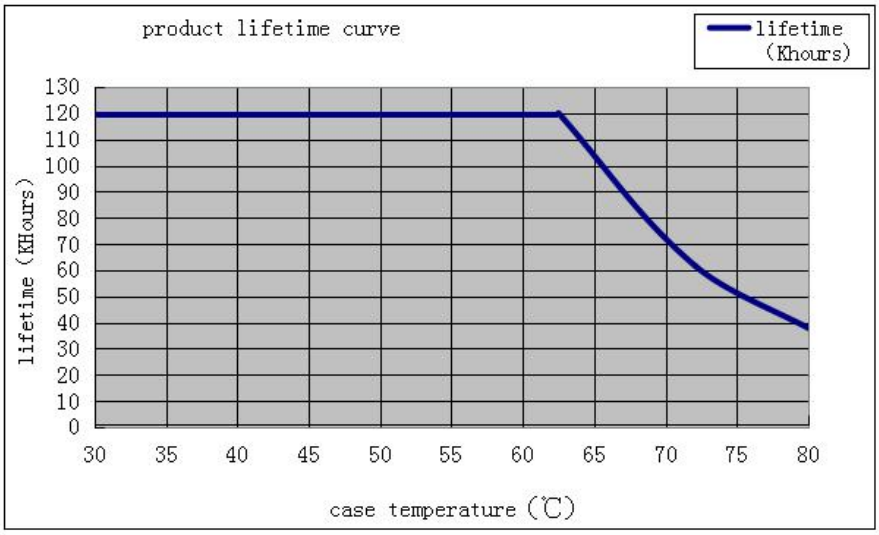
LF-GDE003YG	
packaging dimensions	385*285*210mm (L*W*H)
quantity	27 pcs/layer；162 pcs/ctn
weight	0.035 kg±5%/pc; 5.97 kg±5%/ctn

9. Product Feature Curves

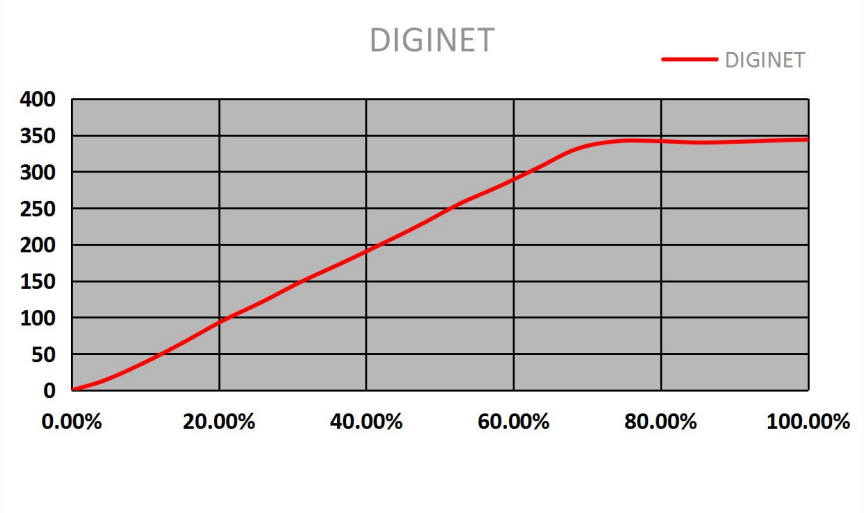


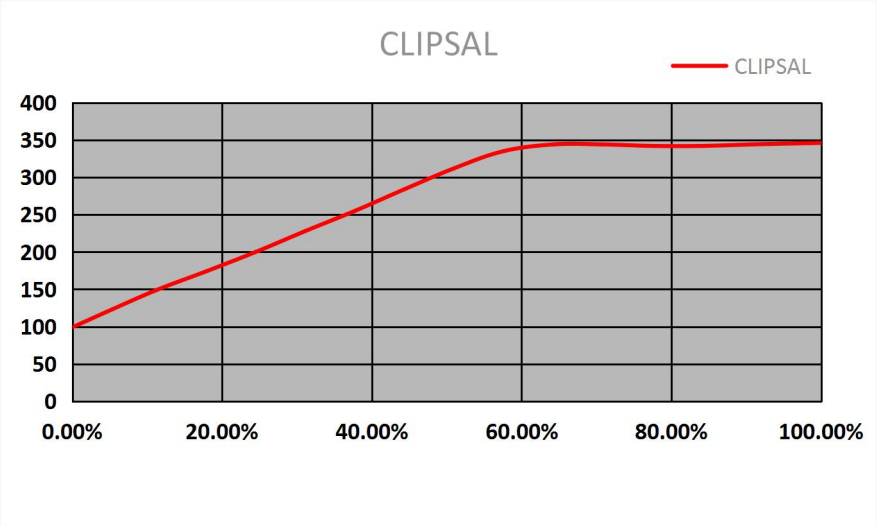
10. Lifetime Curve

The curve below illustrates the driver's lifetime data when the its max. case temperature in an airtight space reaches 40℃, 50℃, 60℃, 70℃, 80℃ and 90℃.



11. Dimming Curves





1. Verified by the LIFUD team, this driver is compatible with these dimmers:
·CLIPSAL: 32E450UDM
·DIGINET: MEDM

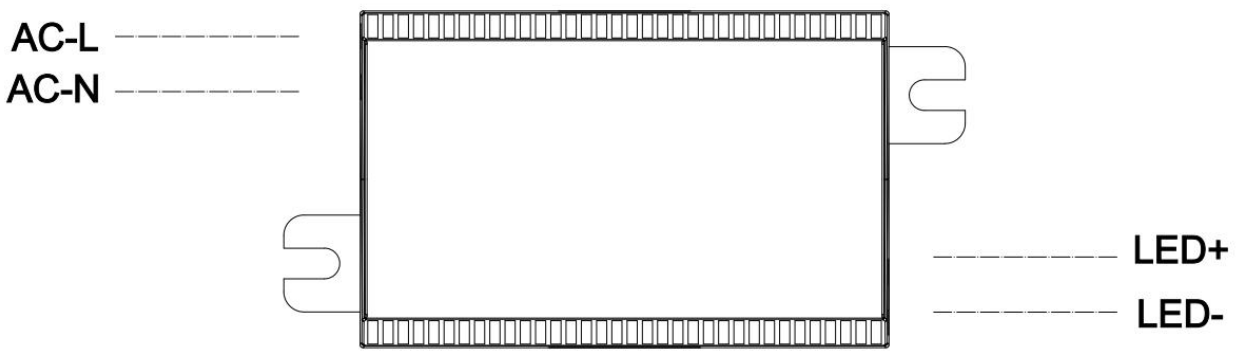
When starting up with a dimmer connected, there will be output current overshooting. The overshooting amplitude is shown as below. (Please choose proper LEDs according to their specifications. Feel free to contact LIFUD team for technical support.)

Output Voltage	Output Current				
	150mA	200mA	250mA	300mA	350mA
3-6V overshooting amplitude	≤20%(30mA)	≤15%(30mA)	≤10%(25mA)	≤10%(30mA)	≤10%(35mA)
6-11V overshooting amplitude	≤5%(7.5mA)	≤5%(10mA)	≤5%(12.5mA)	≤5%(15mA)	≤5%(17.5mA)

2. If end users do not use the dimmers mentioned above, it's necessary to test if the end users' 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.

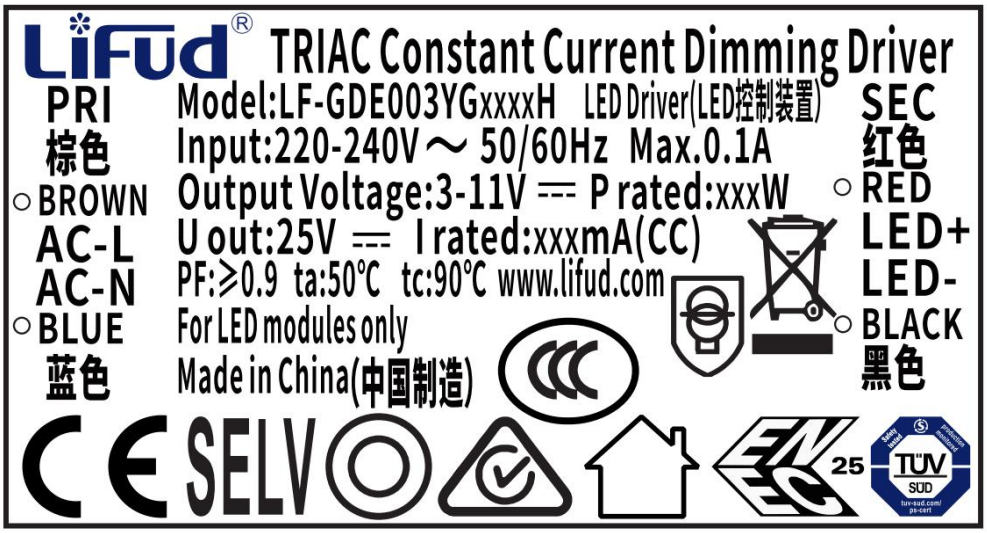
12. Wiring diagram



13. Wire Specifications

Function	Wire type	Wire number	Sectional area	Color	Length of the exposed part
Input L	PVC electronic wire	20 AWG	0.5 mm^2	brown	185 mm
Input N	PVC electronic wire	20 AWG	0.5 mm^2	blue	185 mm
Output +	PVC electronic wire	20 AWG	0.5 mm^2	red	185 mm
Output -	PVC electronic wire	20 AWG	0.5 mm^2	black	185 mm

14. Label



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