Specification

Customer's Name: _____

Product Material No. : _____

Model No. : LF-GDE020YG

Version: V1.2

Customer Approval

Examined by	Reviewed by	Approved by

LIFUD Approval

Drafted by	Reviewed by	Approved by
Lin Kaifan	Liao Xinggao	Zhong Chunlin

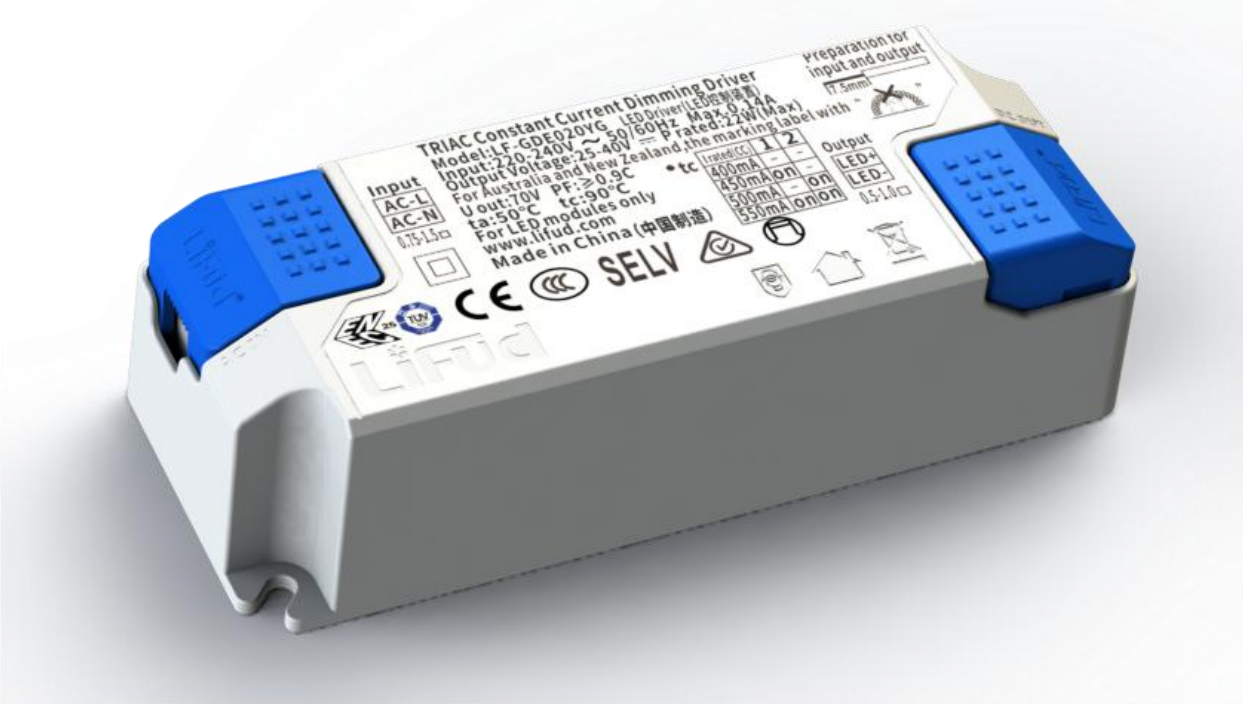
Full Model Numbers Required by the Customer

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

E.C. List

Version	Description of Change	R&D	Date
1.0	Formal release	Lin Kaifan	26 APR 2019
1.1	Revised some parameters	Liao Xinggao	8 JUL 2019
1.2	Revised the DIP switch table	Zhang Yuanjun	3 SEP 2020

Lifud Technology Co., Ltd.
Building B, Kutto Industrial Park, No.26 Xinhe Road, Xinqiao Street, Bao'an District, Shenzhen, China 518104



1. Product Description

LF-GDE020YG series is a 20W constant current LED driver. It has Triac dimming function It's compatible with main trailing-edge dimmers in the market. Its output current is adjustable via the DIP switch, from 400mA to 550mA, 50mA per step. It has flicker free effect even during dimming, which provides comfortable lighting for users.

2. Product Features

- Constant current output. The output current can be adjusted via the DIP switch.
- Plastic casing. Suitable for Class II light fixtures
- Triac dimming
- Flicker free during dimming
- Warranty: 5 years (Please refer to the warranty condition.)
- Certificates: ENEC, CE, CB, RCM, CCC

3. Applications

- LED Down light
- LED Ceiling light

4. Electrical Characteristics

Model		LF-GDE020YG			
Output	Output Voltage	25-40V (Within 33-40V, the dimming effect is the best.)			
	Output Current	The output current can be adjusted via the DIP switch. Please refer to the DIP switch table.			
		400mA	450mA	500mA	550mA
	Ripple Voltage	<1V @20MHz			
	Current Accuracy	±6% @230VAC			
	Temperature Drift	±10%			
	Line Regulation	±6%			
	Start-up Time	230Vac <0.5S			
Input	Line Regulation	±6%			
	Input Voltage	220-240VAC (voltage limit : 198-264VAC)			
	Input Frequency	47-53Hz			
	Input Current	0.14A Max.			
	Power Factor	≥0.9@230VAC (LED load)			
	THD	≤20%			
	Efficiency	≥81%@230Vac			
	Inrush Current	≤30A/350uS@230VAC (Max.)			
	Leakage Current	≤0.7mA			
	Stand-by Power Consumption	≤1W (without any dimmer)			
Protective Features	Open Circuit Protection	≤70V (Reconnecting the AC power supply is needed.)			
	Short Circuit Protection	Hiccup mode (Reconnecting the AC power supply is needed.)			
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	Certificates	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			

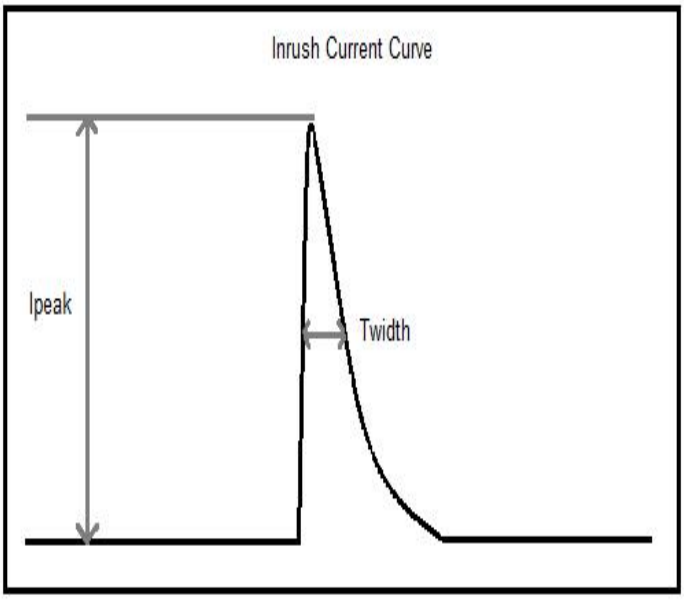
Others	IP Rating	IP20
	Warranty Condition	5 years (Tc ≤ 82 ℃)
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, 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)	6.3 A	Input voltage 230Vac
Surge half-peak time (Twidth)	150 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.	53 pcs	

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

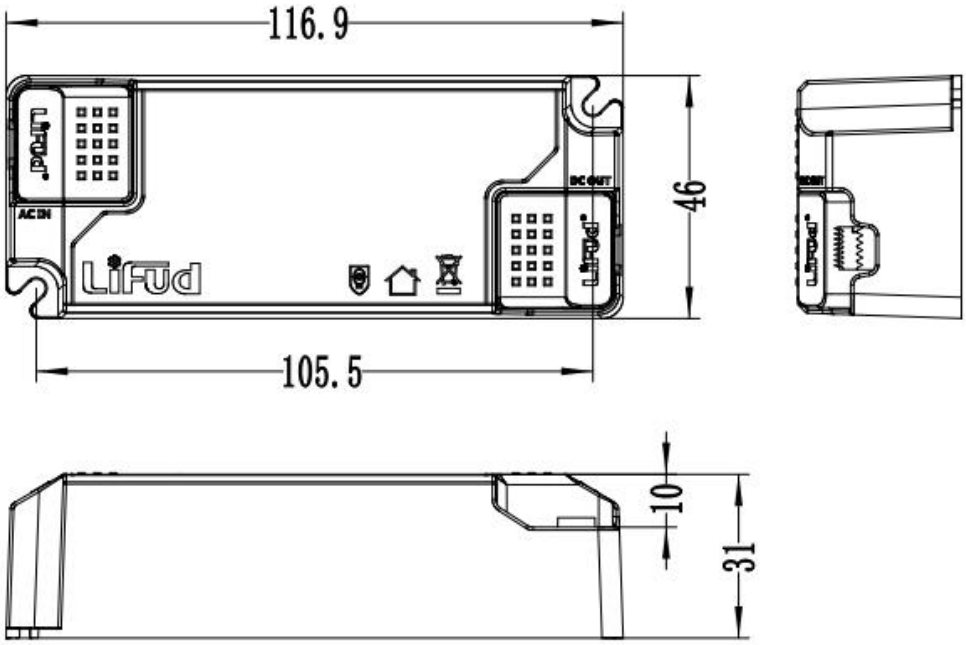
type	rank	relative driver quantities
B	10A	33 pcs
	13A	42 pcs
	16A	53 pcs
	20A	66 pcs
	25A	82 pcs
C	10A	55 pcs
	13A	71 pcs
	16A	89 pcs
	20A	110 pcs
	25A	137 pcs



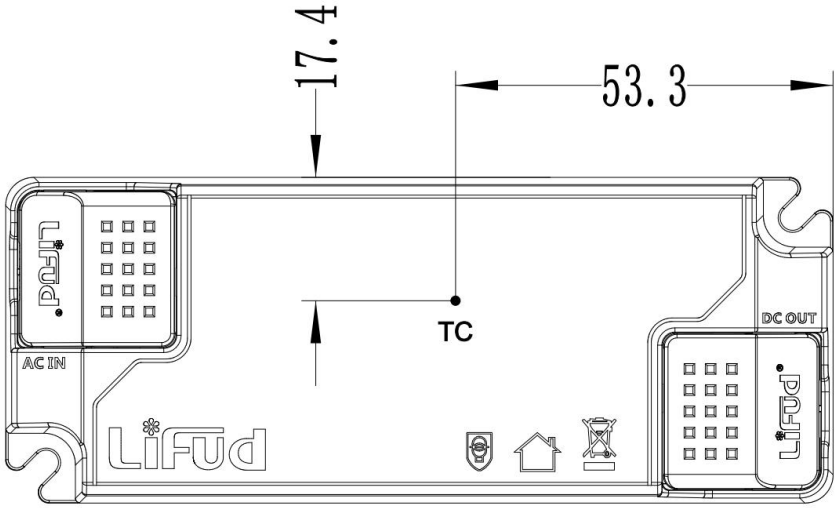
6. DIP Switch Table

DIP switch table				
Ta	Vo DC	Current	1	2
50℃	25-40V	400mA	—	—
		450mA	ON	—
		500mA	—	ON
		550mA	ON	ON

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



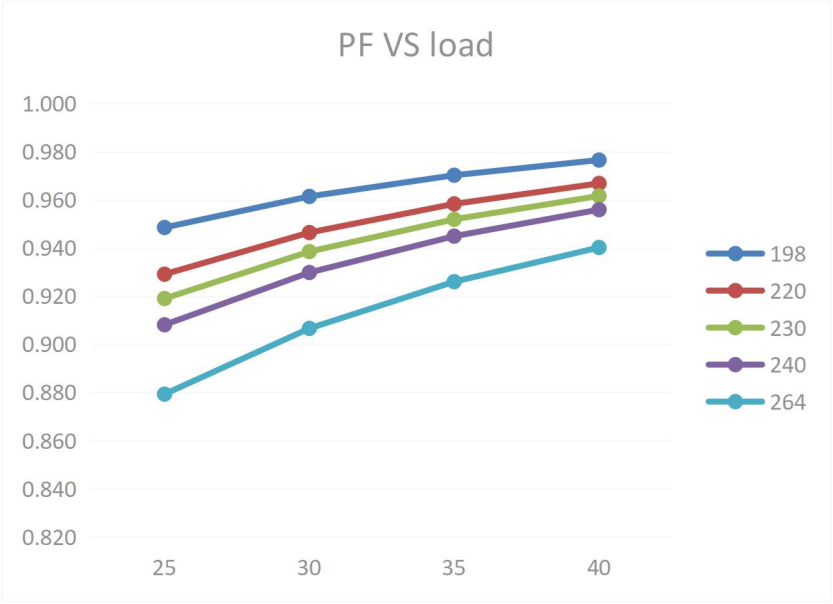
8. TC Spot (on the upper casing)

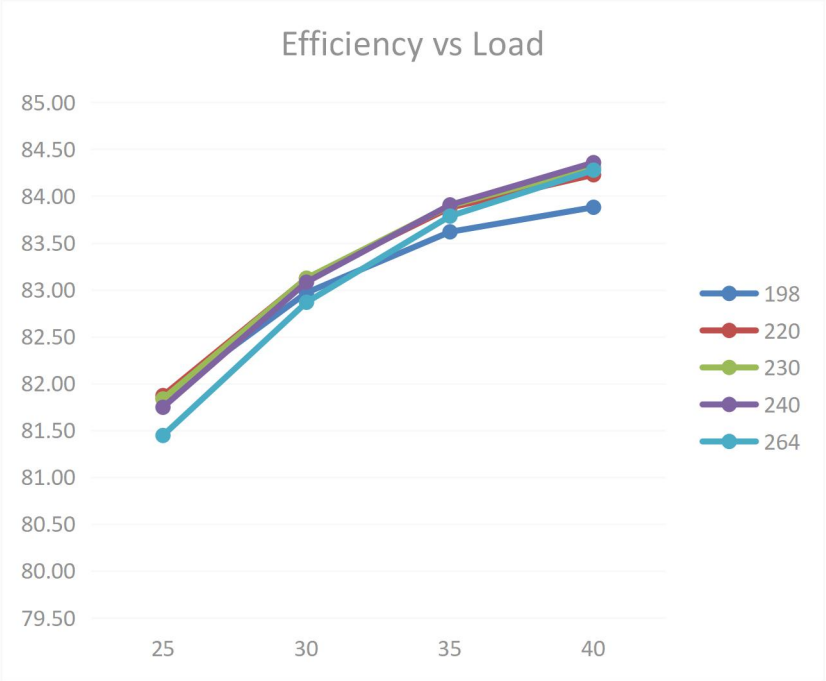


9. Packaging Specifications

LF-GDE020YG	
packaging dimensions	385*285*210mm (L*W*H)
quantities	12 pcs/layer; 72 pcs/ctn
weights	0.084 kg±5%/pc; 8.44 kg±5%/ctn

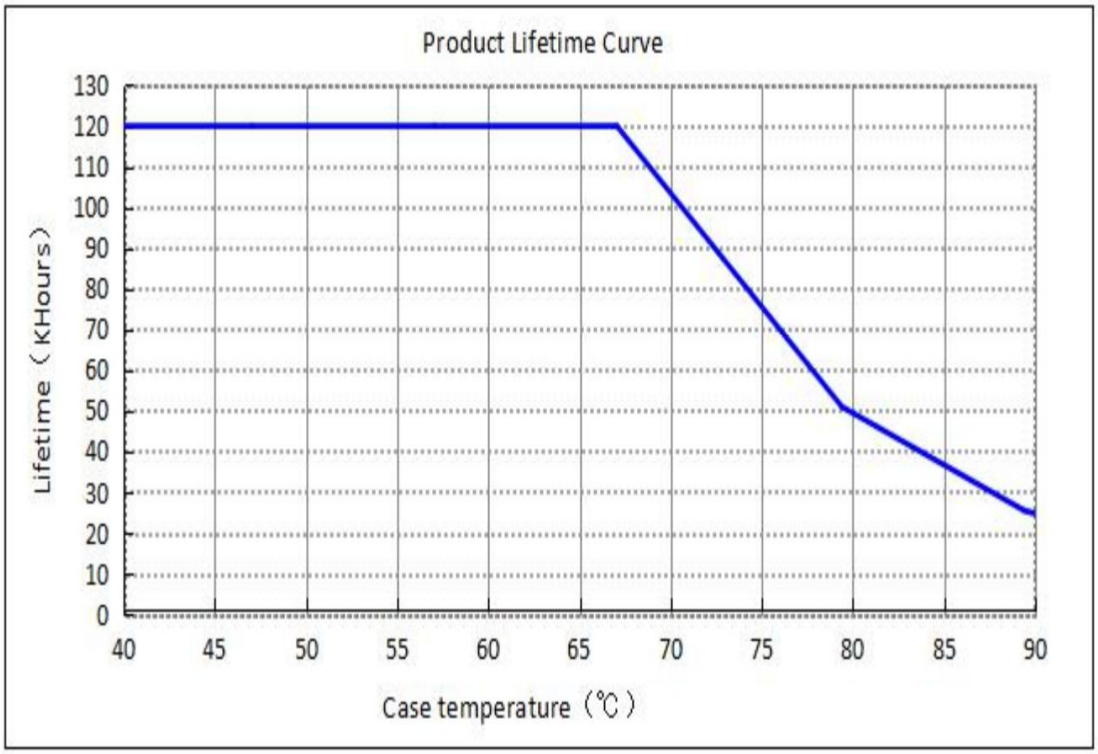
10. Product Feature Curves



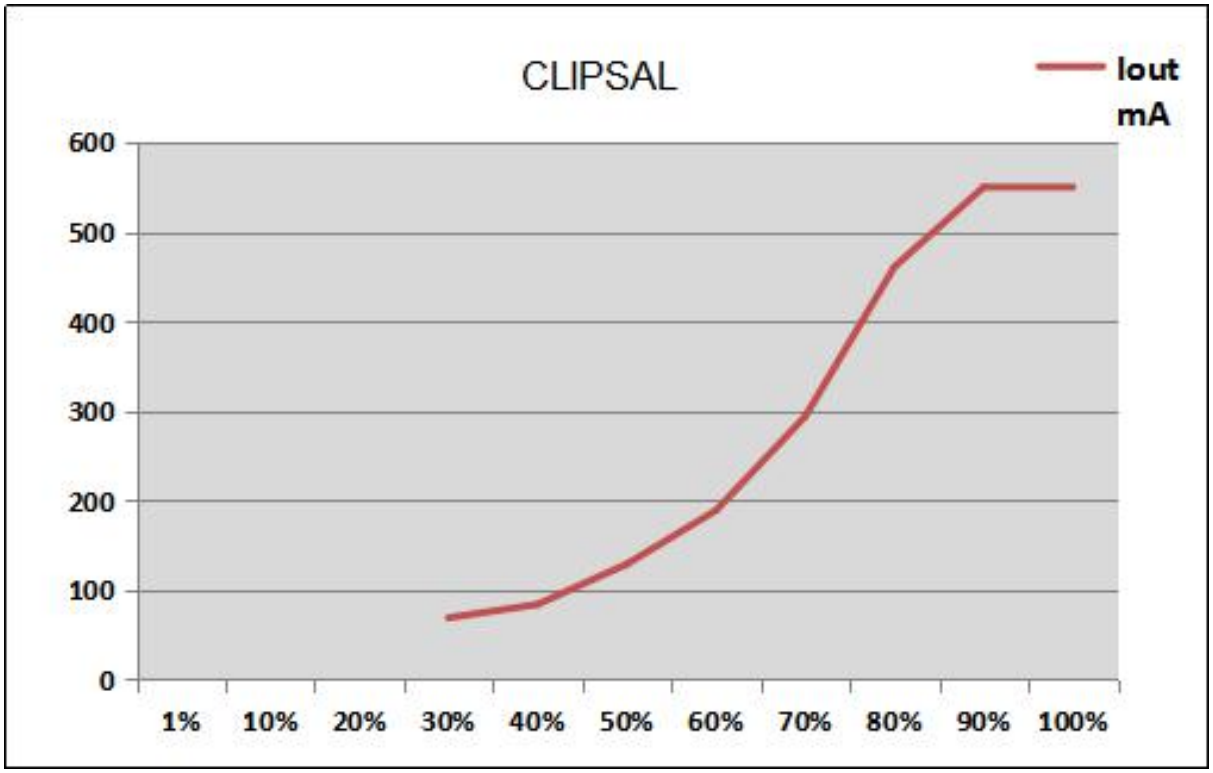


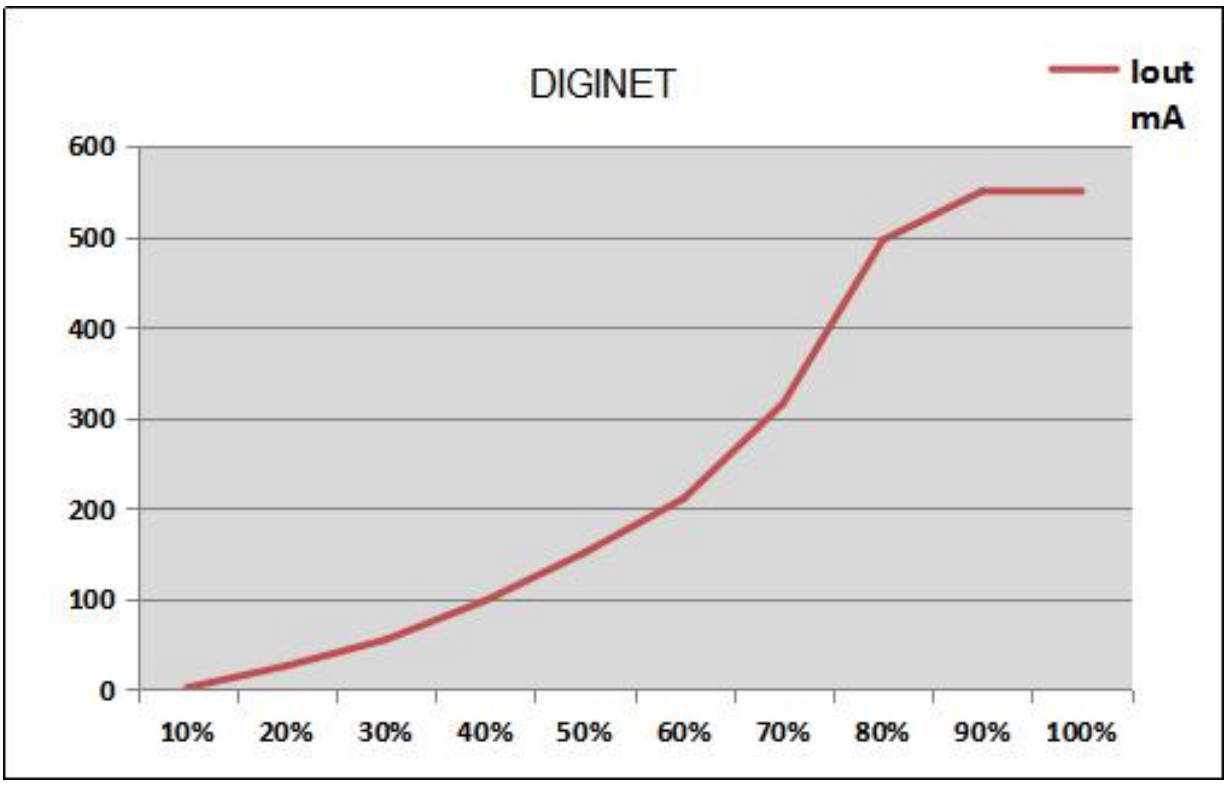
11. Lifetime Curve

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℃.



12. Dimming Curves





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

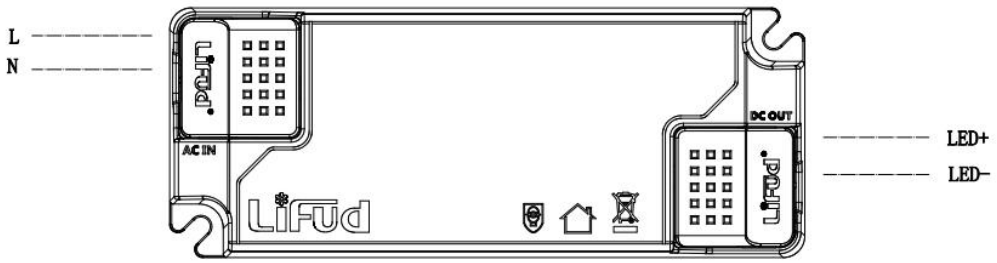
When starting up with a dimmer connected, there will be output current overshooting. The overshooting amplitude is shown as below. (Please choose proper LEDs according to their specifications. Feel free to contact LIFUD team for technical support.)

Output Voltage	Output Current			
	400mA	450mA	500mA	550mA
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 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.

13. Wiring diagram



14. Label

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