



SPECIFICATION FOR APPROVAL

Customer: _____

Product Material No.: _____

Model No.: _____ **LF-GIF022YA** _____

Version: _____ **V1.1** _____

Manufacturer: _____ **Sichuan Ledfriend Technology Co., Ltd** _____

Customer Approval

Tested by	Checked by	Approved by

Ledfriend Approval

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

The full model numbers required by customers

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

E.C. List

Version	Description of change	Engineer	Date
1.0	Original version	Lin Kaifan	2017-03-03
1.1	Warranty condition is updated.	Liao Xinggao	2017-04-05

Shenzhen Ledfriend Optoelectronics Co., Ltd

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Model	LF-GIF022YA	Series	AC220-240V & Flicker-Free
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1. Product description



Isolated LED driver for class II LED luminaire.

Category: AC220-240V, plastic case, flicker free

Properties: flicker coefficient $\leq 1\%$, simple structure, active PFC, high PF, high efficiency, low THD

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

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

Certificate: ENEC, TUV, CE, CB, RCM, SAA, CCC



2. Technical data

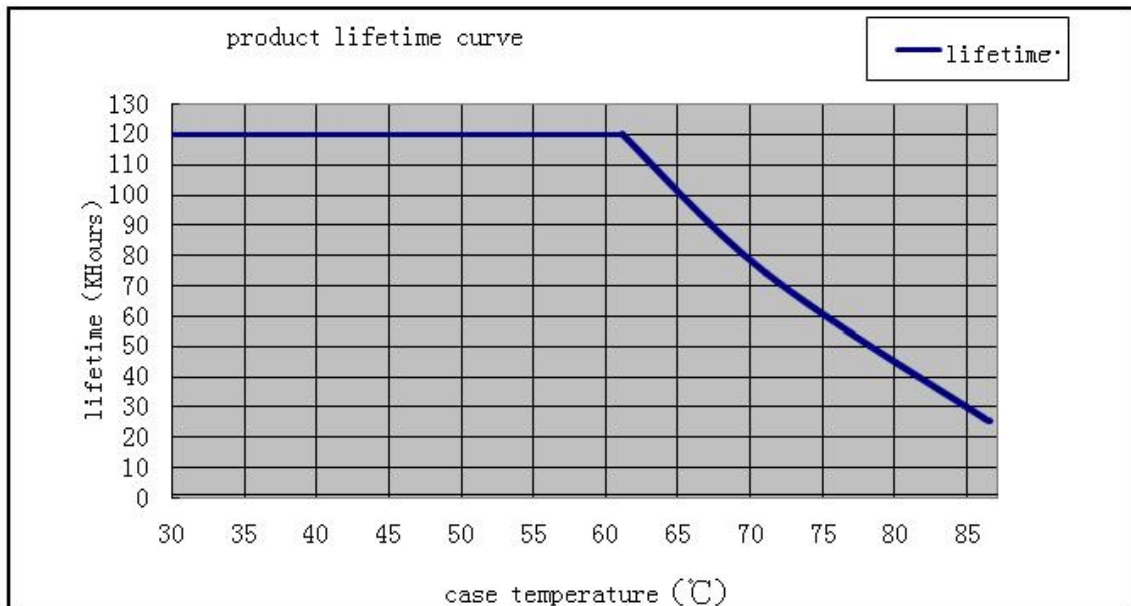
	Full model number	LF-GIF022YA0500H	LF-GIF022YA0450H	LF-GIF022YA0400H
Output	Output voltage	25-40Vdc		
	Output current	500mA	450mA	400mA
	Ripple voltage	< 1V		
	Current tolerance	$\pm 5\%$		
	Time to light	230Vac < 0.5S		
	Temperature drift	$\pm 10\%$		
	Line regulation	$\pm 5\%$		
Input	Line regulation	$\pm 5\%$		
	Rated input voltage	220-240 Vac (Max input voltage: 180-264Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.2A Max		
	Power Factor	$\geq 0.90/230\text{Vac}$		
	THD	$\leq 18\%$		
	Efficiency	$\geq 85\%/230\text{Vac}$	$\geq 85\%/230\text{Vac}$	$\geq 84\%/230\text{Vac}$
	In-rush current (peak /duration)	I<60A/350uS@230Vac		
Protective features	Typ. power input on stand-by	Pin $\leq 1\text{W}$		
	No-load	Max. output voltage (no-load voltage) 55Vdc		
Environment condition	Short-circuit	Hiccup mode (auto-recovery)		
	Working temperature	-30°C ~ +50°C		
	Working humidity	20-90%RH (no condensation)		
	Storage temperature/humidity	-40°C ~ +80°C (6 months under the class I environment); 10-90%RH (no condensation)		
Safety and norms	Atmospheric pressure	86-106KPa		
	Certifications	ENEC, TUV, CE, CB, RCM, SAA, CCC		
	Hi-pot test	I/P-O/P: 3.75KVdc, <5mA, 60S		
	Insulation resistance	I/P-O/P: 500VDC, >100M Ω		
	Surge level	Comply with IEC61000-4-5(L/N:1KV)		
	EMI	Comply with EN55015, EN61000-3-2.		
Others	EMS	Comply with EN61000-4-2,3,4,5,6,8,11; EN61547.		
	Packing (weight)	Net weight: 74.5g $\pm 5\%$ /pc; 84pcs/ctn; 6.86kg $\pm 5\%$ /ctn; Carton size: 39 x 29 x 21 cm (L*W*H).		
	IP level	IP20		
	Warranty condition	5 years (Max. case temperature must not exceed 75°C).		

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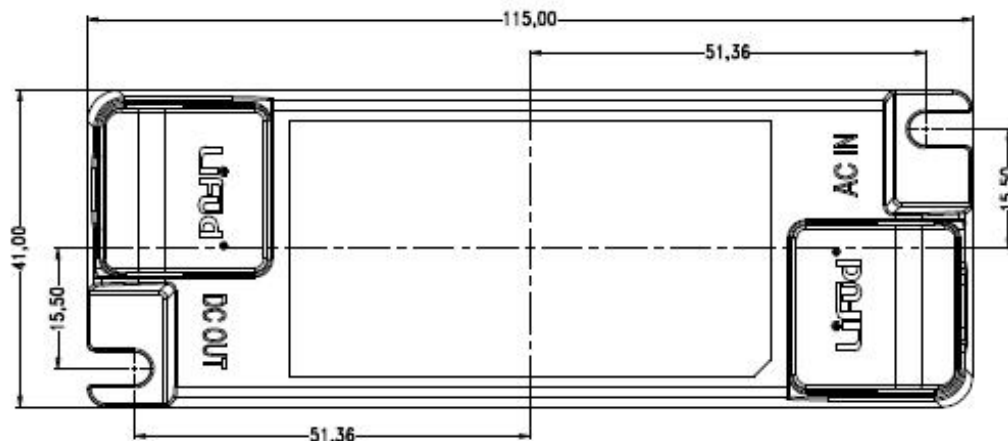
Testing equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, flicker-free tester (flicker-free coefficient tester) 60N-01, etc.
Test conditions	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25°C and humidity 50%, AC input 230V and 90% DC load.
Additional Remark	<ol style="list-style-type: none"> 1. In the power supply circuit, it is recommended that the customer should install an over-under-voltage protection and surge protection device to ensure the safety of using electricity. 2. The PC cover, shell, end caps used together with the LED driver inside the LED lamp must meet the UL94V-0 fire rating level or above. 3. As a part of the LED lamp, the LED driver is not the only factor determining the EMC performance of the LED lamp. And the EMC performance is also related to the LED lamp's structure and the wire routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.

3. Product Referenced Lifetime Curve

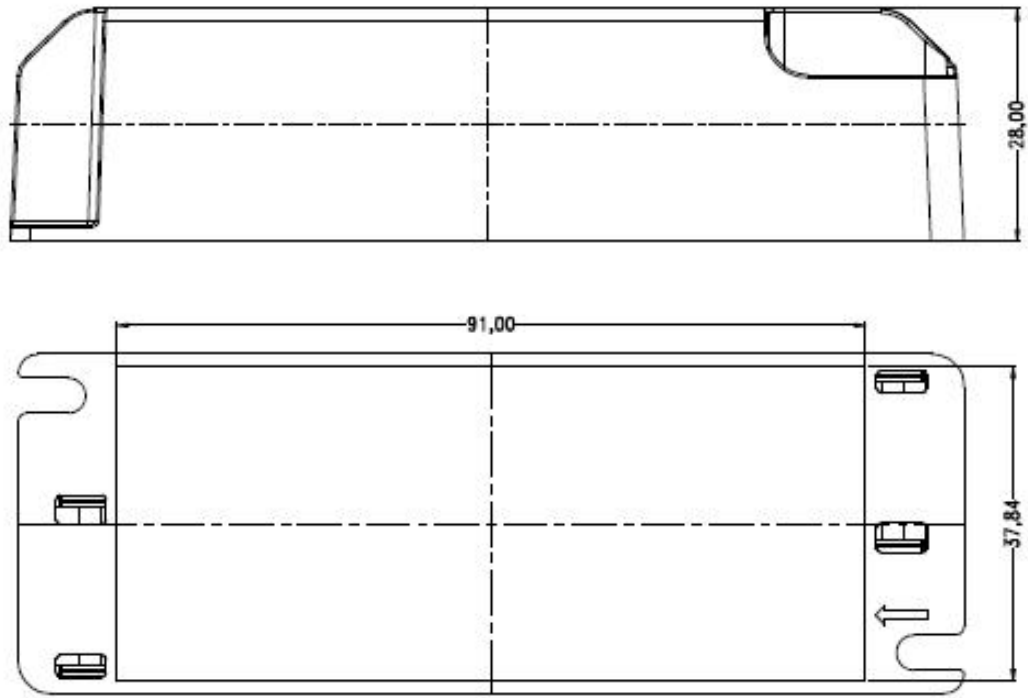
The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C, 80°C and 90°C.



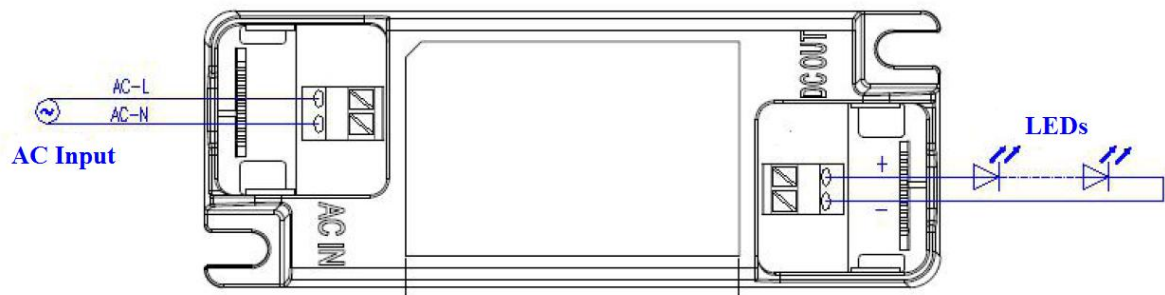
4. Dimensional Drawing (unit: mm)



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5. Wire Connection Diagram:



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