

## SPECIFICATION FOR APPROVAL

**Customer:** \_\_\_\_\_

**Product Material No.:** \_\_\_\_\_

**Model No.** \_\_\_\_\_ **LF-GIR013YS** \_\_\_\_\_

**Version :** \_\_\_\_\_ **V1.0** \_\_\_\_\_

**Manufacturer:** \_\_\_\_\_ **Sichuan Ledfriend Technology Co., Ltd** \_\_\_\_\_

### Customer Approval

Tested by	Checked by	Approved by

### Ledfriend Approval

Tested by	Checked by	Approved by
Zhu Nengwu	Zhou Zhiqiang	Zhou Xiaoliao

### 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
V1.0	Original release	Huang Chao	2016-08-23

Shenzhen Ledfriend Optoelectronics Co., Ltd  
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Bao'an District, Shenzhen www.lifud.com, China service hotline: 400-096-6815 (China  
technical support: 13410244507)

Scan the code below and read the electronic brochure online.



<b>Model</b>	LF-GIR013YS	<b>Series</b>	flicker-free AC220-240V plastic case
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## 1. Product description



Isolated LED driver suitable for class II LED luminaires.

Category: flicker-free AC220-240V plastic case series.

Product properties: high price performance ratio, flicker coefficient<1%.

Application: commercial, residential and decorative lighting.

Warranty: 3 years (please refer to the warranty condition).

### Certifications:



## 2. Technical data (1)

	Full model number	LF-GIR013YS0220H	LF-GIR013YS0250H	LF-GIR013YS0280H
<b>Output</b>	Output voltage	25-42VDC		
	Output current	220mA	250mA	280mA
	Ripple voltage	<1V		
	Current tolerance	±5%		
	Time to light	230Vac <0.5S		
	Temperature drift	±10%		
	Line regulation	±5%		
<b>Input</b>	Line regulation	±5%		
	Rated input voltage	220-240 Vac (Max input voltage: 180-264Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.15A Max		
	Power factor	≥0.5/230Vac	≥0.5/230Vac	≥0.5/230Vac
	THD	/	/	/
	Efficiency	≥79%/230Vac	≥80%/230Vac	≥80%/230Vac
<b>Protective features</b>	In-rush current (peak /duration)	I<60A/350uS@230Vac		
	Typ. power input on stand-by	Pin<1W		
<b>Protective features</b>	No-load	Max. output voltage (no-load voltage) 80V		
	Short-circuit	Hiccup mode (auto-recovery)		
<b>Environment condition</b>	Working temperature	-30℃ - +50℃		
	Working humidity	20-90%RH (no condensation)		
	Storage temperature/humidity	-40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation)		
	Atmospheric pressure	86-106KPa		
<b>Safety and norms</b>	Certifications	TUV, RCM, CE, CCC		
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S		
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ		
	Surge level	Comply with IEC61000-4-5(L/N: 1KV)		
	EMI	Comply with EN55015, EN61000-3-2.		
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.		
<b>Others</b>	Packing (weight)	Net weight:52g±5%/pc;160pcs/carton; 10KG±5%/carton. Carton size:39x29 x21cm		
	IP level	IP20		
	Warranty condition	3 years (Max. case temperature must not exceed 80℃).		
<b>Testing equipments</b>	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.			
<b>Test conditions</b>	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% DC load.			
<b>Additional Remark</b>	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			

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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.

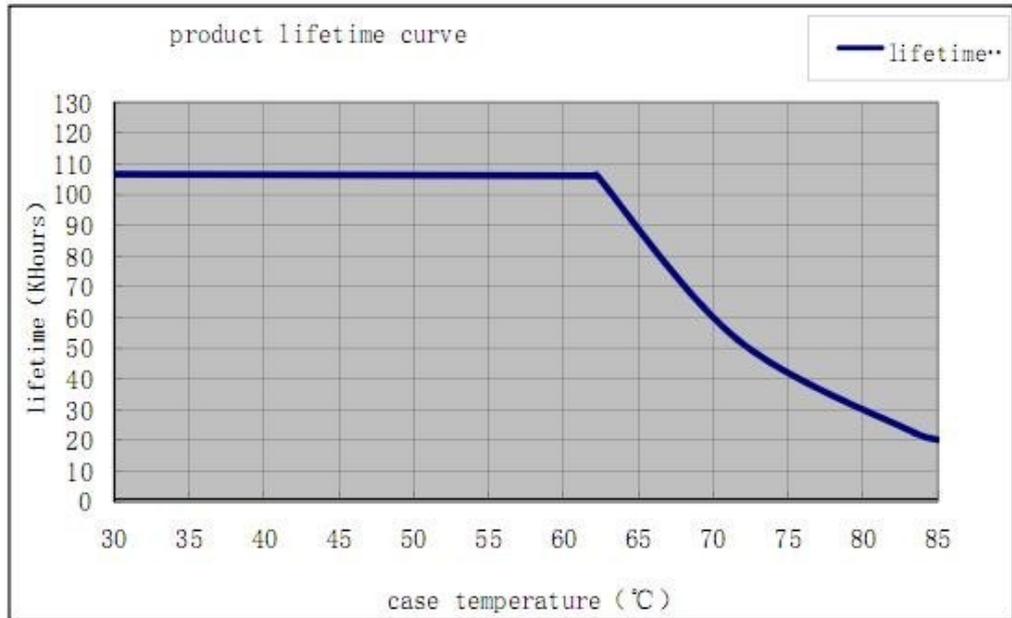
## Technical data (2)

	Full model number	LF-GIR013YS0300H	LF-GIR013YS0320H	LF-GIR013YS0350H
<b>Output</b>	Output voltage	27-42VDC	25-38VDC	25-38VDC
	Output current	300mA	320mA	350mA
	Ripple voltage	<1V		
	Current tolerance	±5%		
	Time to light	230Vac <0.5S		
	Temperature drift	±10%		
	Line regulation	±5%		
<b>Input</b>	Line regulation	±5%		
	Rated input voltage	220-240 Vac (Max input voltage: 180-264Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.15A Max		
	Power factor	≥0.5/230Vac	≥0.5/230Vac	≥0.5/230Vac
	THD	/	/	/
	Efficiency	≥80%/230Vac	≥81%/230Vac	≥81%/230Vac
	In-rush current (peak /duration)	I<60A/350uS@230Vac		
Typ. power input on stand-by	Pin<1W			
<b>Protective features</b>	No-load	Max. output voltage (no-load voltage) 80V		
	Short-circuit	Hiccup mode (auto-recovery)		
<b>Environment condition</b>	Working temperature	-30℃ - +50℃		
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	Insulation resistance	I/P-O/P: 500VDC, >100MΩ		
	Surge level	Comply with IEC61000-4-5(L/N: 1KV)		
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	IP level	IP20		
	Warranty condition	3 years (Max. case temperature must not exceed 80℃).		
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<b>Test conditions</b>	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% DC load.			
<b>Additional Remark</b>	<p>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.</p> <p>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.</p> <p>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.</p>			

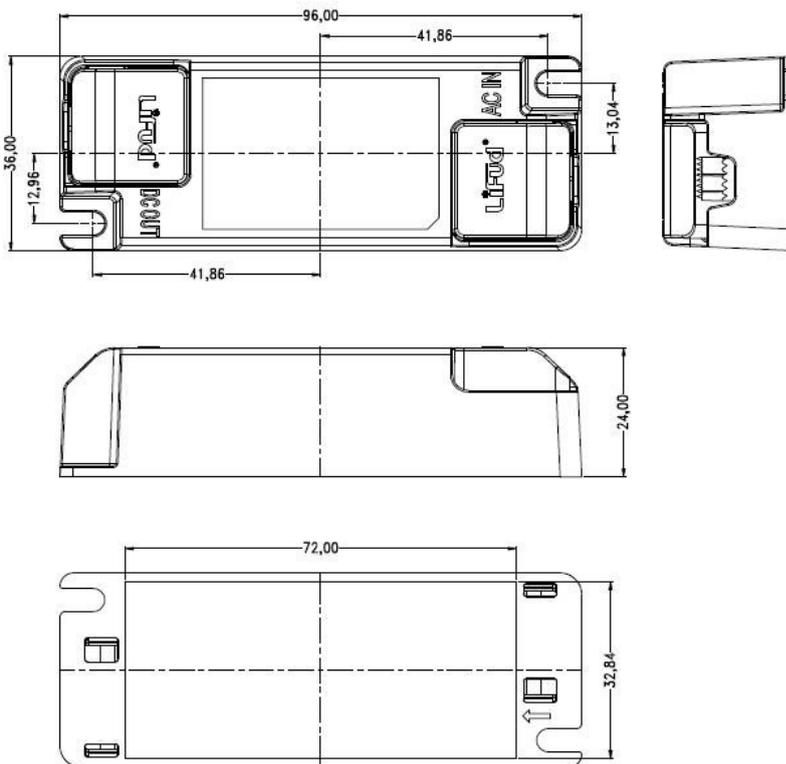
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### 3. Product Referenced Lifetime Curve

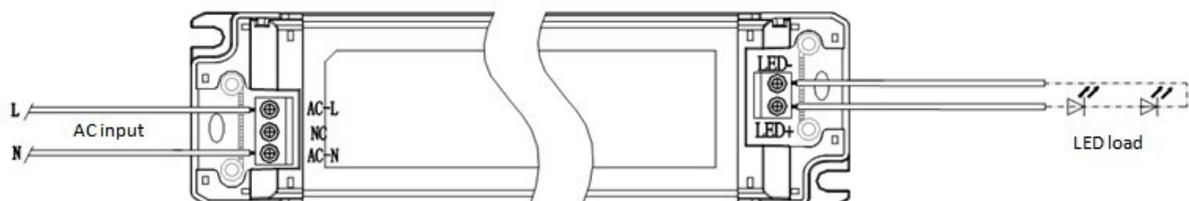
The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C and 80°C.



### 4. Dimensional Drawing (unit: mm)



### 5. Wire Connection Diagram:



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