

SPECIFICATION FOR APPROVAL

Customer: _____

Product Material No. : _____

Model No. _____ **LF-GIR022YS** _____

Version : _____ **V3.1** _____

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

Customer Approval

Tested by	Checked by	Approved by

Ledfriend Approval

Tested by	Checked by	Approved by

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
3.0	original release	Tian Qiao	2015-10-22
3.1	ENEC added	Tian Qiao	2016-6-2

Shenzhen Ledfriend Optoelectronics Co., Ltd.
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 Shenzhen, China 518126
 www.lifud.com, China service hotline: 400-096-6815 (China technical support: 13410244507)

Model	LF-GIR022YS	Series	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: passive PFC, high PF, high efficiency, low THD, flicker-free.

Application: commercial, residential and decorative lighting.

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

Certifications:



2. Technical data (1)

	Full model number	LF-GIR022YS 0350H	LF-GIR022YS 0400H	LF-GIR022YS 0450H	LF-GIR022YS 0500H	LF-GIR022YS 0550H	
Output	Output voltage	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC	
	Output current	350mA	400mA	450mA	500mA	550mA	
	Ripple voltage	<1V					
	Current tolerance	±5%					
	Time to light	230Vac <0.5S					
	Temperature drift	±10%					
	Output Line regulation	±5%					
Input	Input Line regulation	±5%					
	Rated input voltage	220-240 Vac (Max input voltage: 198-264Vac)					
	Frequency	47Hz-63Hz					
	Input current	0.2A Max					
	Power factor	≥0.94/230Vac	≥0.94/230Vac	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac	
	THD	≤20%	≤20%	≤20%	≤20%	≤20%	
	Efficiency	≥85%/230Vac	≥85%/230Vac	≥85%/230Vac	≥86%/230Vac	≥86%/230Vac	
	In-rush current (peak /duration)	I<60A/350uS@230Vac					
Protective features	Typ. power input on stand-by	Pin<1W					
	No-load	Max. output voltage (no-load voltage) 55V					
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_GS, CE, CB, RCM, SAA, 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.					
Others	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.					
	Packing (weight)	Net weight: 80g±5%/pc; 84pcs/carton; 7.6KG±5%/carton. Carton size: 39 x 29 x 21 cm (L x WxH).					
	IP level	IP20					
Testing equipment	Warranty condition	5 years (Max. case temperature must not exceed 70°C).					
		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, spectrometer: 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% output load.						
Additional Remark	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						

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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.

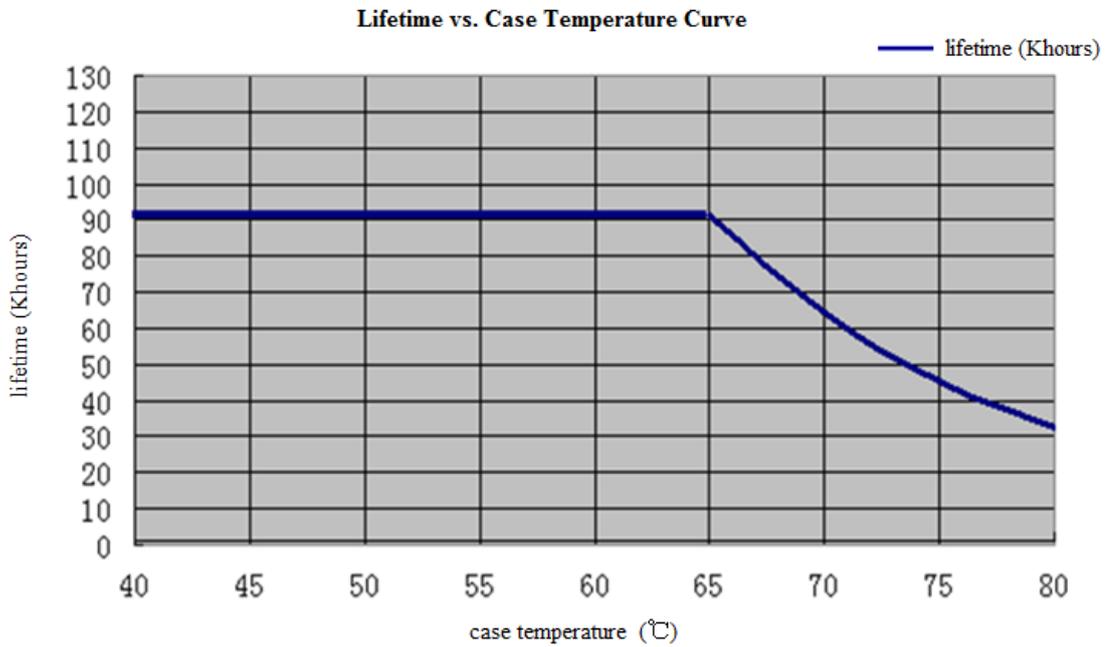
Technical data (2)

	Full model number	LF-GIR022YS0600H	LF-GIR022YS0650H	
Output	Output voltage	18-33 VDC	18-31 VDC	
	Output current	600mA	650mA	
	Ripple voltage	<1V		
	Current tolerance	±5%		
	Time to light	230Vac <0.5S		
	Temperature drift	±10%		
	Output Line regulation	±5%		
Input	Input Line regulation	±5%		
	Rated input voltage	220-240 Vac (Max input voltage: 198-264Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.2A Max		
	Power factor	≥0.94/230Vac	≥0.94/230Vac	
	THD	≤20%		
	Efficiency	≥84%/230Vac	≥84%/230Vac	
	In-rush current (peak /duration)	I<60A/350uS@230Vac		
	Typ. power input on stand-by	Pin<1W		
Protective features	No-load	Max. output voltage (no-load voltage) 40V		
	Short-circuit	Hiccup mode (auto-recovery)		
Environment condition	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)		
	Atmospheric pressure	86-106KPa		
Safety and norms	Certifications	ENEC, TUV_GS, CE, CB, RCM, SAA, 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.		
Others	Packing (weight)	Net weight: 80g±5%/pc; 84pcs/carton; 7.7KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).		
	IP level	IP20		
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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% output load.			
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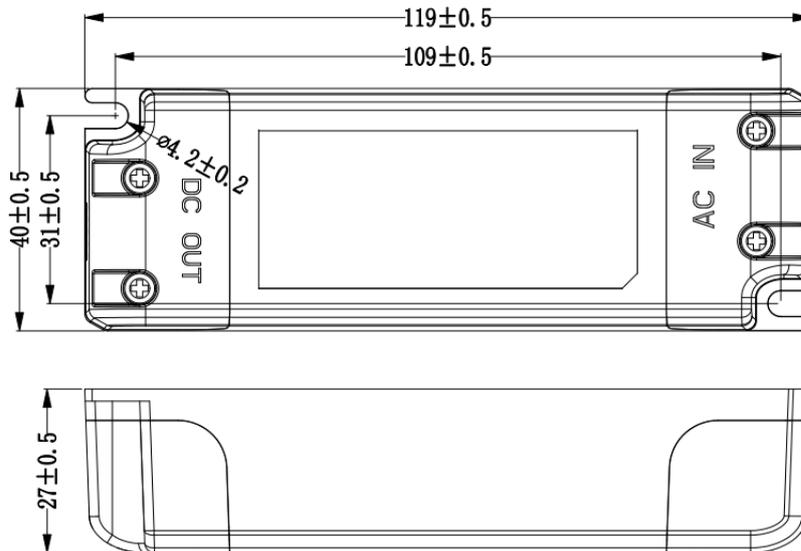
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3. Product Referenced Lifetime Curve

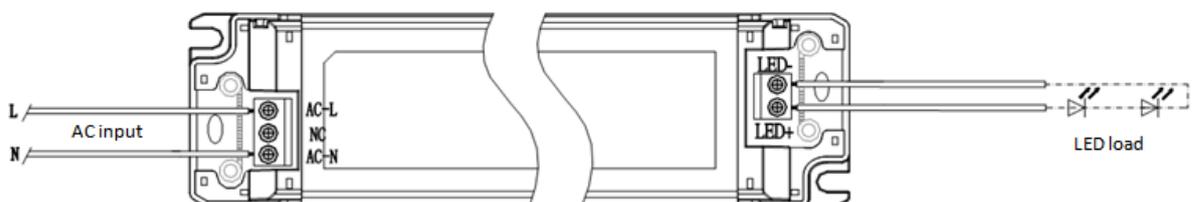
The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C and 80°C.



4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram:



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