

SPECIFICATION FOR APPROVAL

Customer: _____

Product Material No. : _____

Model No. _____ **LF-GIR030YM** _____

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

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 release	Li Long	2016-7-12

Shenzhen Ledfriend Optoelectronics Co., Ltd.
4&5/F, Bldg 14A, Taihua Wutong Island, Gushu Development Zone, Xixiang Street, Bao'an District,
Shenzhen, China 518126
www.lifud.com, China service hotline: 400-096-6815 (China technical support: 13410244507)

Model	LF-GIR030YM	Series	AC220-240V typical plastic case series
--------------	-------------	---------------	--

1. Product description



Isolated LED driver suitable for class II LED luminaires.

Category: typical AC220-240V plastic case series.

Product properties: active PFC, high performance, high efficiency, low THD.

Application: commercial, residential and decorative lighting.

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

Certifications:



2. Technical data (1)

Full model no.	LF-GIR030YM 0500H	LF-GIR030YM 0550H	LF-GIR030YM 0600H	LF-GIR030YM 0650H	
Output	Output voltage	25-42VDC			
	Output current	500mA	550mA	600mA	650mA
	Ripple voltage	<4V			
	Current tolerance	±5%			
	Time to light	230Vac<0.5S			
	Temperature drift	±10%			
	Output line regulation	±5%			
Input	Input line regulation	±5%			
	Input voltage	220-240Vac (Max input voltage: 180-264Vac)			
	Frequency	47Hz-63Hz			
	Input current	0.25A Max			
	Power factor	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac	≥0.95/230Vac
	THD	≤20%	≤20%	≤20%	≤20%
	Efficiency	≥87%/230Vac	≥87%/230Vac	≥88%/230Vac	≥88%/230Vac
	In-rush current (peak/duration)	<60A/300uS@230Vac			
Typ. power input on stand-by	<1W				
Protective features	No-load	Max. input voltage (no-load voltage) < 55VDC			
	Short-circuit	Hiccup mode (auto-recovery)			
Environment condition	Operating temperature	-30℃ ~ +50℃			
	Operating 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			
Safety and norms	Certifications	TUV, CE, CB, RCM			
	Hi-pot test	I/P-O/P:3.75KVac,<5mA,60S			
	Insulation resistance	I/P-O/P:500Vac,>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: 90g±5%/pc; 98pcs/carton; 9.0KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).			
	IP level	IP20			
	Warranty condition	3 year (Max. Case temperature must not exceed 90℃)			
Testing equipments	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 coefficient tester) 60N-01, etc.				
Test condition	The parameters above including the power factor, THD, efficiency are tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% DC load.				
Addition 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 UL94-V0 fire rating level or above. 3. As a part of 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 wiring routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps. 				

Model	LF-GIR030YM	Series	AC220-240V typical plastic case series
--------------	-------------	---------------	--

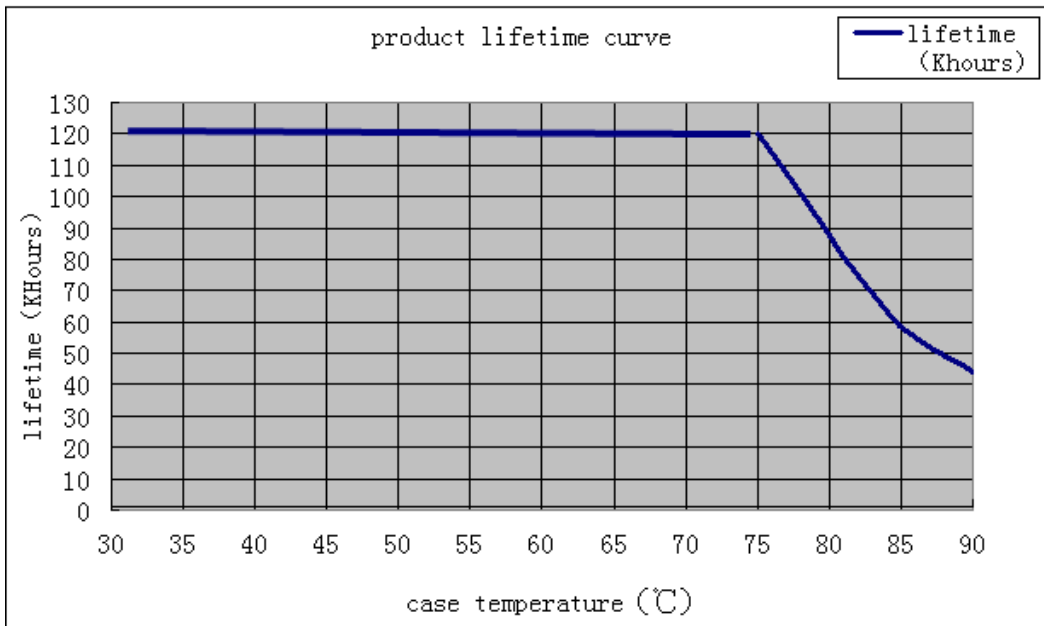
Technical data (2)

	Full model no.	LF-GIR030YM 0700H	LF-GIR030YM 0750H
Output	Output voltage	25-42VDC	
	Output current	700mA	750mA
	Ripple voltage	<4V	
	Current tolerance	±5%	
	Time to light	230Vac<0.5S	
	Temperature drift	±10%	
	Line regulation	±5%	
Input	Line regulation	±5%	
	Input voltage	220-240Vac (Max input voltage: 180-264Vac)	
	Frequency	47Hz-63Hz	
	Input current	0.3A Max	
	Power factor	≥0.95/230Vac	≥0.95/230Vac
	THD	≤20%	≤20%
	Efficiency	≥88%/230Vac	≥88%/230Vac
	In-rush current (peak/duration)	<60A/300uS@230Vac	
	Typ. power input on stand-by	<1W	
Protective features	No-load	Max. input voltage (no-load voltage) < 55VDC	
	Short-circuit	Hiccup mode (auto-recovery)	
Environment condition	Operating temperature	-30℃ ~+50℃	
	Operating 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	
Safety and norms	Certifications	TUV, CE, CB, RCM	
	Hi-pot test	I/P-O/P:3.75K Vac,<5mA,60S	
	Insulation resistance	I/P-O/P:500Vac,>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: 90g±5%/pc; 98pcs/carton; 9.0KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).	
	IP level	IP20	
	Warranty condition	3 year (Max. Case temperature must not exceed 90℃)	
Testing equipments	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 coefficient tester) 60N-01, etc.		
Test condition	The parameters above including the power factor, THD, efficiency are tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% DC load.		
Addition remark	<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 UL94-V0 fire rating level or above.</p> <p>3. As a part of 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 wiring routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.</p>		

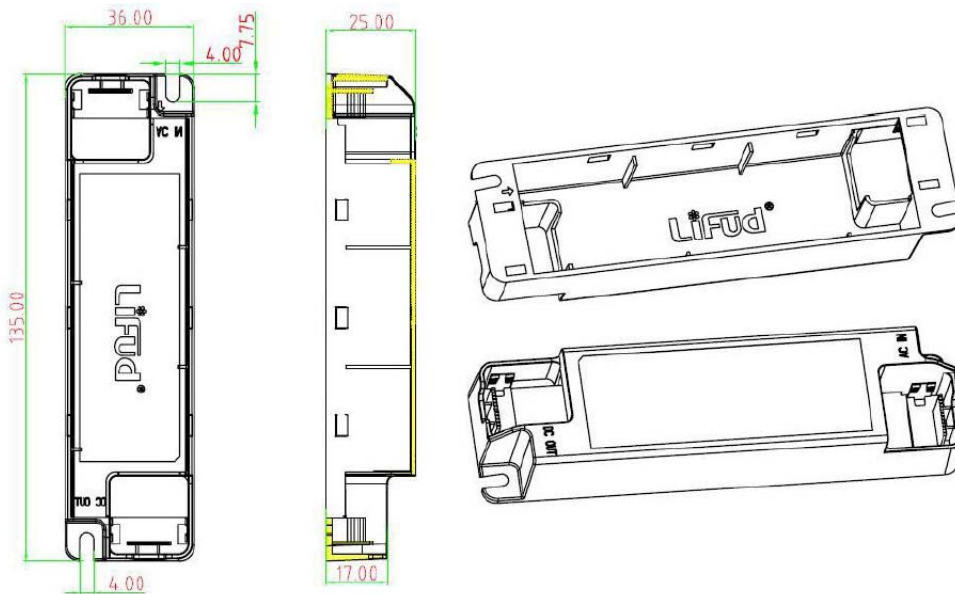
Model	LF-GIR030YM	Series	AC220-240V typical plastic case series
-------	-------------	--------	--

3. Product Reference 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, 85°C, 90°C.



4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram



Model	LF-GIR030YM	Series	AC220-240V typical plastic case series
-------	-------------	--------	--