

SPECIFICATION FOR APPROVAL

Customer: _____

Product Material No. : _____

Model No. _____ **LF-GIR040YS** _____

Version : _____ **V3.2** _____

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	Zhu Yandong	2015-11-6
3.1	ENEC added	Tian Qiao	2016-6-2
3.2	Revised warranty condition	Zhu Yandong	2016-8-1

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 Shenzhen, China 518126
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Model	LF-GIR040YS	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-GIR040YS 0800H	LF-GIR040YS 0850H	LF-GIR040YS 0900H	LF-GIR040YS 0950H
Output	Output voltage	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC
	Output current	800mA	850mA	900mA	950mA
	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	0.3A Max			
	Power factor	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac
	THD	≤20%			
	Efficiency	≥89%/230Vac	≥89%/230Vac	≥89%/230Vac	≥89%/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) 55V			
	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: 130g±5%/pc; 66pcs/carton; 9.5KG±5%/carton. Carton size: 39 x 29 x 21 cm (L x W x H).			
	IP level	IP20			
	Warranty condition	5 years (Max. case temperature must not exceed 70°C).			
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.				
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.				

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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-GIR040YS 1000H	LF-GIR040YS 1050H	LF-GIR040YS 0600H	LF-GIR040YS 0650H
Output	Output voltage	27-42 VDC	27-42 VDC	40-55 VDC	40-55 VDC
	Output current	1000mA	1050mA	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	0.3A Max			
	Power factor	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac
	THD	≤20%			
	Efficiency	≥89%/230Vac	≥89%/230Vac	≥89%/230Vac	≥89%/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) 55V	Max. output voltage (no-load voltage) 70V		
	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: 130g±5%/pc; 66pcs/carton; 9.5KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).			
	IP level	IP20			
	Warranty condition	5 years (Max. case temperature must not exceed 70°C).			
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-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 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.				

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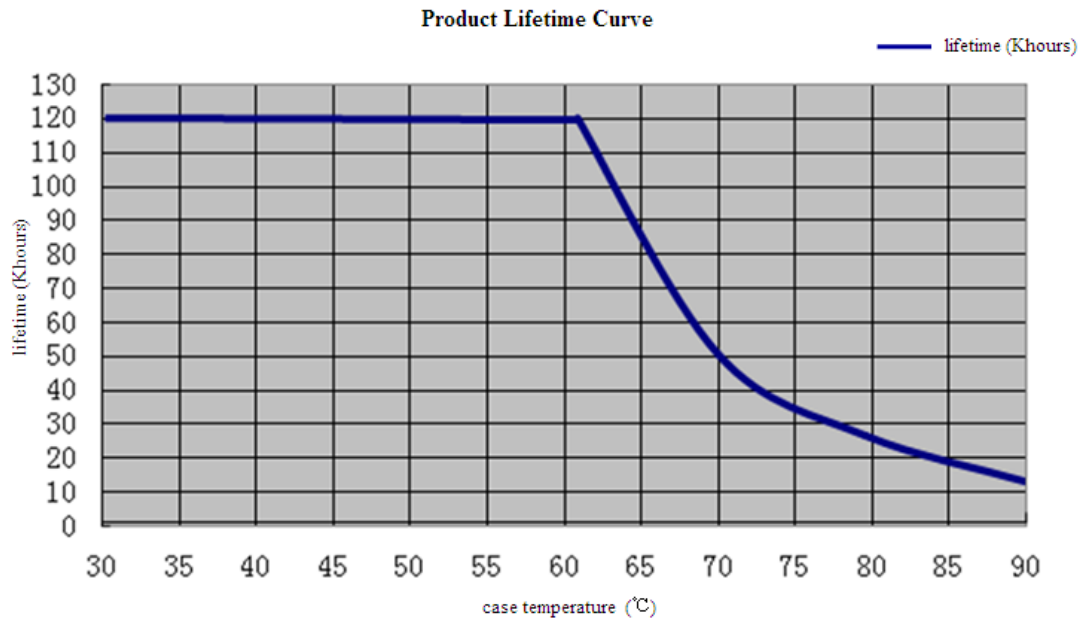
Technical data (3)

	Full model number	LF-GIR040YS 0700H	LF-GIR040YS 0750H	LF-GIR040YS 0500H	LF-GIR040YS 0595H
Output	Output voltage	40-55 VDC	40-55 VDC	50-65 VDC	50-65 VDC
	Output current	700mA	750mA	500mA	595mA
	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	0.3A Max			
	Power factor	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac	≥0.90/230Vac
	THD	≤20%			
	Efficiency	≥89%/230Vac	≥89%/230Vac	≥89%/230Vac	≥89%/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) 70V		Max. output voltage (no-load voltage) 85V	
	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: 130g±5%/pc; 66pcs/carton; 9.5KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).			
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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 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.				

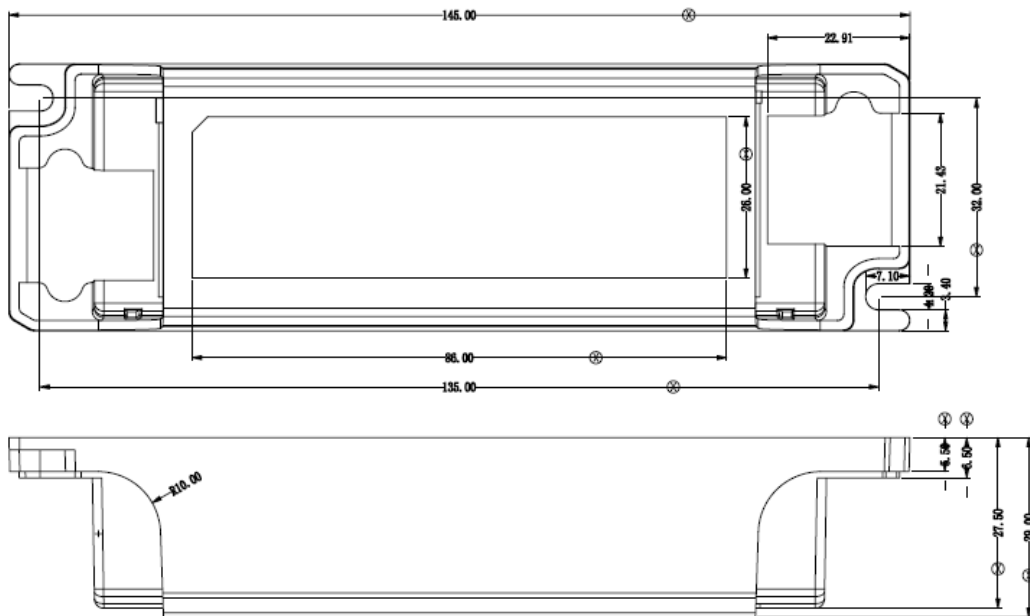
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3. Product Referenced Lifetime Curve

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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