

SPECIFICATION FOR APPROVAL**Customer:** _____**Product Material No. :** _____**Model No.** _____ **LF-GIR040YM** _____**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	2016-5-30

Shenzhen Ledfriend Optoelectronics Co., Ltd.
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Model	LF-GIR040YM	Series	AC220-240V typical plastic case series
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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: 5 years (please refer to the warranty condition).

Certifications:



2. Technical data (1)

	Full model number	LF-GIR040YM 0800H	LF-GIR040YM 0850H	LF-GIR040YM 0900H	LF-GIR040YM 0950H
Output	Output voltage	25-42 VDC			
	Output current	800mA	850mA	900mA	950mA
	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	220-240 Vac, (Max input voltage: 180-264Vac)			
	Frequency	47Hz-63Hz			
	Input current	0.3A Max			
	Power factor	≥0.94/230Vac	≥0.94/230Vac	≥0.94/230Vac	≥0.94/230Vac
	THD	≤20%			
	Efficiency	≥88%/230Vac	≥88%/230Vac	≥88%/230Vac	≥88%/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	TUV, RCM, CE, CB			
	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: 90g±5%/pc; 98pcs/carton; 9.0KG±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 80°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. 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 (2)

	Full model number	LF-GIR040YM1000H	LF-GIR040YM1050H
Output	Output voltage	25-42 VDC	25-40 VDC
	Output current	1000mA	1050mA
	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	220-240 Vac, (Max input voltage: 180-264Vac)	
	Frequency	47Hz-63Hz	
	Input current	0.3A Max	
	Power factor	≥0.94/230Vac	≥0.94/230Vac
	THD	≤20%	
	Efficiency	≥88%/230Vac	≥88%/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	TUV, RCM, CE, CB	
	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: 90g±5%/pc; 98pcs/carton; 9.0KG±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 80°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. 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 (3)

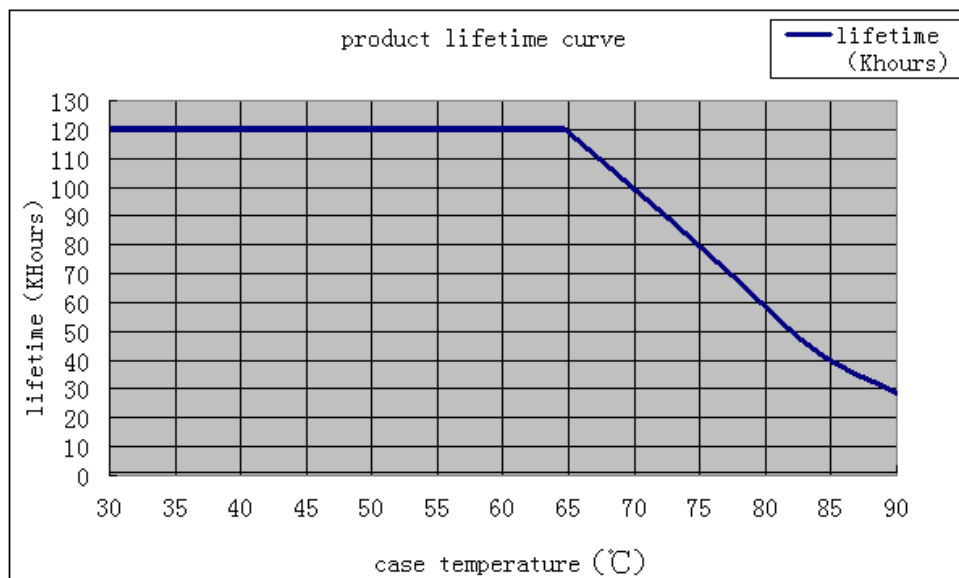
	Full model number	LF-GIR040YM0600H	LF-GIR040YM0650H	LF-GIR040YM0700H	LF-GIR040YM0750H
Output	Output voltage	40-55 VDC			
	Output current	600mA	650mA	700mA	750mA
	Ripple voltage	≤4V			
	Current tolerance	±5%			
	Time to light	230Vac <0.5S			
	Temperature drift	±10%			
	Output Line regulation	±5%			
Input	Input Line regulation	±5%			
	Input voltage	220-240 Vac, (Max input voltage: 180-264Vac)			

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	Frequency	47Hz-63Hz			
	Input current	0.3A Max			
	Power factor	≥0.94/230Vac	≥0.94/230Vac	≥0.94/230Vac	≥0.94/230Vac
	THD	≤20%			
	Efficiency	≥88%/230Vac	≥88%/230Vac	≥88%/230Vac	≥88%/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			
	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	TUV, RCM, CE, CB			
	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: 90g±5%/pc; 98pcs/carton; 9.0KG±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 80°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. 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.				

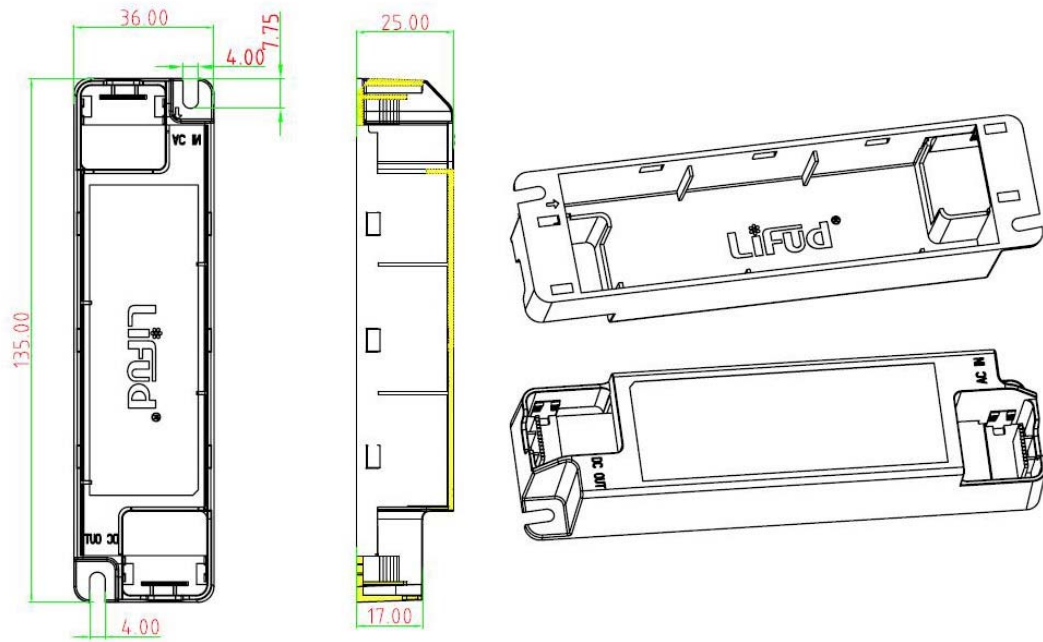
3. Product Referenced Lifetime Curve

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, 90°C.



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4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram:



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