

1. Product description



Electric type: isolated LED driver suitable for class II light fixtures

Category: typical AC100-277V plastic case series

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

Application: commercial, indoor office, residential and decorative lighting.

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

Certifications:



2. Electrical specifications

	Full model number	LF-GIR040YK0800U	LF-GIR040YK0850U	LF-GIR040YK0900U	LF-GIR040YK0950U	LF-GIR040YK1000U	LF-GIR040YK1050U
Output	Output voltage	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC	27-42 VDC
	Output current	800mA	850mA	900mA	950mA	1000mA	1050mA
	Ripple voltage	<5V					
	Current tolerance	±5%					
	Start-up time	100Vac <1S, 230Vac <0.5S, 277Vac <0.5S					
	Temperature drift	±10%					
	Output linear adjustment rate	±5%					
Input	Input linear adjustment rate	±5%					
	Input voltage	100-240Vac, 277Vac (voltage limit: 90-305Vac)					
	Frequency	50/60Hz					
	Input current	0.7A Max					
	Power factor	≥0.97/100Vac	≥0.97/100Vac	≥0.97/100Vac	≥0.97/100Vac	≥0.97/100Vac	≥0.97/100Vac
		≥0.93/230Vac	≥0.94/230Vac	≥0.94/230Vac	≥0.96/230Vac	≥0.96/230Vac	≥0.96/230Vac
		≥0.90/277Vac	≥0.91/277Vac	≥0.91/277Vac	≥0.95/277Vac	≥0.95/277Vac	≥0.95/277Vac
	THD	≤18%					
	Efficiency	≥88%/100Vac	≥88%/100Vac	≥88%/100Vac	≥88%/100Vac	≥88%/100Vac	≥88%/100Vac
		≥88%/230Vac	≥88%/230Vac	≥88%/230Vac	≥89%/230Vac	≥89%/230Vac	≥88%/230Vac
		≥87%/277Vac	≥87%/277Vac	≥87%/277Vac	≥88%/277Vac	≥88%/277Vac	≥87%/277Vac
Protective features	In-rush current (peak /duration)	<80A/350uS@230Vac					
	Typ. power input on stand-by	<1W					
Protective features	Open circuit	Open-circuit 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	CE, CB, UL, FCC					
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S					
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ					
	Surge level	According to IEC61000-4-5 (L-N: 1KV)					

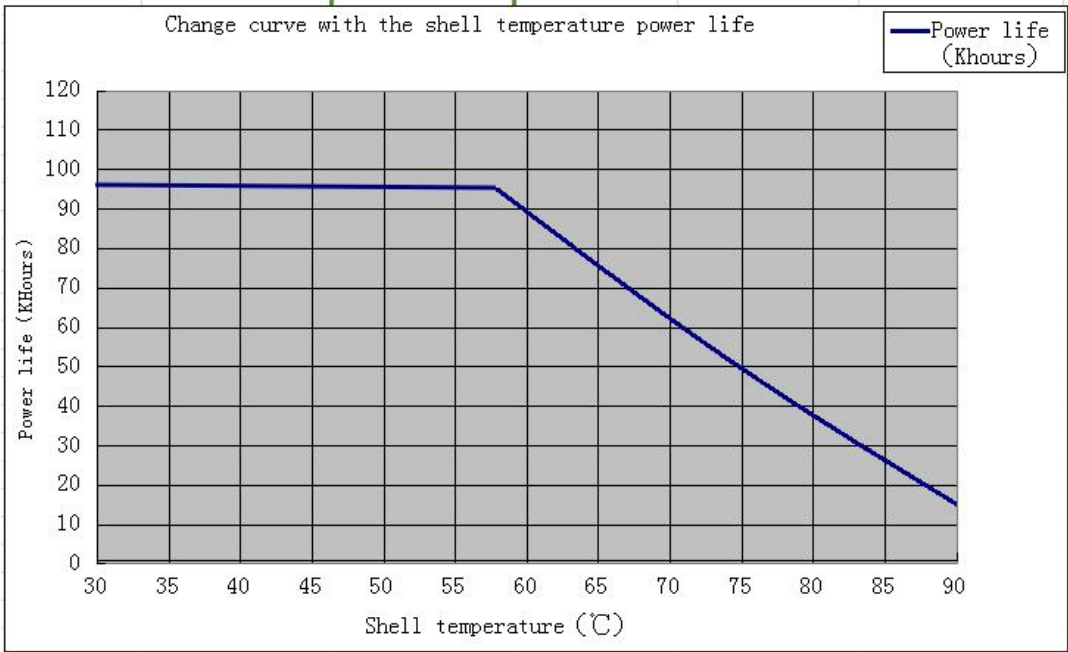
Others	EMI	According to EN55015, EN61000-3-2, FCC Part15
	EMS	According to EN61000-4-2,3,4,5,6,8,11; EN61547
	Packing (weight)	Net weight: 150±5g/pc; 66pcs/carton; 10.8±5KG/carton. Carton size: 385*285*210mm (LxWxH).
	IP level	IP20
	Warranty condition	5 years (Tc ≤70°C)
Testing equipment	AC power source: 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. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 2. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer should re-confirm the EMC of the whole LED light fixture.	

	Full model number	LF-GIR040YK0700U		LF-GIR040YK1200U	
Output	Output voltage	40-55 VDC		24-35 VDC	
	Output current	700mA		1200mA	
	Ripple voltage	<5.5V		<4V	
	Current accuracy	±5%			
	Start-up time	100Vac <1S, 230Vac <0.5S, 277Vac <0.5S			
	Temperature drift	±10%			
	Output linear adjustment rate	±5%			
Input	Input linear adjustment rate	±5%			
	Input voltage	100-240 Vac, 277 Vac (voltage limit: 90-305Vac)			
	Frequency	47Hz-63Hz			
	Input current	0.7A Max			
	Power factor	≥0.97/100Vac		≥0.97/100Vac	
		≥0.93/230Vac		≥0.94/230Vac	
		≥0.90/277Vac		≥0.91/277Vac	
	THD	≤20%			
	Efficiency	≥86%/100Vac		≥86%/100Vac	
		≥88%/230Vac		≥88%/230Vac	
		≥87%/277Vac		≥87%/277Vac	
In-rush current	<80A/350uS@230Vac				
Typ. power input on stand-by	<1W				
Protective features	Open circuit protection	Open-circuit voltage <70V		Open-circuit voltage <50V	
	Short circuit protection	Hiccup mode (auto-recovery)			
Environment condition	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			
Safety and norms	Certifications	According to CE, no certificate			
	Withstanding voltage	I/P-O/P: 3.75KVac, <5mA, 60S			
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ			
	Surge level	According to IEC61000-4-5 (L/N: 1KV)			
	EMI	According to EN55015 , EN61000-3-2, FCC Part15			
	EMS	According to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547			
Others	Packing (weight)	Packaging dimensions: 385*285*210 mm (L*W*H); Weights: 150g±5%/pc; 10.8kg±5%/ctn. Quantities: 66pcs/ctn			
	IP level	IP20			
	Warranty condition	5 years (Tc≤70℃).			
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.				
		Model	LF-GIR040YK	Series	AC100-277V typical plastic case

Test conditions	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% output load.
Additional Remark	1. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 2. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer should re-confirm the EMC of the whole LED light fixture.

3. Lifetime curve

The curve below illustrates the driver’s lifetime data when the LED driver’s case temperature reaches 40℃, 50℃, 60℃, 70℃, 80℃ and 90℃.



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