

# **Specification for Approval**

Custor	ner:	
Produc	ct Material No.:	
Model	No.: LF-GIR060YMII	
Versio	n: <u>V1.0</u>	
<b>Customer Approval</b>		
<b>Tested by</b>	Checked by	Approved by
Lifud Approval		
Tested by	Checked by	Approved by

## Full Model Numbers Required by the Customer

Full model No.	Full model No.	
Full model No.	Full model No.	

### E. C. List

Version	Description of Change	Engineer	Date
1.0	original version	Chen Min	2018-01-31

### Lifud Technology Co., Ltd

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Model LI	F-GIR060YMII	Series	AC220-240V, Non-Dimmable
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### 1. Product Description



### Isolated LED Driver for Class II LED Luminaire

Category: AC220-240V, non-dimmable

Property: active PFC, high performance, high efficiency, low THD

Application: indoor office lighting, decorative lighting, commercial lighting

and residential lighting

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

Certificate: ENEC, CB, CE, RCM, SAA, KC, CCC

Remark: KC certificate does NOT include LF-GIR060YMII of DC40-55V











### 2. Technical Data (1)

	Full Model Number	LF-GIR060YMII1500H	LF-GIR060YMII1450H	LF-GIR060YMII1400H	LF-GIR060YMII1350H			
	Output Voltage			PVdc				
	Output Current	1500mA	1450mA	1400mA	1350mA			
	Ripple Voltage	1300mA 1430mA 1440mA 1330mA ≤ 4.2V						
0.4.4	Current Tolerance	±5%						
Output	Time to Light	±5% 230Vac≤ 0.5S						
	Temperature Drift							
	Line Regulation	±10% ±5%						
	Line Regulation	±5%						
	Rated Input Voltage	220-240 Vac (Max input	voltage: 180-264Vac)					
	Frequency	47Hz-63Hz						
	Input Current	0.50A Max						
	Power Factor	≥ 0.95 / 240Vac (full loa	d)					
Input	THD	≤ 20%						
•	Efficiency	≥ 90% / 230Vac (full loa	d)					
	In-Rush Current (Peak / Duration)	I < 60A/350uS@230Vac	,					
	Stand-by Power	Pin < 1W						
Protective	No-Load	Max. output voltage (no-load voltage) 55V						
Feature	Short-Circuit	Hiccup mode (auto-recovery)						
	Working Temperature	-30°C ∼+50°C						
<b>.</b>	Working Humidity	20-90% RH (no condensation)						
Environment Condition	Storage Temperature/Humidity	-40°C ~+80°C (6 months under the class I environment); 10-90% RH (no condensation)						
	Atmospheric Pressure	86-106KPa						
	Certificate	ENEC, CB, CE, RCM, SAA, KC, CCC						
	Hi-pot Test	I/P-O/P: 3.75KVac, ≤ 5	mA, 60S					
Safety &	Insulation Resistance	I/P-O/P: 500VDC, >100	MΩ					
Norm	Surge Level	Comply with IEC61000-4-5 (L/N:1KV)						
	EMI	Comply with EN55015,	EN61000-3-2					
	EMS	Comply with EN61000-4	l-2,3,4,5,6,8,11; EN61547					
	Packing (Weight)			ctn; Carton size: 39 x 29 x	21 cm (L*W*H)			
Others	IP Level	IP20	, <sub>r</sub>	·· , · · · · · · · · · · · · · · · · ·	(=)			
	Warranty Condition	5 years (Max. case temperature must not exceed 90°C)						

Model	LF-GIR060YMII	Series	AC220-240V, Non-Dimmable
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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 Condition	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature $25^{\circ}$ C and humidity 50%, AC input 230V and 90% DC load.
Additional Remark	<ol> <li>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.</li> <li>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.</li> <li>As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wire routing of the light fixture are also relevant. Thus we strongly recommend the manufacturer of the finished LED light fixture re-confirm the EMC of the LED light fixture.</li> </ol>

## **Technical Data (2)**

	Full Model Number	LF-GIR060YMII1300H	LF-GIR060YMII1250H	LF-GIR060YMII1200H		
	Output Voltage		25-42Vdc			
	Output Current	1300mA	1250mA	1200mA		
	Ripple Voltage	≤4.2V				
Output	Current Tolerance	±5%				
Just	Time to Light	230Vac ≤ 0.5S				
	Temperature Drift	±10%				
	Line Regulation	±5%				
	Line Regulation	±5%				
	Rated Input Voltage	220-240 Vac (Max input voltage	: 180-264Vac)			
	Frequency	47Hz-63Hz				
	Input Current	0.50A Max				
	Power Factor	≥ 0.95/ 240Vac (full load)				
Input	THD	≤ 20%				
	Efficiency	≥ 89% / 230Vac (full load)				
	In-Rush Current (Peak / Duration)	I < 60A/350uS@230Vac				
	Stand-by Power	Pin < 1W				
Protective	No-Load	Max. output voltage (no-load vol	tage) 55V			
Feature	Short-Circuit	Hiccup mode (auto-recovery)				
	Working Temperature	-30°C ∼ +50°C				
	Working Humidity	20-90% RH (no condensation)				
Environment Condition	Storage Temperature/Humidity	-40°C ~+80°C (6 months under the class I environment); 10-90% RH (no condensation)				
	Atmospheric Pressure	86-106KPa				
	Certificate	ENEC, CB, CE, RCM, SAA, KC	C, CCC			
	Hi-pot Test	I/P-O/P: $3.75$ KVac, $\leq 5$ mA, $60$ S	S			
Safety &	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ				
Norm	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				
	Packing (Weight)		ctn; 8.52KG±5%/ctn; Carton size	: 39 x 29 x 21 cm (L*W*H)		
Others	IP Level	IP20	,			
	Warranty Condition	5 years (Max. case temperature must not exceed 90°C)				
	Training Condition	5 Jeans (Max. case temperature i	must not exceed to of			

Model	LF-GIR060YMII	Series	AC220-240V, Non-Dimmable
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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 Condition	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature $25^{\circ}$ C and humidity 50%, AC input 230V and 90% DC load.
Additional Remark	<ol> <li>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.</li> <li>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.</li> <li>As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wire routing of the light fixture are also relevant. Thus we strongly recommend the manufacturer of the finished LED light fixture re-confirm the EMC of the LED light fixture.</li> </ol>

## **Technical Data (3)**

	Full Model Number	LF-GIR060YMII1100H	LF-GIR060YMII1050H	LF-GIR060YMII1000H		
	Output Voltage		40-55Vdc			
	Output Current	1100mA 1050mA 1000mA				
	Ripple Voltage	≤ 4.2V				
Output	Current Tolerance	±5%				
•	Time to Light	$230 \text{Vac} \leq 0.5 \text{S}$				
	Temperature Drift	±10%				
	Line Regulation	±5%				
	Line Regulation	±5%				
	Rated Input Voltage	220-240 Vac (Max input voltag	e: 180-264Vac)			
	Frequency	47Hz-63Hz				
	Input Current	0.50A Max				
	Power Factor	≥ 0.95 / 240Vac (full load)				
Input	THD	≤ 20%				
	Efficiency	≥ 89% / 230Vac (full load)				
	In-Rush Current (Peak / Duration)	I < 60A/350uS@230Vac				
	Stand-by Power	Pin < 1W				
Protective	No-Load	Max. output voltage (no-load voltage) 70V				
Feature	Short-Circuit	Hiccup mode (auto-recovery)				
	Working Temperature	-30°C ∼ +50°C				
	Working Humidity	20-90% RH (no condensation)				
Environment Condition	Storage Temperature/Humidity	-40°C ~ +80°C (6 months under the class I environment); 10-90% RH (no condensation)				
	Atmospheric Pressure	86-106KPa				
	Certificate	ificate ENEC, CB, CE, RCM, SAA, CCC				
	Hi-pot Test	I/P-O/P: 3.75KVac, ≤ 5mA, 60S				
Safety and	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ				
Norm	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,				
	Packing (Weight)			e: 39 x 29 x 21 cm (L*W*H)		
Others	IP Level	Net weight: 104g±5%/pc; 66pcs/ctn; 8.52KG±5%/ctn; Carton size: 39 x 29 x 21 cm (L*W*H)  IP20				
	Warranty Condition	5 years (Max. case temperature must not exceed 90°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.					

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Test Condition	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% DC load.
Additional Remark	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.      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.      As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wire routing of the light fixture are also relevant. Thus we strongly recommend the manufacturer of the finished LED light fixture re-confirm the EMC of the LED light fixture.

### **Technical Data (4)**

	Full Model Number	LF-GIR060YMII0950H	LF-GIR060YMII0900H	
Output	Output Voltage	40-55Vdc		
	Output Current	950mA	900mA	
	Ripple Voltage	≤ 4.2V		
	Current Tolerance	±5%		
	Time to Light	$230$ Vac $\leq 0.5$ S		
	Temperature Drift	±10%		
	Line Regulation	±5%		
Input	Line Regulation	±5%		
	Rated Input Voltage	220-240 Vac (Max input voltage: 180-264Vac)		
	Frequency	47Hz-63Hz		
	Input Current	0.50A Max		
	Power Factor	≥ 0.95 / 240Vac (full load)		
	THD	≤ 20%		
	Efficiency	≥ 89% / 230Vac (full load)		
	In-Rush Current (Peak / Duration)	I < 60A/350uS@230Vac		
	Stand-by Power	Pin < 1W		
Protective	No-Load	Max. output voltage (no-load voltage) 70V		
Feature	Short-Circuit	Hiccup mode (auto-recovery)		
	Working Temperature	-30°C ∼+50°C		
T	Working Humidity	20-90% RH (no condensation)		
<b>Environment Condition</b>	Storage Temperature/Humidity	-40°C ~ +80°C (6 months under the class I environment); 10-90% RH (no condensation)		
	Atmospheric Pressure	86-106KPa		
Safety &	Certificate	ENEC, CB, CE, RCM, SAA, CCC		
	Hi-pot Test	I/P-O/P: 3.75KVac, ≤ 5mA, 60S		
	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ		
Norm	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: 104g±5%/pc; 66pcs/ctn; 8.52KG±5%/ctn; Carton size: 39 x 29 x 21 cm (L*W*H)		
	IP Level	IP20		
	Warranty Condition	5 years (Max. case temperature must not exceed 90°C)		
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electro load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5 rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, flicker-free test (flicker-free coefficient tester) 60N-01, etc.			
Test Condition	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% DC load.			

Model         LF-GIR060YMII         Series         AC220-240V, Non-Dimma	ble
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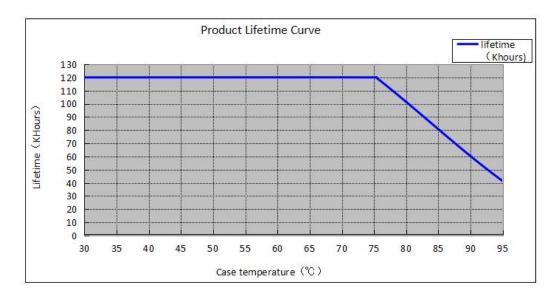
Additional Remark

- 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.

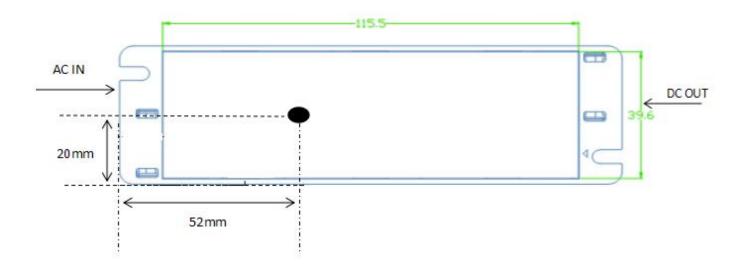
  3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture.
- 3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wire routing of the light fixture are also relevant. Thus we strongly recommend the manufacturer of the finished LED light fixture re-confirm the EMC of the LED light fixture.

#### 3. Product Referenced Lifetime Curve

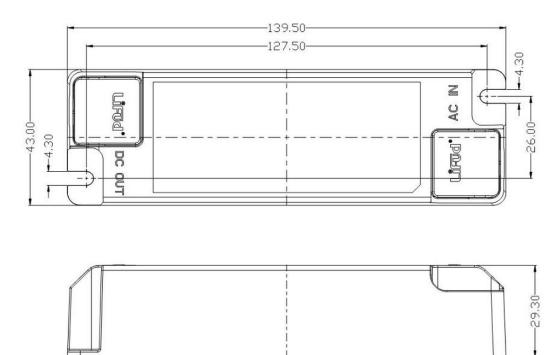
(1) The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches  $40^{\circ}$ C,  $50^{\circ}$ C,  $60^{\circ}$ C,  $70^{\circ}$ C,  $80^{\circ}$ C and  $90^{\circ}$ C.



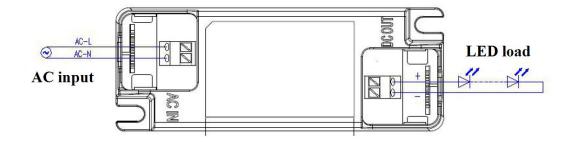
(2) TC test point is at the bottom of the housing.



### 4. Dimensional Drawing (unit: mm, tolerance: $\pm 0.5$ mm)



### 5. Wiring Diagram:



### 6. Installation & Uninstallation of End Caps:

