

**LF-FMR060YS (with a DIP switch)**

**EU-Standard Non-isolated Flicker-Free LED Driver for LED Tri-proof Light**

**Product Description**

LF-FMR060YS is a 60W non-isolated constant current LED driver. It has a metal casing, high power factor and high efficiency. Rated input voltage: 220-240Vac; output voltage ranges from 115-172Vdc. The output current can be adjusted via the DIP switch. It ranges from 200mA to 350mA, 50mA every step.

**Feature**

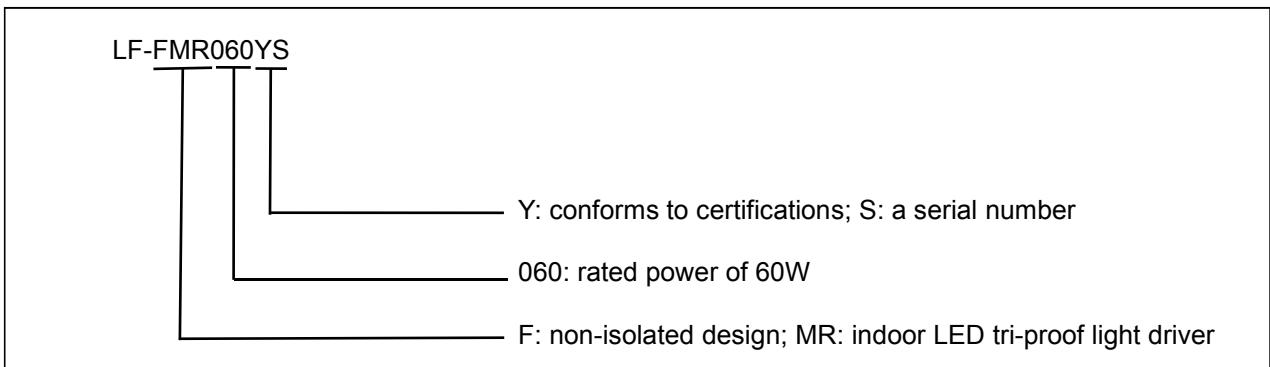
- Suitable for Class I light fixtures
- EU standard, metal casing
- High performance, high efficiency, high power factor
- 5-year warranty (Please refer to the warranty condition.)

**Application**

- Indoor office lighting
- Decorative lighting
- Commercial lighting



**Product Naming**



## Electrical Characteristic

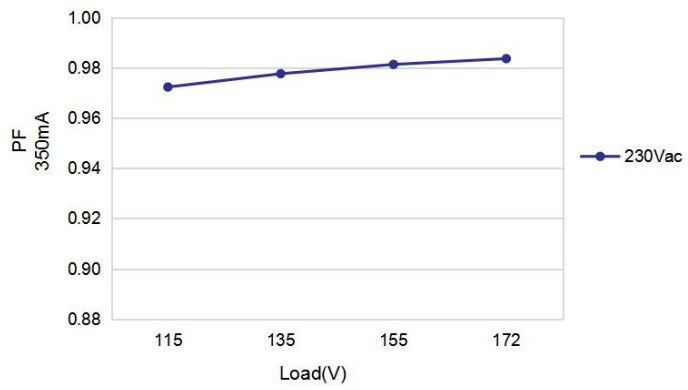
Model		LF-FMR060YS				
Output	Output Voltage	115-172V				
	Output Current	The output current can be adjusted via the DIP switch.				
		200mA	250mA	300mA	350mA	
	Percent Flicker (Fluctuation Depth)	<0.5%				
	Ripple Current	<5%				
	Current Accuracy	±5%				
	Temperature Drift	±10%				
	Start-up Time	<0.5S @230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	310-340Vdc (voltage limit: 280-374Vdc)				
	Input Frequency	47Hz-63Hz				
	Input Current	0.4A Max.				
	Power Factor	≥0.93				
	THD	≤20%				
	Efficiency	≥90%	≥91%	≥92%	≥92%	
	In-rush Current	≤45A & 3uS @230Vac				
	Load Quantity of what a Circuit Breaker can support	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	15	15	24	24
	Leakage Current	≤0.7mA				
Standby Power Consumption	≤1W					
Protection Characteristic	Open Circuit Protection	<250V				
	Short Circuit Protection	Hiccup mode (auto-recovery)				

Environment Description	Working Temperature	-20°C~+50°C
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/ Humidity	-30°C~+ 60°C (six months under class I environment); 10-95%RH (no condensation)
	Atmospheric Pressure	86KPa~106KPa
Safety and Electromagnetic Compatibility	Certification	ENEC, CE, CB, RCM, CCC
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standard	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009 CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 CB: IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016 RCM: AS 61347.2-13: 2018 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 CCC: GB/T17743, GB17625.1, GB17625.2
EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike of 1KV), 6, 11 CCC: GB/T17626.2, 3, 4, 5(lightning strike of 1KV), 6, 11	
Others	IP Rating	/
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 yrs (TC≤78°C)

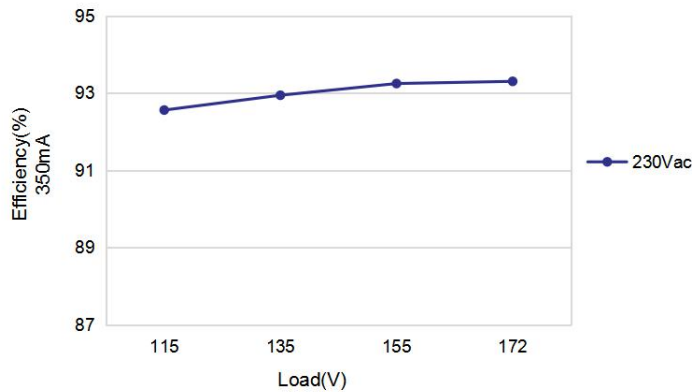
Remark	<ol style="list-style-type: none"> <li>1. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity.</li> <li>2. As an accessory, 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 re-confirms the EMC of the whole LED light fixture.</li> <li>3. The test conditions of the circuit breaker configuration quantity are the same as that of the inrush current test.</li> <li>4. Unless otherwise stated, the parameters of the power factor, harmonic and efficiency were test results under the ambient temperature of 25°C, humidity of 50%, input voltage of 230Vac and full load.</li> </ol>
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### Product Characteristic Curve

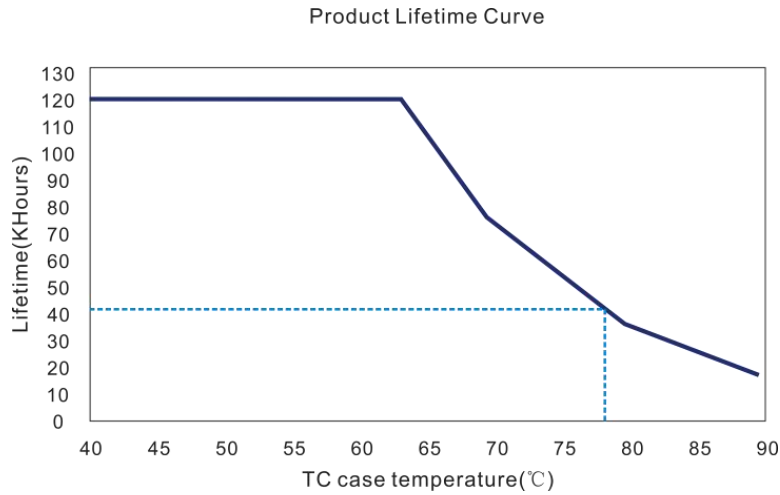
PF Curve



Efficiency Curve



Lifetime Curve



Definition of the Driver's Terminals

INPUT

AC-L	Input terminal of AC live wire
AC-N	Input terminal of AC neutral wire
⊕	Grounding wire

OUTPUT

LED-	The driver's negative electrode output
LED+	The driver's positive electrode output

Definition of the Driver's DIP Switch

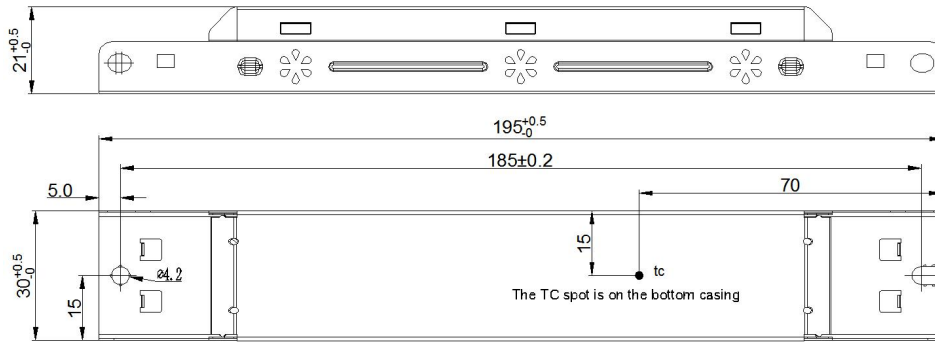
I rated (CC)	1	2	3
200mA	ON	-	-
250mA	ON	-	ON
300mA	-	ON	-
350mA	-	ON	ON

Remark: "-" stands for the OFF gear.

Label

<p>INPUT</p> <table border="1" style="width: 100%;"> <tr> <td>AC-L</td> <td rowspan="2" style="text-align: center; vertical-align: middle;"><b>LIFUD</b></td> </tr> <tr> <td>AC-N</td> </tr> <tr> <td>⊕</td> <td></td> </tr> </table> <p>0.75-1.5 □</p>	AC-L	<b>LIFUD</b>	AC-N	⊕		<p>LED Driver(LED控制装置) Model:LF-FMR060YS</p> <table border="1" style="width: 100%; font-size: small;"> <tr> <td>Un: 220-240V ~</td> <td>In: 0.33A</td> <td>I rated(CC)</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>Fn: 50/60Hz</td> <td></td> <td>200mA</td> <td>on</td> <td>-</td> <td>-</td> </tr> <tr> <td>Output Voltage:115-172V=</td> <td>Prated: 60.2W(Max)</td> <td>250mA</td> <td>on</td> <td>-</td> <td>on</td> </tr> <tr> <td>U out: 250V =</td> <td>tc: 90°C</td> <td>300mA</td> <td>-</td> <td>on</td> <td>-</td> </tr> <tr> <td>PF: 0.9C</td> <td>ta: 50°C</td> <td>350mA</td> <td>-</td> <td>on</td> <td>on</td> </tr> </table>	Un: 220-240V ~	In: 0.33A	I rated(CC)	1	2	3	Fn: 50/60Hz		200mA	on	-	-	Output Voltage:115-172V=	Prated: 60.2W(Max)	250mA	on	-	on	U out: 250V =	tc: 90°C	300mA	-	on	-	PF: 0.9C	ta: 50°C	350mA	-	on	on	<p>Preparation for input and output</p> <p>7.5mm</p> <table border="1" style="width: 100%; font-size: x-small;"> <tr> <td>OUTPUT</td> </tr> <tr> <td>LED+</td> </tr> <tr> <td>LED-</td> </tr> </table> <p>0.5-1.0 □</p> <p>For LED modules only www.lifud.com Made in China (中国制造)</p>	OUTPUT	LED+	LED-
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### Structure & Dimension (Unit: mm)



### Package Specification

Model	LF-FMR060YS
Box Size	385*285*210 mm (L*W*H)
Quantity	8 pcs/layer; 6 layers/ctn; 48 pcs/ctn
Weight	0.145 kg/pc; 7.68 kg/ctn

### Transportation & Storage

#### 1. Transportation

Transportation means: vehicles, boats and aircraft.

During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.

#### 2. Storage

Storage in accordance with the provisions of the Class I environment. For products which have been stored for more than six months, they mustn't be used until they pass the re-inspection.

### Attention

- \* Use this product according to the specifications, please. Otherwise there may be malfunction.
- \* Use the light fixtures that have not been certified or are not compatible with the drivers may cause fire or other hazards.
- \* Man-made damage, any use beyond the specification and non-original-factory modification are not covered by warranty.

Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.

**Change Resume**

Version	Content of Change	Date	Remark
V1.0	Formal release	16 SEP 2018	
V2.0	Upgraded the EMC version. Revised the template.	25 MAY 2020	