

### Features

- Flicker free
- High efficiency; high PF
- IP20
- Suitable for Class I light fixtures
- 5-year warranty (please refer to the warranty condition)



### Applications

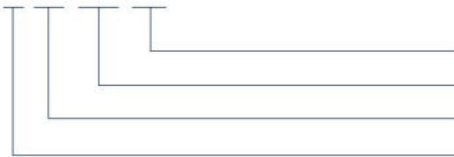
· Indoor office lighting · decorative lighting · commercial lighting

### Descriptions

LF-FMR120YS is a 120W non-isolated constant current LED driver. Its input voltage ranges from 220 to 240Vac; output voltage from 54 to 216Vdc and output current is adjustable from 300 to 750mA via DIP switch with every 50mA as a step. It is suitable for Class I light fixtures, including tri-proof light, linear light, etc.

### Product Model

LF - F MR 120 YS



- Y: complies with certifications; S: serial number
- 120: output power: 120W
- MR: indoor metal casing tri-proof light
- F: non-isolated design

## ■ Electrical Characteristics

Model		LF-FMR120YS										
Output	Output Voltage	54-216Vdc										
	Output Current	Adjustable via DIP switch										
		300mA	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	750mA	
	Flicker Index	Complies with IEEE 1789 standard										
	CIE SVM	≤0.4										
	IEC-Pst	≤1										
	Current Tolerance	±7%					±5%					
	Temperature Drift	±10%										
Start-up Time	<0.5S											
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)										
	DC Input Voltage	180-264Vdc										
	Input Frequency	0/50/60Hz										
	Input Current	0.66A max.@220-240Vac; 0.46-0.76A@180-264Vdc										
	PF	≥0.93					≥0.95					
	THD	≤15%					≤10%					
	Efficiency	≥95%										
	Standby Power Consumption	<0.5W										
	Inrush Current	≤95A&110uS										
	Loading Quantities of Circuit Breaker	Model	B10			C10			B16		C16	
		Quantity (pcs)	6			10			10		17	
Leakage Current	≤0.7mA											
Protections	Open Circuit	<250V										
	Short Circuit	Auto-recovery										
Environment Descriptions	Operating Temperature	-30°C - +60°C										
	Operating Humidity	20-90%RH (no condensation)										
	Storage Temperature/ Humidity	-30°C - +80°C (6 months in Class I environment); 10-95%RH (no condensation)										
	Atmospheric Pressure	86-106kPa										

### ■ Electrical Characteristics

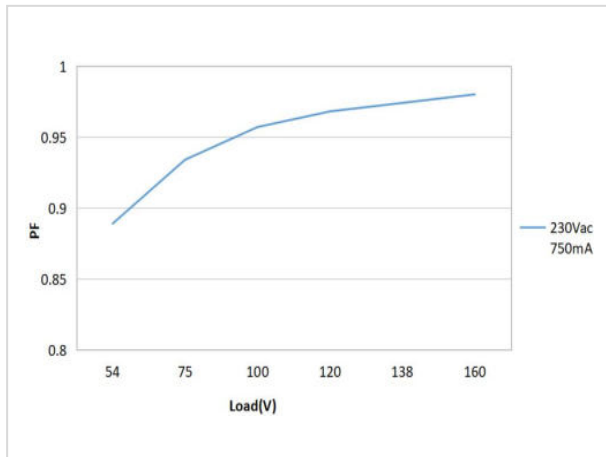
<b>Safety and EMC</b>	Certifications	ENEC, CE, CB, RCM, EL, CCC
	Withstanding Voltage	I/P-PG: 1.6kV 5mA 60S
	Insulation Resistance	I/P-PG O/P-PG: >100MΩ@500Vdc
	Safety Standards	ENEC: EN61347-2-13: 2014/A1: 2017, EN61347-1: 2015/A1: 2021, EN IEC 62384: 2020 CE-LVD: EN61347-2-13: 2014/A1: 2017, EN61347-1: 2015/A1: 2021 CB: IEC61347-1: 2015, IEC61347-1: 2015/AMD1: 2017, IEC61347-2-13: 2014, IEC61347-2-13: 2014/AMD1: 2016 EL: EN IEC61347-2-13 Annex J CCC: GB 19510.1-2009, GB19510.14-2009
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3 EL: EN IEC 61347-2-13 Annex J CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike L-N: 1kV, L/N-PG: 2kV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike L-N: 1kV, L/N-PG: 2kV), 6, 11
<b>Other Parameters</b>	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 years (Tc≤81°C)
<b>Testing Equipment</b>	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: EEC SE7440, flicker tester (flicker-free coefficient test): Everfine LFA-3000, etc.	

■ **Electrical Characteristics**

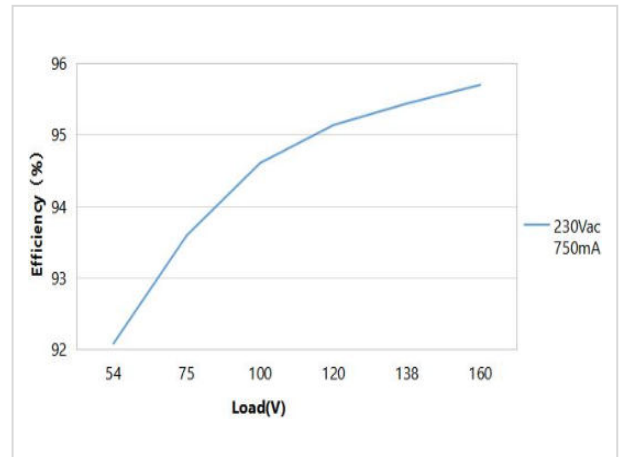
<p><b>Testing Remark</b></p>	<p>If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, full load and input voltage of 230Vac/50Hz.</p>
<p><b>Additional Remarks</b></p>	<ol style="list-style-type: none"> <li>1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety.</li> <li>2. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished.</li> <li>3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current.</li> <li>4. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above.</li> <li>5. Output voltage: 54-216Vdc; maximum output power: 120W</li> <li>6. Some individual harmonics would fail when the DIP switch is operating between 25W and 45W.</li> <li>7. It is well-advised that the withstanding voltage of LEDs and aluminum substrates &gt;3kV.</li> <li>8. It is recommended to install double-pole switch at AC input terminal. If user uses the single-pole switch, make sure to connect it to wire L (live wire), otherwise the afterglow of light fixture would be incurred after the AC is disconnected.</li> </ol>

■ **Product Characteristic Curves**

PF Curve 1

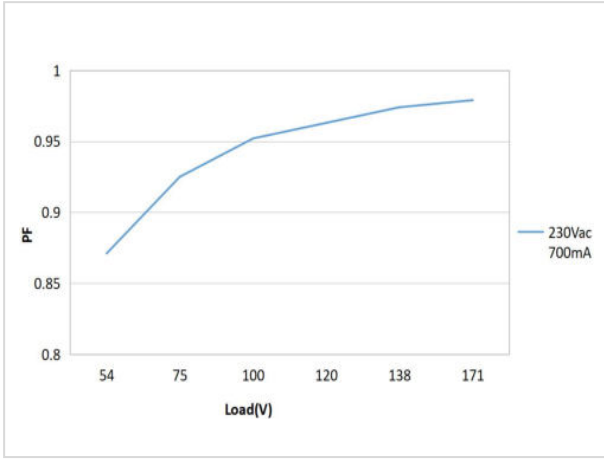


Efficiency Curve 1

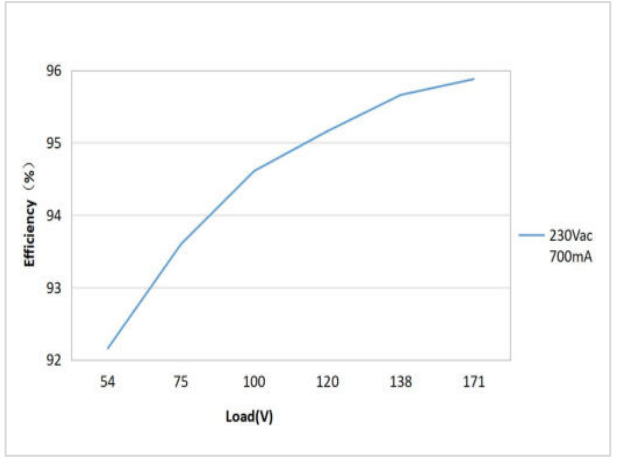


■ Product Characteristic Curves

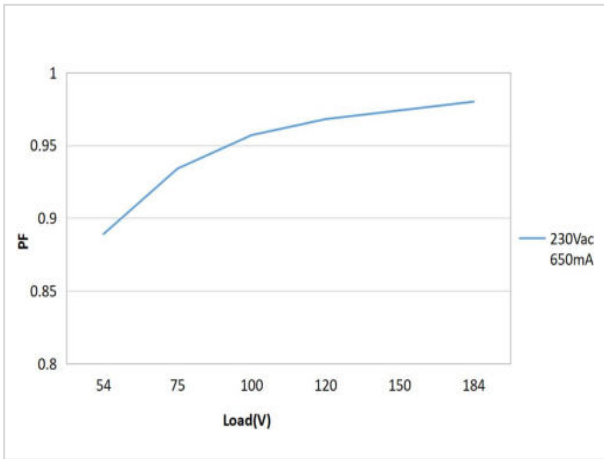
PF Curve 2



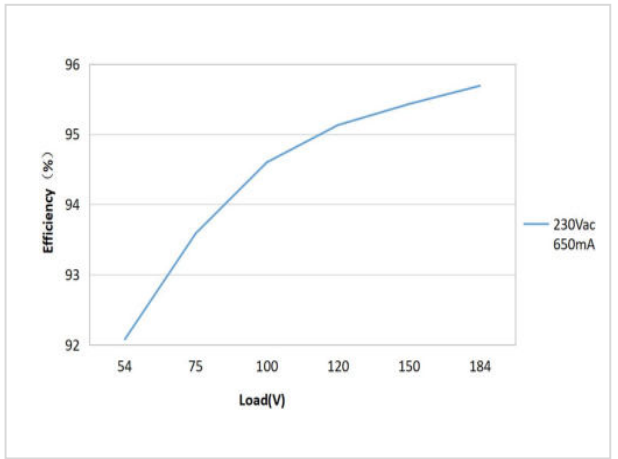
Efficiency Curve 2



PF Curve 3

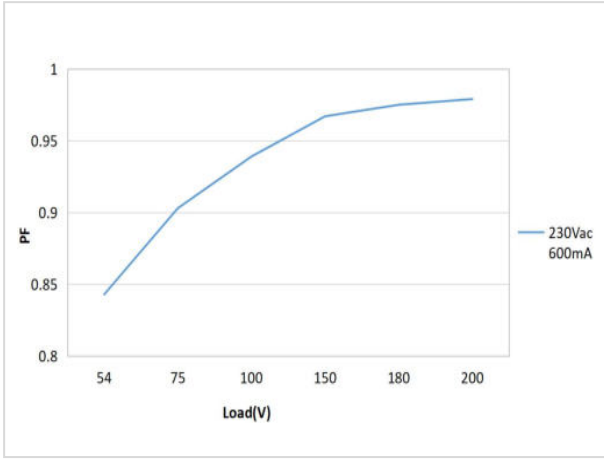


Efficiency Curve 3

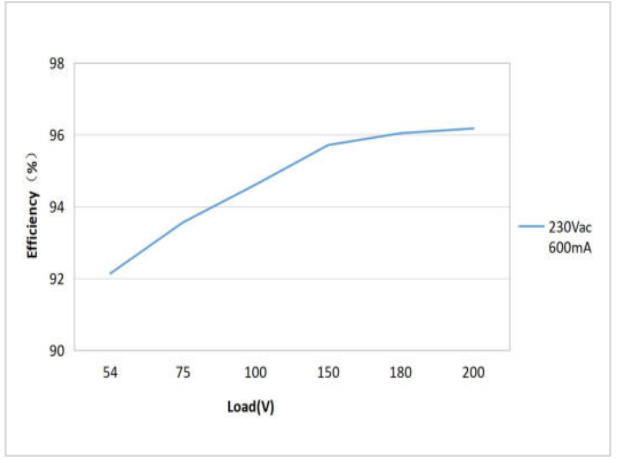


■ Product Characteristic Curves

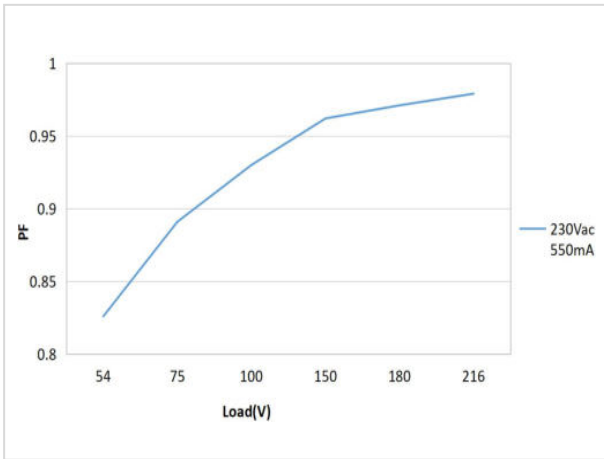
PF Curve 4



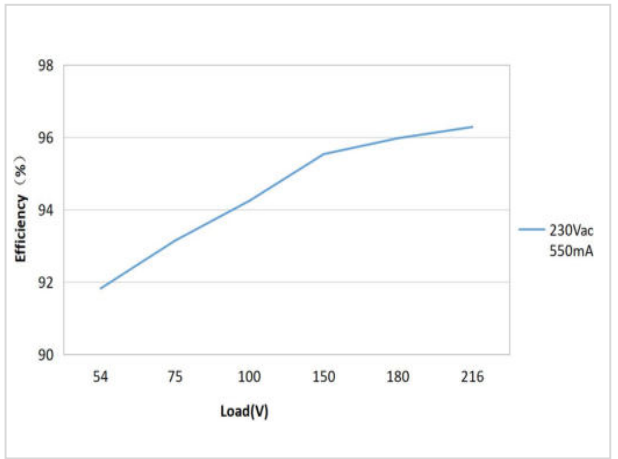
Efficiency Curve 4



PF Curve 5

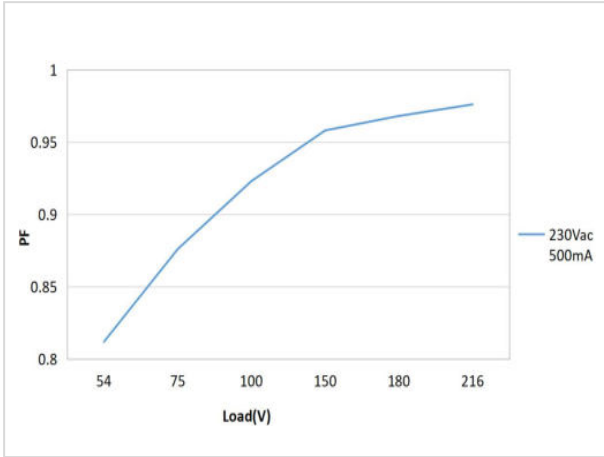


Efficiency Curve 5

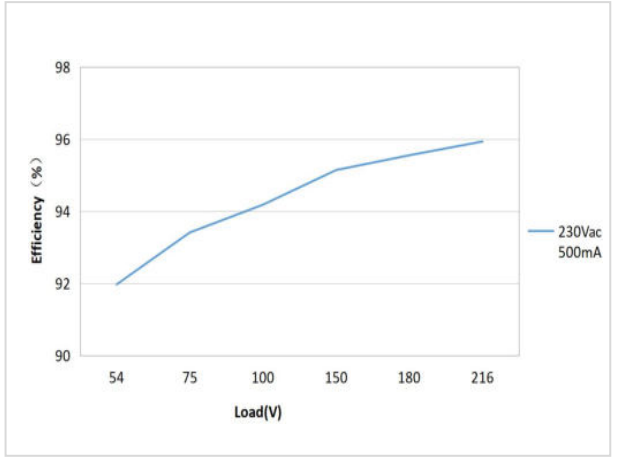


■ Product Characteristic Curves

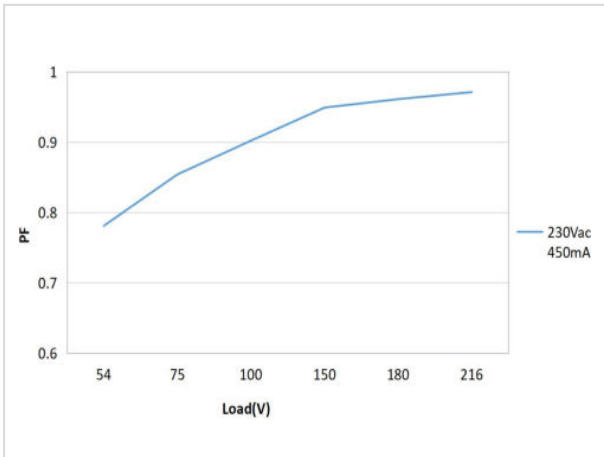
PF Curve 6



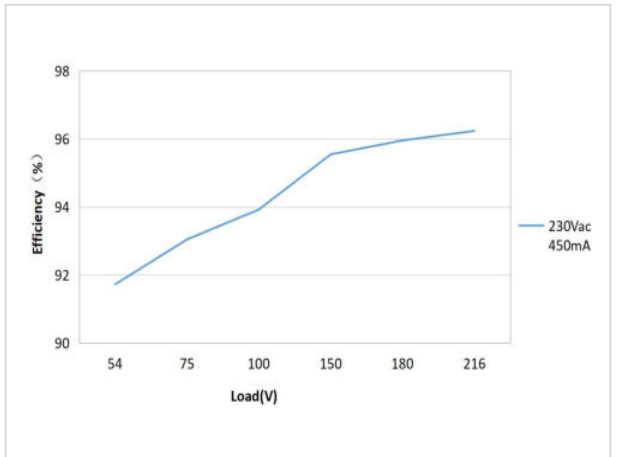
Efficiency Curve 6



PF Curve 7

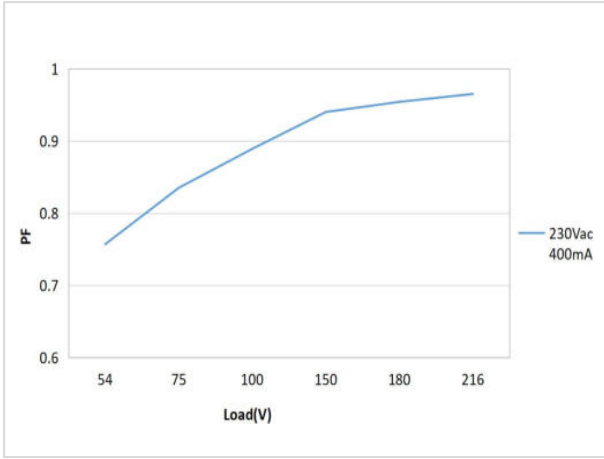


Efficiency Curve 7

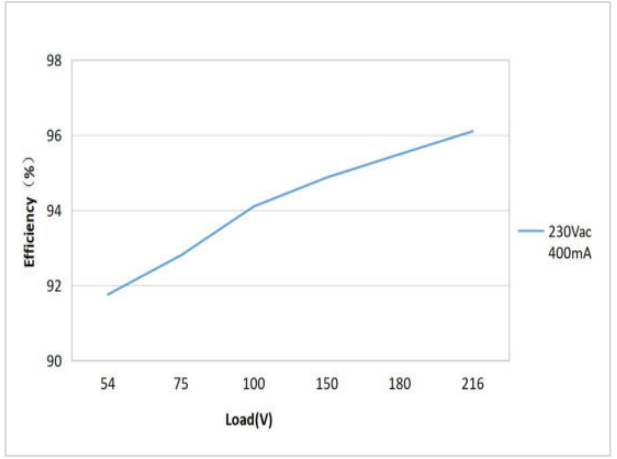


■ Product Characteristic Curves

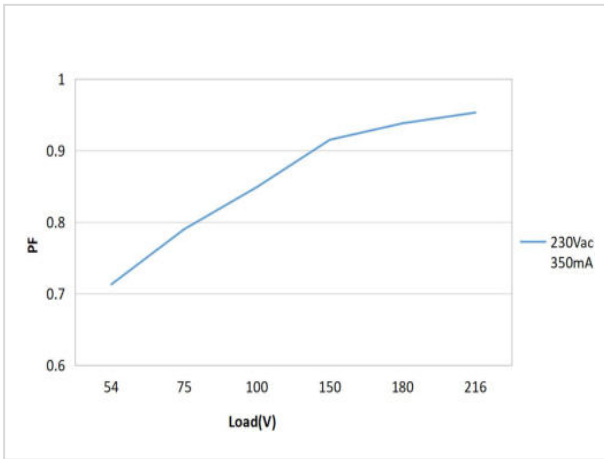
PF Curve 8



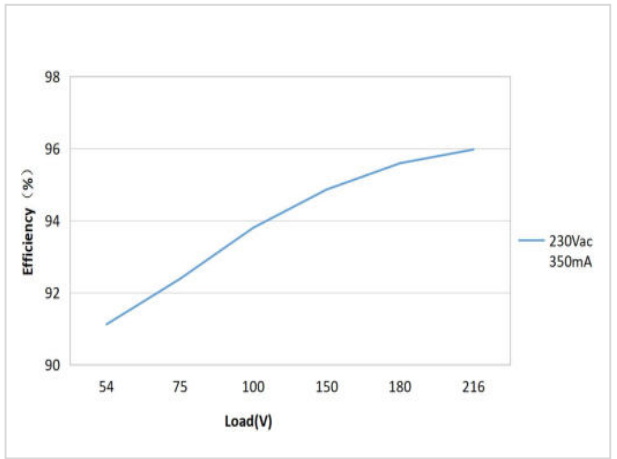
Efficiency Curve 8



PF Curve 9



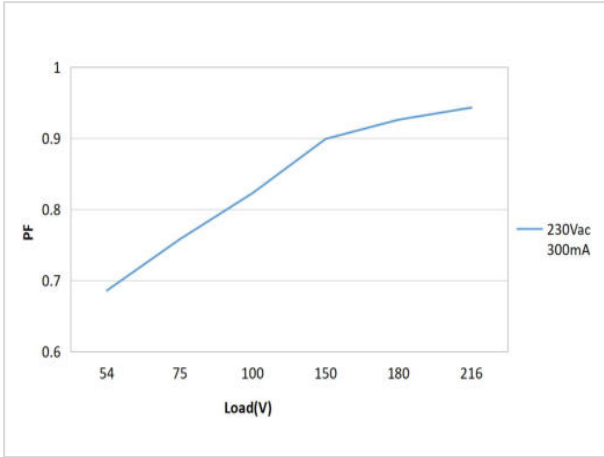
Efficiency Curve 9



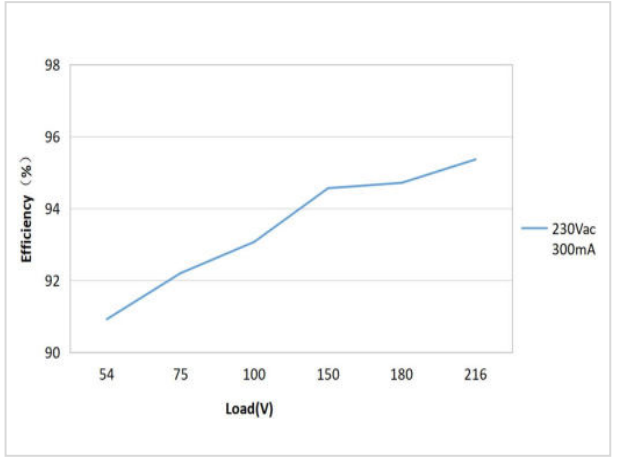


■ **Product Characteristic Curves**

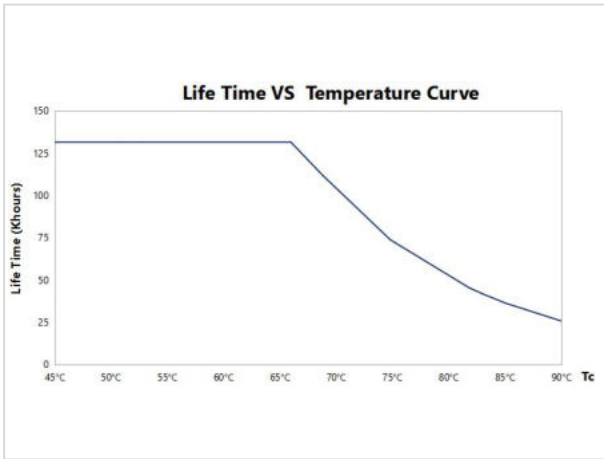
PF Curve 10



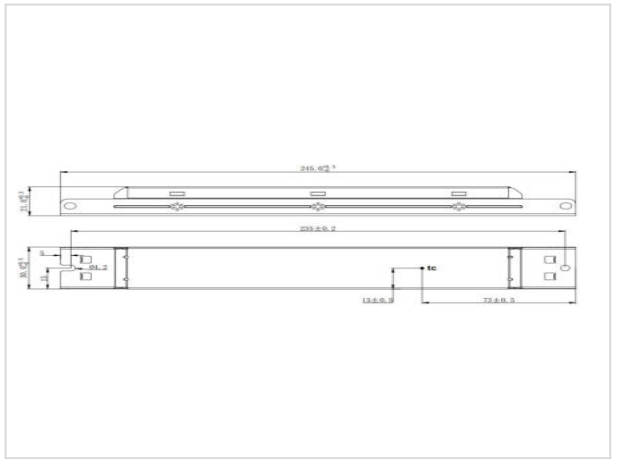
Efficiency Curve 10



Lifetime Curve



Tc Point Testing Diagram



■ **Product Definitions**

Product Terminal

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

OUTPUT	
LED+	Positive Electrode Output of LED Driver
LED-	Negative Electrode Output of LED Driver

■ **Product Definitions**

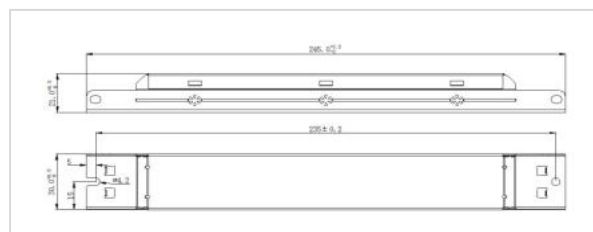
Product DIP Switch

I rated (CC)	1	2	3	4
300mA (54-216Vdc)	ON	ON	ON	ON
350mA (54-216Vdc)	-	ON	ON	ON
400mA (54-216Vdc)	-	-	ON	ON
450mA (54-216Vdc)	ON	-	-	ON
500mA (54-216Vdc)	ON	ON	-	-
550mA (54-216Vdc)	-	-	-	ON
600mA (54-200Vdc)	-	-	ON	-
650mA (54-184Vdc)	-	ON	-	-
700mA (54-171Vdc)	ON	-	-	-
750mA (54-160Vdc)	-	-	-	-

Remark: “-”: shift OFF

■ **Structure & Dimensions (unit: mm)**

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes	Diameter of Positioning Hole
LF-FMR120YS	245*30*21 mm (±0.5mm)	235 mm (±0.2mm)	4.2 mm



■ **Packaging Specifications**

Model	LF-FMR120YS
Carton Size	385*285*210mm (L*W*H)
Quantity	8 pcs/layer; 6 layers/ctn; 48 pcs/ctn
Weight	/

■ **Transportation and Storage**

**1. Transportation**

- Suitable transportation means: vehicles, boats and aeroplanes.
- In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact of LED driver as much as possible.

**2. Storage**

- The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

**Cautions**

- Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.
- Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.
- Man-made damage is beyond the scope of Lifud warranty service.

Remark: Lifud Tecnology Co., Ltd. reserves the right to interpret any contents of this specification.