

### Features

- Supports Triac dimming; compatible with trailing edge dimmers
- Smooth dimming
- Isolated design; flicker free
- Over voltage protection available
- Suitable for Class II light fixtures; IP20
- 5-year warranty (please refer to the warranty condition)



### Applications

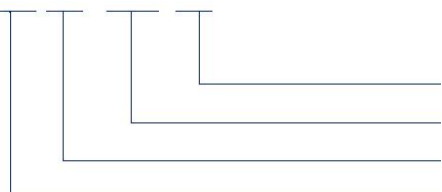
· Indoor office lighting · decorative lighting · commercial lighting · residential lighting

### Descriptions

LF-BAT012-xxxx-40 is a 12W constant current Triac dimmable LED driver. Its input voltage ranges from 220 to 240Vac and output current: 300mA (200mA and 250mA are selectable).

### Product Model

LF - BAT 012 - xxxx - 40



- 40: maximum output voltage: 40V
- xxxx: maximum output current: xxxmA
- 012: rated power: 12W
- BAT: Triac dimmable LED driver

### Lifud Technology Co., Ltd.

Production Base I (HQ): Building B, Kutto Industrial Park, No.26, Xinhe Road, Bao'an District, Shenzhen City, China.  
 Production Base II: No.4, Block 2, Tengfei Road, Shigao Economic Development Area, Meishan City, Sichuan, China.  
 Website: [www.lifud.com](http://www.lifud.com) Telephone: +86(0)755 8373 9299 Email: [sales@lifud.com](mailto:sales@lifud.com)

## ■ Electrical Characteristics

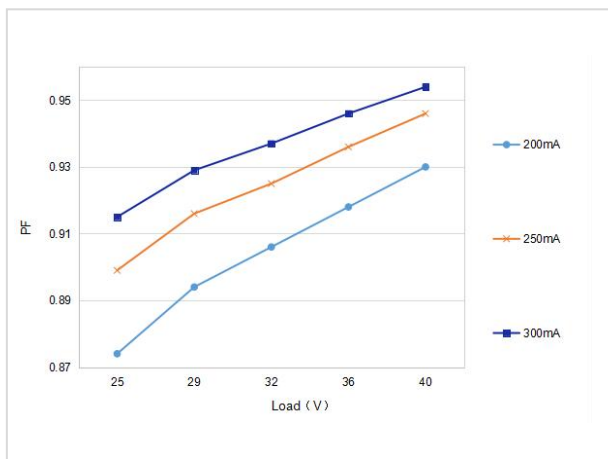
Model		LF-BAT012-xxxx-40				
Output	Output Voltage	25-40V				
	Output Current	200mA	250mA	300mA		
	Flicker Index	IEC-Pst $\leq$ 1, CIE-SVM $\leq$ 0.4 Complies with IEEE Std 1789-2015				
	Current Tolerance	$\pm 10\%$	$\pm 10\%$	$\pm 7\%$		
	Temperature Drift	$\pm 10\%$				
	Startup Time	<0.5S				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	180-280Vdc				
	Input Frequency	47Hz-63Hz				
	Input Current	0.09A max.				
	PF	$\geq 0.9$				
	THD	$\leq 25\%$				
	Efficiency	$\geq 81\%$				
	Inrush Current	$\leq 10A\&50\mu S$				
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	80	80	128	128
Leakage Current	$\leq 0.7mA$					
Protections	Open Circuit	<59V				
	Short Circuit	No damage (auto-recovery)				
Environment Descriptions	Operating Temperature	-20°C - +60°C				
	Operating Humidity	20-90%RH (without condensation)				
	Storage Temperature/ Humidity	-30°C - +80°C (6 months in Class I environment); 10-90%RH (without condensation)				
	Atmospheric Pressure	86-106kPa				
Safety and EMC	Certifications	TUV-ENEC, CE, CB, SAA, RCM, CCC				
	Withstanding Voltage	I/P-O/P: 3.75kV 5mA 60S				
	Insulation Resistance	I/P-O/P: >100M $\Omega$ @500Vdc				
	Safety Standards	ENEC: EN 61347-2-13: 2014+A1: 2017, EN 61347-1: 2015+A1: 2021, EN IEC 62384:2020. CE-LVD: EN 61347-2-13: 2014+A1: 2017, EN 61347-1: 2015+A1: 2021. CB: IEC 61347-1: 2015, IEC 61347-1: 2015/AMD1: 2017, IEC 61347-2-13: 2014 IEC 61347-2-13:2014/AMD1:2016. SAA: AS61347.2-13: 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: L-N: 1kV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike: L-N: 1kV), 6, 11				

### ■ Electrical Characteristics

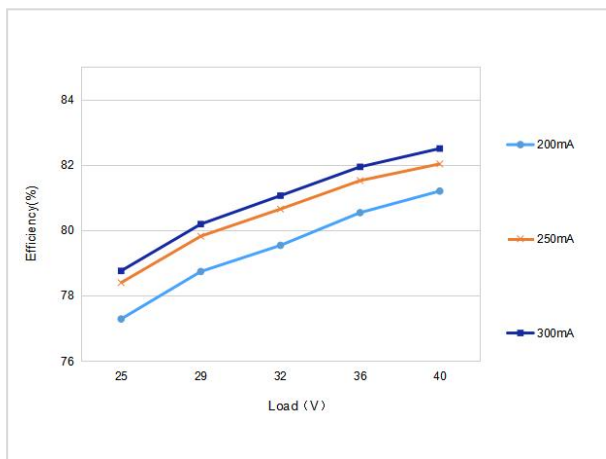
<b>Other Parameters</b>	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 years (Tc ≤86℃)
	Noise Level	≤25dBA (this data is measured in a soundproof room and the noise collector should be 10CM away from LED driver)
<b>Testing Equipment</b>	Digital power meter: CHROMA66202, oscilloscope: Tektronix DP03014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber; Everfine EMS61000-5B; Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, flicker tester (flicker-free coefficient test) 60N-01, etc.	
<b>Testing Remark</b>	If there are no special remarks, the above parameters are tested at the ambient temperature of 25℃, humidity of 50%, full load and input voltage of 230Vac.	
<b>Additional Remarks</b>	<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. Lifud reserves the right to interpret any of the above parameters.</li> </ol>	

■ **Product Characteristic Curves**

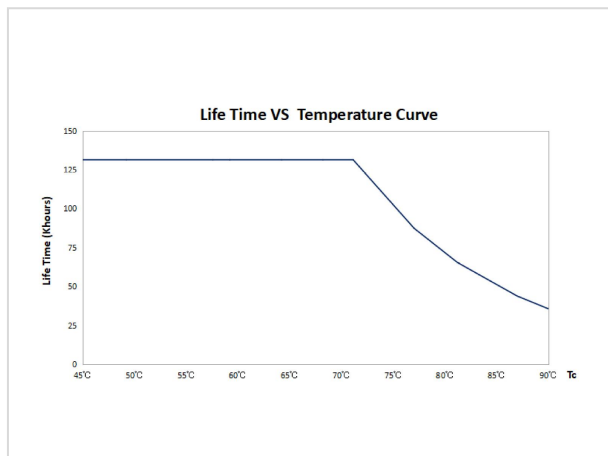
PF Curve



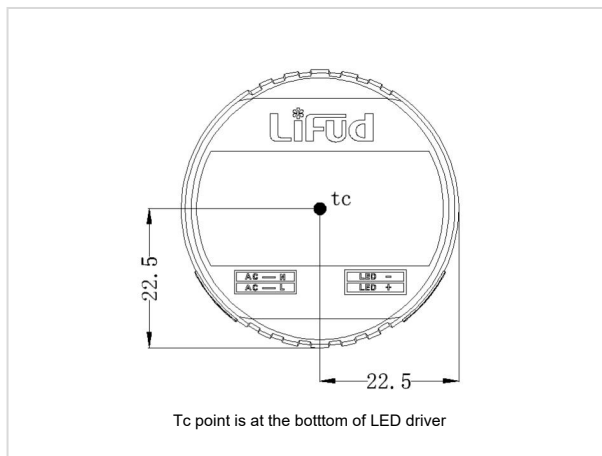
Efficiency Curve



Lifetime Curve



Tc Point Testing Diagram



■ **Product Wiring Definition**

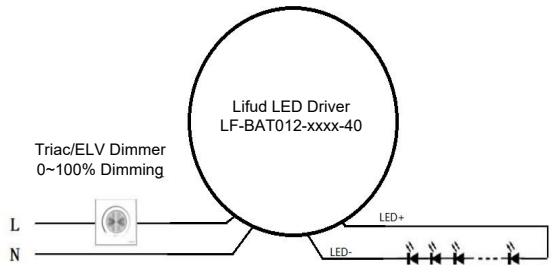
Function	Wiring Type	No.	Sectional Area	Color	Exposed Length
AC-L	Double-insulated Teflon wire	18AWG	0.75mm <sup>2</sup>	Brown	200mm
AC-N	Double-insulated Teflon wire	18AWG	0.75mm <sup>2</sup>	Blue	200mm
LED+	Single-insulated Teflon wire	20AWG	0.5mm <sup>2</sup>	Red	200mm
LED-	Single-insulated Teflon wire	20AWG	0.5mm <sup>2</sup>	Black	200mm

■ **Dimming Operation Instructions**

Triac Dimming Operations

- Connect AC live wire to input wire of dimmer and output wire of dimmer to AC-L wire of LED driver
- Connect AC neutral wire to AC-N wire of LED driver
- Dimming range: 0-100%

Wiring Diagram of Triac Dimming



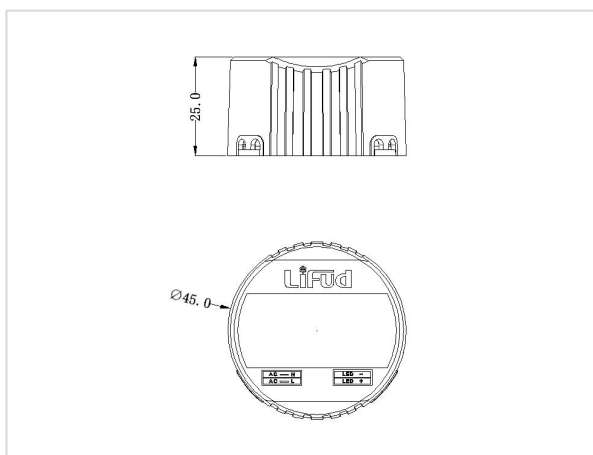
■ **Label**



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

Appearance and dimensions

Model	Overall Appearance Dimension (D*H)	Distance Between 2 Positioning Holes	Diameter of Positioning Hole
LF-BAT012-xxxx-40	45*25 mm	/	/



■ **Packaging Specifications**

Model	LF-BAT012-xxxx-40
Carton Size	385*285*210 mm (L*W*H)
Quantity	30 pcs/layer; 6 layers/ctn; 180 pcs/ctn
Weight	0.08 kg/pc; 15.18 kg/ctn

## ■ 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.