

Product Description

LF-AAB040-1050-42 series is a 40W constant current LED driver with the function of Bluetooth dimming. The input voltage: 198-264Vac. The output current can be adjusted via the DIP switch from 750mA to 1050mA, in steps of 50mA.

Features

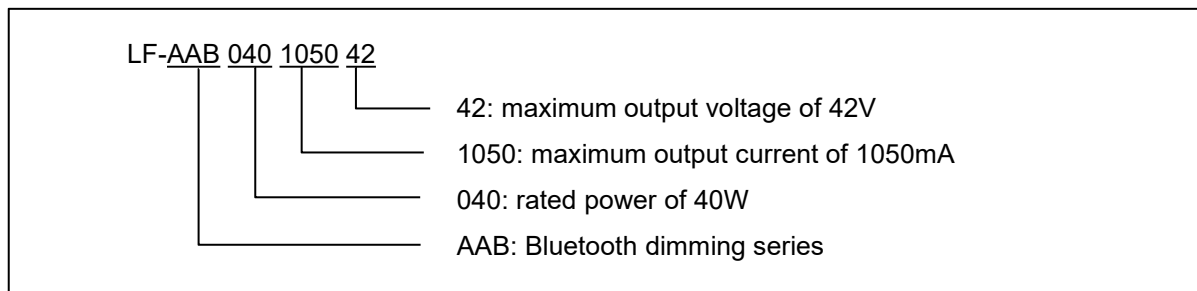
- IP20
- Suitable for Class II light fixtures
- Built-in active power factor correction function
- Standby power consumption <0.5W
- Tuya BT7L module is applied
- 5-year warranty (Please refer to the warranty condition.)

Applications

- Indoor office lighting
- Decorative lighting
- Commercial lighting
- Residential lighting
- Educational lighting



Naming



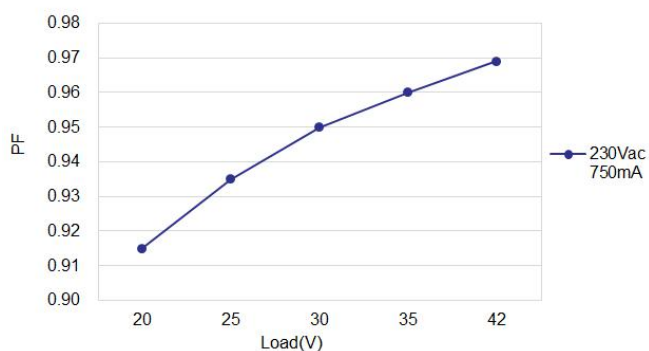
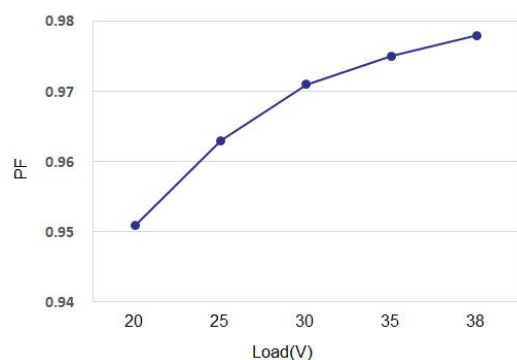
Electrical Characteristics

Model		LF-AAB040-1050-42						
Output	Output Voltage	20-42V					20-40V	20-38V
	Output Current	Adjustable via the DIP switch, please refer to “DIP switch table”.						
		750mA	800mA	850mA	900mA	950mA	1000mA	1050mA
	Flicker Index	IEC-Pst≤1, CIE SVM≤0.9, Modulation Depth ≤1% Conforms to the standard of flicker free (IEEE Std 1789-2015)						
	Ripple Current	<10% (rated current)						
	Voltage Tolerance	±5%						
	Temperature Drift	±5%						
	Start-up Time	<1S @230Vac						
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)						
	DC Input Voltage	180-280Vdc						
	Input Frequency	47Hz-63Hz						
	Input Current	0.3A Max						
	Power Factor	≥0.95						
	THD	≤15%@230Vac (DC full load)						
	Efficiency	≥86.5%		≥87%				≥86.5%
	Inrush Current	≤60A & 10uS @230Vac						
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model		B10	C10	B16	C16	
		Quantity (pcs)		25	40	40	64	
	Anti Surge	L-N: 1KV						
	Leakage Current	≤0.7mA						
	Standby Power Consumption	≤0.5W (when DALI signal is off)						
Protection Characteristics	Open Circuit	<59V						
	Short Circuit	Hiccup mode (auto-recovery)						
Environment Descriptions	Operating Temperature	-20℃~~+45℃						
	Operating Humidity	20-90%RH (no condensation)						
	Storage Temperature/ Humidity	-40℃~~+ 80℃ (six months under class I environment); 10-90%RH (no condensation)						
	Atmospheric Pressure	86KPa~106KPa						

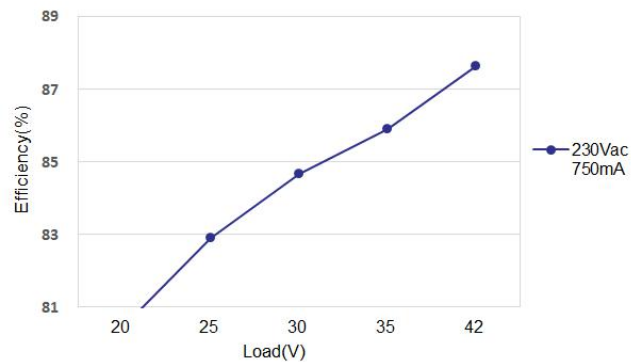
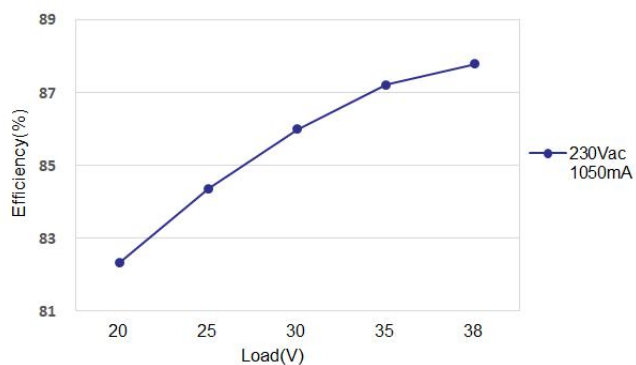
Safety and Electromagnetic Compatibility	Certifications	CE, CCC
	Withstanding Voltage	I/P-O/P: 3.75KV 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN62493:2015 CCC: GB19510.1-2009, GB19510.14-2009
	EMI	CE-EMC: EN55015, EN61000-3-2, EN61000-3-3 CCC: GB/T17743, GB17625.1, GB17625.2
	EMS	CE-EMC: EN61000-4-2, 3, 4, 5 (lightning strike 1KV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 1KV), 6, 11
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tc≤74℃)
	Noise Level	≤29dBA (It is tested in a quiet room and the noise collector should be tested 10CM from the LED driver)
Remarks	<p>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.</p> <p>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 should re-confirm the EMC of the whole LED light fixture.</p> <p>3. The test conditions of the circuit breaker configuration quantity are the same as that of the inrush current test.</p> <p>4. Unless otherwise stated, the parameters above are test results under the conditions of ambient temperature of 25℃, humidity of 50%, Bluetooth signal input, 100% load, maximum output current, and input voltage of 230Vac.</p>	

Characteristic Curve

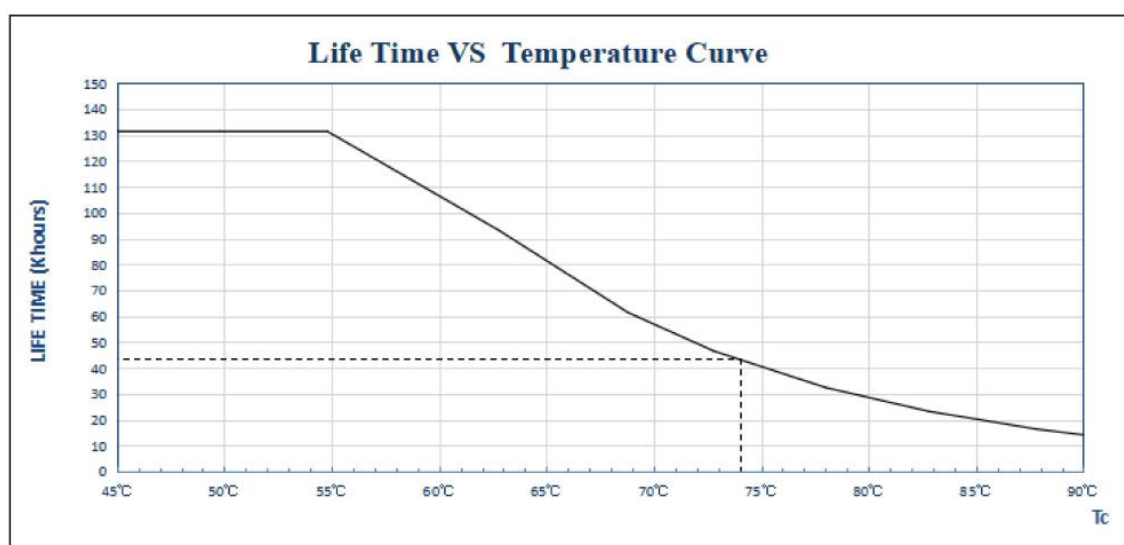
■ PF Curve



■ Power Curve



■ Lifetime Curve



Operations of Dimming

■ Terminals of the LED driver

INPUT

AC-L	AC live wire input
AC-N	AC neutral wire input

OUTPUT

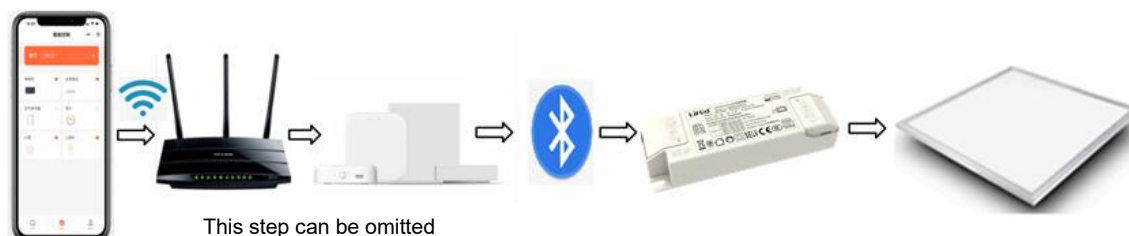
LED+	Positive electrode output of driver
LED-	Negative electrode output of driver

■ Definitions of Terminals

I rated (CC)	1	2	3	4
1050mA	OFF	OFF	OFF	OFF
1000mA	OFF	OFF	OFF	ON
950mA	OFF	OFF	ON	OFF
900mA	OFF	OFF	ON	ON
850mA	OFF	ON	OFF	OFF
800mA	OFF	ON	OFF	ON
750mA	OFF	ON	ON	OFF

Note: Except the known DIP switch modes, the default maximum DIP switch mode is 1050mA.

■ Bluetooth Dimming Operation System Diagram



■ Bluetooth Dimming Operation Instruction

- The standard of Bluetooth 5.0 protocol is used in the design.
- Network access & control distance: The distance is about 10m (measured in barrier-free condition).
- The number of gateway for matching the LED driver: A gateway can be matched with about 20 LED drivers (Measured by Tuya wireless gateway in barrier-free condition)
- Network access: First, turn on the Bluetooth on the phone and open the pre-installed App "Tuya Smart", and then click "add devices".
- When a device that has been connected to the network joins a new gateway, the network needs to be disconnected.

- Operations for Network connection and disconnection: If the AC input terminal of the LED driver is continuously on/off for 5 times (within 5S), and the output light turns on alternately for 3 times, it indicates that network connection or disconnection is successful. You can then search for devices again.
- Output current range of the LED driver:

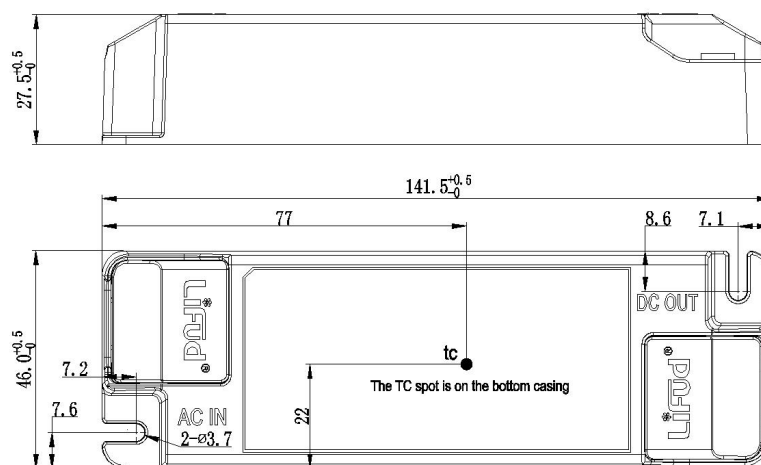
Wireless Dimming Value	Output Current
0%	The LED light is off
2%-100% (Uo MAX)	Dimming Frequency: 3.2kHz; PWM varies from 1% to 100%; Output current range: 17mA-1050mA (Take 1050mA as an example)

Note: The inner wall material and installation method of light fixtures will affect the transmission distance. The corresponding control distance can be extended by the relay function.

Label

Lifud LED Driver (LED控制装置) Model: LF-AAB040-1050-42 Preparation for input and output	
Input: 220-240V ~ 50/60Hz MAX: 0.3A	
Uout: 59V PF: 0.9C Prated: 40W(MAX)	
Dimming mode: Bluetooth	
Output current and setting table	
INPUT AC-L AC-N 0.75-1.5	ta
	Vo DC I rated(CA) 1 2 3 4
45°C	20-38V 1050mA OFF OFF OFF OFF
	20-40V 1000mA OFF OFF OFF ON
45°C	20-42V 950mA OFF OFF ON OFF
	20-42V 900mA OFF OFF ON ON
45°C	20-42V 850mA OFF ON OFF OFF
	20-42V 800mA OFF ON OFF ON
45°C	20-42V 750mA OFF ON ON OFF
	20-42V 700mA OFF ON ON ON
tc:90°C	
For LED modules only	
www.lifud.com	
Made in China(中国制造)	
OUTPUT LED+ LED- 0.5-1.0	

Dimensions (unit: mm)



Packaging Specification

Model	LF-AAB040-1050-42
Packaging Box Size	385*285*210 mm (L*W*H)
Quantities	10 pcs/layer; 7 layers/ctn; 70 pcs/ctn
Weights	0.1355kg/pc; 10.35 kg/ctn

Transportation & Storage

■ Transportation

- Suitable 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.

■ 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

- Please use this product according to its specifications otherwise there may be malfunction.
- Use light fixtures that have not been certified or are not compatible with the LED 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.