Product Description

LF-AAA012B0400-42 is a 12W constant current flicker free LED driver. It has 0-10V/PWM/Rx dimming functions. The input voltage range is 220-240Vac. The output current can be adjusted via the DIP switch from 150mA to 400mA, in steps of 50mA.

Features

- IP20
- Suitable for Class II light fixtures
- Constant current output and the output current can be adjusted via the DIP switch
- Built-in active PFC function
- Standby power consumption <0.5W
- 0-10//PWM/Rx dimming
- 5-year warranty (Please refer to the warranty condition.)

Applications

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

Product Naming

LF- AAA 012 B 0400- 42

- 42: maximum output voltage of 42V
- 0400: maximum output current of 400mA
- B: without 12V AUX power supply
- 012: rated power of 12W
- AAA: LED driver's series

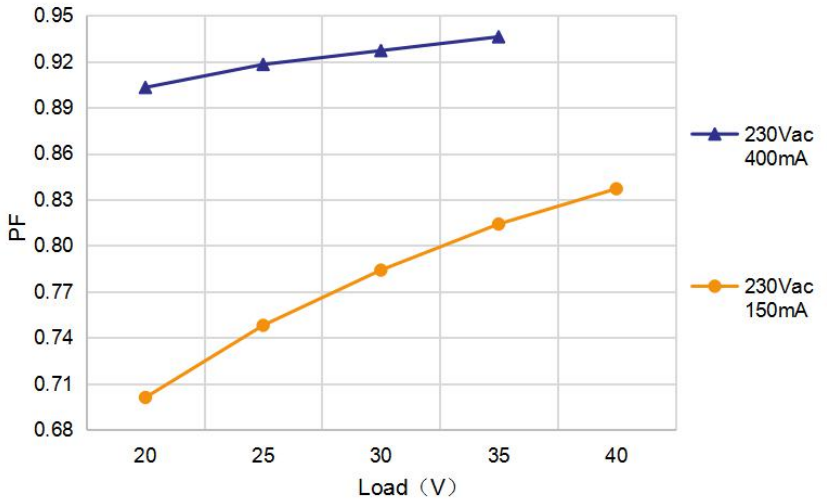
Electrical Characteristics

Model		LF-AAA012B0400-42					
Output	Output Voltage (DC)	9-42V	9-42V	9-42V	9-40V	9-34V	9-30V
	Output Current	Adjustable current via the DIP switch, please refer to the DIP Switch Table					
		150mA	200mA	250mA	300mA	350mA	400mA
	Flicker Index	IEC-Pst ≤1, CIE SVM ≤0.9, Modulation Depth ≤1% Conforms to the flicker free standard (IEEE Std 1789-2015)					
	Ripple Current	<10% (rated current)			<5% (rated current)		
	Current Tolerance	±10%		±5% (20-42V); ±10% (9-20V)			
	Temperature Drift	±10%					
	Start-up Time	<0.5S@230Vac					
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)					
	DC Input Voltage	180-280Vdc					
	Input Frequency	47Hz-63Hz					
	Input Current	0.15A Max					
	Power Factor	≥0.83	≥0.88	≥0.91	≥0.92		≥0.93
	THD	≤18%@230 Vac	≤15%@230Vac (full load)				
	Efficiency	≥75%	≥79%	≥81%	≥80%	≥78%	≥77%
	Inrush Current	≤60A&120uS@230Vac					
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model		B10	C10	B16	C16
		Quantity (pcs)		13	21	20	34
	Surge Protection	L-N: 1KV					
	Leakage Current	≤0.7mA					
	Standby Power Consumption	≤0.5W (When the DIM OFF signal is effective)					
Protections	Open Circuit	<55V					
	Short Circuit	Constant current mode					
Environment Descriptions	Working Temperature	-20℃~+45℃					
	Working 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					

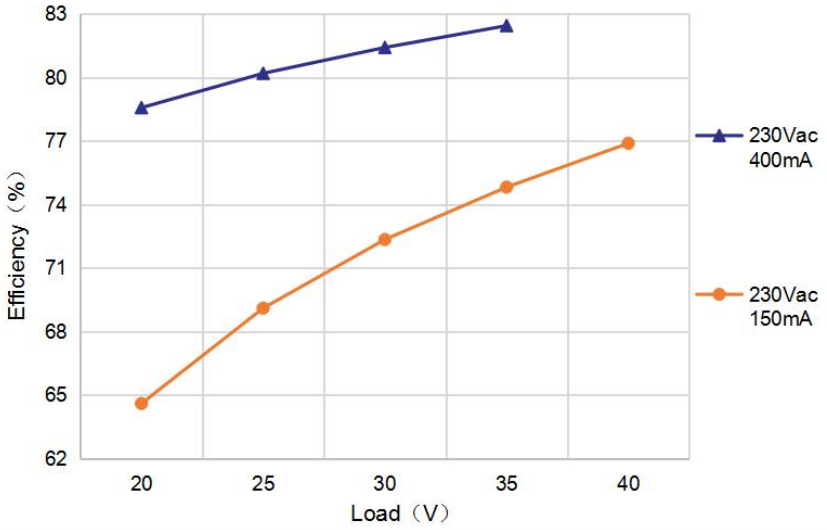
Safety & Electromagnetic Compatibility	Certifications	TUV-ENEC, CCC, RCM, CE, CB
	Withstanding Voltage	I/P-O/P (LED): 3.75KVac, O/P(LED)-O/P(DIM): 500Vac, I/P-O/P(DIM): 500Vac
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009 CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 RCM: AS 61347.2-13: 2018 CB: IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016 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 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≤72℃)
	Noise Level	≤29dBA
Remarks	1. It is recommended that customer should install over voltage, under voltage and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 2. Please disconnect AC input before switching output current via the DIP switch. 3. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 4. 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. 5. Unless otherwise stated, the parameters above are test results under these conditions: ambient temperature 25℃, humidity 50%, 100% load, maximum output current and input voltage 230Vac.	

Product Characteristic Curves

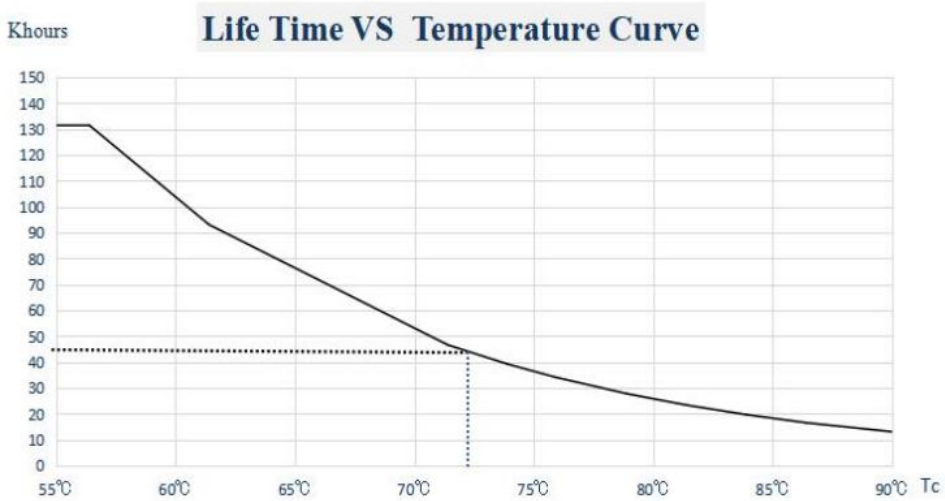
■ PF Curve



■ Efficiency Curve



■ Lifetime Curve



Instructions of Dimming Operation

■ Terminals

INPUT

DIM+	Positive electrode input of 0-10V/PWM/Rx dimming
DIM-	Negative electrode input of 0-10V/PWM/Rx dimming
AC-L	Input terminal of AC live wire
AC-N	Input terminal of AC neutral wire

OUTPUT

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

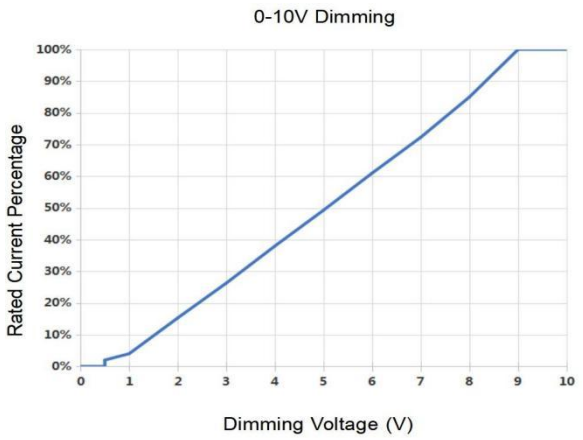
■ DIP Switch Table

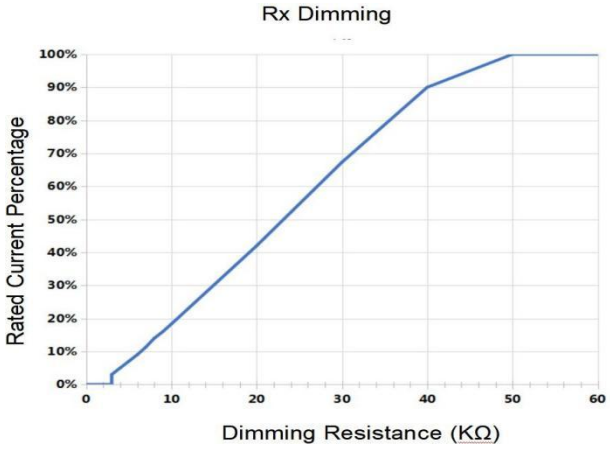
I rated (CC)	1	2	3
400mA	OFF	OFF	OFF
350mA	OFF	OFF	ON
300mA	OFF	ON	OFF
250mA	OFF	ON	ON
200mA	ON	OFF	OFF
150mA	ON	OFF	ON

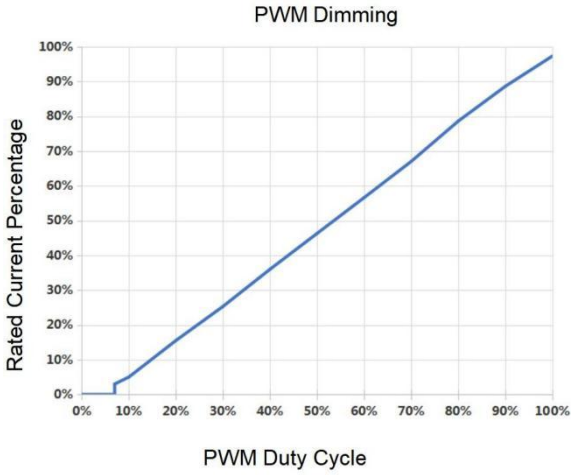
Remark: Except the settings mentioned in the table above, other DIP switch settings are default to be the maximum current 400mA.

■ Operation Instructions of 0-10V/PWM/Rx Dimming

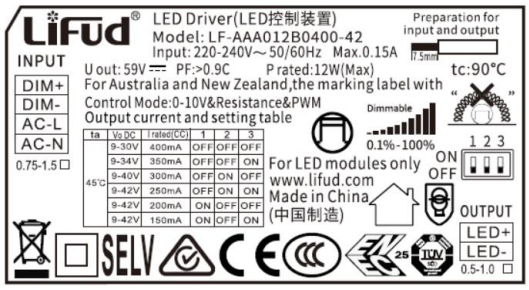
- Connect the 0-10V, PWM or Rx signals to the DIM terminal and the positive electrode connects to DIM+,and the negative electrode connects to DIM-.
- In 0-10V dimming mode, when the input voltage is less than 0.3V, the light will be turned off. When it’s more than 0.5V, the light will be turned on. (±0.2V tolerance is acceptable.)
- The minimum dimming depth of 0-10V dimming is 0.5%.
- The dimming depth of PMW dimming is 0.5%.
- The dimming depth of Rx dimming is 0.5% (with a 50KΩ potentiometer).
- The pins of the DIM terminal without any signal connected: 100% rated output current.



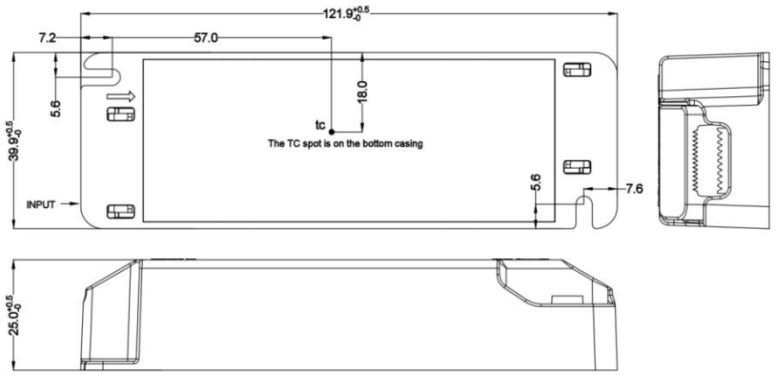




Label



Structure & Dimensions (unit: mm)



Packaging Specifications

Model	LF-AAA012B0400-42
Packaging Dimensions	385*285*210 mm (L*W*H)
Quantities	14 pcs/layer; 7 layers/ctn; 98 pcs/ctn
Weights	0.083 kg/pc; 8.7 kg±5%/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.