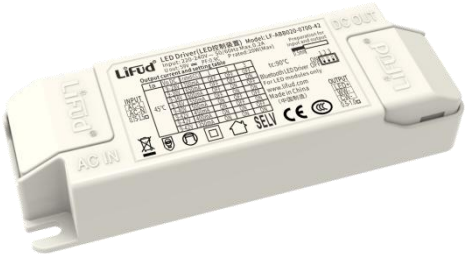
Product Description

LF-ABB020-0700-42 is a 20W constant current LED driver with adjustable Bluetooth CCT dimming function. Its input voltage range is 198-264Vac. Its output current can be adjusted via a DIP switch from 350mA to 700mA, in steps of 50mA.



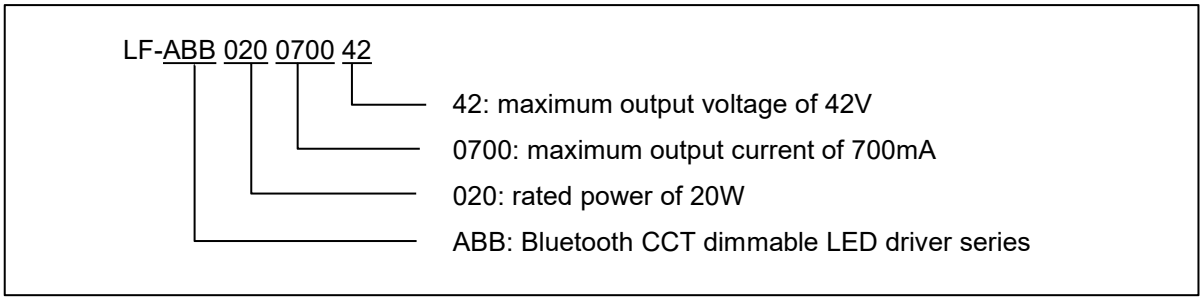
Features

- IP20
- Suitable for Class II light fixtures
- Constant current output and adjustable output current via a DIP switch
- Built-in active PFC function
- Standby power consumption <0.5W
- Bluetooth CCT dimming
- Tuya BT7L module applied
- 5-year warranty (Please refer to the warranty condition.)

Applications

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

Naming



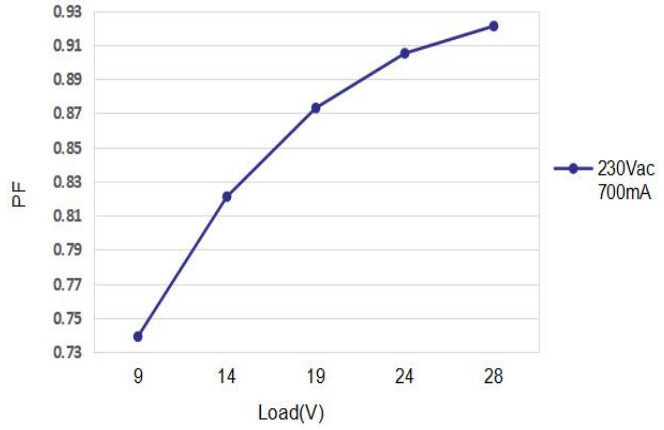
Electrical Characteristics

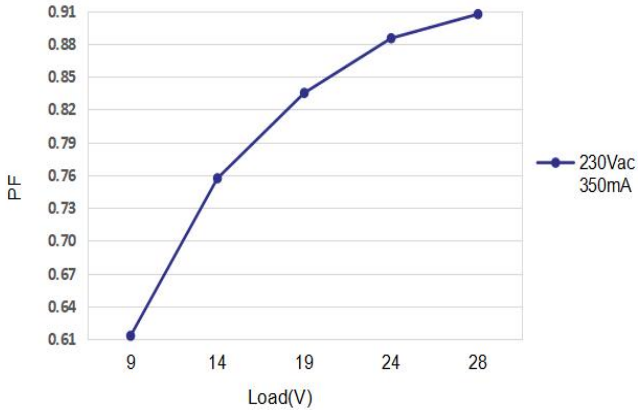
Model		LF-ABB020-0700-42							
Output	Output Voltage	9-42V							
	Output Current	Adjustable via the DIP switch, please refer to “DIP switch table”.							
		9-28V	9-30V	9-34V	9-36V	9-40V	9-42V	9-42V	9-42V
		700mA	650mA	600mA	550mA	500mA	450mA	400mA	350mA
	Flicker Index	IEC-Pst≤1, CIE SVM≤0.9, Modulation Depth ≤1% Conforms to the standard of flicker free (IEEE Std 1789-2015)							
	Current Tolerance	±5%							±7%
	Temperature Drift	±10%							
	Start-up Time	<1.5S@230Vac							
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)							
	DC Input Voltage	180-280Vdc							
	Input Frequency	47Hz-63Hz							
	Input Current	0.2A max.							
	Power Factor	≥0.93	≥0.93	≥0.93	≥0.93	≥0.93	≥0.92	≥0.91	≥0.89
	THD	≤15%/230Vac (full load)							
	Efficiency	≥82.5%	≥83%	≥83.5%	≥84%	≥84.5%	≥85%	≥84.5%	≥83.5%
	Inrush Current	≤60A@230Vac							
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model		B10		C10		B16	C16
		Quantity (pcs)		21		26		25	42
	Leakage Current	≤0.7mA							
	Standby Power Consumption	≤0.5W (when APP DIM OFF signal is effective)							
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	-30℃~+ 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 CB: IEC 61347-1:2015, IEC61347-2-3:2014, IEC 61347-2-13: 2014/AMD1: 2016
	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≤90℃)
	Noise Level	≤29db (It is tested in a quiet room and the noise collector should be tested 10CM from the LED driver)
Remarks	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. 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. 3. The test conditions of the circuit breaker configuration quantity are the same as that of the inrush current test. 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.	

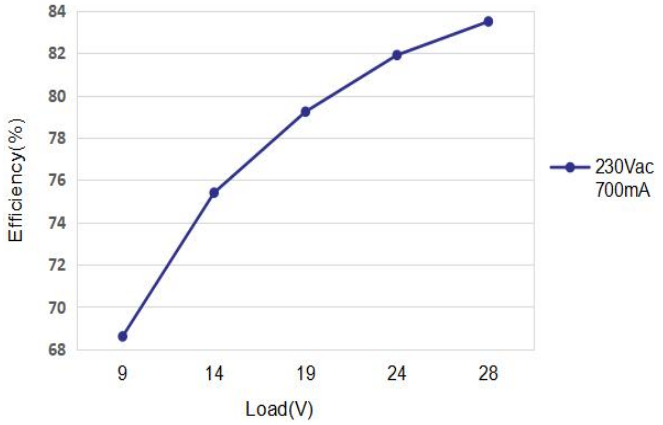
Characteristic Curves

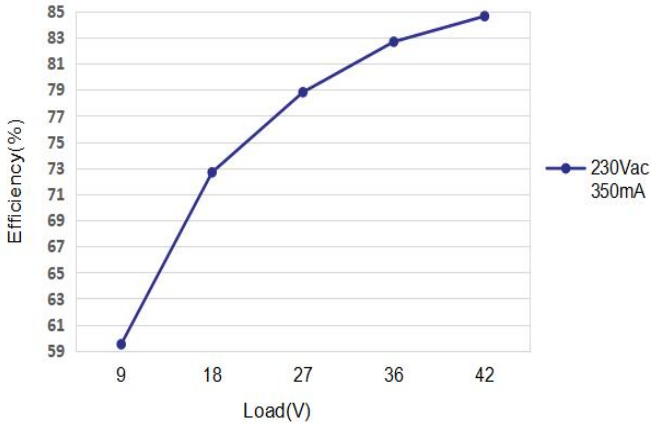
■ PF Curves



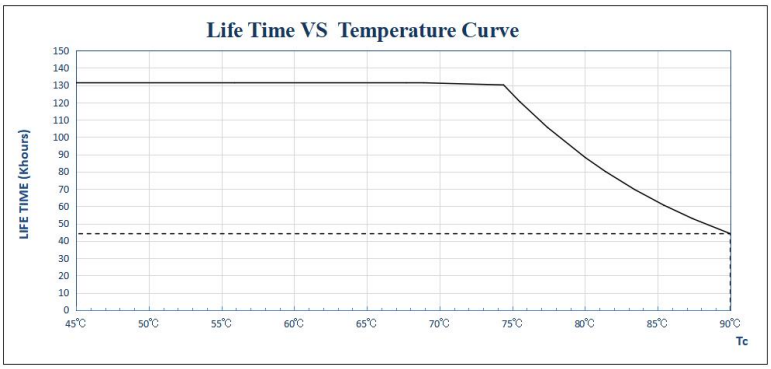


■ Efficiency Curves





■ Lifetime Curve



Operations of Dimming

■ Terminals of the LED driver

INPUT

AC-L	Input terminal of AC live wire
NC	Vacant
AC-N	Input terminal of AC neutral wire

OUTPUT

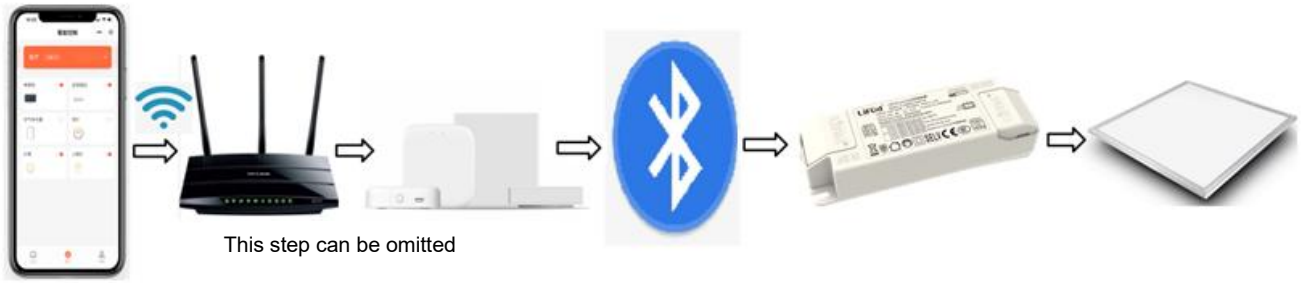
LED+	Positive electrode output of LED driver
WW-	Negative electrode output of driver's warm light
CW-	Negative electrode output of driver's cold light

■ Definitions of Terminals

I rated (CC)	1	2	3
700mA	OFF	OFF	OFF
650mA	OFF	OFF	ON
600mA	OFF	ON	OFF
550mA	OFF	ON	ON
500mA	ON	OFF	OFF
450mA	ON	OFF	ON
400mA	ON	ON	OFF
350mA	ON	ON	ON

Note: when the driver outputs with one channel, the output current of WW or CW is the one corresponding to the voltage in the table; when the driver outputs with two channels, the output current of WW or CW is the half one corresponding to the voltage in the table. And except the known DIP switch modes, the default value of other DIP switch modes is the maximum 700mA.

■ 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: about 10m (measured in barrier-free condition).
- The number of gateway matching for the LED driver: A gateway can be matched for 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”.

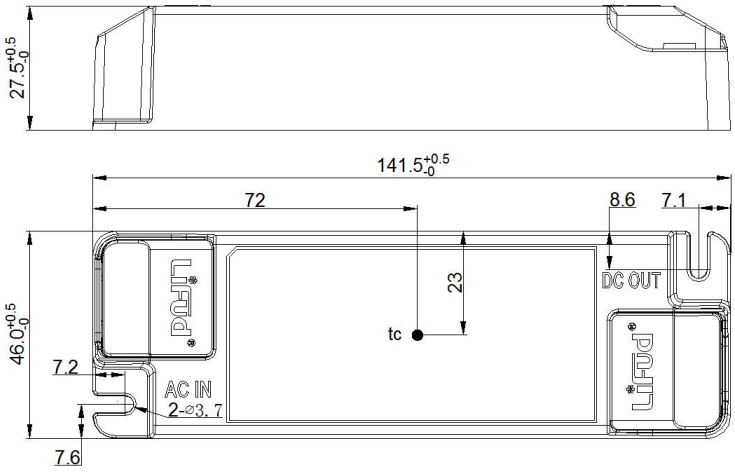
- When a device that has been connected to the network joins a new gateway, the network needs to be disconnected.
- Operations for Network connection and disconnection: If the AC input terminal of the LED driver is continuously on/off for 5 times (within 5S), and the output light turns on alternately 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: 8mA-700mA (take 700mA as an example)

- The default setting of the LED driver is two-channel output with 50% cold color and 50% warm color. Moreover, the driver has 100% brightness.

Label

Dimensions (unit: mm)



Packaging Specifications

Model	LF-ABB020-0700-42
Packaging Box Size	385*285*210 mm (L*W*H)
Quantities	10 pcs/layer; 7 layers/ctn; 70 pcs/ctn
Weights	0.126 kg/pc; 9.32 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.