

Features

- 0-10V/PWM/Rx dimmable
- THD <15%
- Output current adjustable via DIP switch
- Dim to off
- Flicker free
- IP20
- 5-year warranty (please refer to the warranty condition)



Applications

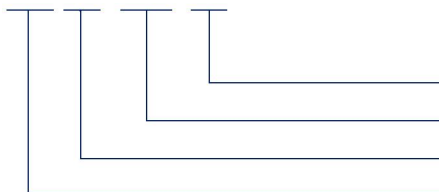
· Indoor office lighting · decorative lighting · commercial lighting · residential lighting

Descriptions

LF-ABA020-0500-42 is a 20W 0-10V/PWM/Rx dimmable constant current LED driver. Its rated input voltage ranges from 198 to 264Vac and output current is adjustable via DIP switch from 350mA to 500mA with every 50mA as a step.

Product Model

LF - ABA 020 - 0500 - 42



- 42: maximum output voltage: 42V
- 0500: maximum output current: 500mA
- 020: rated power: 20W
- A: indoor LED driver; BA: 3-in-1 dimming LED driver

■ Electrical Characteristics

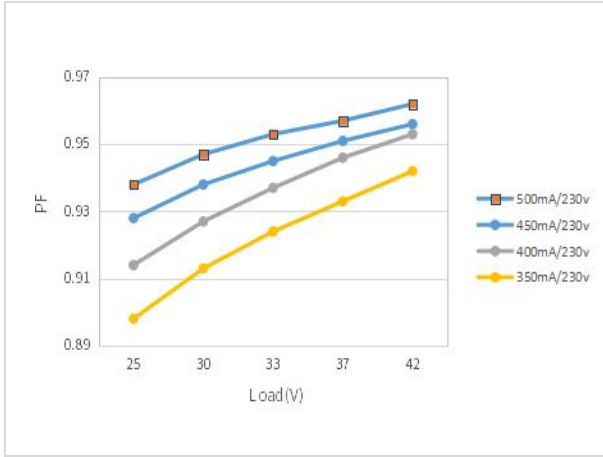
Model		LF-ABA020-0500-42				
Output	Output Voltage	25-42V (please restart AC when switching between light load and full load)				
	Output Current	350mA	400mA	450mA	500mA	
	Flicker Index	IEC-Pst \leq 1, CIE SVM \leq 0.4 (complies with IEEE Std 1789-2015)				
	Current Tolerance	\pm 5%				
	Temperature Drift	\pm 10%				
	Startup Time	<0.5S@230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	180-280Vdc				
	Input Frequency	47-63Hz				
	Input Current	0.2A max.				
	PF	\geq 0.93	\geq 0.94	\geq 0.94	\geq 0.95	
	THD	<15%				
	Efficiency	\geq 82%	\geq 82%	\geq 82%	\geq 82.5%	
	Inrush Current	<60A/120uS @230Vac				
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16
		Quantity (pcs)	31	50	52	83
	Leakage Current	<0.7mA				
	Standby Power Consumption	\leq 0.5W (dim to off)				
Protection Characteristics	Open Circuit	<55V				
	Short Circuit	Hiccup mode (auto-recovery)				
Environment Descriptions	Operating Temperature	-20°C~+45°C				
	Operating Humidity	20-90%RH (no condensation)				
	Storage Temperature/ Humidity	-40°C~+80°C (6 months in Class I environment); 10-90%RH (no condensation)				
	Atmospheric Pressure	86-106kPa				

■ Electrical Characteristics

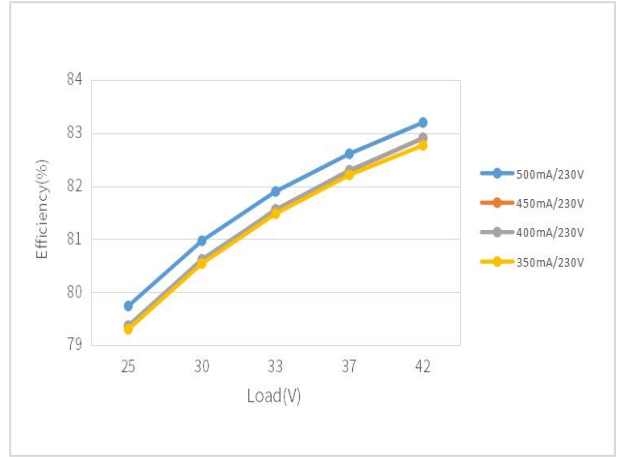
Safety and EMC	Certifications	ENEC, CE, CB, RCM, SAA, CCC
	Withstanding Voltage	I/P-O/P: 3.75kV 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	ENEC: EN 61347-1: 2015, EN 61347-2-13: 2014/A1: 2017, EN 62384: 2016/A1: 2009 CE-LVD: EN 61347-2-13: 2014/A1: 2017, EN 61347-1: 2015, EN 62493: 2015 CB: IEC 61347-1: 2015, IEC61347-2-3: 2014, IEC 61347-2-13: 2014/AMD1: 2016 RCM: AS 61347.2-13: 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
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 years (Tc ≤82°C)
	Noise Level	≤29db (this data is measured in a soundproof room and the noise collector should be 10CM away from LED driver)
Test Equipment	Digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, 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.	
Additional Remarks	<ol style="list-style-type: none"> 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. 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. 3. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current. 4. If there are no special remarks, the above parameters are tested at the ambient temperature of 25°C, humidity of 50%, full load, maximum output current and input voltage of 230Vac. 5. Lifud reserves the right to interpret any of the above parameters. 	

■ **Product Characteristic Curves**

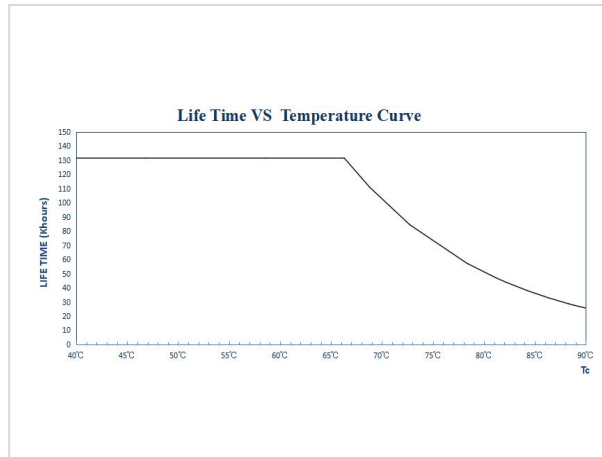
PF Curve



Efficiency Curve



Lifetime Curve



■ **Product Definitions**

Product Terminals

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

OUTPUT	
LED+	Positive Electrode Output of LED Driver
LED-	Negative Electrode Output of LED Driver
DIM+	Positive electrode of dimming
DIM-	Negative electrode of dimming

■ **Product Definitions**

Product DIP Switch

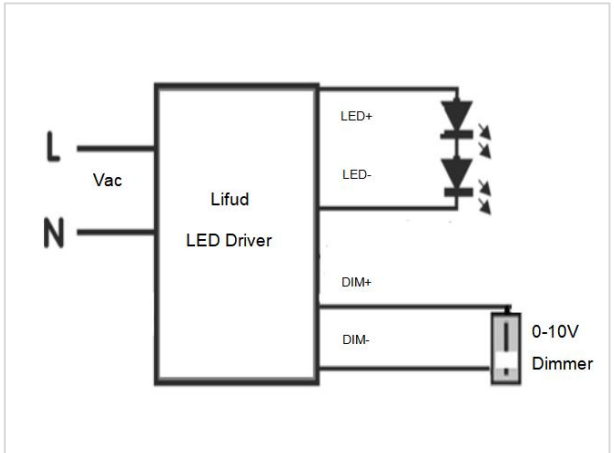
I rated (CC)	1	2
500mA	ON	ON
450mA	OFF	ON
400mA	ON	OFF
350mA	OFF	OFF

■ **Dimming Operation Instructions**

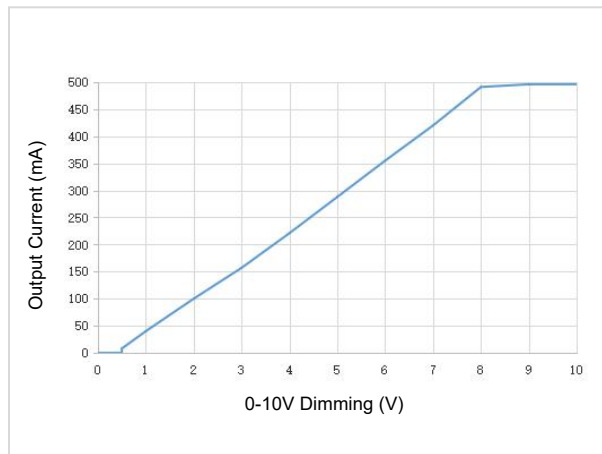
0-10V Dimming Operation

- Connect 0-10V signal to DIM terminal.
- In 0-10V dimming mode, when the input voltage is $0.5V \pm 0.1$, the light turns off; when it's $0.3V \pm 0.1$, the light turns on.
- Dimming depth: 3% (typical value)
- DIM+/- (without signal connected): 100% rated current output

Wiring Diagram of 0-10V Dimming



Dimming Curve of Dim-to-off Version



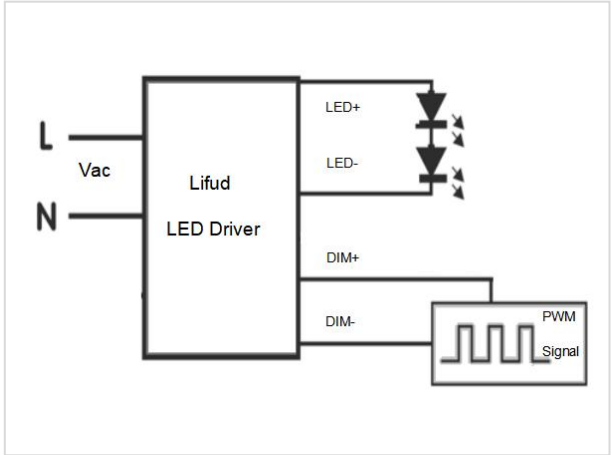
Input: 230Vac; output: 42Vdc/500mA (this data is measured by Lifud 0-10V dimmer and the chart is for reference only)

■ **Dimming Operation Instructions**

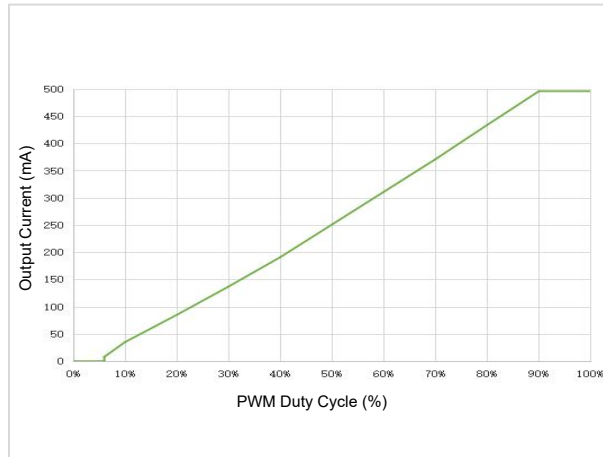
PWM Dimming Operation

- Connect PWM signal to DIM terminal.
- Dimming depth: 3% (typical value)
- Compatible signal: 1000(Hz); amplitude: 9-10(V)
When it's 5% ± 1%, the light turns on; when it's 4% ± 1%, the light turns off.
- DIM+/- (without signal connected): 100% rated current output

Wiring Diagram of PWM Dimming



Dimming Curve of Dim-to-off Version



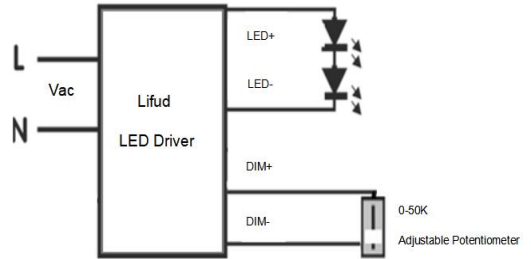
Input: 230Vac; output: 42Vdc/500mA
(this data is measured by PWM signal generator RIGOL and the chart is for reference only)

■ **Dimming Operation Instructions**

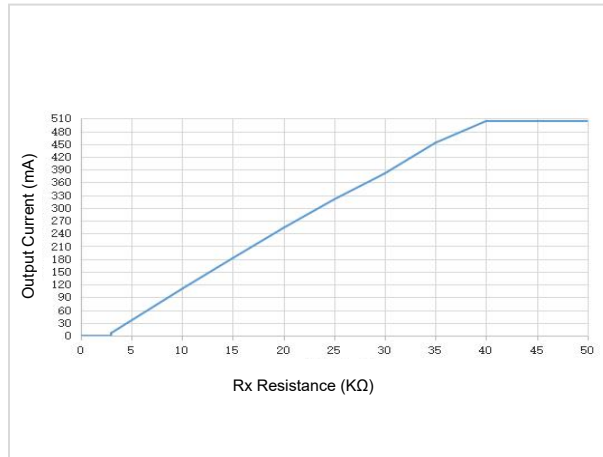
Rx Dimming Operation

- Connect Rx signal to DIM terminal.
- Range: 0-100KΩ
- Dimming depth of Rx dimming: 4% (typical value)
When it's $3K \pm 1K$, the light turns on; when it's $2K \pm 1K$, the light turns off.
- DIM+/- (without signal connected): 100% rated current output

Wiring Diagram of Rx Dimming

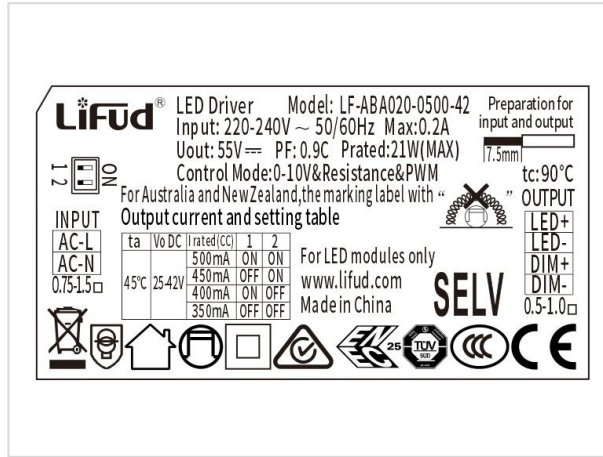


Dimming Curve of Dim-to-off Version



Input: 230Vac; output: 42Vdc/500mA
(this data is measured by LEVITON dimmer and the chart is for reference only)

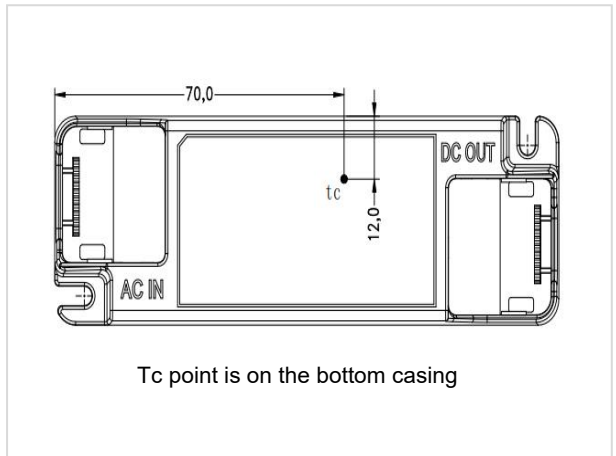
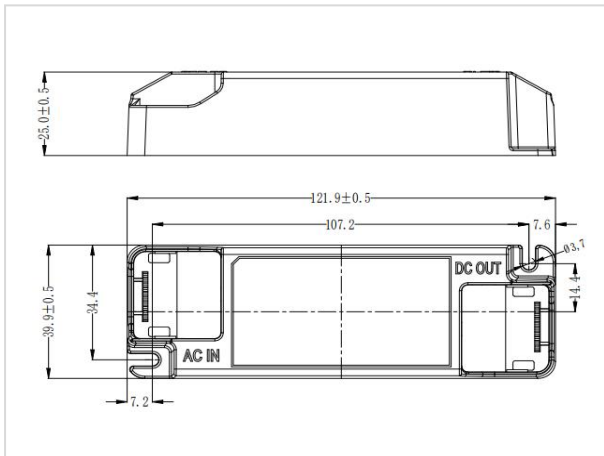
■ Label



■ Structure & Dimensions (unit: mm; tolerance: ±0.5mm)

Overall Appearance

Model	Overall Appearance (L*W*H)	Distance Between 2 Positioning Holes	Diameter of Positioning Hole
LF-ABA020-0500-42	121.9*39.9*25 mm	107.2 mm	3.7 mm



■ **Packaging Specifications**

Model	LF-ABA020-0500-42
Carton Size	385*285*210 mm (L*W*H)
Quantity	14 pcs/layer; 6 layers/ctn; 84 pcs/ctn
Weight	0.086 kg/pc; 8.3 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 Tecology Co., Ltd. reserves the right to interpret any contents of this specification.