Lifud[®]辣福德LF-ABA030A-0750-42 EU-Standard 3-in-1 Dimming with 12V AUX LED Driver

Features

- Supports 0-10V/PWM/Rx dimming
- THD <10%
- Output current adjustable via a DIP switch
- Surge: L-N 2kV
- Flicker free
- 1% Dimming depth
- IP20
- AUX: 12Vdc&200mA; ripple voltage<80mV
- Suitable for Class II light fixtures
- 5-year warranty (please refer to the warranty condition)





Applications

Indoor office lighting \cdot decorative lighting \cdot commercial lighting \cdot residential lighting

Descriptions

LF-ABA030A-0750-42 is a constant current LED driver with the maximum output power of 31.5W. Its rated input voltage range from 220 to 240Vac and its output current can be adjusted via a DIP switch from 500mA to 750mA with every 50mA as a step. It supports 12V AUX that can connect external smart mudules. Besides, it has all-round protections, including open circuit protection and short circuit protection. It is suitable for panel light, downlight and so on.

Product Model

LF - ABA 030A - 0750 - 42

- 42: maximum output voltage: 42V
- 0750: maximum output current: 750mA
- 030: rated power: 30W; A: 12V AUX
- ABA: indoor 3-in-1 dimming LED driver series

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■ Electrical Characteristics

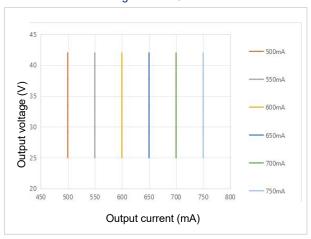
Model		LF-ABA030A-0750-42					
Output Voltage		25-42V					
	Output Current	500mA	550mA	600mA	650mA	700mA	750mA
	Ripple current (≤100Hz)	±3.3%					
	Flicker Index	IEC-Pst≤1, CIE SVM≤0.4 Complies with IEEE Std 1789-2015.					
Output	Current Tolerance	±5%					
	Temperature Drift	±10%					
	Startup Time	<18					
	AUX	12±1.5V&200mA					
	Ripple voltage of AUX	<80mV					
	Rated Input Voltage	220-240Vac					
	Input Voltage Range	198-264Vac					
	Input Frequency	50/60Hz ^①					
	Input Current	0.3A max.					
	PF	≥0.97					
	THD	<10%					
Input	Efficiency	≥87.5%					
	Inrush Current	<25A&200uS					
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	3	C16
		Quantity (pcs)	26	26	42		42
	Leakage Current	<0.7mA					
	Standby Power Consumption	≤0.5W (dim to off)					
	Open Circuit	<59V					
Protections	Short Circuit	Hiccup mode (auto-recovery)					
Environment Descriptions	Operating Temperature	-30°C - +45°C					
	Operating Humidity	20-90%RH (without condensation)					
	Storage Temperature/ Humidity	-40°C~+80°C (6 months in Class I environment); 10-90%RH (without condensation)					
	Atmospheric Pressure	86-106kPa					
Surge	L-N	2kV					

■ Electrical Characteristics

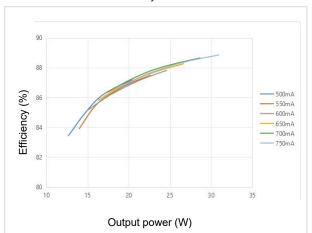
	Certifications	ENEC, CE, RCM, CCC, UKCA			
	Withstanding Voltage	I/P-O/P: 3.75kV&5mA&60S; I/P-DIM O/P-DIM: 1.5kV&5mA&60S			
Safety and EMC	Insulation Resistance	I/P-O/P I/P-DIM O/P-DIM: >100MΩ@500VDC			
	Safety Standards	ENEC:EN61347-1:2015, EN 61347-2-13:2014/A1:2017, EN 62384: 20: CE-LVD:EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:20: RCM:AS 61347.2-13:2018 SAA:AS 61347.1:2016+A1:2018 AS 61347.2.13:2018 CCC:GB19510.1-2009, GB19510.14-2009 UKCA: BS EN IEC 55015: 2019+A11: 2020, BS EN 61547: 2009,BS IEC 61000-3-2: 2019, BS EN 61000-3-3: 2013/A2: 2021			
	EMI	CE-EMC/RCM:EN55015, EN61000-3-2, EN61000-3-3 CCC:GB/T17743, GB17625.1, GB17625.2			
	EMS	CE-EMC/RCM: EN61000-4-2,3,4,5,6,11 CCC:GB/T17626.2,3,4,5,6,11			
	IP Rating	IP20			
	RoHS	RoHS 2.0 (EU) 2015/863			
Other Parameters	Tc Max	90°C			
	Warranty Condition	5 years (Tc ≤90°C)			
	Noise Level	≤25dB (this data is measured in a soundproof room and the noise collector should be 10CM away from LED driver)			
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test) Everfine LFA-3000, etc.				
Additional Remarks	 It is recommended that user install over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 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. The test conditions of the circuit breaker configuration quantity are the same as those of the inrush current. The above parameters are tested at the ambient temperature of 25°C, humidity of 50%, maximum output power and input voltage of 230Vac without any special remarks. Lifud reserves the right to interpret any of the above parameters. Note: ① DC input is not supported. 				

■ Product Characteristic Curves

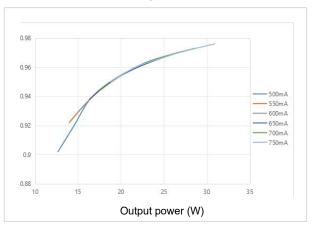
Working Window Curve



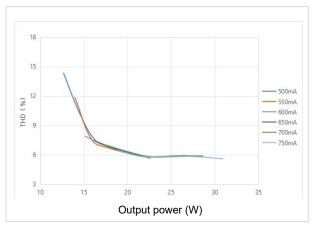
Efficiency Curve



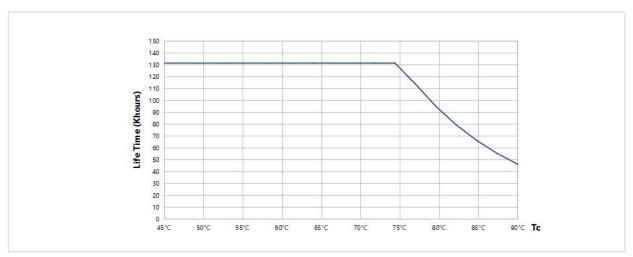
PF Curve



THD Curve



Lifetime Curve

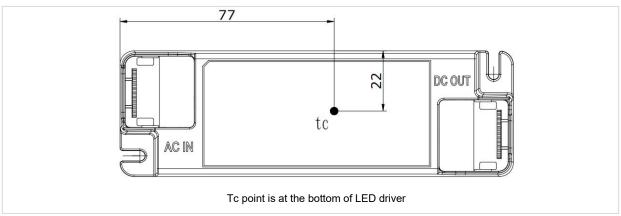


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■ Product Characteristic Curves

Tc Point Testing Diagram



■ Definitions of Product Terminals

	INPUT	OUTPUT		
AC-L	Input terminal of AC live wire	LED+	Positive electrode output of LED driver	
AC-N	Input terminal of AC neutral wire	LED-	Negaitive electrode output of LED drive	
/	1	12V+	Positive electrode of 12V	
/	1	DIM-/12V-	Negaitive electrode of dimming/12V	
/	1	DIM+	Positive electrode of dimming	

■ Definitions of DIP Switch

Vo DC	I rated (CC)	1	2	3
	750mA	-	ON	ON
	700mA	ON	-	ON
25.42\/	650mA	-	-	ON
25-42V	600mA	-	ON	-
	550mA	ON	-	-
	500mA	-	-	-

Remark: "-": shift OFF. Please do not use the DIP switch when the LED driver is powered on. If DIP switch function needed, please disconnect input AC power supply first.

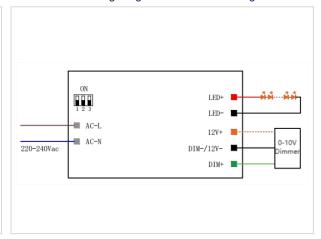
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0-10V Dimming Operation

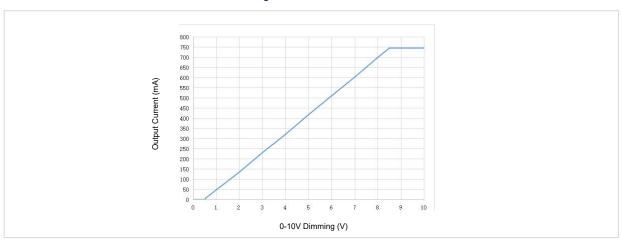
Connect 0-10V signal to DIM terminal.

- In 0-10V dimming mode, when the input voltage is $0.55V\pm0.05V$, the light turns on. When it's $0.35V\pm0.1V$, the light turns off @Uo max&Ta=25°C.
- · Dimming depth: 1%
- 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/750mA (The data is measured by Lifud 0-10V dimmer and the chart is for reference only)

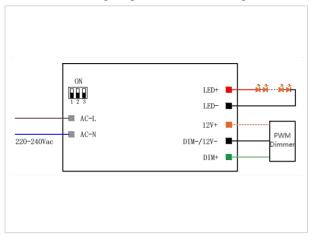
PWM Dimming Operation

- Connect PWM signal to DIM terminal.
- Compatible signal range: 400-1000(Hz); amplitude: 9-10(V)

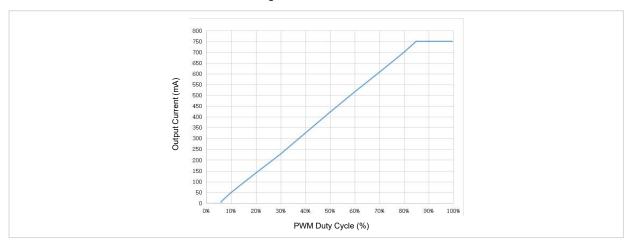
When it is $6\%\pm1\%$, the light turns on; when it is $3.5\%\pm1\%$, the light turns off. @Uo max&Ta=25°C

- Dimming depth: 1%
- DIM+/- (without signal connected): 100% rated current output

Wiring Diagram of PWM Dimming



Dimming Curve of Dim-to-Off Version



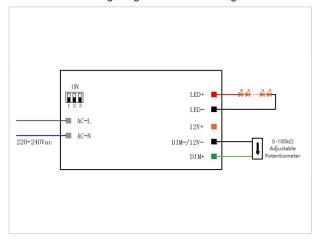
Input: 230Vac, output: 42Vdc/750mA (The data is measured by PWM signal generator RIGOL and the chart is for reference only)

Rx Dimming Operation

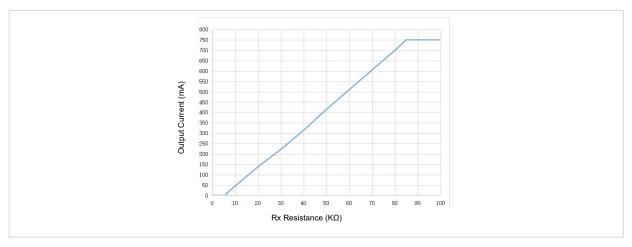
• Connect Rx signal to DIM terminal.

- Range: 0-100ΚΩ@Uo max&Ta=25°C
 When it is 5.5ΚΩ±1ΚΩ, the light turns on; when it is 3ΚΩ±1ΚΩ, the light turns off.
- Dimming depth: 1%
- DIM+/- (without signal connected): 100% rated current output

Wiring Diagram of Rx Dimming



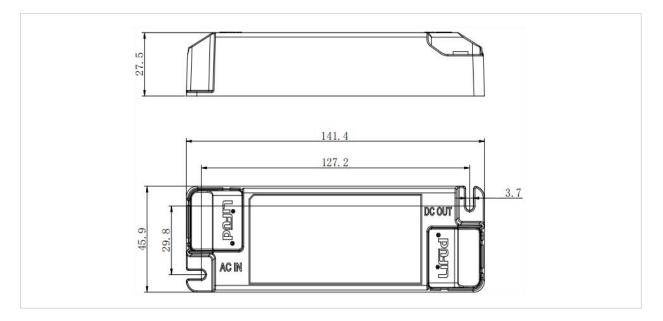
Dimming Curve of Dim-to-Off Version



Input: 230Vac, output: 42Vdc/750mA (The data is measured by LEVITON dimmer and the chart is for reference only)

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

Model	Overall Appearance Dimension (L*W*H)	Distance Between 2 Positioning Holes (L*W)	Diameter of Positioning Hole
LF-ABA030A-0750-42 141.4*45.9*27.7 mm (±0.5mm)		127.2*29.8 mm (±0.5mm)	3.7 mm



■ Packaging Specifications

Model	LF-ABA030A-0750-42	
Carton Size	385*285*210 mm (L*W*H)	
Quantity	10 pcs/layer; 7 layers/ctn; 70 pcs/ctn	
Weight	0.12 kg \pm 5% /pc; 9.6 kg \pm 5% /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.