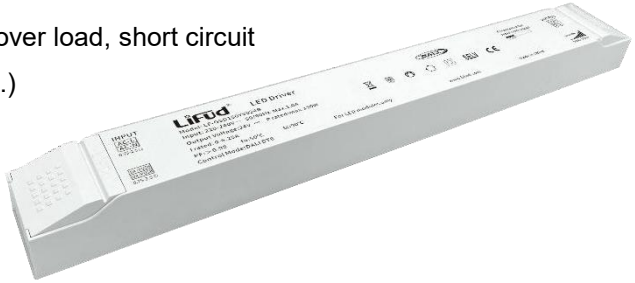
Product Description

LF-GDE120YV012 series is a 120W constant voltage LED driver with 0-10V/PWM/Rx dimming function. Input voltage: 220-240VAC; rated output voltage: 12V; rated output current: 10A. It is a reliable constant voltage LED driver with high efficiency and low THD, suitable for indoor LED strip.

Features

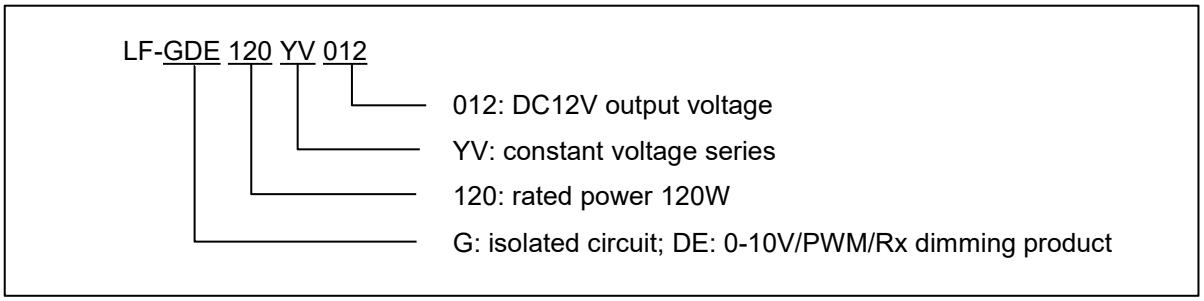
- IP20
- Suitable for Class II light fixtures
- Built-in active power factor correction function
- 0-10V/PWM/Rx dimming, dimming depth: 0.5%
- Flicker free
- Small size; high efficiency (typical value≥93%)
- All-round protections: over temperature, over voltage, over load, short circuit
- 5-year warranty (Please refer to the warranty condition.)



Applications

- LED strip
- Luminous character
- Light box

Naming



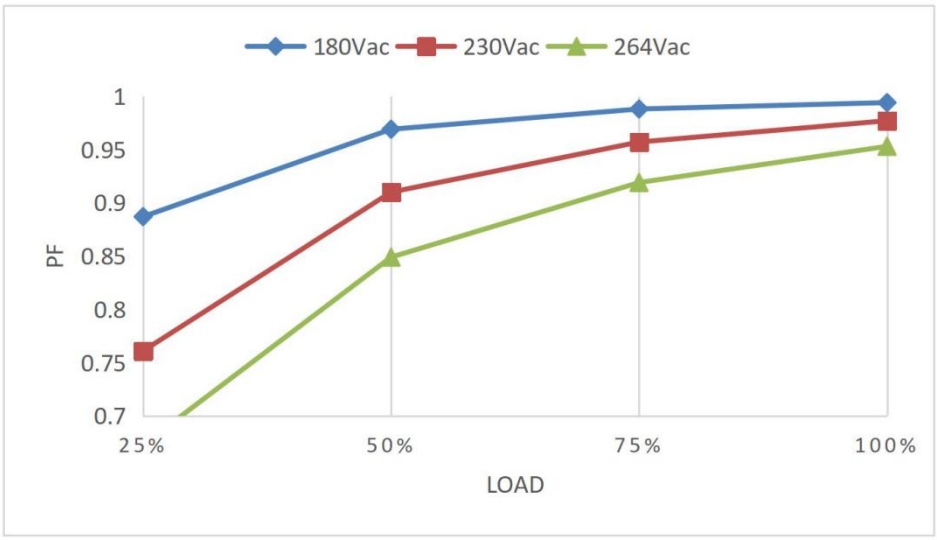
Electrical Characteristics

Model		LF-GDE120YV012				
Output	Output Voltage	12Vdc				
	Output Current	0-10A				
	Output Power	120W max @220-240Vac				
	Flicker Index	IEC-Pst≤1, CIE SVM≤0.9, Modulation Depth≤1%, meet with flicker free standard (IEEE Std 1789-2015)				
	Ripple Voltage	200mV max				
	Voltage Tolerance	±2%				
	Temperature Drift	±5%				
	Start-up Time	<1S @230Vac				
Input	Input Voltage	220-240Vac (voltage limit: 198-264Vac)				
	DC Input Voltage	282-340Vdc (voltage limit: 255-373Vdc)				
	Input Frequency	47Hz-63Hz				
	Input Current	1A Max.				
	Power Factor	≥0.95@230Vac (full load)				
	THD	≤10%@230Vac (full load)				
	Efficiency	≥93%@230Vac (full load)				
	Inrush Current	≤74A & 220uS @230Vac				
	Load Quantity Carried by the Circuit Breaker	Circuit Breaker Model	B10	C10	B16	C16
		Quantity (pcs)	5	6	8	10
	Leakage Current	≤0.7mA				
	Standby Power Consumption	≤1W@230Vac				
Protection Characteristics	Open Circuit	<18V				
	Over Temperature	No output (auto-recovery)				
	Short Circuit	Hiccup mode (auto-recovery)				
Environment Descriptions	Operating Temperature	-20℃~+50℃				
	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				

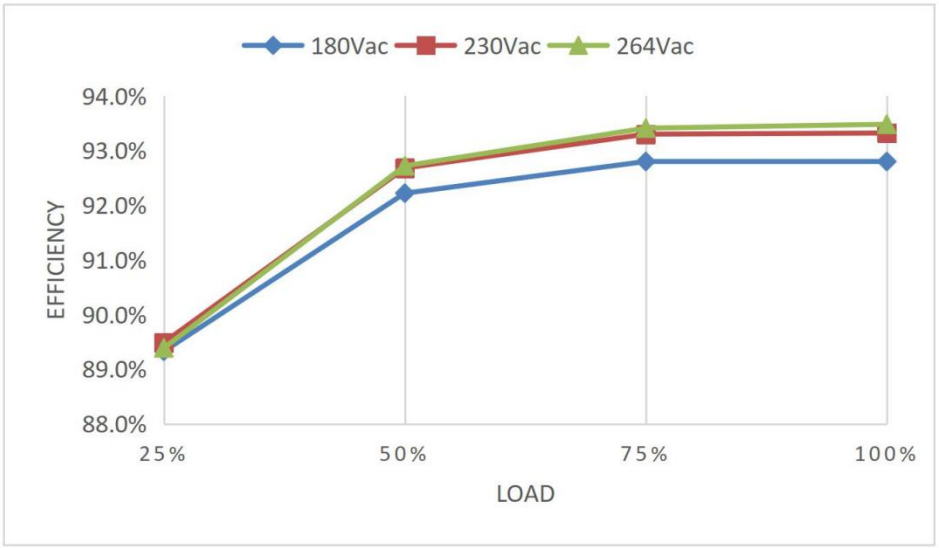
Safety and Electromagnetic Compatibility	Certifications	ENEC, CE, CB, RCM, SAA, CCC
	Withstanding Voltage	I/P-O/P: 3.75KV, 5mA, 60S
	Insulation Resistance	I/P-O/P: >100MΩ @500Vdc
	Safety Standards	ENEC: EN61347-1:2015, EN 61347-2-13:2014/A1:2017, EN 62384: 2016/A1:2009 CE-LVD: EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62493:2015 CB: IEC 61347-1:2015,IE61347-2-3:2014, IEC 61347-2-13:2014/AMD1:2016 SAA: 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: EN61000-4-2,3,4,5,6,11 CCC:GB/T17626.2,3,4,5,6,11
Others	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 yrs (Tc≤84℃)
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. 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. 3. 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. 4. Unless otherwise stated, the parameters of PF, THD and efficiency are test results under the conditions of ambient temperature of 25 ± 5℃, humidity of 50%, input voltage of 230Vac and full load.	

Characteristic Curve

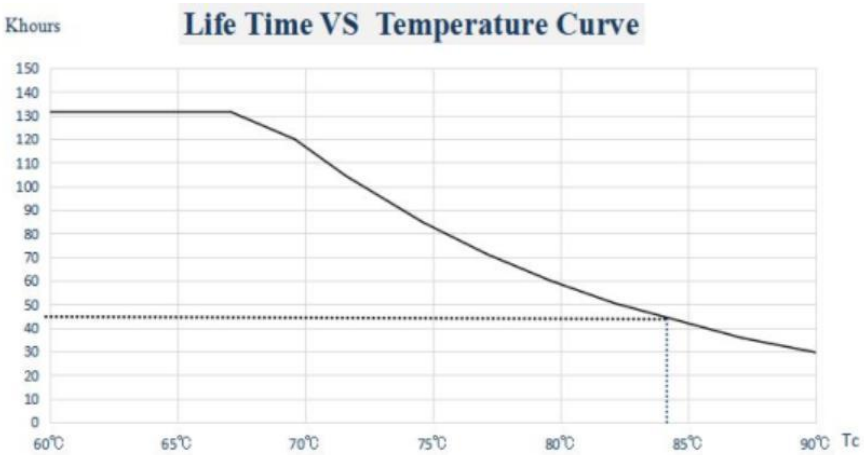
■ PF Curve



■ Efficiency Curve



■ Lifetime Curve



Operations of Dimming

■ Definitions of Input/Output Terminals

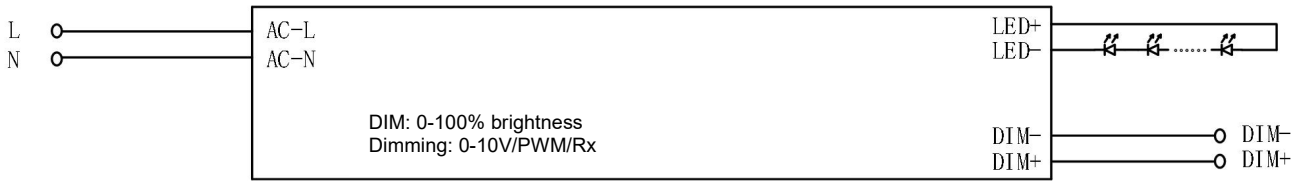
INPUT

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

OUTPUT

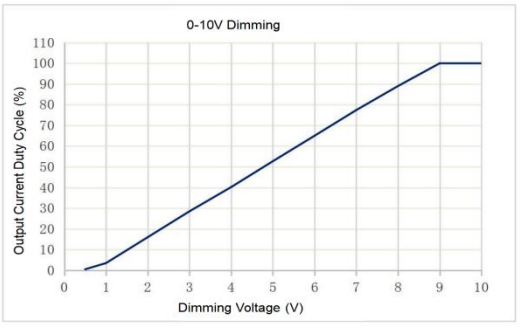
LED+	Positive electrode output of driver
LED-	Negative electrode output of driver
DIM-	Negative electrode input of 0-10V/PWM/Rx dimming
DIM+	Positive electrode input of 0-10V/PWM/Rx dimming

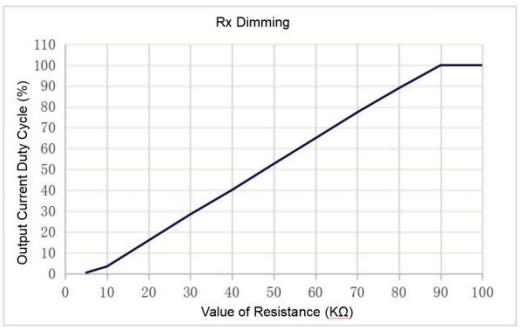
■ Wiring Diagram



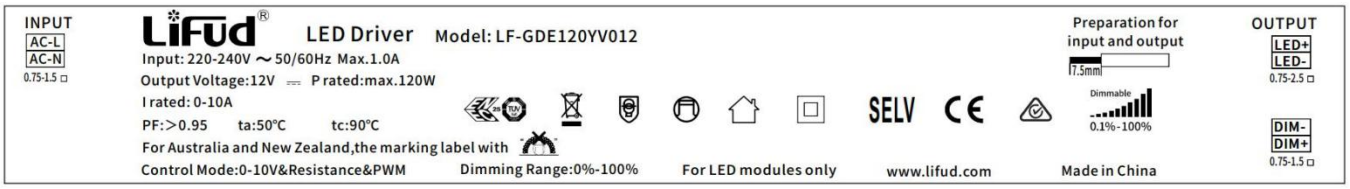
■ Operations of 0-10V, PWM and Rx dimming

- Connect the 0-10V, PWM or Rx signal to the DIM terminals.
- In 0-10V dimming mode, when the input voltage≤0.3V, the light will be turned off. when the input voltage≥0.5V, the light will be turned on.
- PWM signal range: 500-3000 (Hz); amplitude: 10 (V)
- Rx range: 0-100KΩ
- DIM+/- (no signal connection): 100% rated current
- The minimum dimming depth is about 0.5% (output duty cycle)

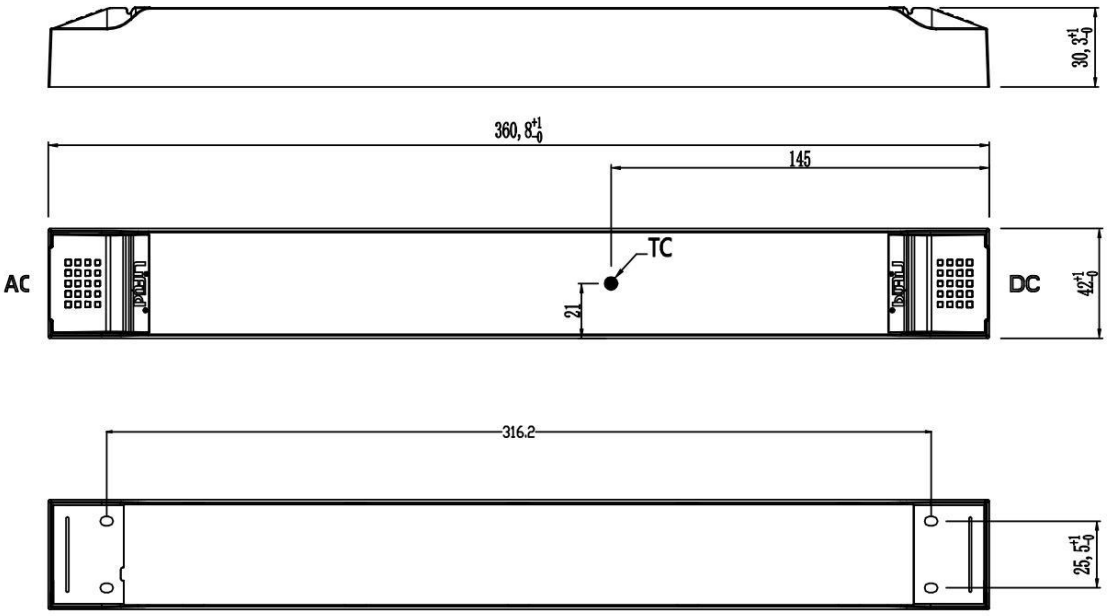




Label



Dimensions (unit: mm)



Packaging Specification

Model	LF-GDE120YV012
Packaging Box Size	385*285*210 mm (L*W*H)
Quantities	6 pcs/layer; 5 layers/ctn; 30 pcs/ctn
Weights	360 g/pc; 11.8 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.

Change Resume

Version	Content of Change	Date	Remark
V1.0	Formal release	21 MAY 2021	