

120W constant Voltage-LS Series



Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: ≥ 0.95 (Typ.)
- Efficiency: $\geq 93\%$ (Typ.)
- 5 years warranty

Applications

- LED strips

■ Approve

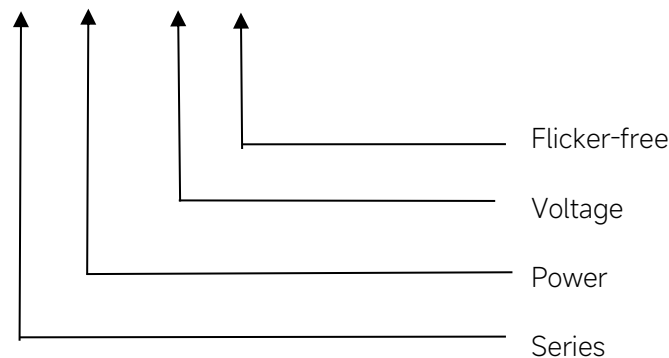


◆ Description

LS-120-XX LI EXC is a 120W constant voltage LED driver that operates from 198-264Vac input with 24V or 48V output voltage. With it's compact dimensions from 227 x 38 x 30mm. It is easy to integrate in LED strips products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-120-XX LI EXC



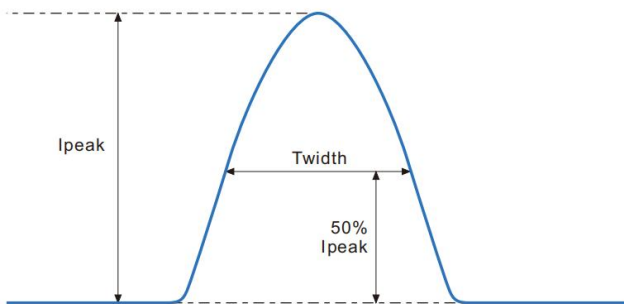
◆ Specification

Output	Constant Voltage	24±1VDC	48±1VDC
	Current Range	5A Max.	2.5A Max.
	Voltage Accuracy	±5%	
	Output HF current ripple(≥1KHz)	±5%	
	Output LF current ripple(≤120Hz)	±5%	
	SVM	≤0.4@Full Load	
	Pst	≤1@Full Load	
	Efficiency(Typ.)	≥93%@Full load,230V	
Input	Rated input voltage	220-240V	
	Range of input voltage	198-264VAC	
	Range of input DC voltage(VDC)	176-280VDC	
	Frequency(Hz)	0/50/60 Hz	
	Displacement factor	≥0.9	
	Power Factor	≥0.95@Full load,230V	
	Input Current max	0.8A	
	Start-up time	< 0.5S	
	No Load Power	≤0.5W	
	THD (Typ.)	< 15%@Full load,230V	
Protection	Over Load Protection	105-150% YES/Auto Resume	
	Over Voltage Protection	> 25.2Vdc	> 50.4Vdc
	Short circuit Protection	YES/Auto Resume	
	Over Temperature Protection	YES/Auto Resume	
capability	Surge capability (L-N)	1KV	
	Surge capability (L/N-Ground)	2KV	
Environment	Operating Temperature	-20°C~+45°C	
	Humidity	20%-90%RH	
	Tc	90°C	
	Storage Temperature	-20°C~+60°C	
	Life time	> 50000h@Tc=90°C	
	Ripple & Noise	≤25dB(A)@20cm	
Surface	Dimension	227X38X30(LXWXH)mm	
	material	PC	
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384;	

	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The efficiency testing will be affected by the instrument used and the results may also be different.</p>	

◆ Inrush Current

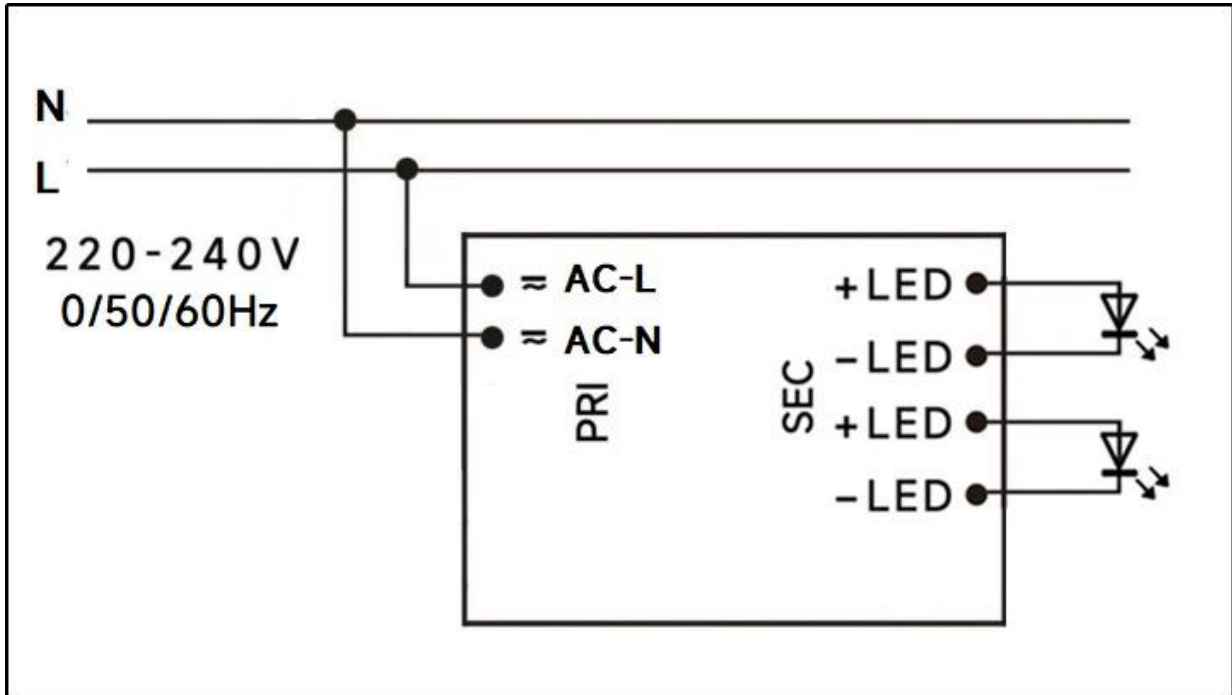
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
48.6A	364μs	4pcs	7pcs	8pcs	7pcs	11pcs	14pcs



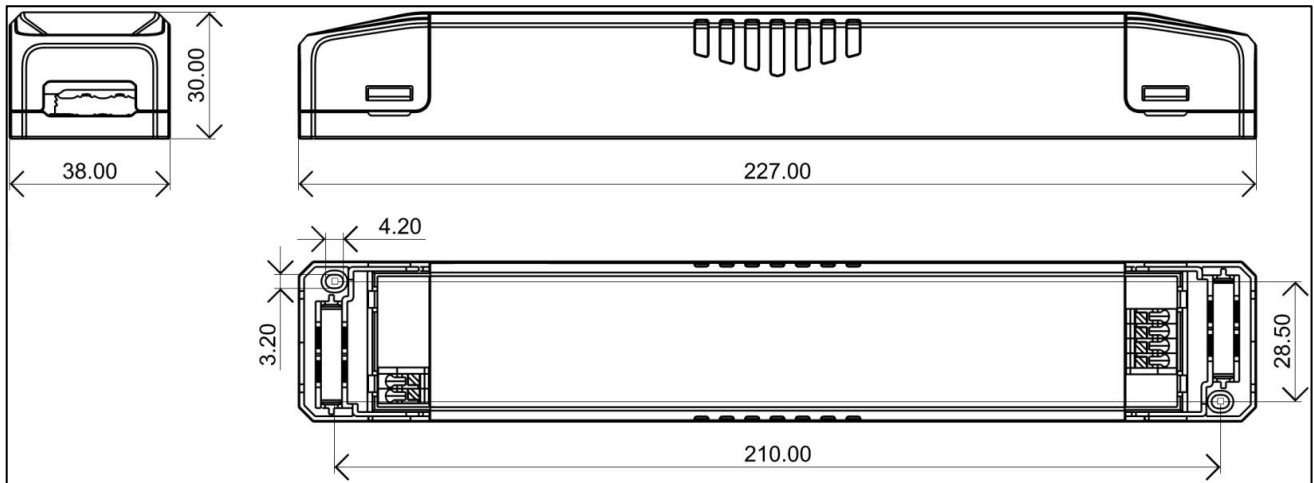
Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

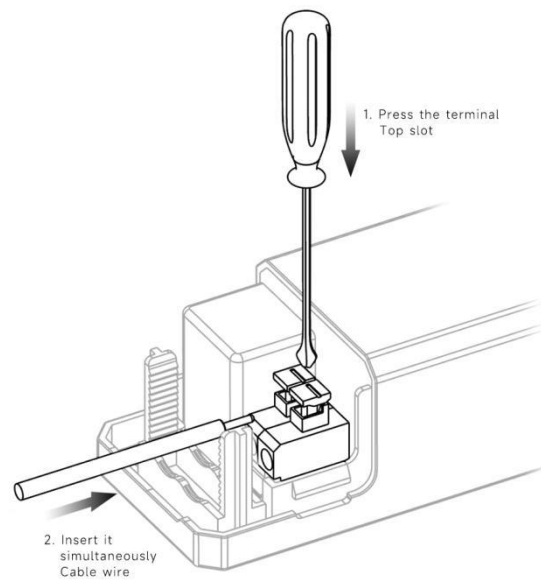
◆ **Wiring diagram**



◆ **2D diagram**



Termina

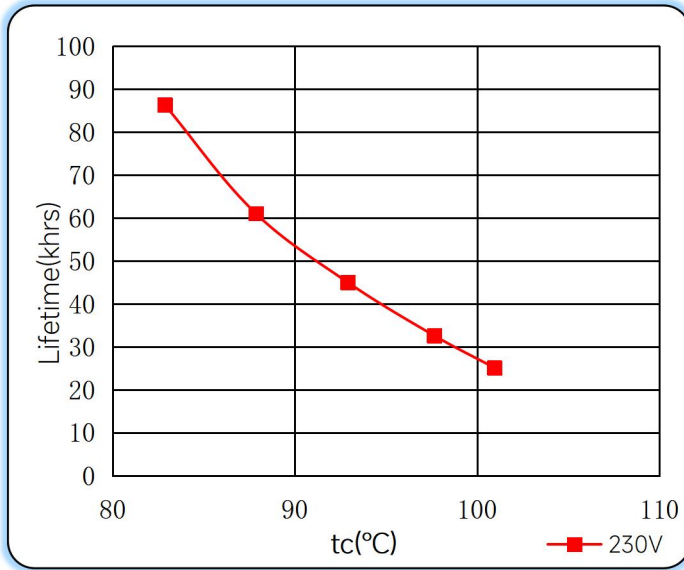


◆ Wiring & Connections

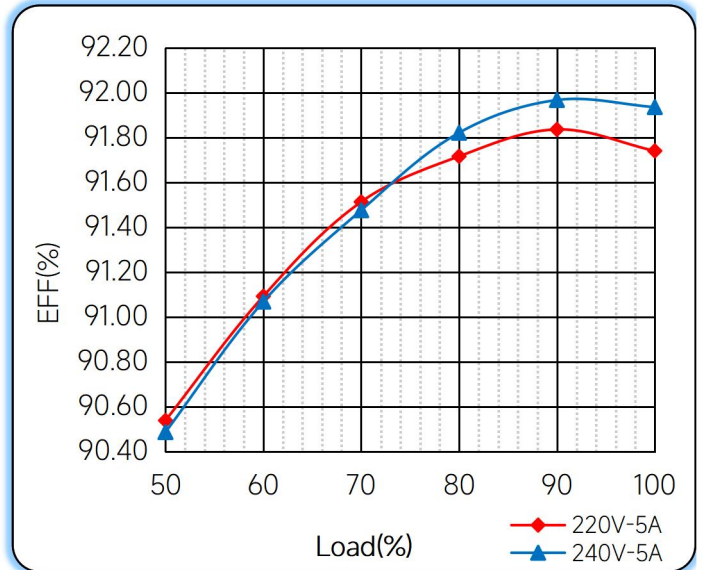
	Specification item	Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ **Curve for LS-120-24 LI EXC**

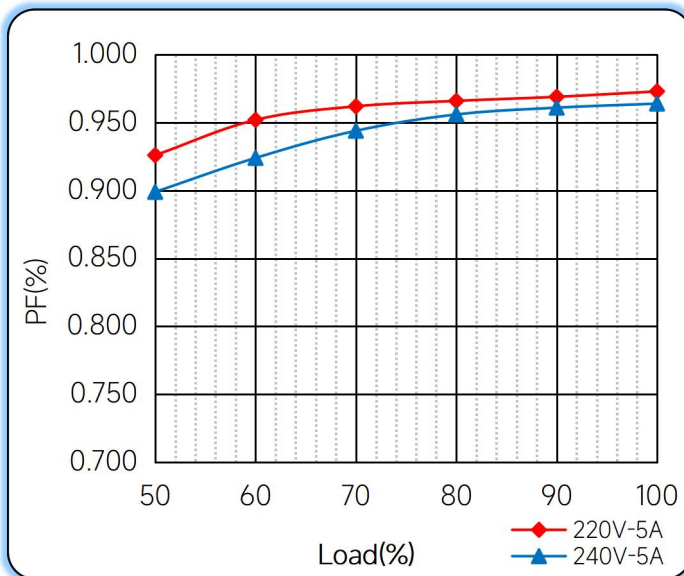
Lifetime vs. Temperature Curve



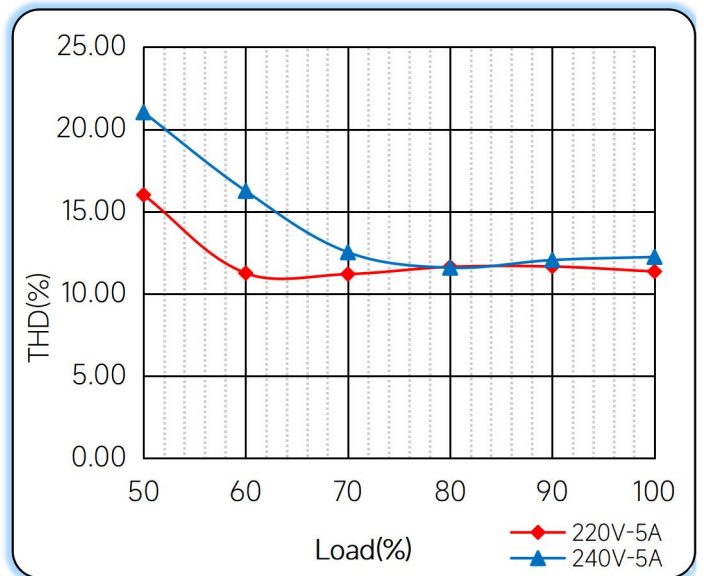
Efficiency vs. Load



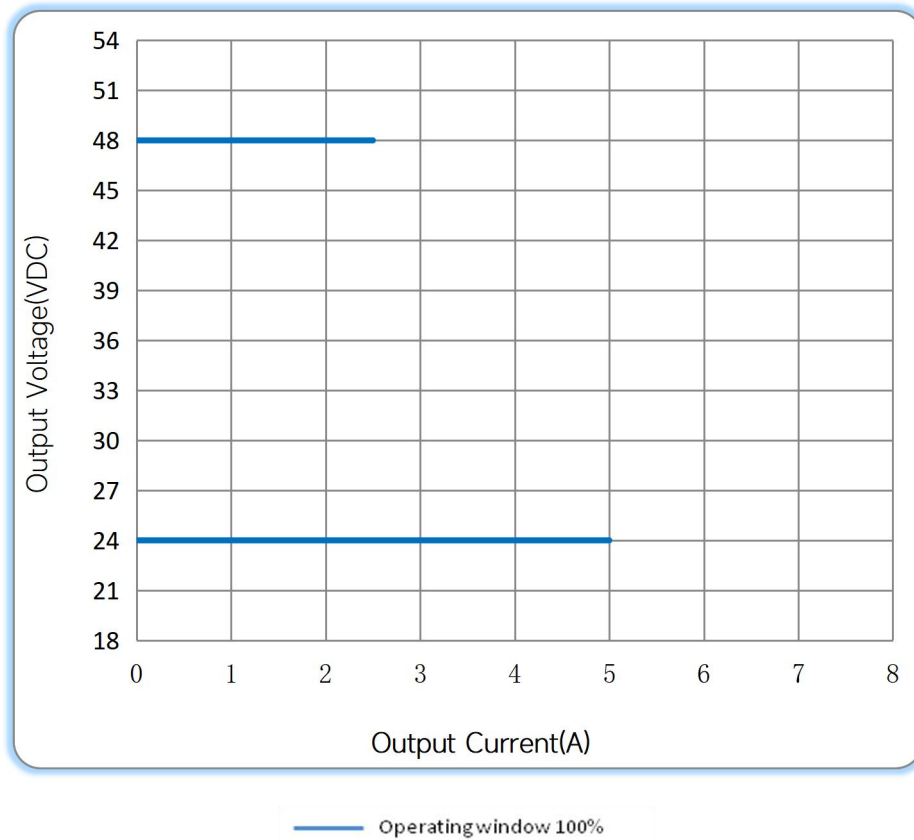
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/12
Efficiency	91%	93%	B	2023/11/11

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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Manual