

250W constant Voltage-LS Series

■ Approve

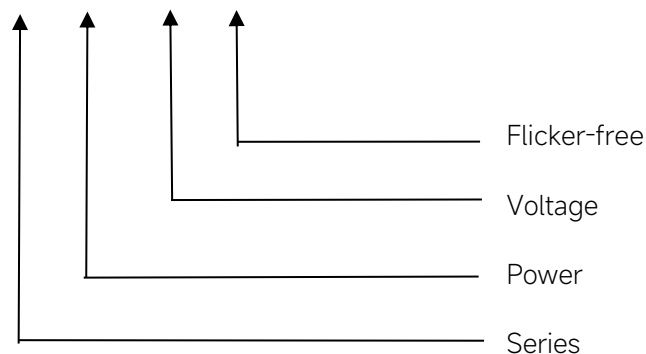


◆ Description

LS-250-XX LI EXC is a 250W constant voltage LED driver that operates from 198-264Vac input with 24V or 48V output voltage. With it's compact dimensions from 318 X 45 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-250-XX LI EXC



Features

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

Applications

- LED strips

◆ Specification

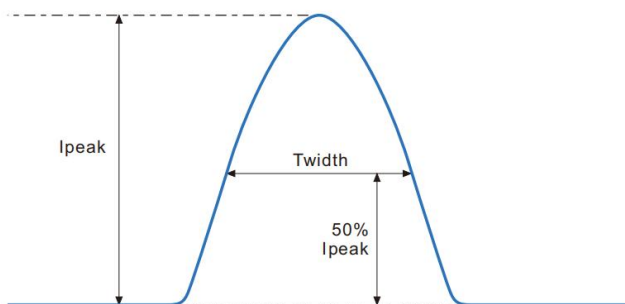
Output	Constant Voltage	24VDC	48VDC
	Current Range	0-10.4A	0-5.2A
	Voltage Accuracy	±5%	
	Output HF current ripple(≥1KHz)	±5%	
	Output LF current ripple(≤120Hz)	±5%	
	SVM	≤0.4	
	Pst	≤1	
	Efficiency(Typ.)	≥93%@Full load,230V	
Input	Rated input voltage	220-240VAC	
	Range of input voltage	198-264VAC	
	Frequency(Hz)	50/60 Hz	
	Displacement factor	≥0.9	
	Power Factor	≥0.95@Full load,230V	
	Input Current max	1.5A	
	Start-up time	< 0.5S	
	No Load Power	≤0.5W	
	THD (Typ.)	< 10%@Full load,230V	
Protection	Over Load Protection	105-150%	
		YES/Auto Resume	
	Short circuit Protection	YES/Auto Resume	
	Over Temperature Protection	Ta≥60°C,@Full load	
YES/Auto Resume			
capability	Surge capability (L-N)	1KV	
	Surge capability (L/N-Ground)	NA	
Environment	Operating Temperature	-20°C~~+45°C	
	Humidity	20%-90%RH	
	Tc	85°C	
	Storage Temperature	-20°C~~+60°C	
	Life time	> 50000h@Tc=85°C	
	Noise	≤25dB(A)@20cm	
Surface	Dimension	318x45x30(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

- 1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature.
- 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.
- 3.Switch and dimmer are not recommended to connect between this product output and luminaries.
- 4.The efficiency testing will be affected by the instrument used and the results may also be different.
- 5.Only 90% of full load at 198V input.
- 6.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.

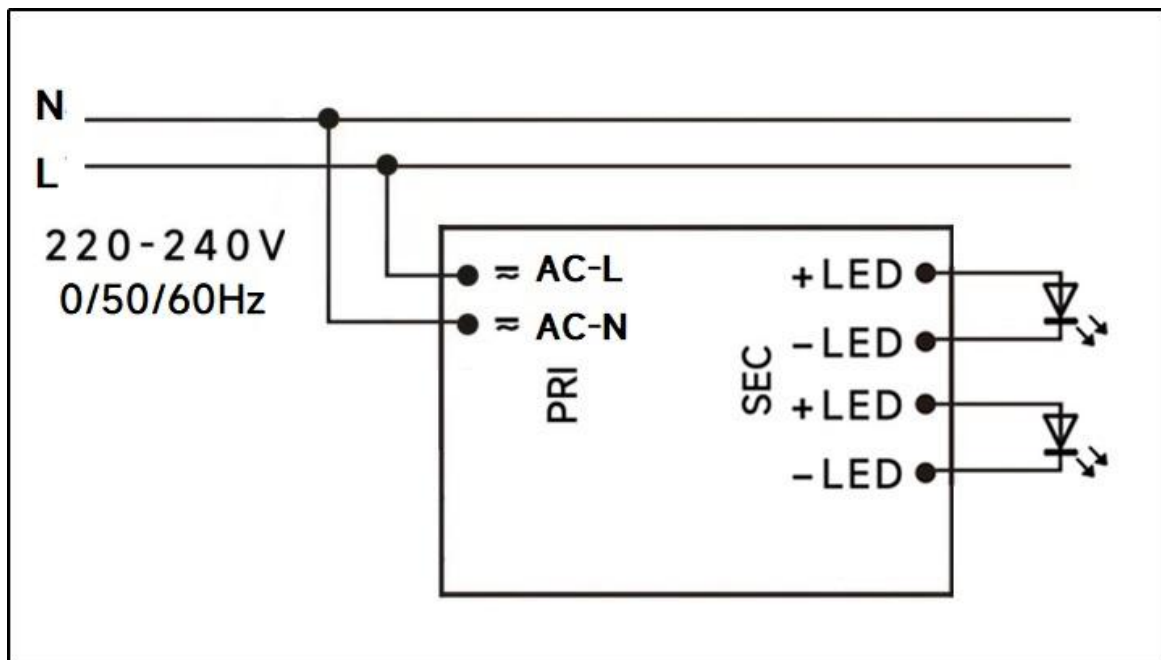
◆ Inrush Current

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
46.4A	680μs	2pcs	3pcs	4pcs	4pcs	6pcs	8pcs

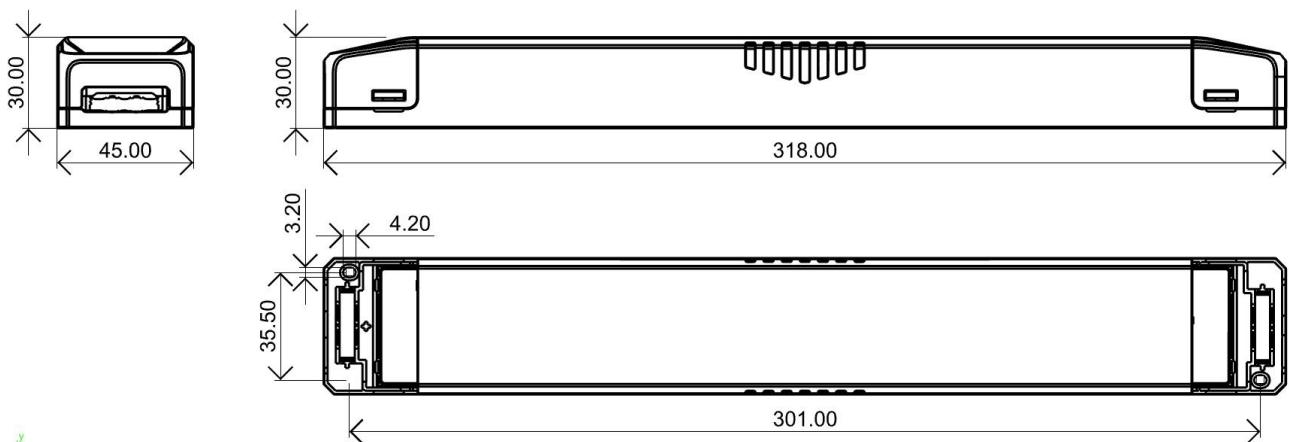

Remarks:

- 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.

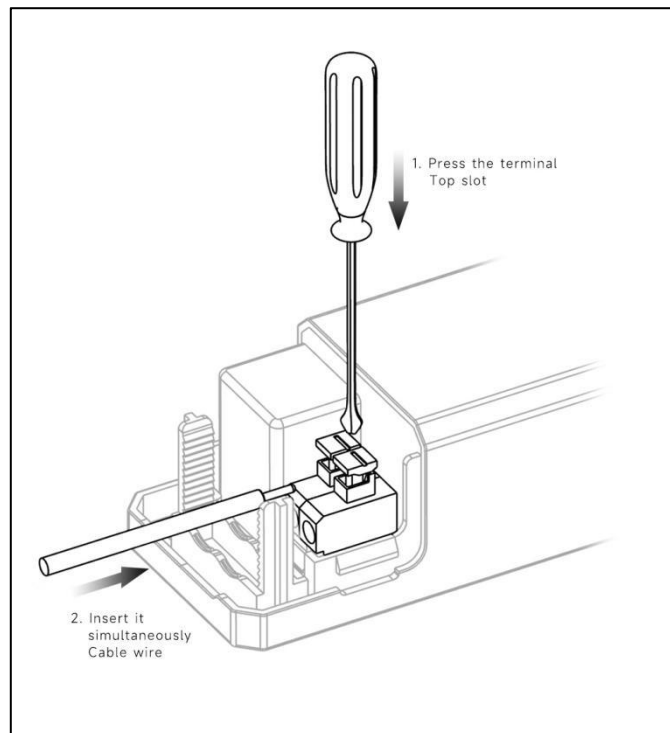
◆ Wiring diagram



◆ 2D diagram



Terminal



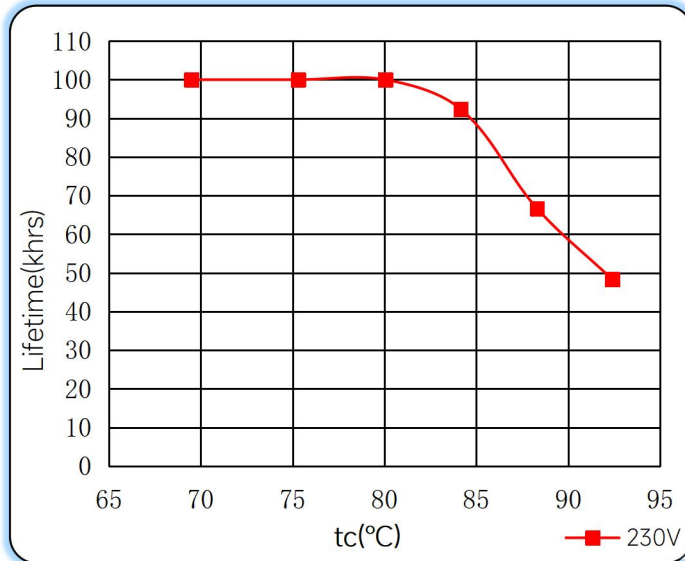
◆ Wiring & Connections

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

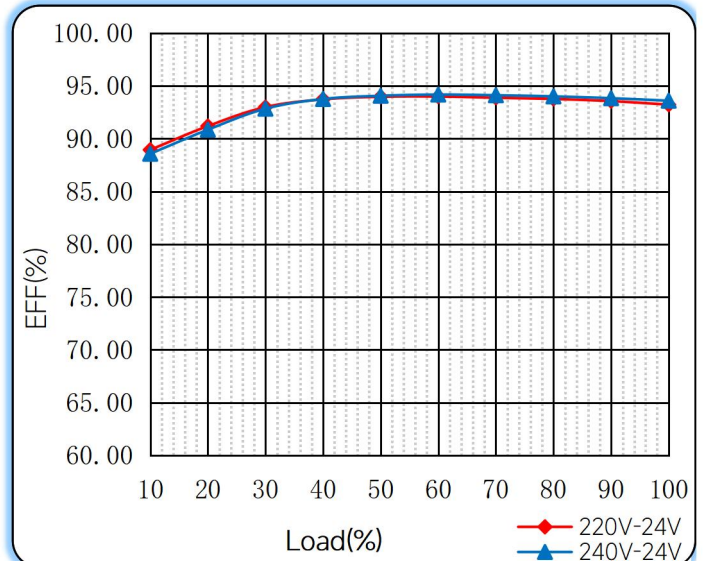
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for LS-250-24 LI EXC

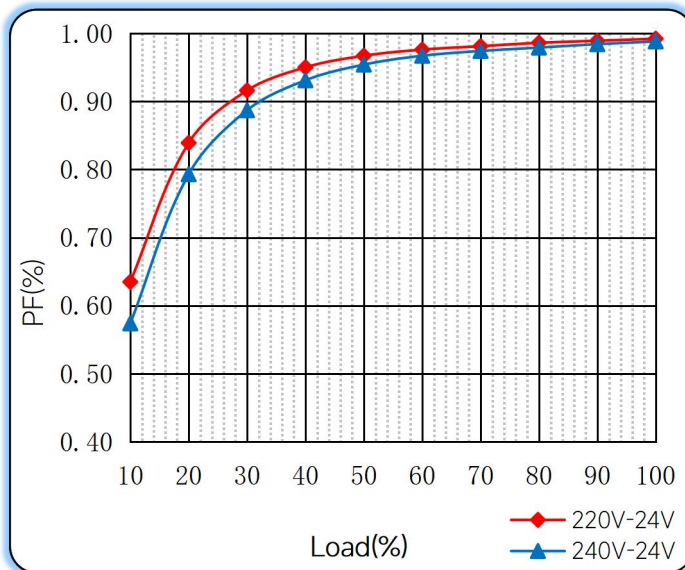
Lifetime vs. Temperature Curve



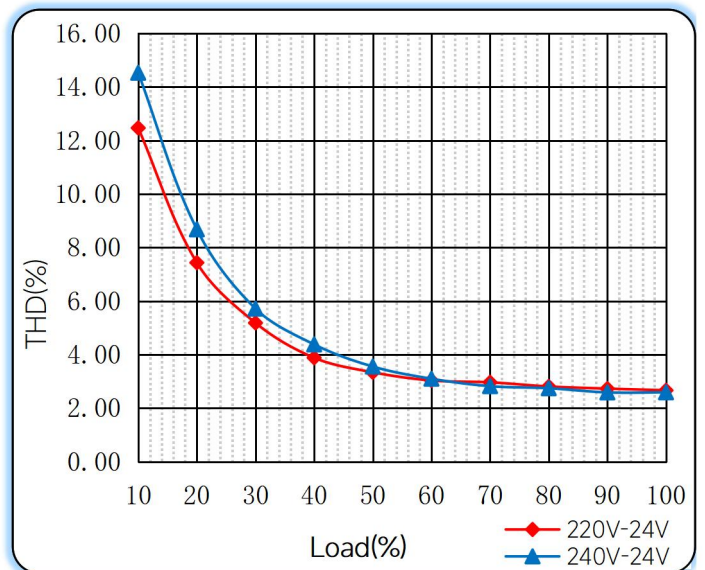
Efficiency vs. Load



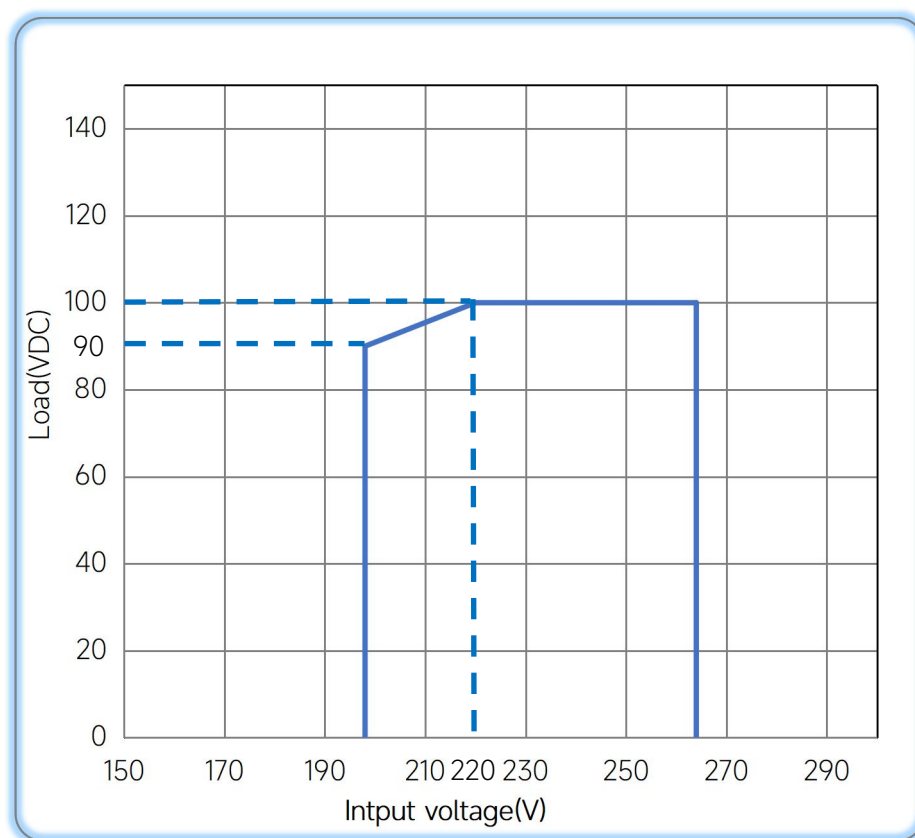
Power Factor Characteristics



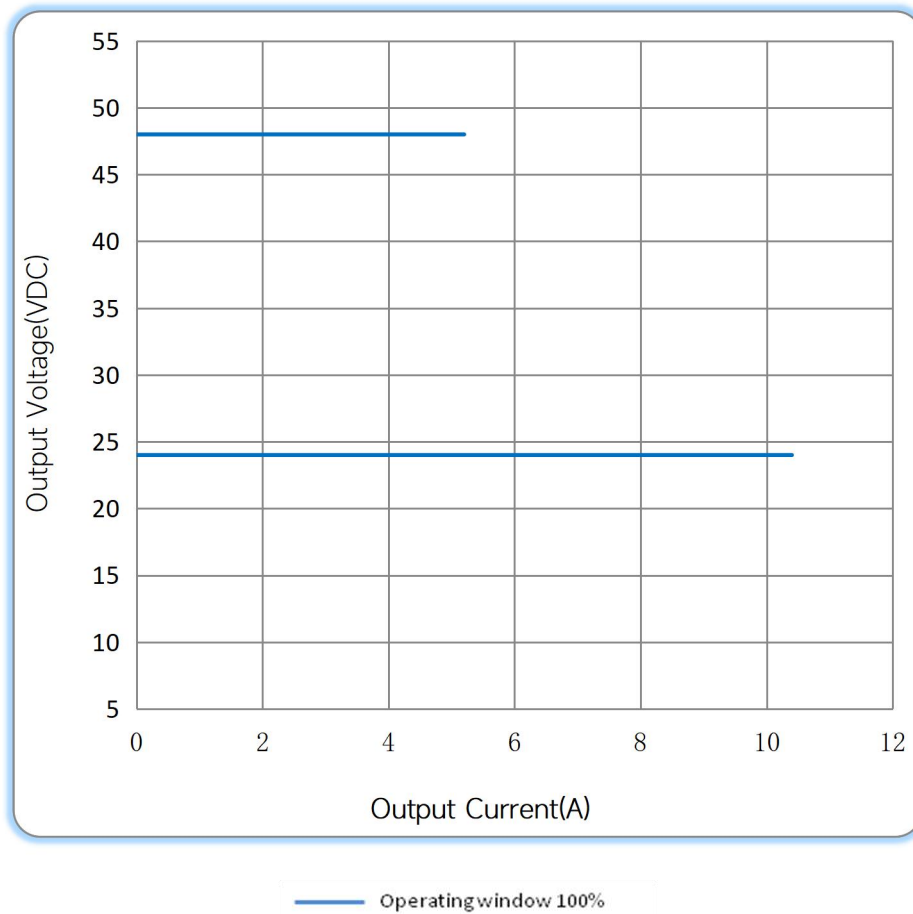
THD vs. Load



◆ Derating curve



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/03/02
Tc/THD	90°C/15%	85°C/10%	B	2024/11/18

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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