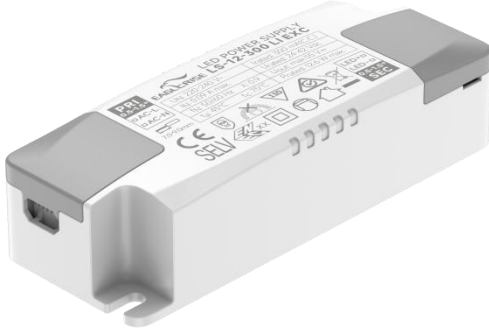


12W Constant Current power supply



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor : 0.75C-0.95
- Efficiency : 81%
- 5 years warranty

Applications

- LED panel, LED down light
- LED spot light

Approve

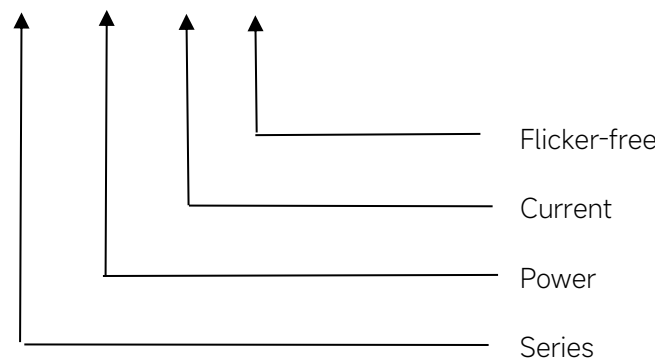


◆ Description

LS-12-XXX LI EXC is a 12W constant current LED driver with 250 to 350mA output current. With it's compact dimensions from 100x38.2x25mm. It is easy to integrate in LED panel, spot, down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-12-XXX LI EXC



◆ Specification

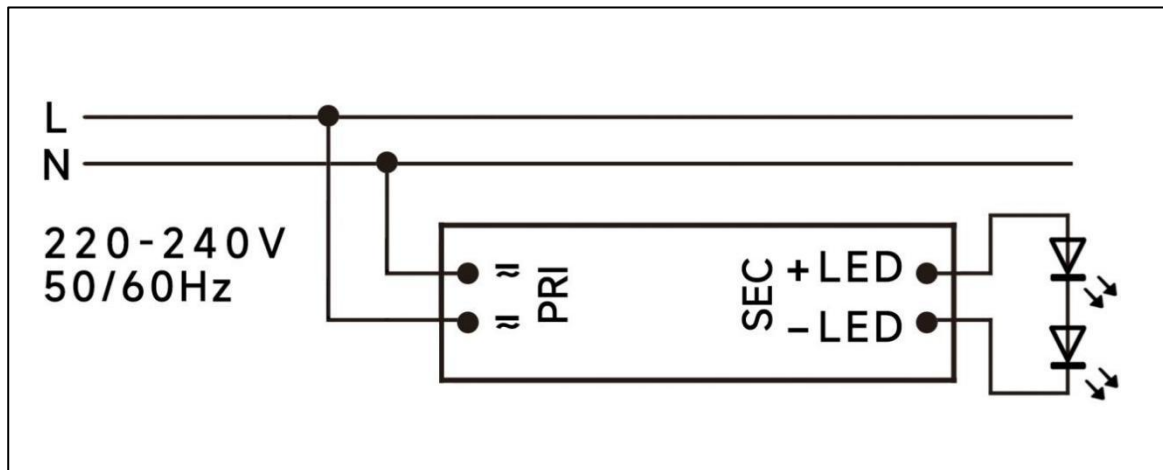
Output	Constant Current	250mA	300mA	350mA
	Voltage Range	24-42VDC		24-40VDC
	Unload voltage Max.	55VDC		
	Current Accuracy	±7%		±5%
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±3%		
	SVM	≤0.4		
	Pst	≤1		
	Efficiency(Typ.)	81%@Full load,230V		
Input	Rated input voltage	220-240VAC		
	Range of input voltage	198-264VAC		
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition		
	Frequency(Hz)	50/60 Hz		
	Displacement factor	≥0.9		
	Power Factor	0.75C-0.95		
	Input Current max	0.09A		
	Start-up time	< 0.5S		
	No Load Power	≤0.5W		
	Inrush Current	30A Max@Full load,230V		
	THD (Typ.)	< 25% @Full load,230V		
	Protection	Over Load Protection	103-130%	
YES/Auto Resume				
Over Voltage Protection		55VDC		
	YES/Auto Resume			
Short circuit Protection	YES/Auto Resume			
Environment	Operating Temperature	-20°C~+45°C		
	Humidity	20%-90%RH		
	Tc	75°C		
	Storage Temperature	-25°C~+60°C		
	Life time	> 50000h@Tc=75°C		
Surface	Dimension	100x38.2x25mm		
Standards	EN 61547;EN 61347-1,EN 61347-2-13;IEC 61347-1,IEC 61347-2-13;GB 19510.1,GB 19510.14; GB/T 17743,GB 17625.1;EN 62384;EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3;IS 15885 (Part 2/Sec13)			
Others	ErP	EU 2019/2020		
	RoHS	RoHS (2011/65/EU) (EU)2015/863		

Note	<p>1.All parameters not specially mentioned are measured at 230VAC 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.Data are typical values obtained from test samples</p> <p>4.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>5.The series BIS certification includes 250、300、350mA</p>
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◆ Model list

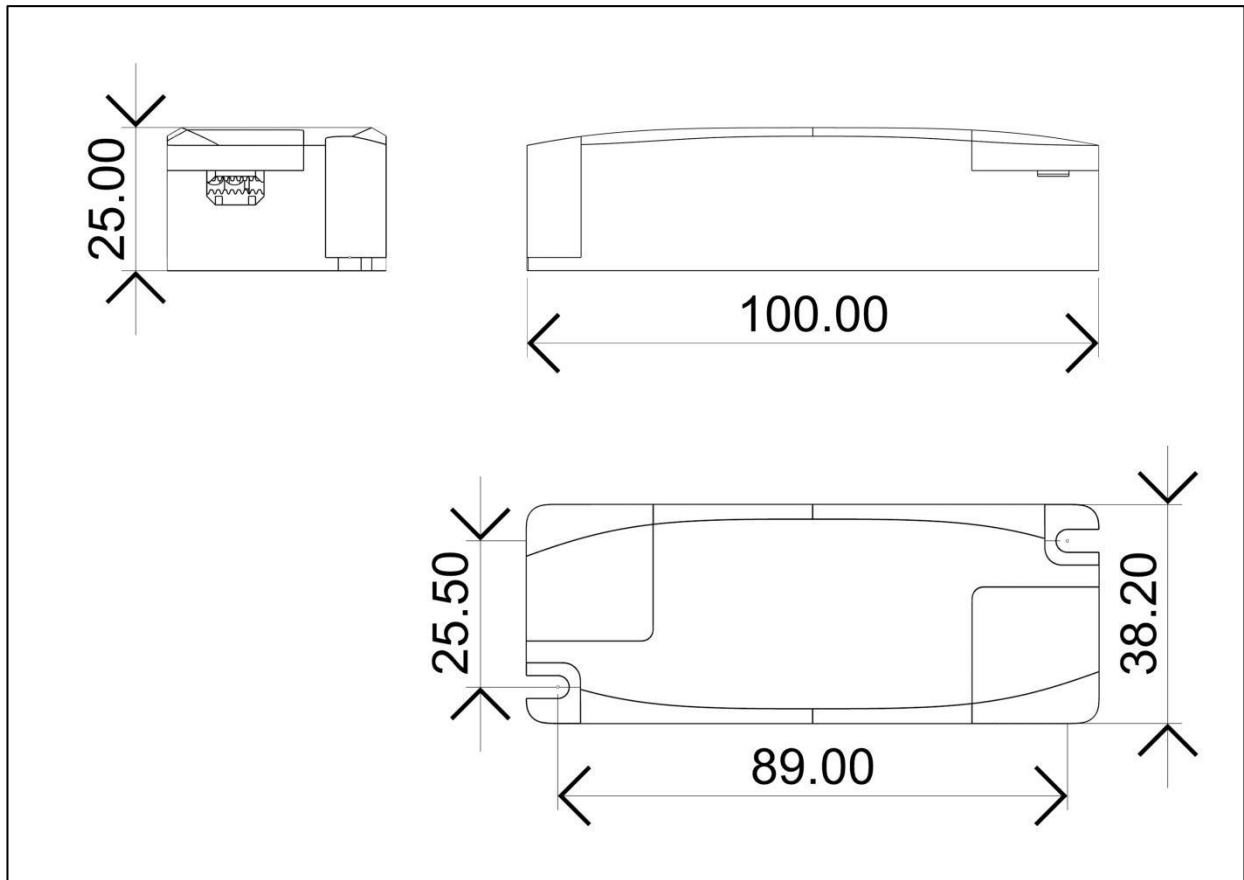
Number	Model number	Input			Output			
		Voltage (VAC)	Current (A)	Frequency (Hz)	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	LS-12-250 LI EXC	220-240	0.09	0/50/60	250	24-42	55	10.5
2	LS-12-300 LI EXC				300	24-42	55	12.6
3	LS-12-350 LI EXC				350	24-40	55	14

◆ Wiring diagram



◆ Circuit Breaker

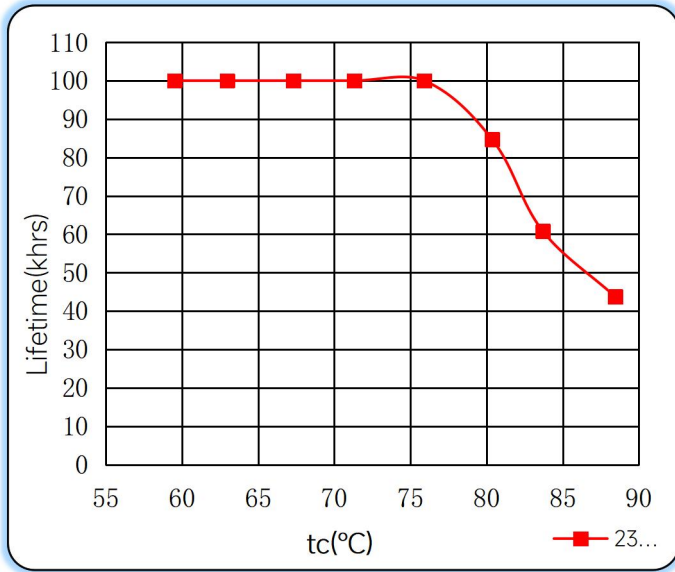
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
3.76A	34.4μs	88pcs	142pcs	177pcs	88pcs	142pcs	177pcs

◆ 2D diagram

◆ Wiring & Connections

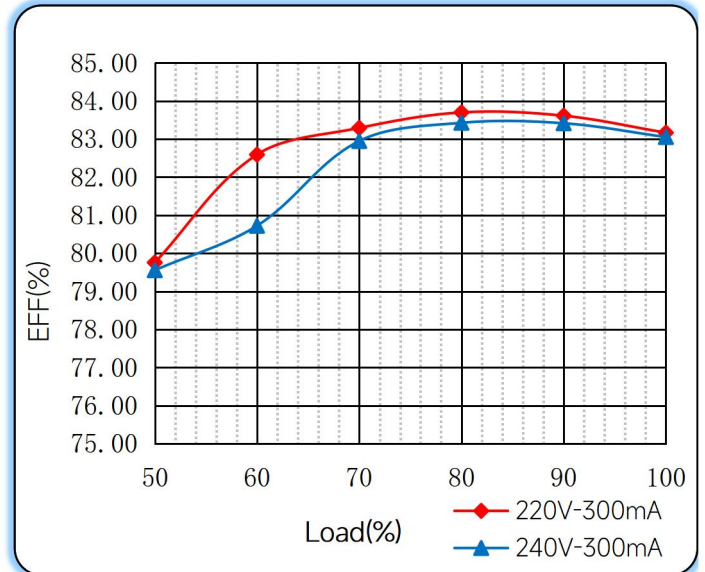
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ **Curve for LS-12-300 LI EXC, I_o=300mA**

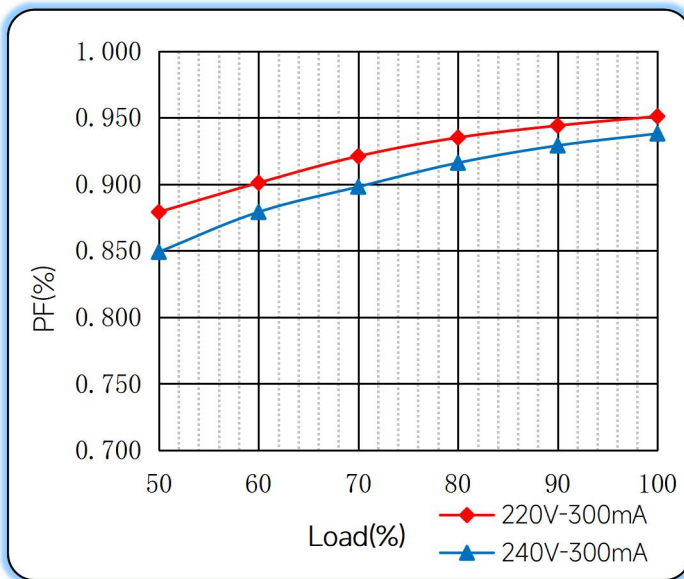
Lifetime vs. Temperature Curve



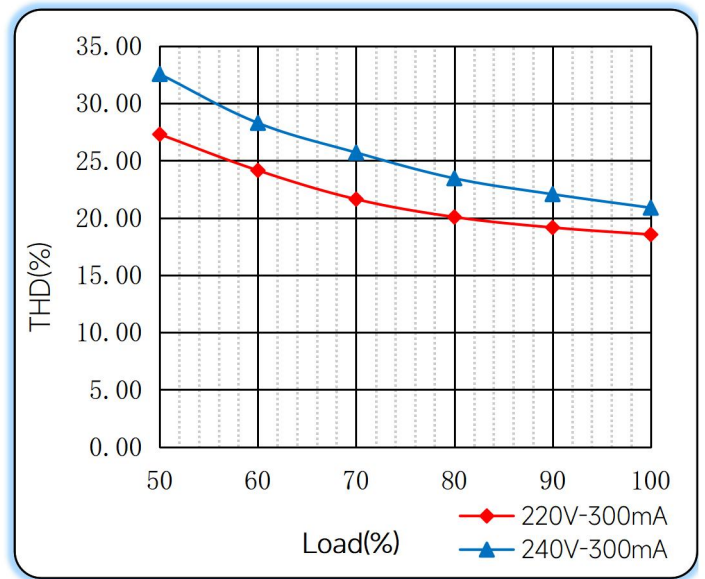
Efficiency vs. Load



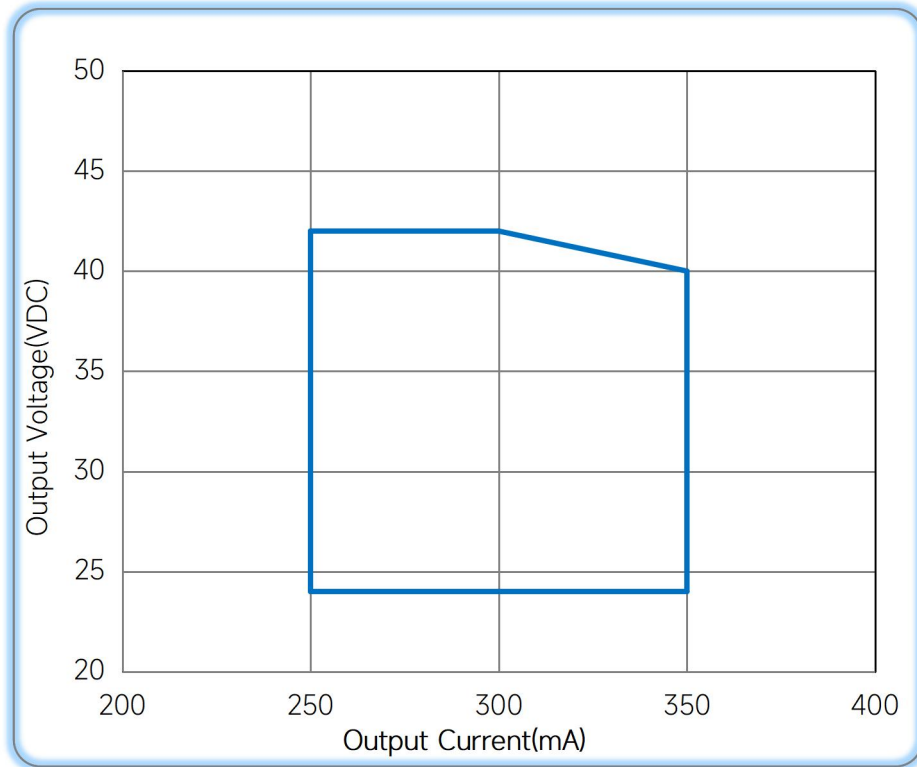
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/08/08
Model list		Added	B	2022/12/06
THD	< 20%	< 25%	C	2023/02/01
Power Factor	0.95	0.75C-0.95	D	2023/02/08

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Manual