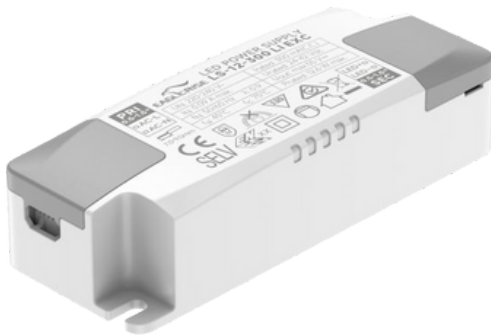


12W Constant Current power supply



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

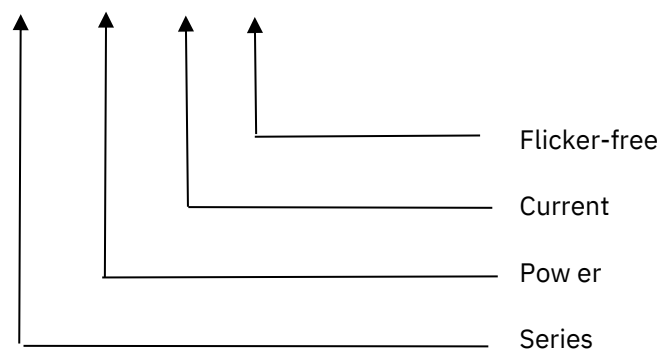


Description

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

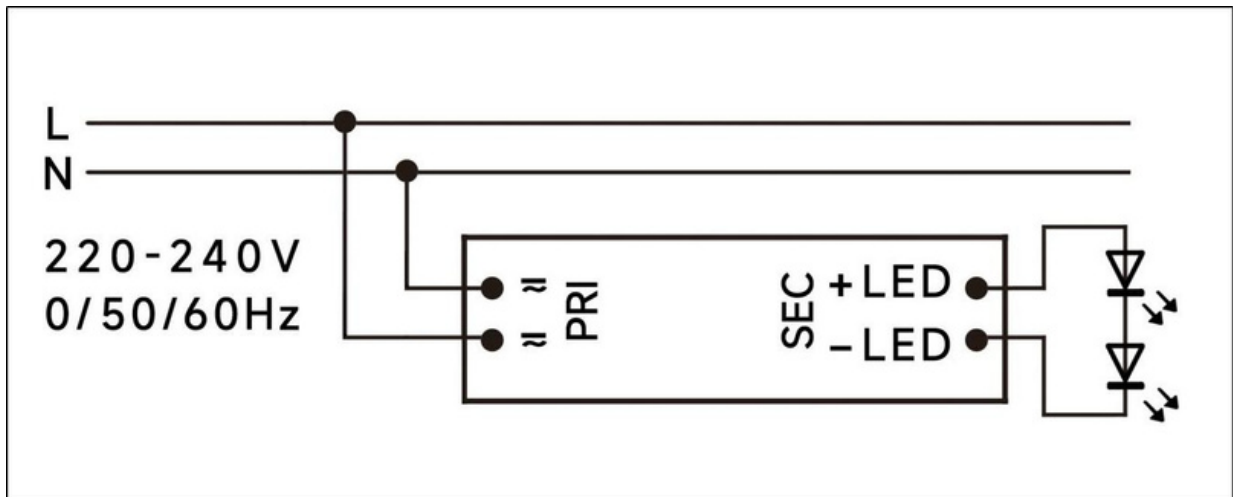
	Constant Current	250mA	300mA	350mA
Output	Voltage Range	24-42VDC		24-40VDC
	Unload voltage Max.	55VDC		
	Current Accuracy	±7%		±5%
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±3%		
	SVM	≤0.4		
	Pst	≤1		
	Efficiency(Typ.)	81%		
	Input	Rated input voltage	220-240VAC	
Range of input voltage		198-264VAC		
Range input voltage(DC)		198-264VDC		
Frequency(Hz)		0/50/60Hz		
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		30AMax@230V,FullLoad		
THD(Typ.)		<25%		
Protection		Over Load Protection	103-130% YES/Auto Resume	
	Over Voltage Protection	55VDC YES/Auto Resume		
	Short circuit Protection	YES/AutoResume		
Environment	Operating Temperature	-20°C~+45°C		
	Humidity	20%-90%RH		
	Tc	75°C		
	Storage Temperature	-25°C~+60°C		
	Lifetime	>50000h@Tc=75°C		
Surface	Dimension	100x38.2x25mm		
Standards	EN61347-1; EN61347-2-13;EN62384; EN55015;EN61000-3-2 ;EN61000-3-3; EN61547;			
Others	ErP	EU2019/2020		
	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>			

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-12-250LIEXC	220-240	0.09	0/50/60	250	24-42	55	10.5
	2 LS-12-300LIEXC				300	24-42	55	12.6
	*3 LS-12-350LIEXC				350	24-40	55	14

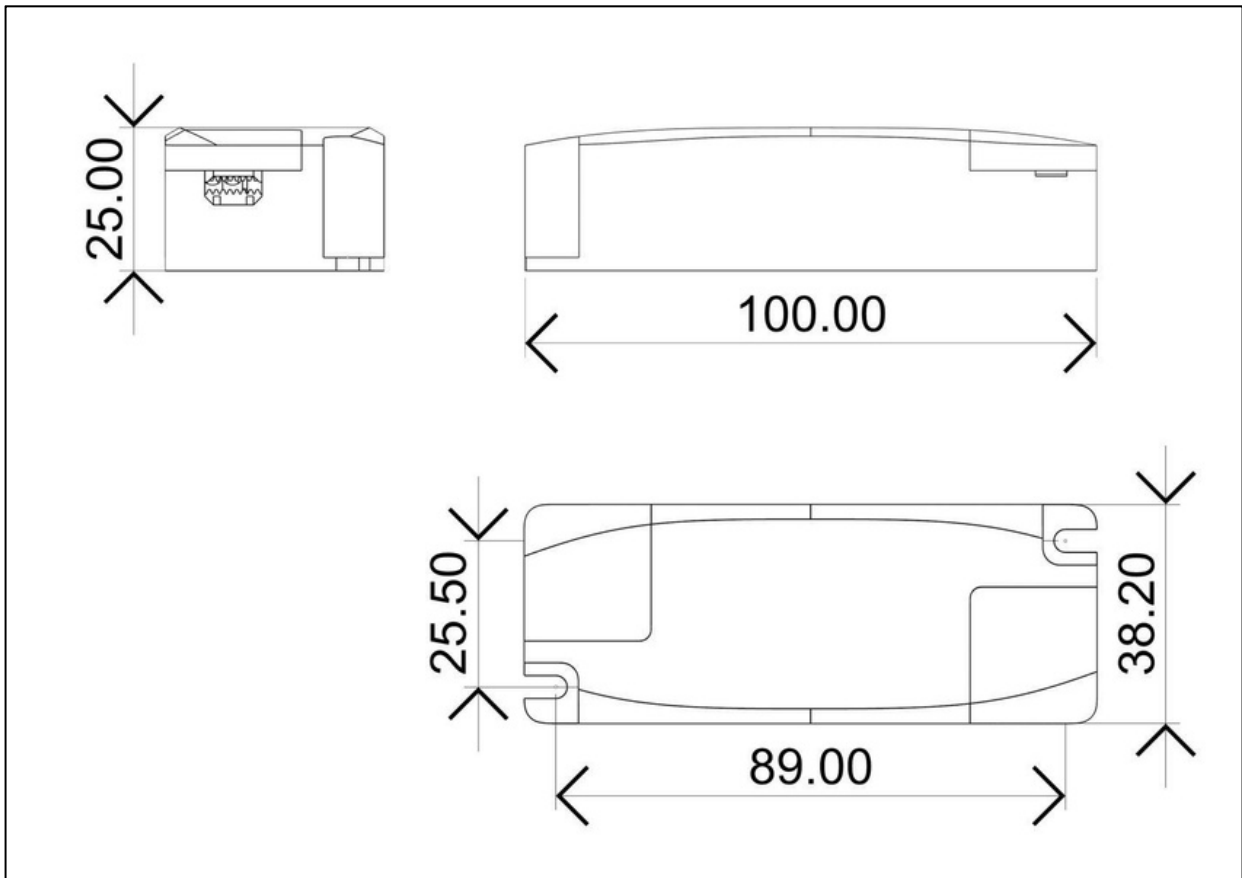
* Factory default

Wiring diagram



Circuit Breaker

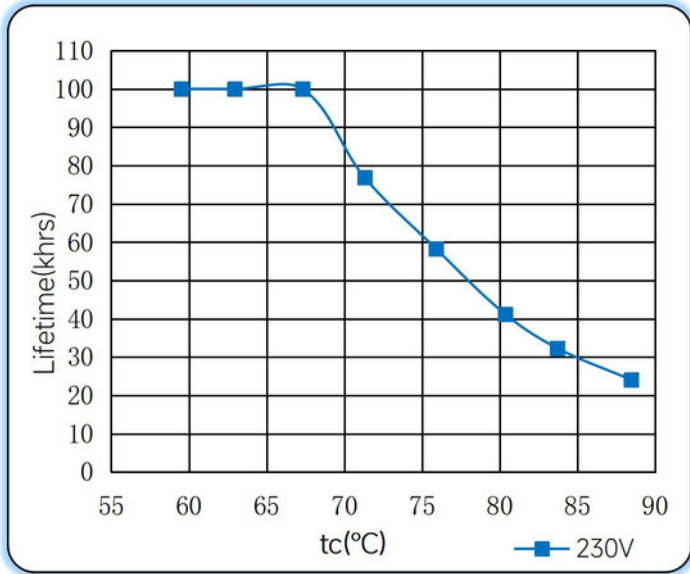
Ipeak	Twidth	B10	B16	B20	C10	C16	C20
3.76A	34.4 μs	88pcs	142pcs	177pcs	88pcs	142pcs	177pcs

2D diagram

Wiring & Connections

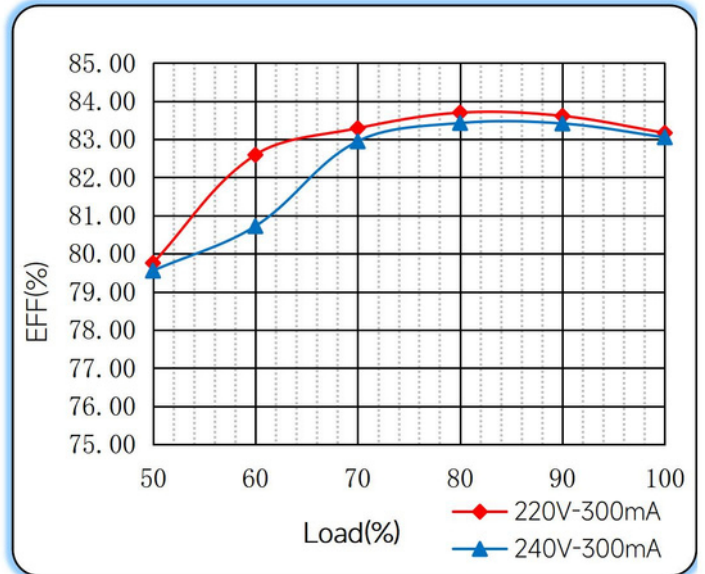
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

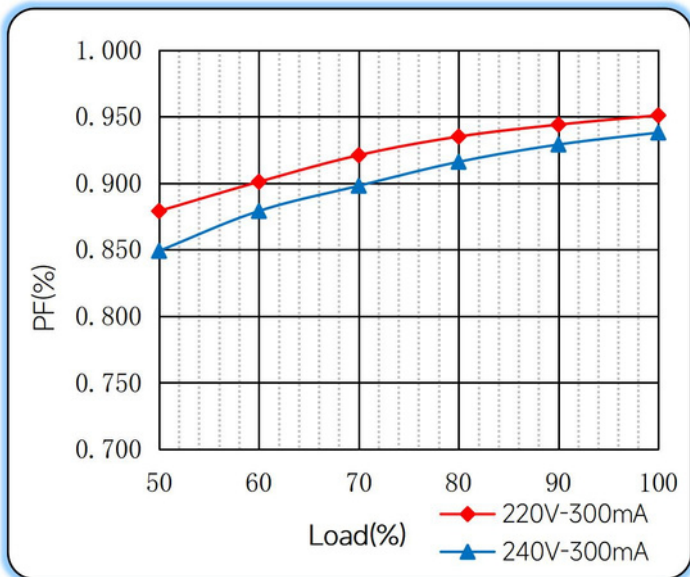
Lifetime vs. Temperature Curve



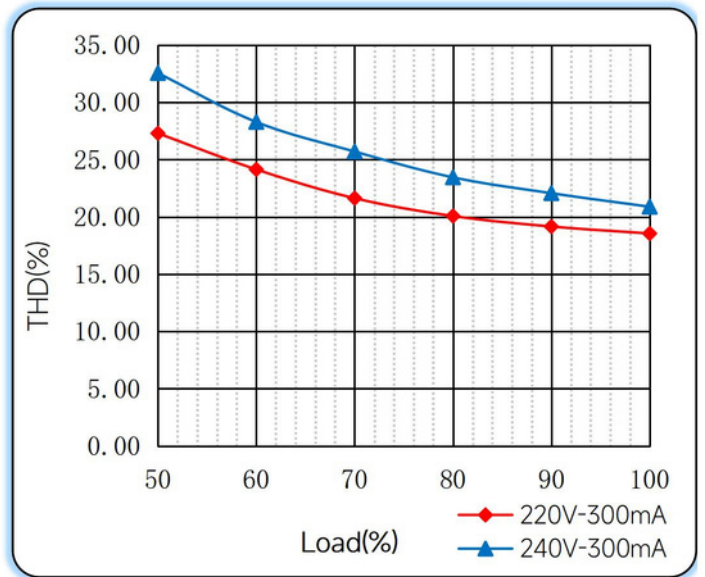
Efficiency vs. Load



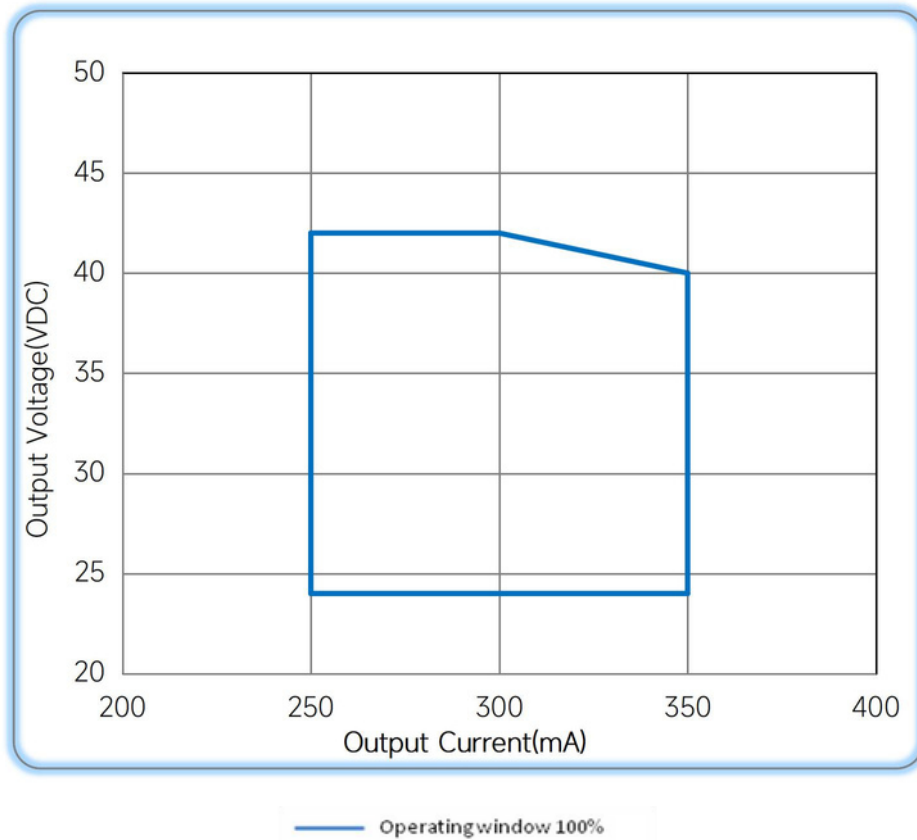
Power Factor Characteristics



THD vs. Load



Operating window



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