

12W Constant Current -LS Series

LS-12-XXX LI1



■Approve

SELV



■Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.9C
- Efficiency ≥79%
- 5 years warranty

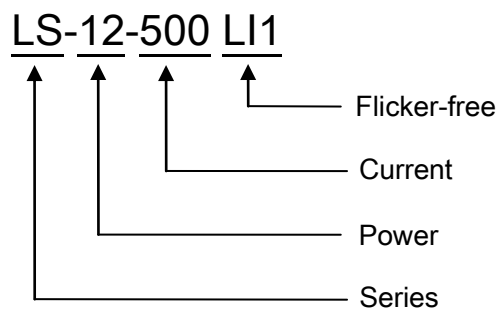
■Applications

- LED panel
- LED spot light
- LED down light
- COB light

■Description

LS-12-XXX LI1 is a 12W constant current LED driver with 250 to 500mA output current. With it's compact dimensions from 100 x 38 x 25mm it is easy to integrate in LED Panel, spot, down light and COB light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

■Model code



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■Specification

Input	Rated input voltage	220-240VAC				
	Range of input voltage	176-264VAC				
	DC voltage range	176-280V				
	Frequency(Hz)	0/50/60 Hz				
	Power Factor	0.9C@Full Load,220-240VAC				
	Input Current max	0.09A MAX. @Full Load,176VAC				
	Start-up time	< 0.5S				
	Unload Power Consumption	≤0.5W				
	Inrush Current	15A Max.				
	THD	20% Typ.				
	Leakage Current	< 0.5mA(240VAC)				
Output	Constant Current Max. *Note.3	250mA	300mA	350mA	...	500mA
	Unload voltage Max.	50VDC	50VDC	45VDC	...	34VDC
	Voltage Range(VDC)	24-42VDC	24-42VDC	18-35VDC	...	14.5-24VDC
	Rated power	10.5W Max.	12.6W Max.	12.3W Max.	...	12W Max.
	Current Accuracy	±7% @220-240VAC				
	Voltage Regulation	±3% @Full Load,220-240VAC				
	Load Regulation	±5% @220-240VAC				
	Hold-up Time	1s max.@Full Load				
	Ripple& Noise *Note.2	≤15mAp-p	≤18mAp-p	≤21mAp-p	...	≤30mAp-p
	Efficiency(Typ.)	≥79%				
Protection	Over Load Protection	103-120%				
		Protection type: Auto Resume				
	Over Voltage Protection	> 50VDC	> 50VDC	> 45VDC	...	> 34VDC
		Protection type: Auto Resume				
Environment	Short circuit Protection	Protection type: Auto Resume				
	Over Temperature protection	NA				
	Operating Temperature	-20°C...+45°C				
	tc	75°C				
	Storage Temperature	-25°C...+60°C				
Safety & EMC	Life time	> 30,000h@45°C				
	Humidity	20%-90%RH				
	Dimension	100X38X25(LXWXH)mm				
	Safety standards	EN 61347-1; EN61347-2-13;				
	Withstand voltage	Input-Output : 3750V/5mA/1min				
Note	Isolation resistance	Input-Output : ≥4MΩ@500VDC				
	EMI	EN55015; EN61000-3-2 Class C; EN61000-3-3				
	EMS	EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V;				

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.Output current can be 280mA, 290mA or from 250mA to 500mA and increasing in multiples of 50mA. Please see Model list below and contact EAGLERISE for details.

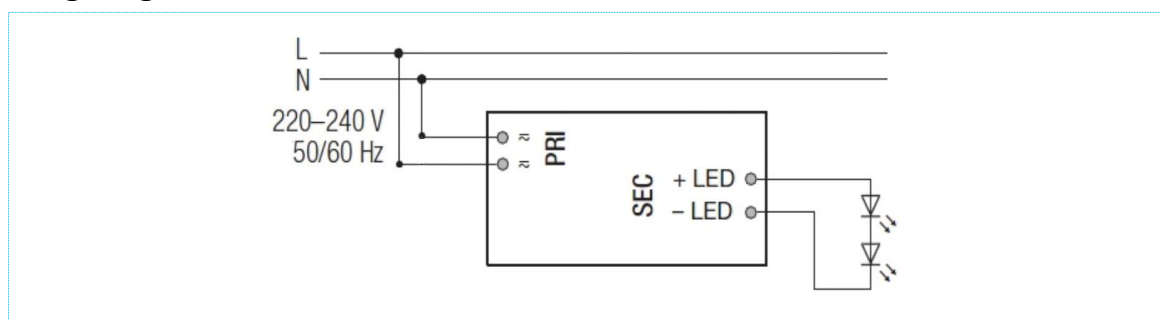
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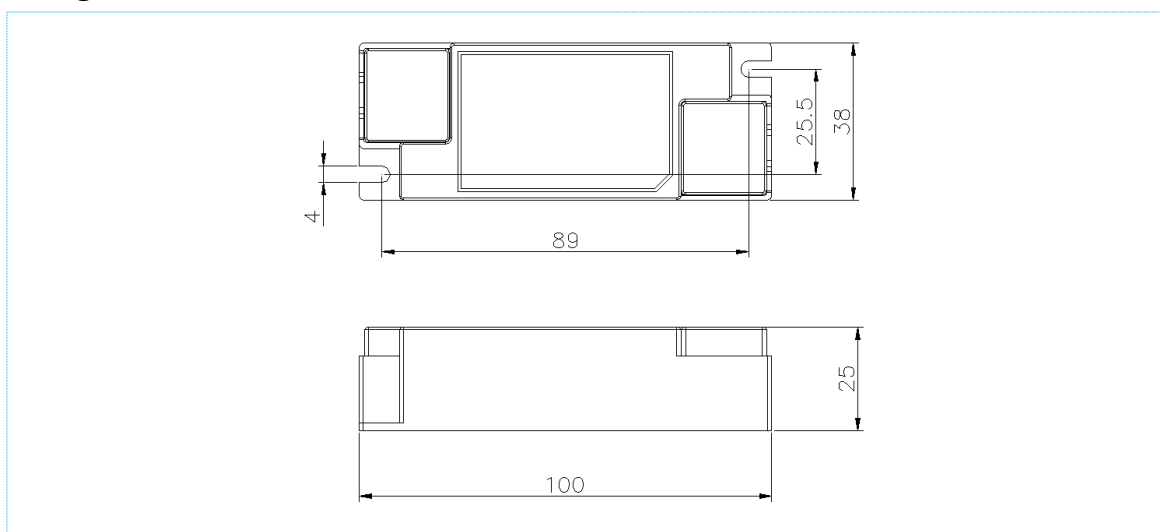
■Model list

No.	Model number	Input			Output			
		Voltage (VAC)	Max.Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	Max. P _{rated} (W)
1	LS-12-250 LI1	220-240	0.09	50/60	250	24-42	50	10.5
2	LS-12-280 LI1	220-240	0.09	50/60	280	24-42	50	11.8
3	LS-12-290 LI1	220-240	0.09	50/60	290	24-42	50	12.2
4	LS-12-300 LI1	220-240	0.09	50/60	300	24-42	50	12.6
5	LS-12-350 LI1	220-240	0.09	50/60	350	18-35	45	12.3
6	LS-12-400 LI1	220-240	0.09	50/60	400	18-30	40	12
7	LS-12-450 LI1	220-240	0.09	50/60	450	13-27	37	12.2
8	LS-12-500 LI1	220-240	0.09	50/60	500	14.5-24	34	12

■Wiring diagram



■2D diagram

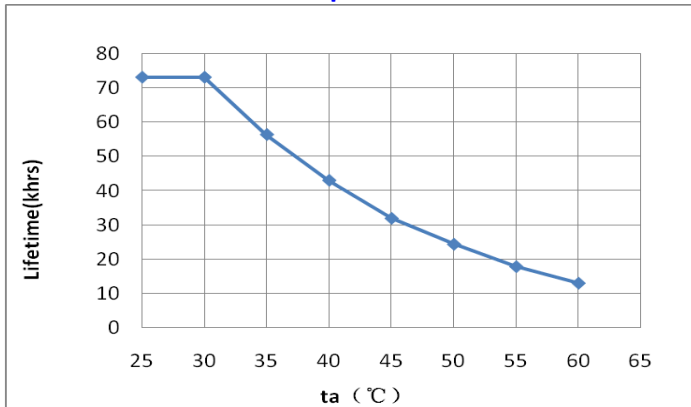


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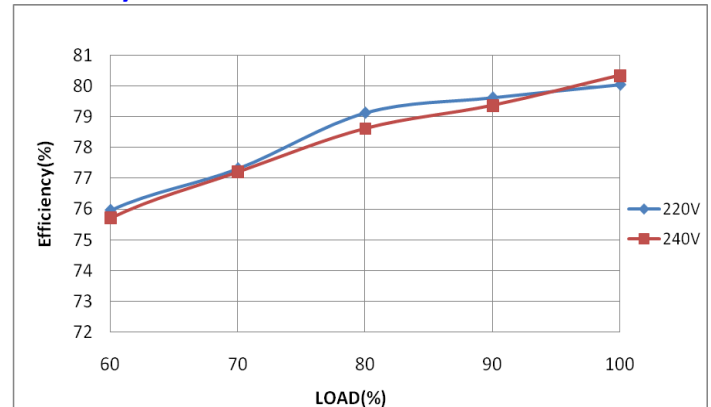
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■Curve for LS-12-500 LI1

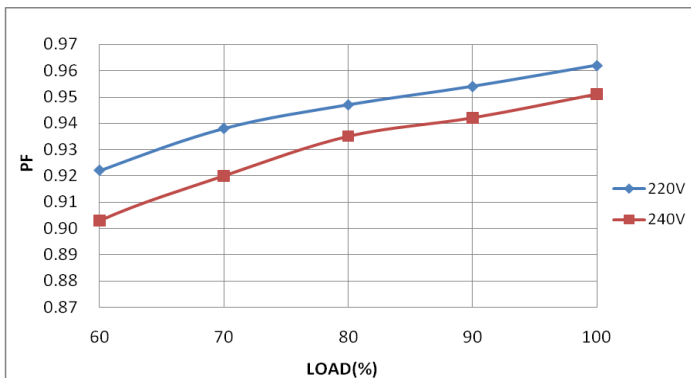
Lifetime vs. Ambient Temperature Curve



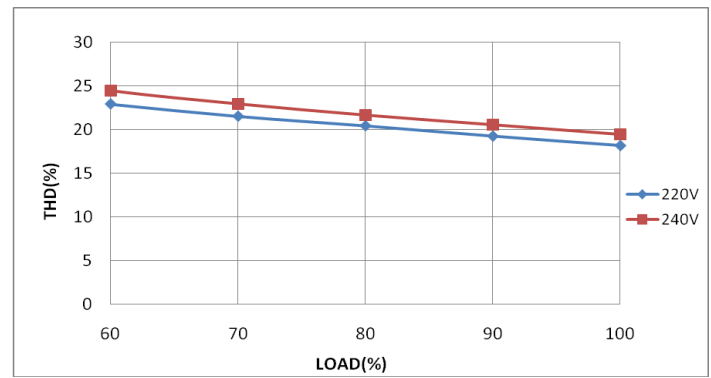
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



■Operating window

