

## 12W Constant Voltage-LS Series



### Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor 0.8C
- Efficiency  $\geq 82\%$
- 5 years warranty

### Applications

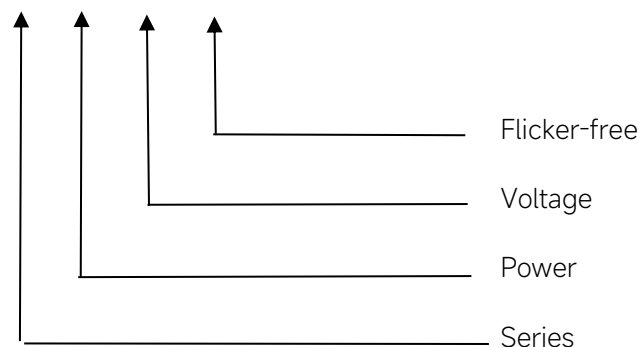
- LED strips

### ◆ Description

LS-12-XX MI is a 12W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With it's compact dimensions from 100 x 42 x 24.5 mm 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-12-XX MI



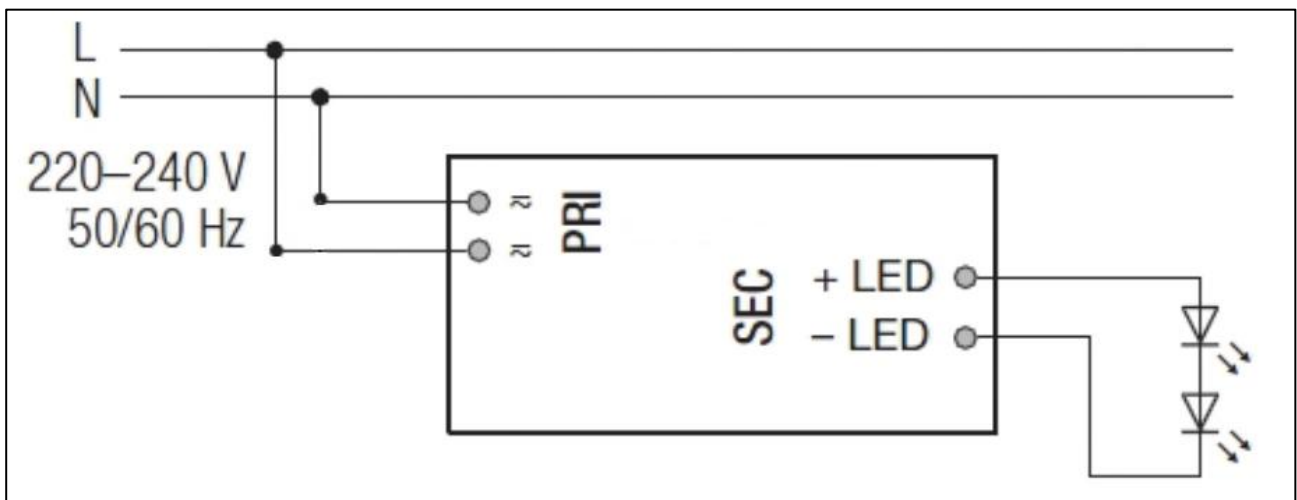
## ◆ Specification

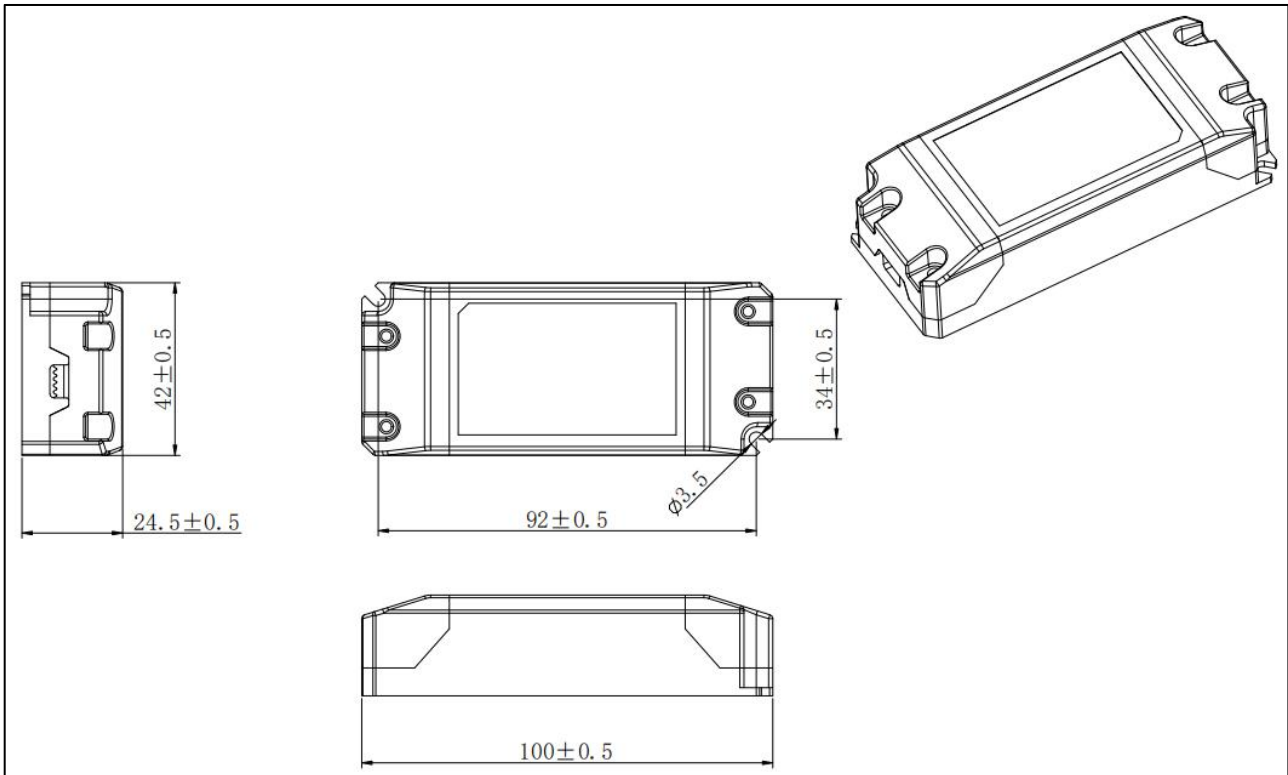
Output	Constant Voltage	12VDC	24VDC
	Current Range	0-0.1A	0-0.5A
	Voltage Accuracy	±5%	
	Output HF current ripple(≥1KHz)	±5%	
	Output LF current ripple(≤120Hz)	±5%	
	SVM	≤0.4	
	Pst	≤1	
	Efficiency(Typ.)	83%	
Input	Rated input voltage	220-240VAC	
	Range of input voltage	198-264VAC	
	Rated input voltage(DC)	198-254VDC	
	Frequency(Hz)	0/50/60 Hz	
	Displacement factor	≥0.9	
	Power Factor	0.8C	
	Input Current max	0.1A	
	Start-up time	< 0.5S	
	No Load Power	≤0.5W	
	THD (Typ.)	< 45%	
Protection	Over Load Protection	103-140% YES/Auto Resume	
	Over Voltage Protection	> 12.6VDC	> 25.2VDC
	Short circuit Protection	YES/Auto Resume	
	Over Temperature Protection	YES/Auto Resume	
Environment	Operating Temperature	-20°C~+45°C	
	Humidity	20%-90%RH	
	Tc	70°C	
	Storage Temperature	-20°C~+60°C	
	Life time	> 30000h@Tc=70°C	
Surface	Dimension	100 x 42 x 24.5 (LXWXH)mm	
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;		
Others	ErP	EU 2019/2020	
	RoHS	RoHS (2011/65/EU) (EU)2015/863	
Note	1.All parameters NOT specially mentioned are measured at 230VAC 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.		

### ◆ Circuit Breaker

$I_{peak}$	Twidth	B10	B16	B20	C10	C16	C20
10A	100 $\mu$ s	80pcs	128pcs	160pcs	80pcs	128pcs	160pcs

### ◆ Wiring diagram

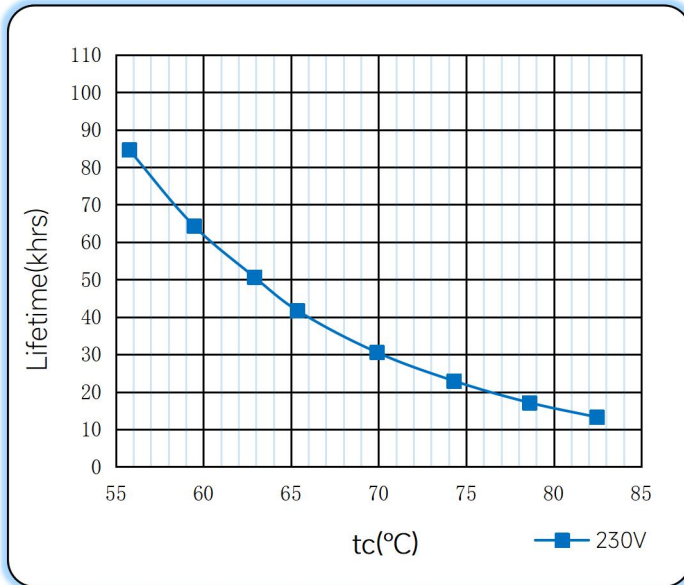


**◆ 2D diagram**

**◆ Wiring & Connections**

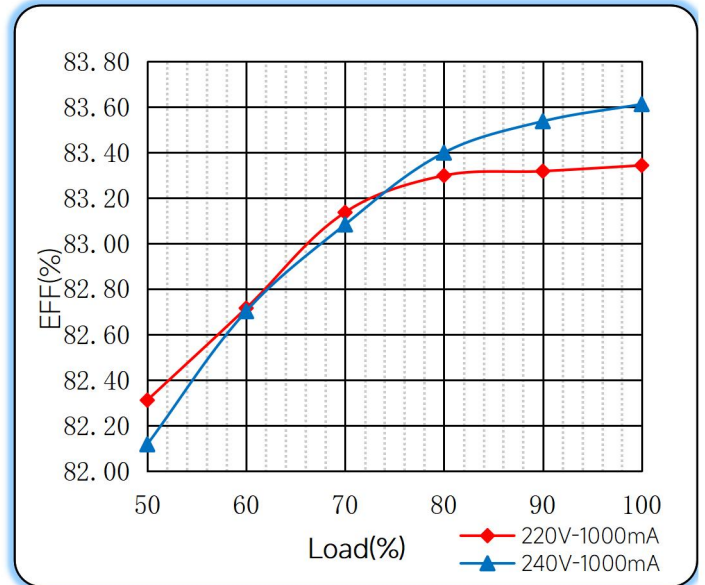
Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

### ◆ Curve for LS-12-12 MI

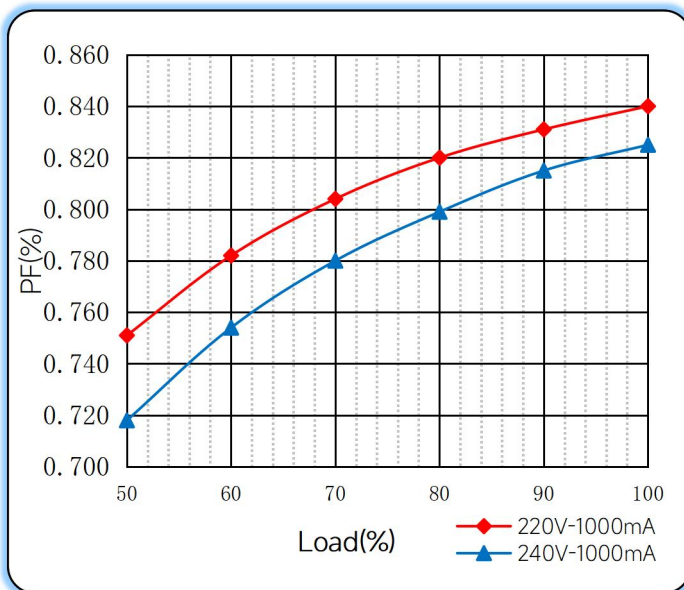
Lifetime vs. Temperature Curve



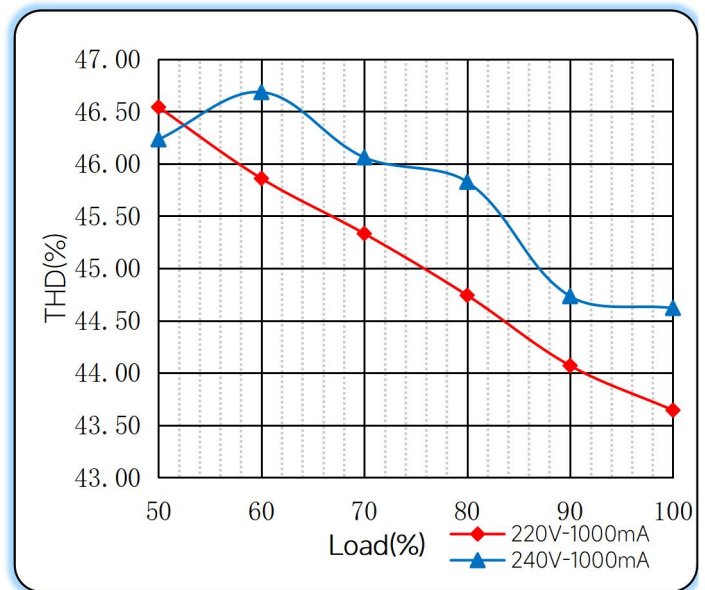
Efficiency vs. Load



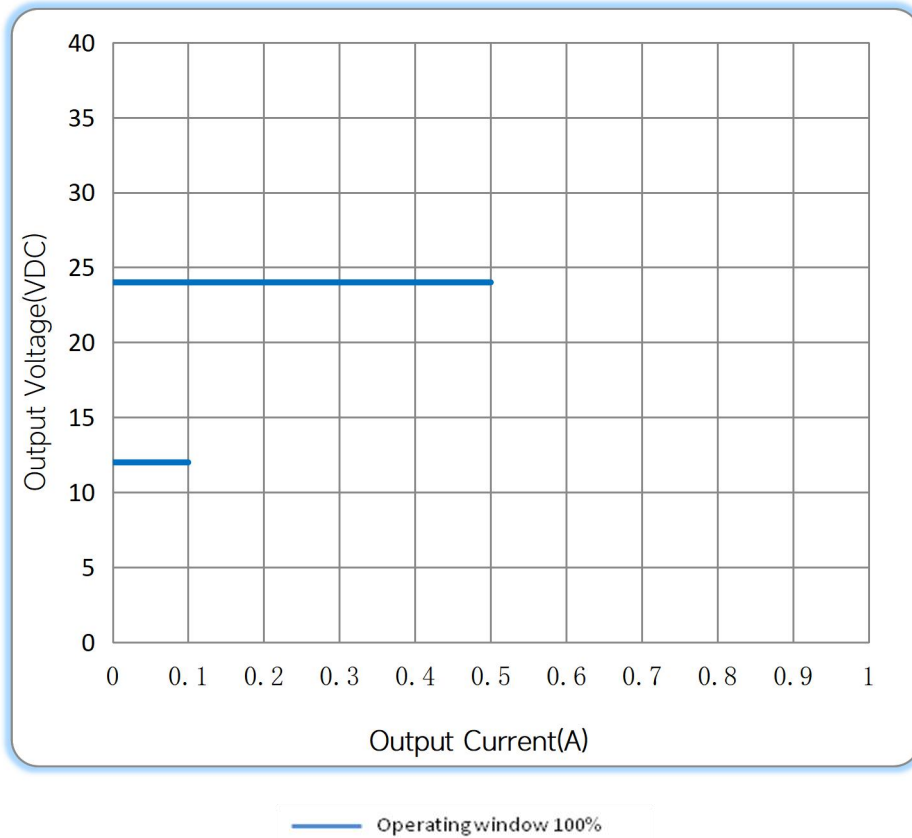
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

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Manual