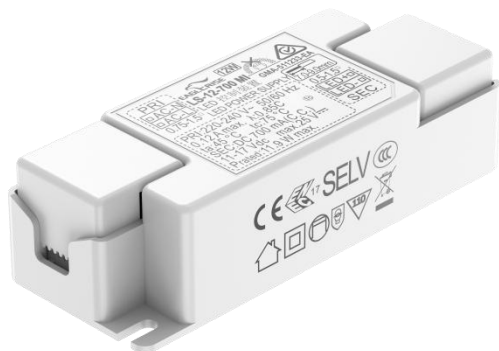


12W Constant Current -LS Series



■ Approve



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor > 0.85C
- Efficiency ≥81%
- 5 years warranty

Applications

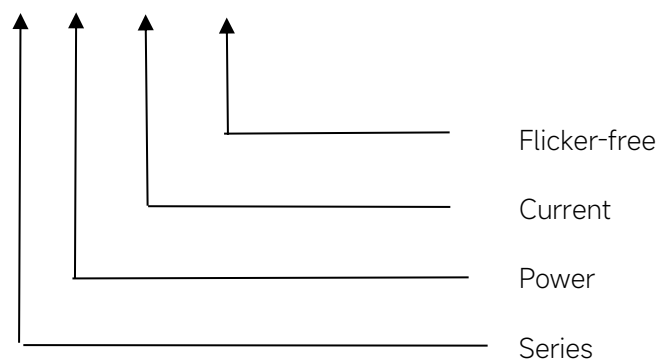
- LED panel, LED down light
LED spot light

◆ Description

LS-12-XXX MI is a 12W constant current LED driver with 250mA to 700mA output current. With it's compact dimensions from 92 x 36 x 25mm 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 MI



◆ Specification

Output	Constant Current	250mA	300mA		600mA	700mA
	Voltage Range	27-48VDC	24-42VDC		12-20VDC	11-17VDC
	Unload voltage Max.	55VDC	50VDC		30VDC	25VDC
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	≥83%			81%	
Input	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	Rated input voltage(DC)	NA				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	0.85C				
	Input Current max	0.12A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	<70%				
Protection	Over Load Protection	103-120%				
		YES/Auto Resume				
	Over Voltage Protection	> 47VDC	> 47VDC	...	> 30VDC	> 21VDC
		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	> 30000h@Tc=75°C				
Surface	Dimension	92X36X25(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.					

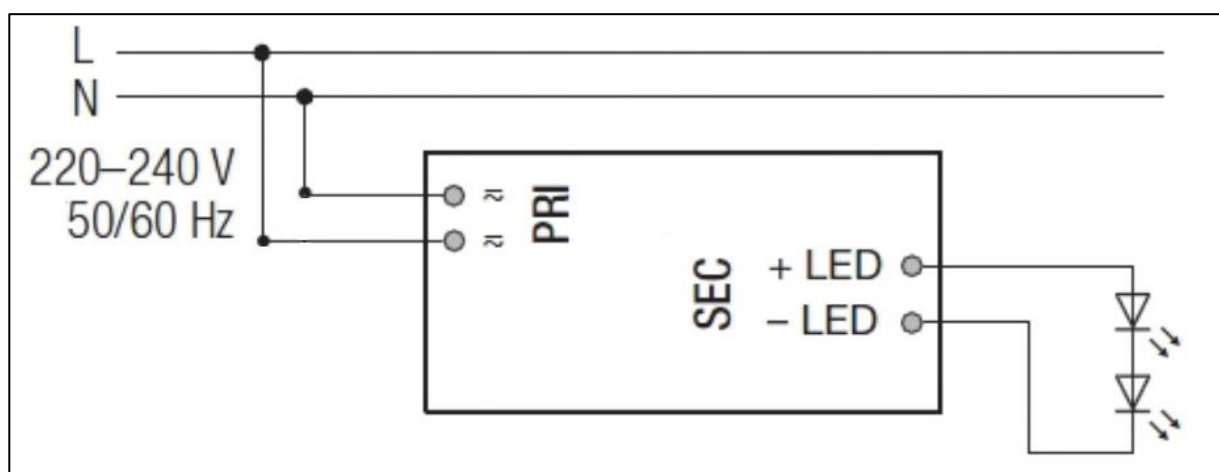
◆ Model list

Model number	Input			Output			P(W)
	Voltage (VAC)	Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
LS-12-250 MI	220-240	0.12	50/60	250	27-48	50	12
LS-12-300 MI				300	24-42	50	12.6
LS-12-350 MI				350	22-40	46	14
LS-12-400 MI				400	20-30	40	12
LS-12-450 MI				450	16-26	35	11.7
LS-12-500 MI				500	15-25	34	12.5
LS-12-550 MI				550	14-22	32	12.1
LS-12-600 MI				600	12-20	30	12
LS-12-700 MI				700	11-17	25	11.9

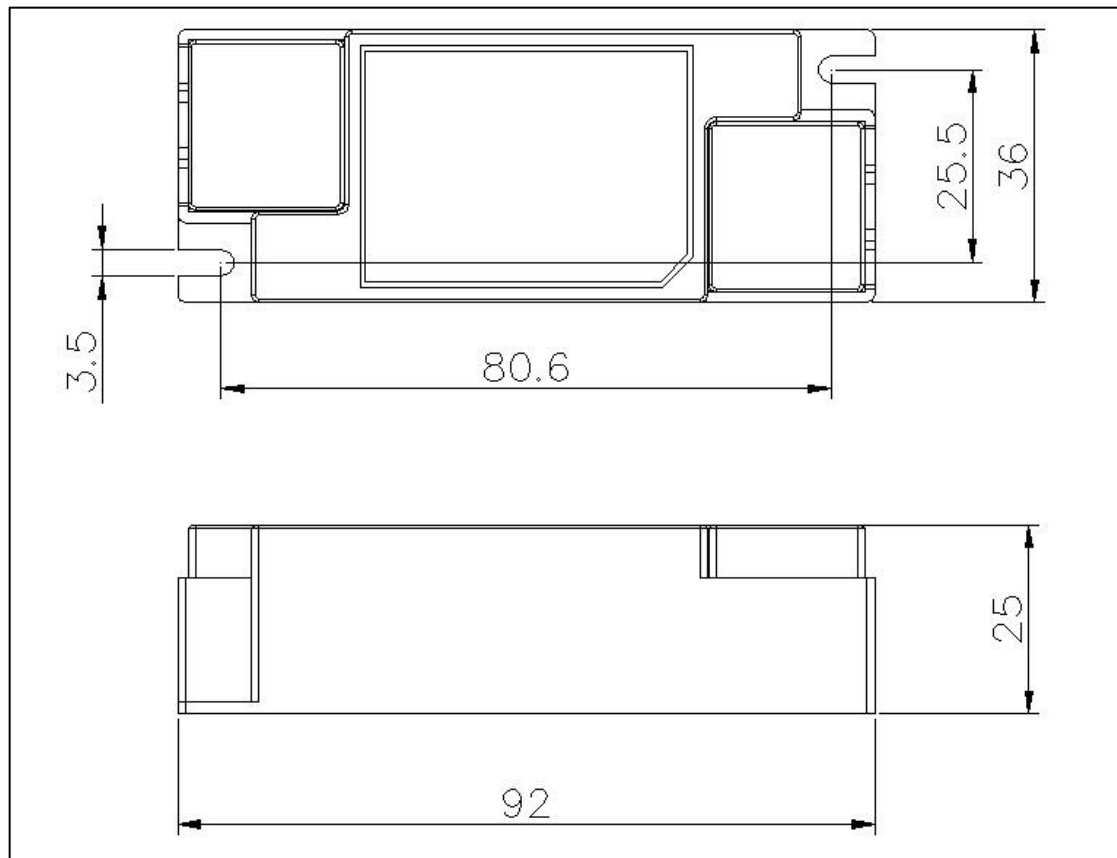
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
10A	300μs	26pcs	42pcs	53pcs	44pcs	71pcs	88pcs

◆ Wiring diagram



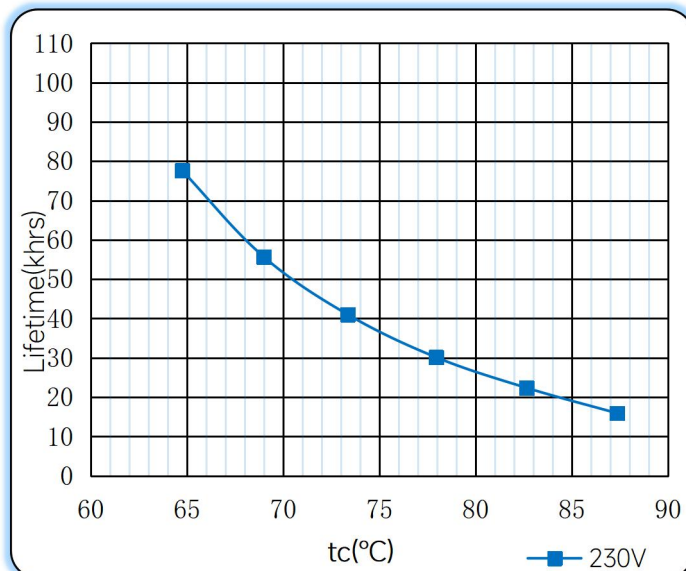
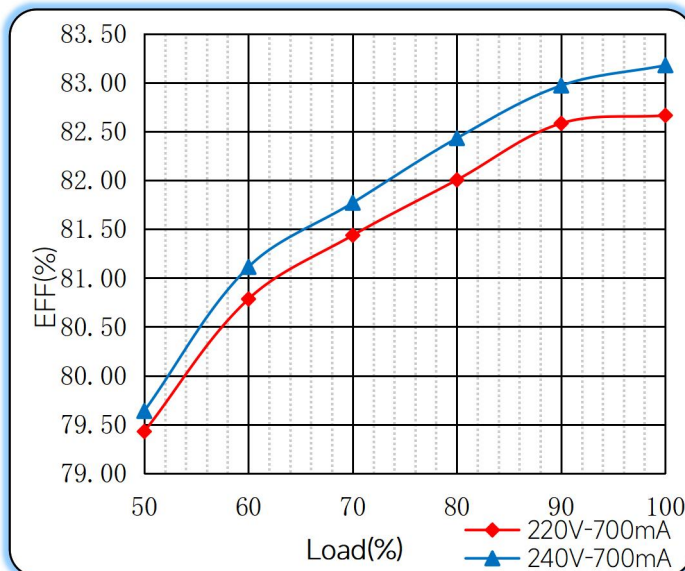
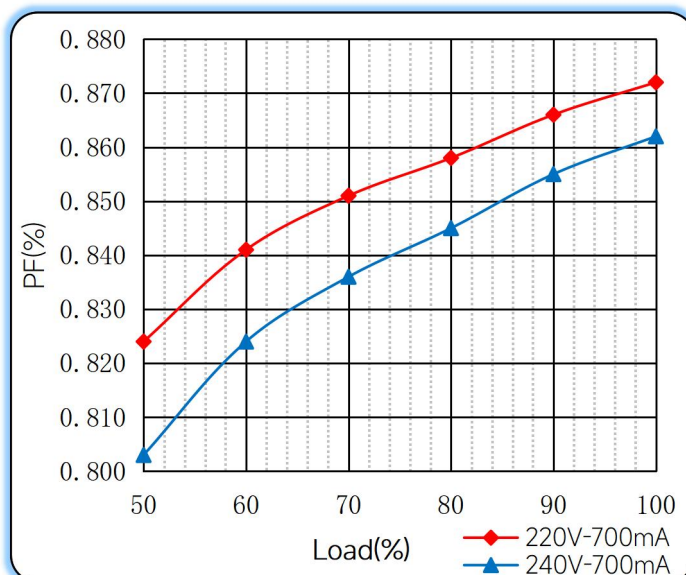
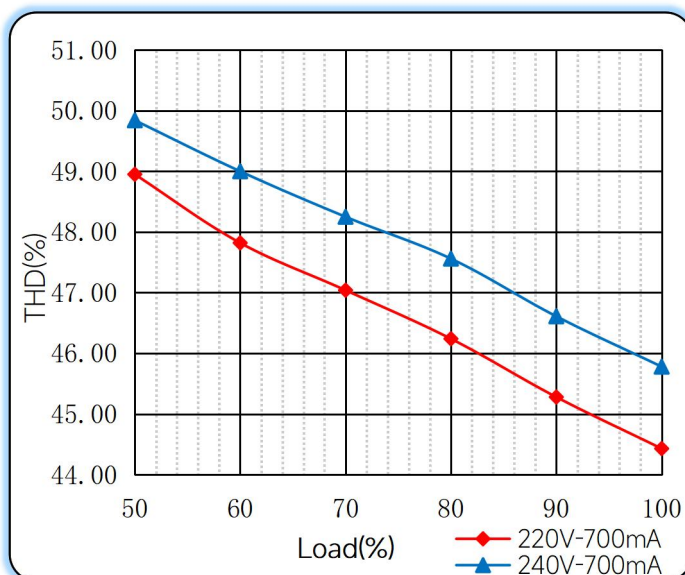
◆ 2D diagram



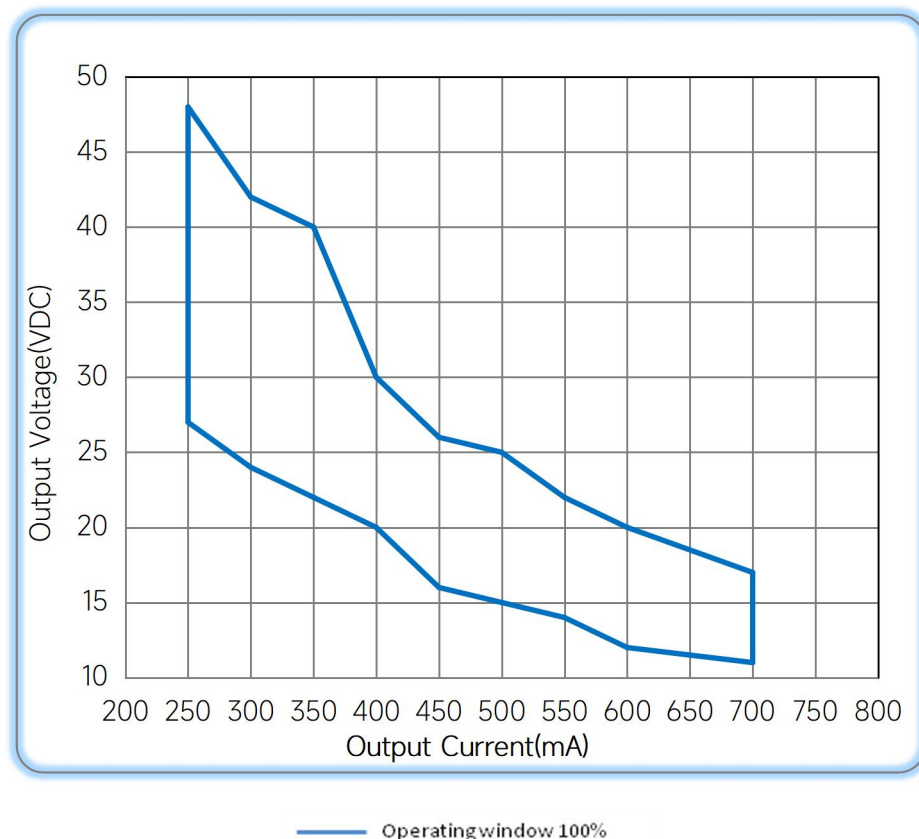
◆ Wiring & Connections

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-12-700 MI, $I_o=700\text{mA}$

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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EAGLERISE



Manual