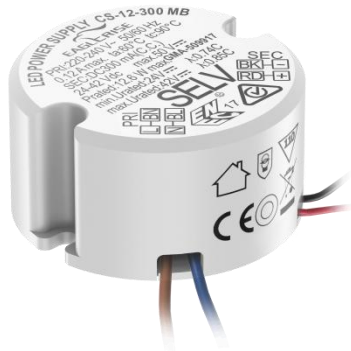


## 12W Constant Current -CS Series



■ Approve



### Features

- Class II, SELV, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.85C
- Efficiency  $\geq 81\%$
- 5 years warranty

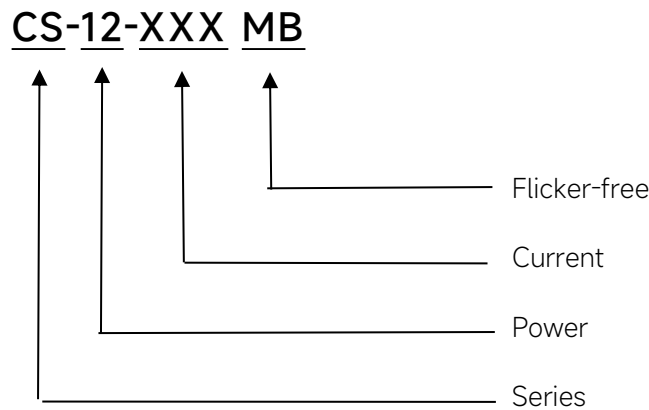
### Applications

- LED down light, LED spot light, LED ceiling light

### ◆ Description

CS-12-XXX MB is a 12W constant current LED driver with 250mA to 700mA output current. With its compact dimensions from  $\Phi 42 \times 22\text{mm}$  it is easy to integrate in LED down light, LED spot light, LED ceiling light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code



## ◆ Specification

Output	Constant Current	250mA	300mA	350mA	...	700mA
	Voltage Range	27-48VDC	24-42VDC	22-40VDC	...	11-17VDC
	Unload voltage Max.	55VDC	50VDC	50VDC	...	25VDC
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±3%				
	Output LF current ripple(≤120Hz)	±3%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	≥83%			...	≥81%
Input	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	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				
Protection	Over Load Protection	103-120% YES/Auto Resume				
	Over Voltage Protection	> 55VDC	> 50VDC	> 50VDC	...	> 25VDC
	Short circuit Protection	YES/Auto Resume				
	Life time	> 50000h@Tc=75°C.230VAC				
Environment	Operating Temperature	-20°C~+60°C				
	Humidity	20%-90%RH				
	Tc	90°C				
	Storage Temperature	-20°C~+60°C				
	Life time	> 50000h@Tc=75°C.230VAC				
Surface	Dimension	Φ42X22(DXH)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.					

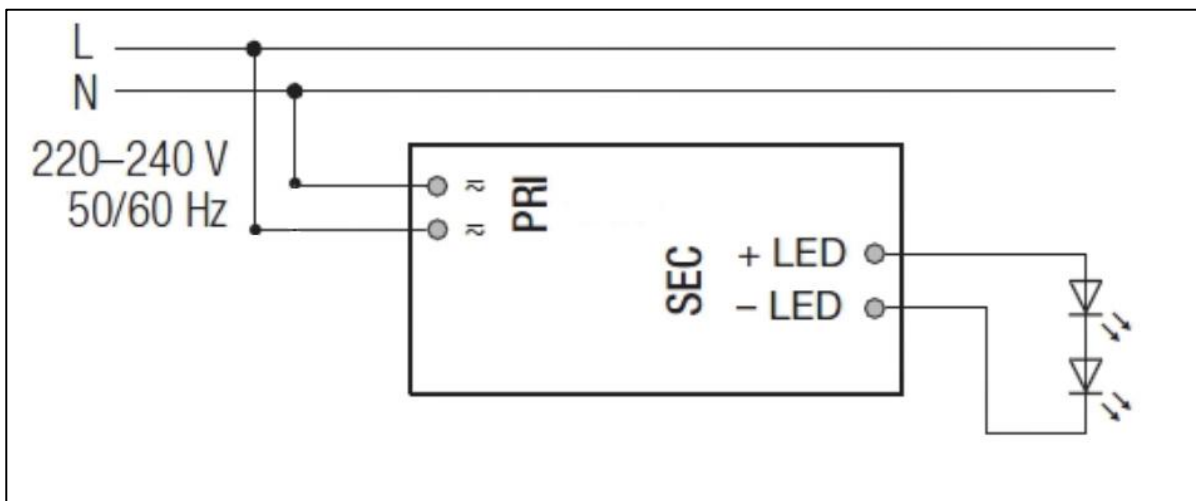
### ◆ Model list

NO.	Model number	Input			Output			Max.Prated(W)
		Voltage (VAC)	Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
1	CS-12-250 MB	220-240	0.12	50/60	250	27-48	55	12
2	CS-12-300 MB				300	24-42	50	12.6
3	CS-12-350 MB				350	22-40	50	14
4	CS-12-400 MB				400	20-30	40	12
5	CS-12-450 MB				450	16-26	35	11.7
6	CS-12-500 MB				500	15-25	34	12.5
7	CS-12-550 MB				550	14-22	32	12.1
8	CS-12-600 MB				600	12-20	30	12

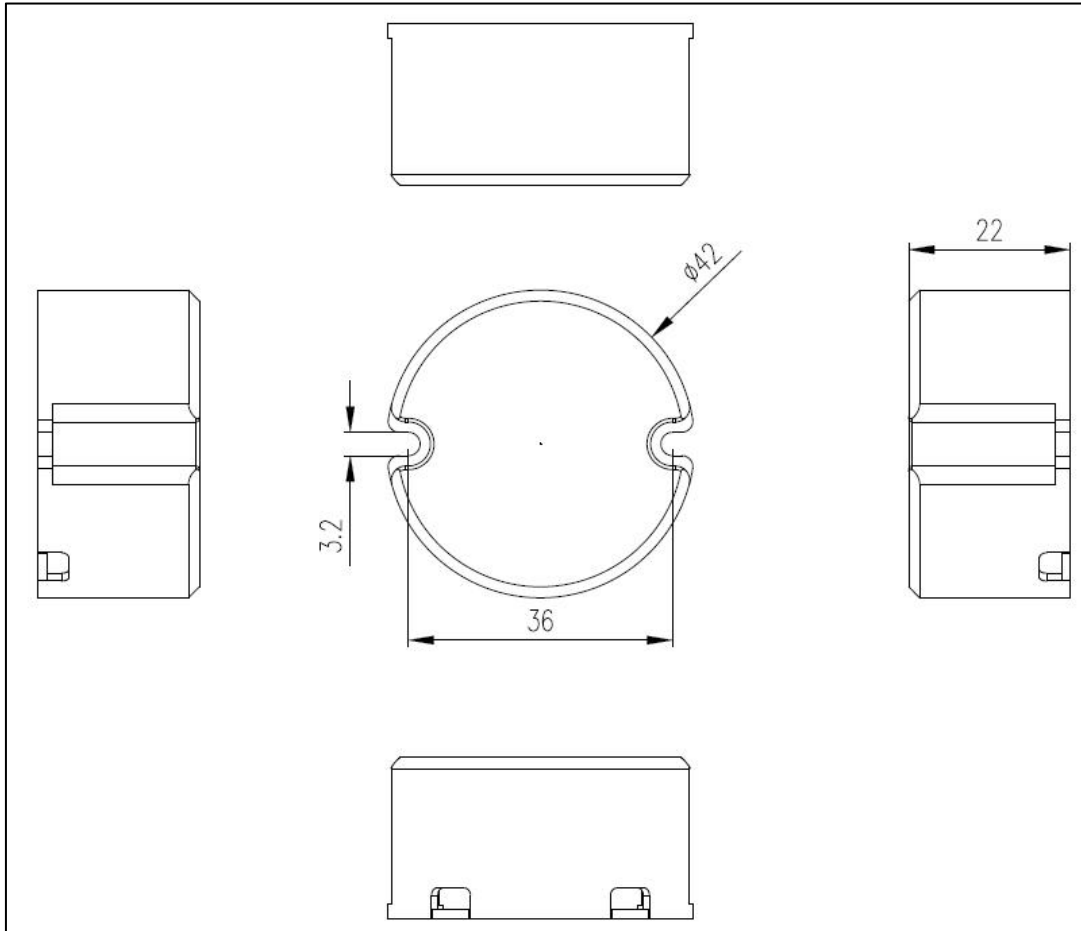
### ◆ Circuit Breaker

I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
10A	300μs	26pcs	42pcs	53pcs	44pcs	71pcs	88pcs

### ◆ Wiring diagram

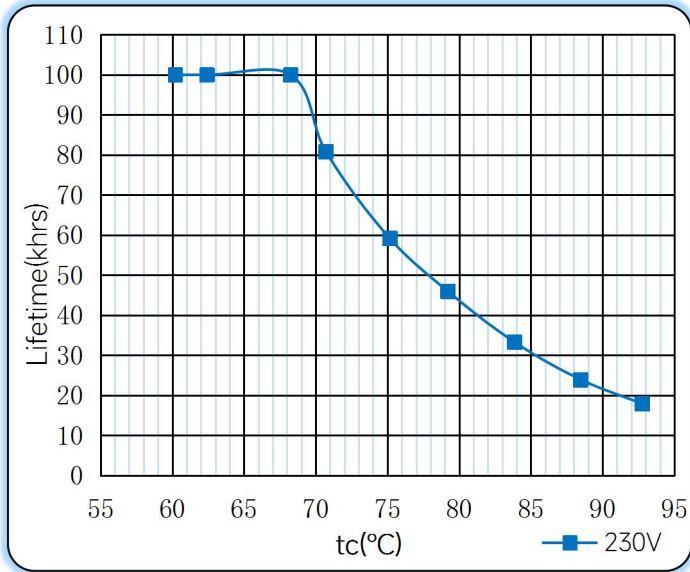


◆ 2D diagram

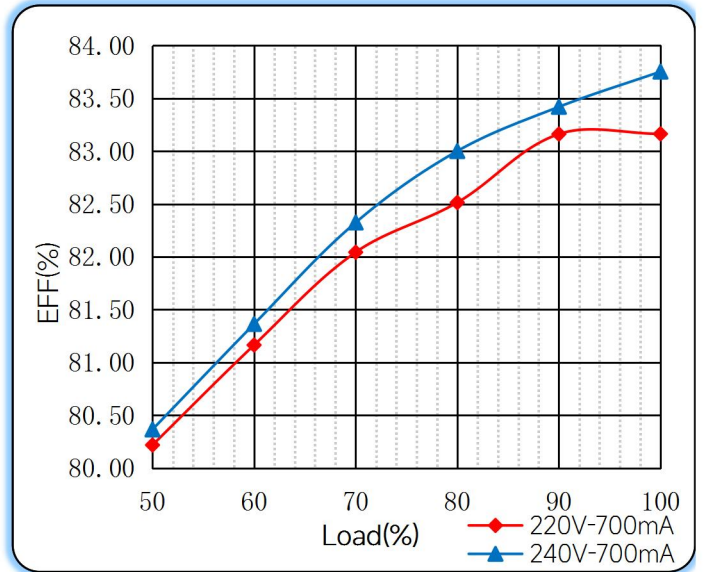


◆ **Curve for CS-12-700 MB, I<sub>o</sub>=700mA**

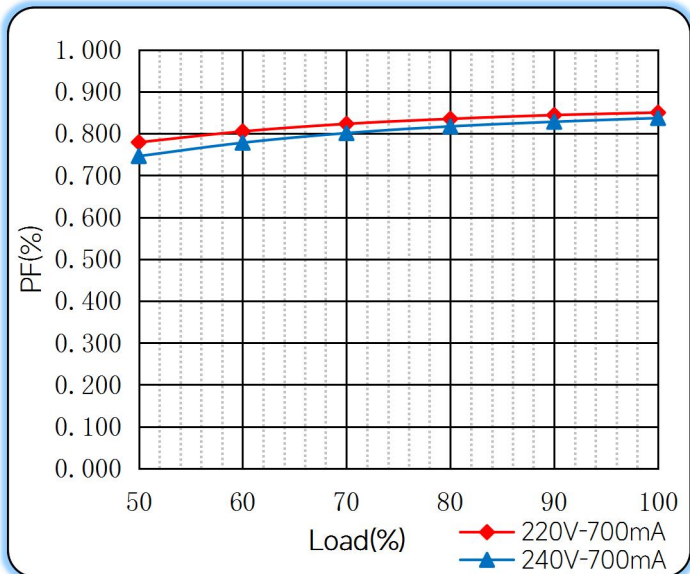
Lifetime vs. Temperature Curve



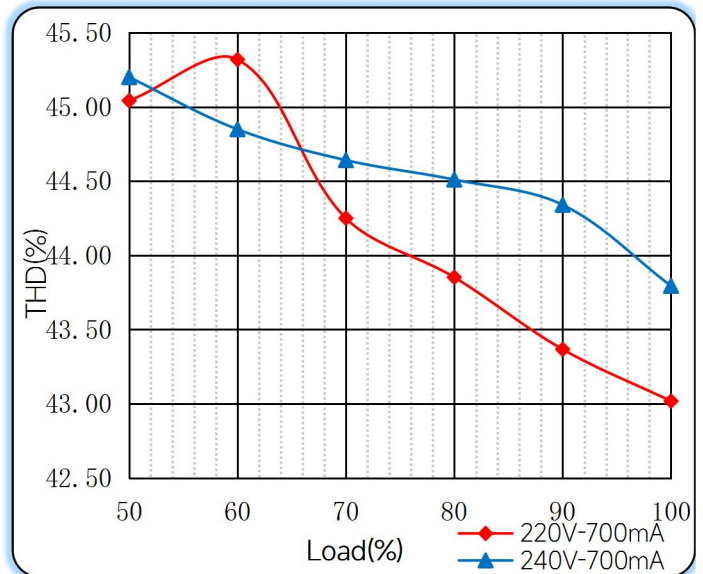
Efficiency vs. Load



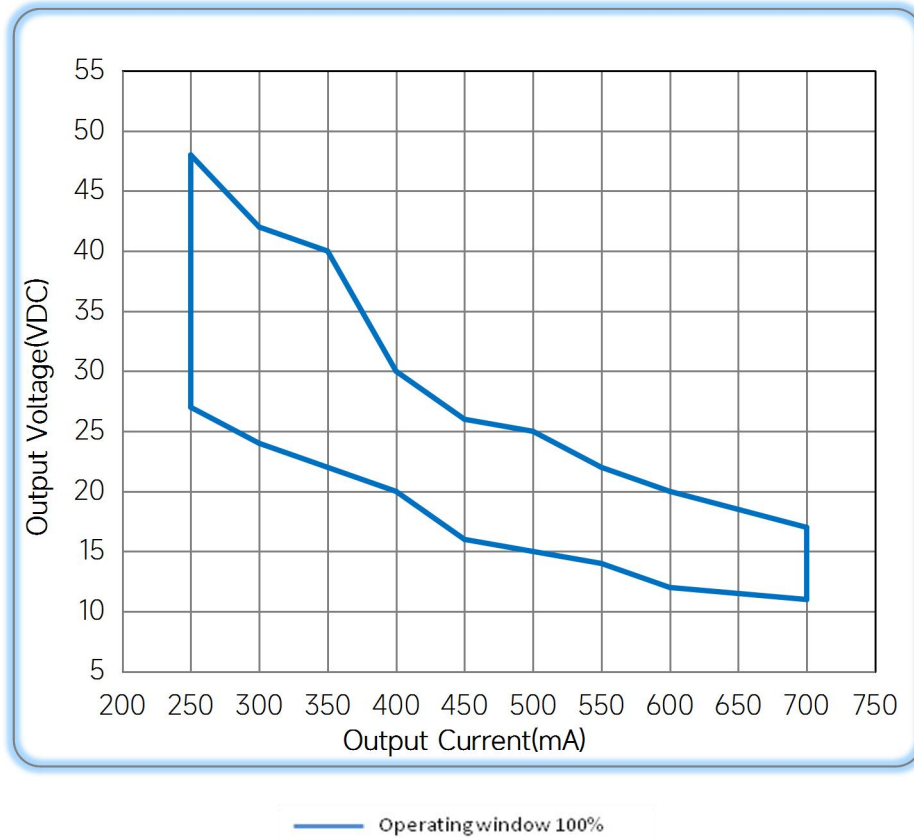
Power Factor Characteristics



THD vs. Load



### ◆ Operating window



### ◆ Revision Updates

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

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Manual