

20W Constant Voltage-LS Series



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor 0.85C
- Efficiency $\geq 80\%$
- 5 years warranty
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Applications

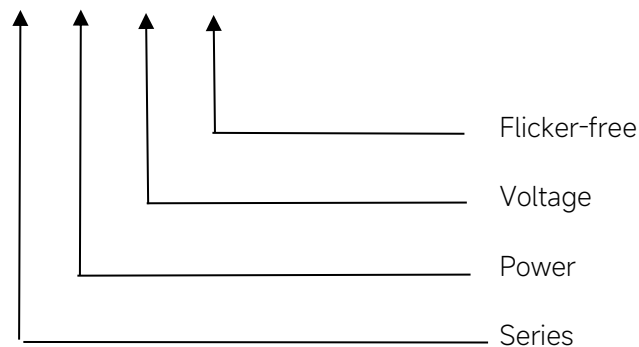
- LED strips

◆ Description

LS-20-XX MI is a 20W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With it's compact dimensions from 115 x 45 x 28 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 cod

LS-20-XX MI



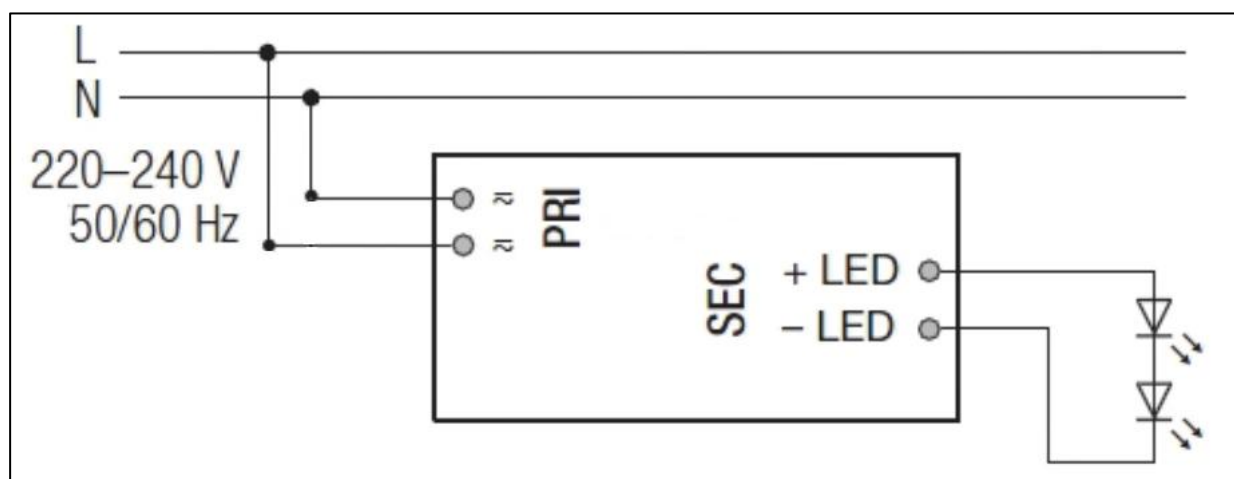
◆ Specification

Output	Constant Voltage	12VDC		24VDC	
	Current Range	0-1.67A		0-0.83A	
	Voltage Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.8			
	Pst	≤1			
	Efficiency(Typ.)	80%			
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	0.85C			
	Input Current max	0.18A			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	< 44%			
Protection	Over Load Protection	105-150%			
		YES/Auto Resume			
	Over Voltage Protection	> 12.6VDC		> 25.2VDC	
		YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
Over Temperature Protection	YES/Auto Resume				
Environment	Operating Temperature	-20℃~+45℃			
	Humidity	20%-90%RH			
	Tc	75℃			
	Storage Temperature	-20℃~+60℃			
	Life time	> 50000h@Tc=70℃			
Surface	Dimension	115 x 45 x 28(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℃ 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.				

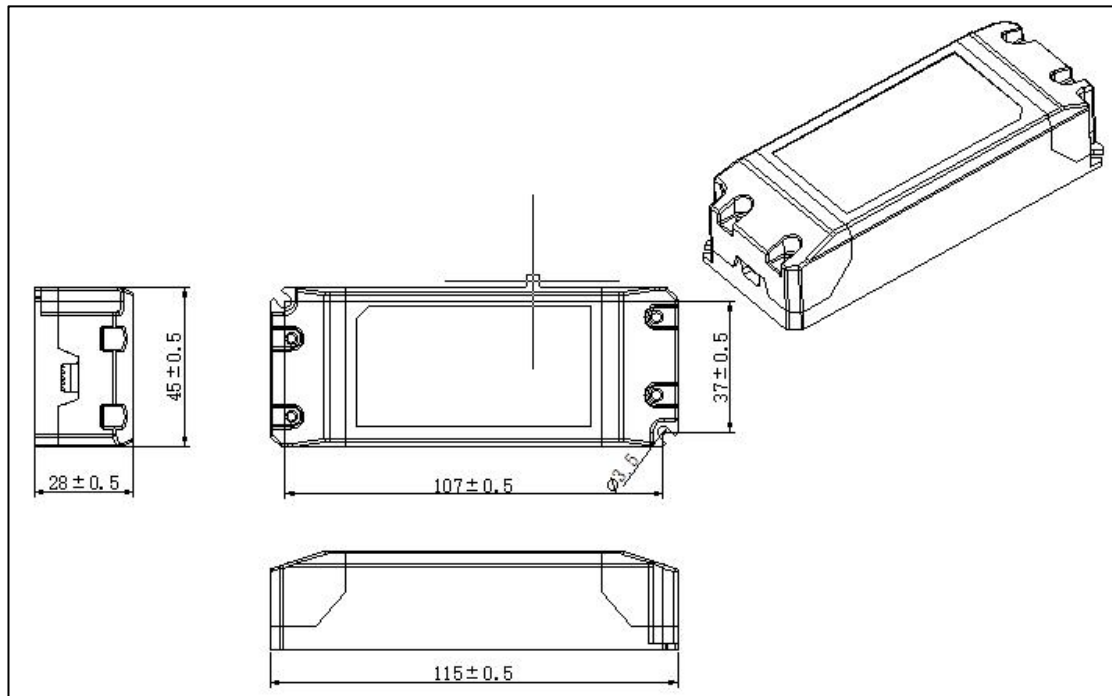
◆ Circuit Breaker

I_{peak}	T_{width}	B10	B16	B20	C10	C16	C20
10A	95 μ s	44pcs	71pcs	88pcs	41pcs	71pcs	88pcs

◆ Wiring diagram



◆ 2D diagram

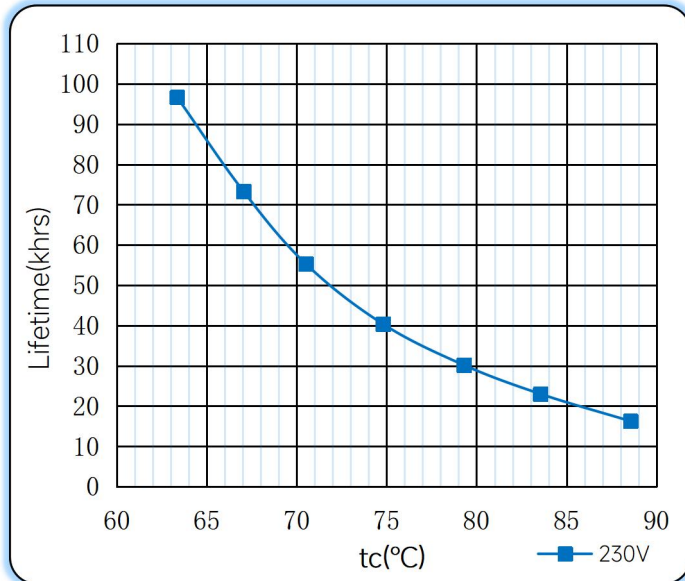


◆ Wiring & Connections

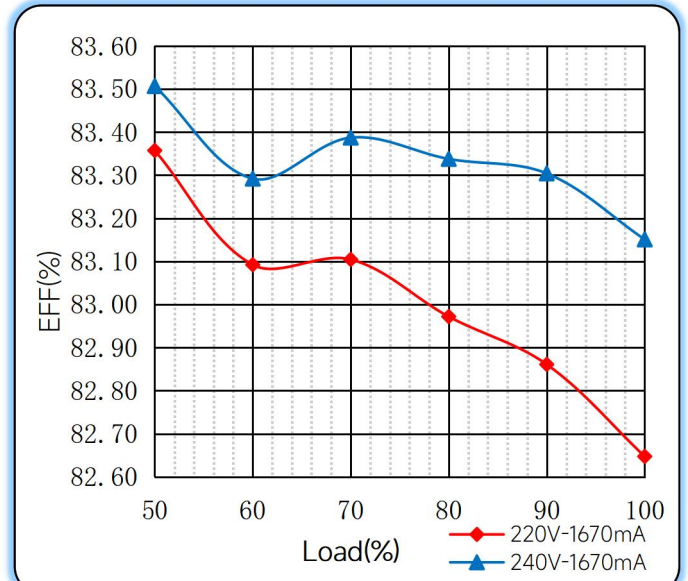
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LS-20-12 MI

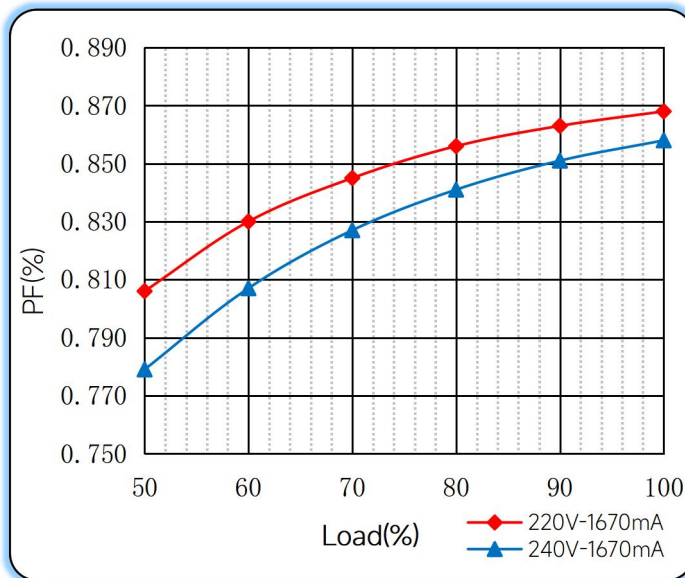
Lifetime vs. Temperature Curve



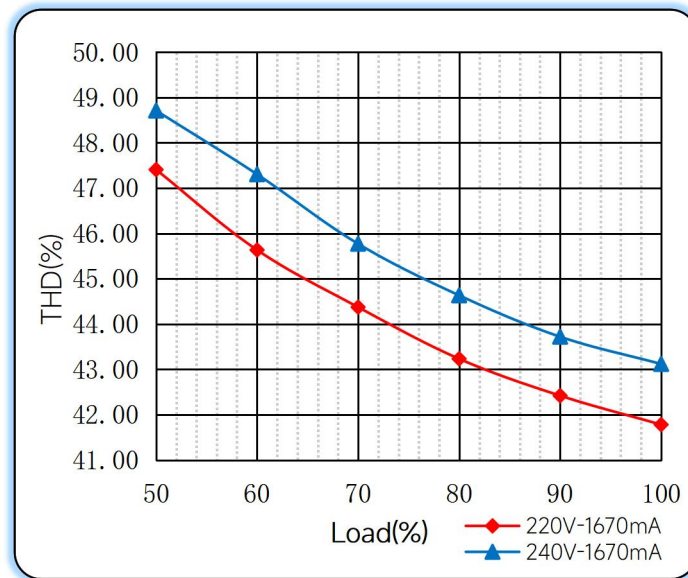
Efficiency vs. Load



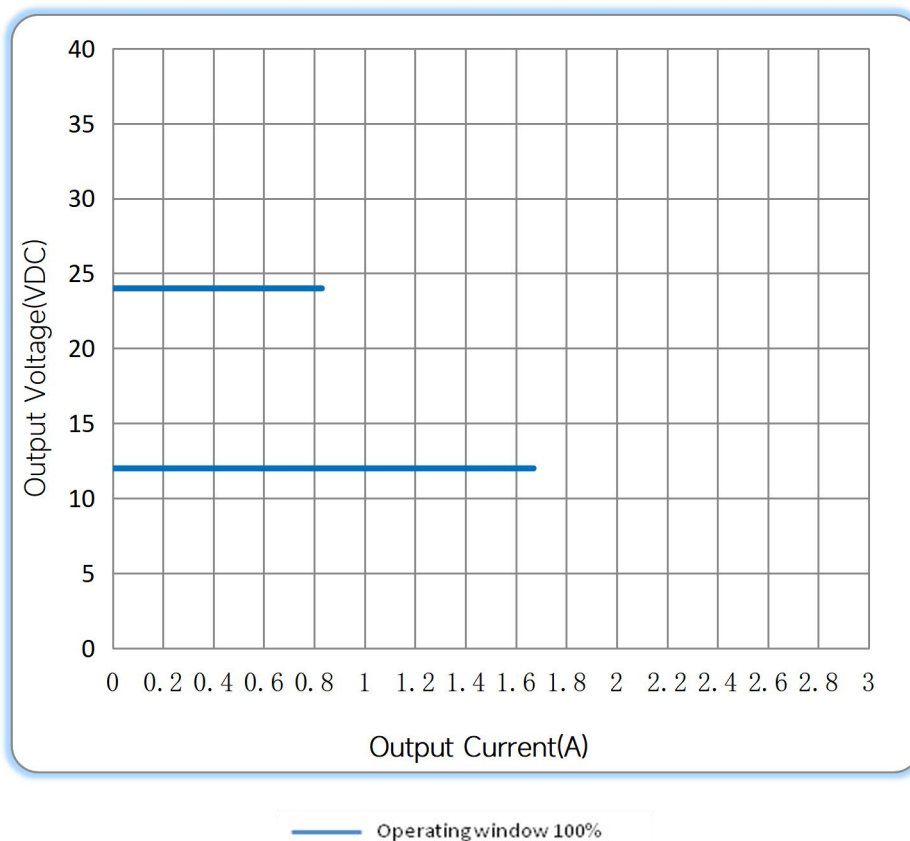
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

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

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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