

21W Constant Current power supply



■ Approve



Features

- Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.55C
- Efficiency: 85%
- 5 years warranty
- IP20

Applications

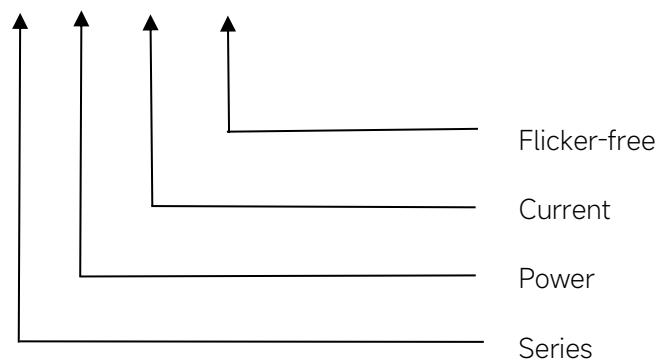
- LED panel, LED down light
- LED spot light

◆ Description

LS-21-XXX SI ECO is a 21W constant current LED driver with 300~700mA output current. With it's compact dimensions from 92 x 36 x 25 mm it is easy to integrate in LED panel, LED down light, LED spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-21-XXX SI ECO



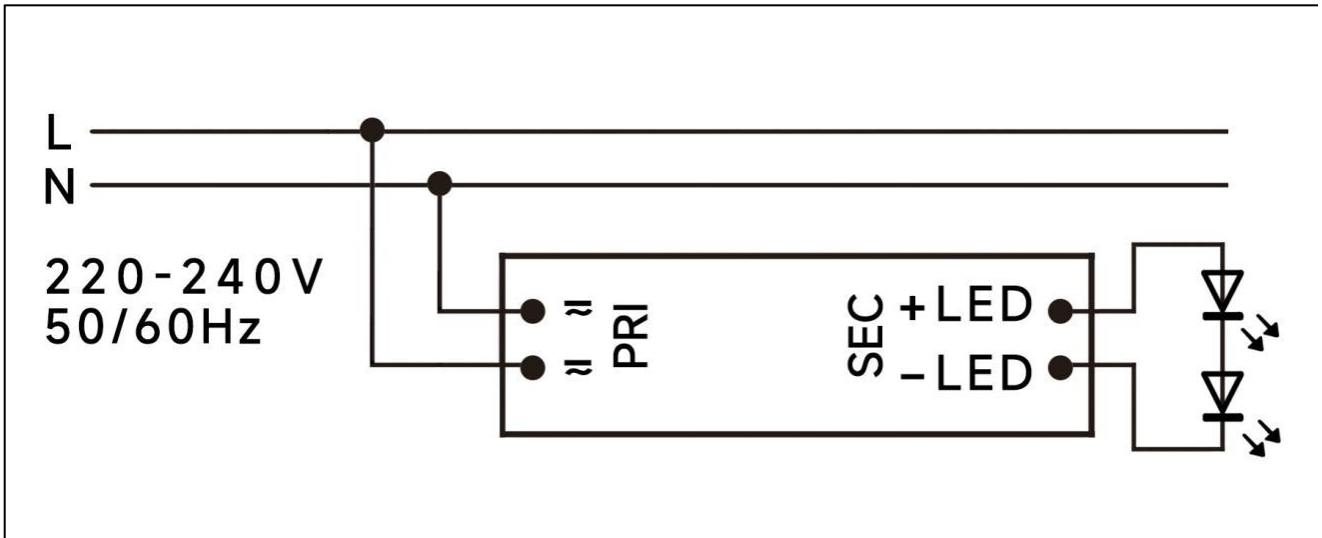
◆ Specification

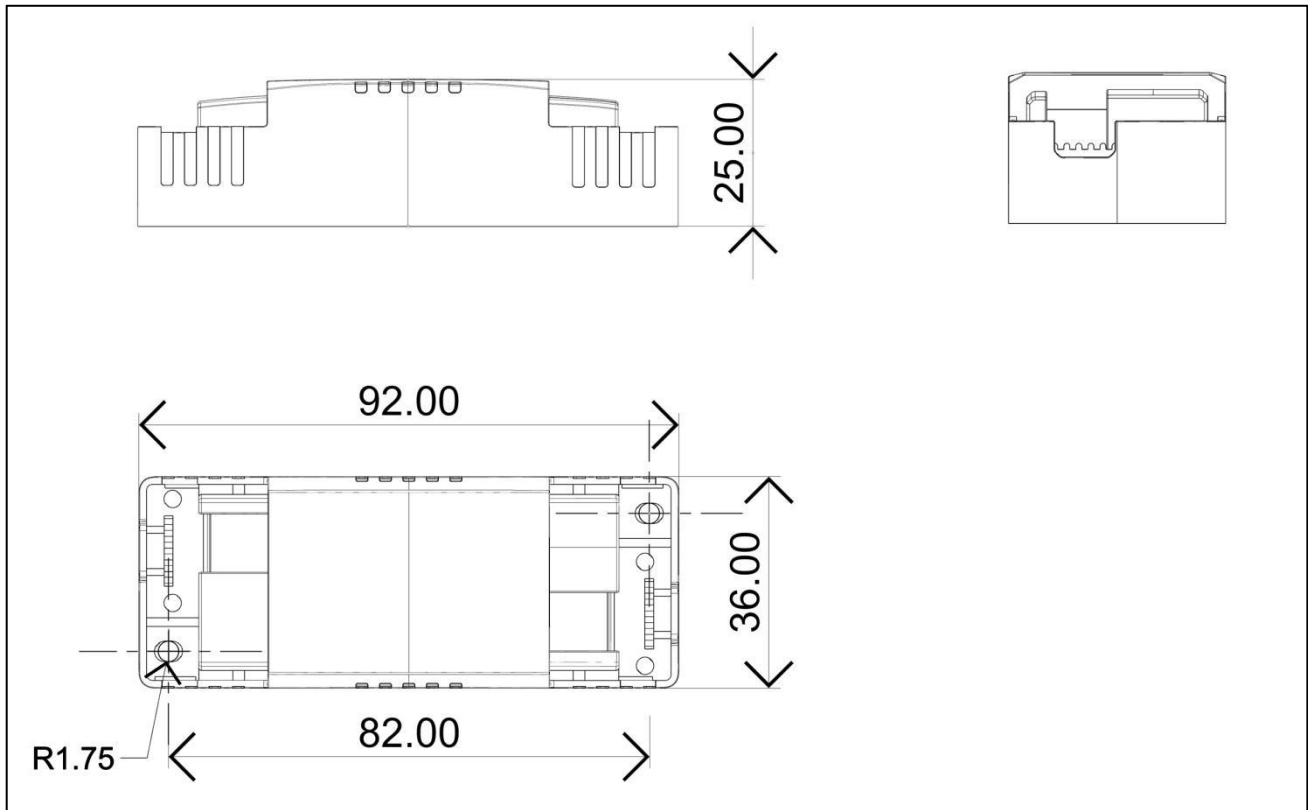
Output	Constant Current (mA)	300	350	400	450	500	550	600	650	700	
	Voltage Range(VDC)	50-70	42-60	27-42	27-42	27-42	27-40	27-39	20-32	18-30	
	Unload voltage Max.	90	80	55	55	55	55	55	50	50	
	Current Accuracy	±5%									
	Output HF current ripple(≥1KHz)	±5%									
	Output LF current ripple(≤120Hz)	±5%									
	SVM	≤0.4									
	P _{st}	≤1									
	Efficiency(Typ.)	≥85%									
Input	Rated input voltage	220-240VAC									
	Range of input voltage	198-264VAC									
	Frequency(Hz)	50/60 Hz									
	Displacement factor	≥0.7									
	Power Factor	0.55C									
	Input Current max	0.3A									
	Start-up time	< 0.5S									
	No Load Power	≤0.5W									
Protection	Over Load Protection	103-120%									
		YES/Auto Resume									
	Over Voltage Protection(VDC)	90	80	55	55	55	55	55	50	50	
		YES/Auto Resume									
	Short circuit Protection	YES/Auto Resume									
Over Temperature Protection	YES/Auto Resume										
Environment	Operating Temperature	-20°C~+45°C									
	Humidity	20%-90%RH									
	Tc	80°C									
	Storage Temperature	-25°C~+60°C									
	Life time	> 30,000h@tc=75°C; > 60,000h@tc=65°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.										

◆ **Circuit Breaker**

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
14.2A	102μs	26pcs	42pcs	53pcs	26pcs	42pcs	53pcs

◆ **Wiring diagram**

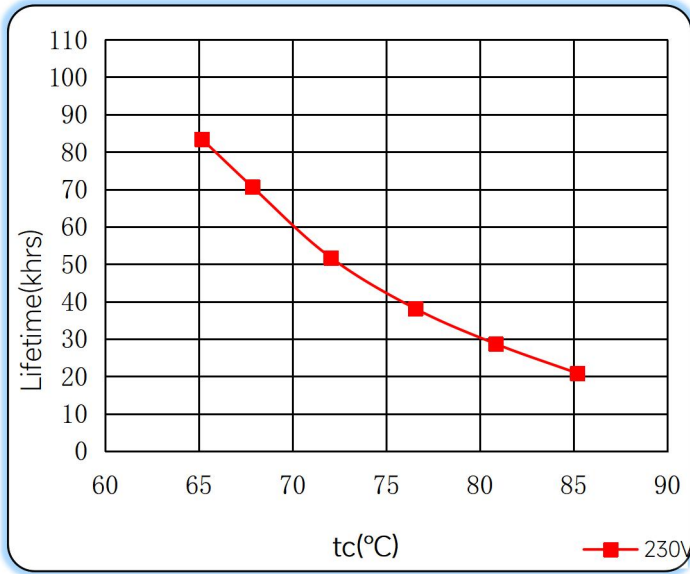


◆ 2D diagram

◆ Wiring & Connections

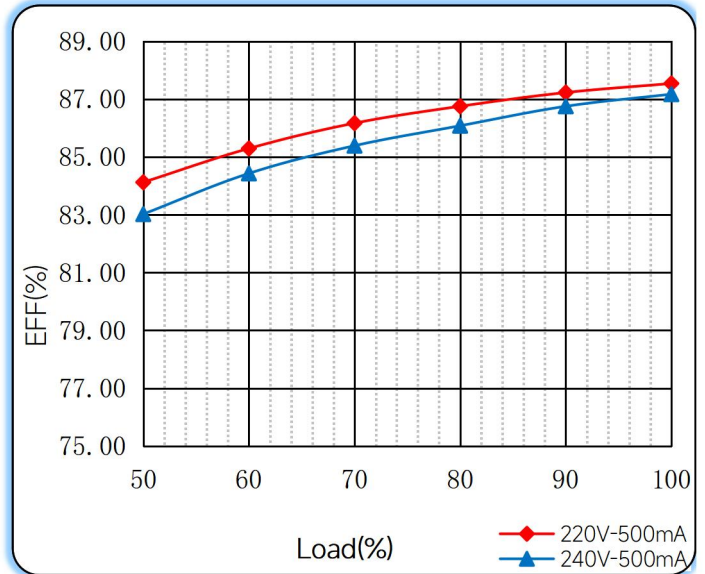
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ **Curve for LS-21-500 SI ECO, I_o=500mA**

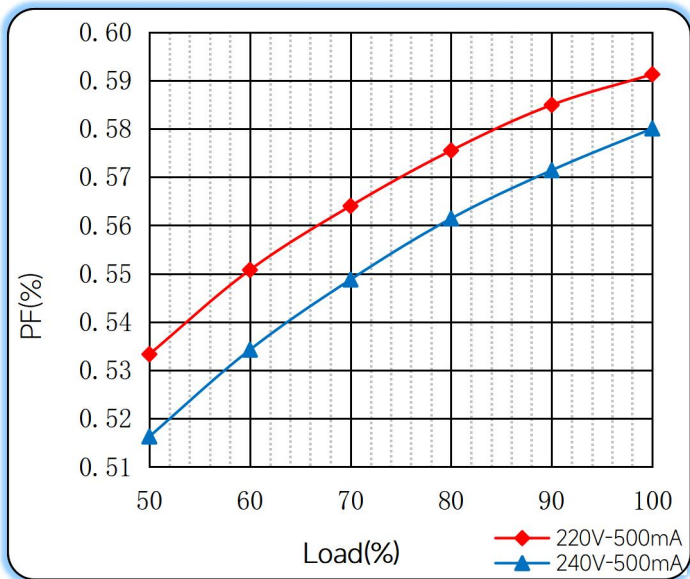
Lifetime vs. Temperature Curve



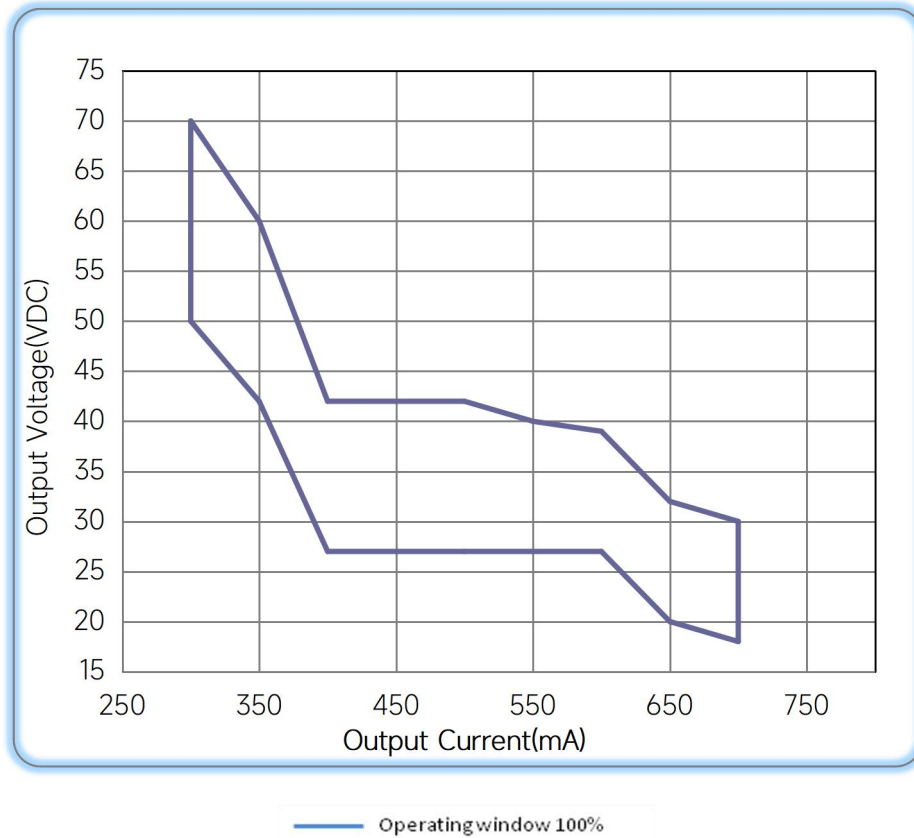
Efficiency vs. Load



Power Factor Characteristics



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/08/09

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Manual