

21W Constant Current power supply



■ Approve



SELV

Features

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

Applications

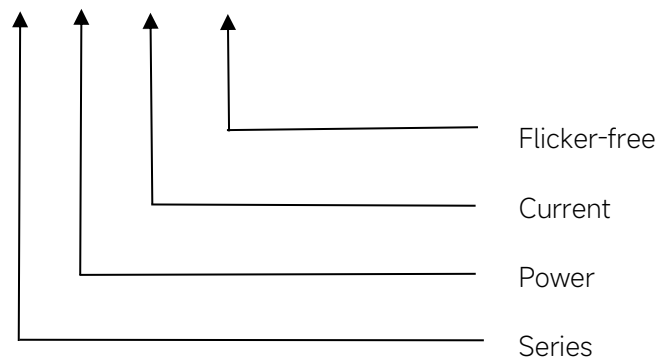
- LED panel, LED down light
LED spot light

◆ Description

LC-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

LC-21-XXX SI ECO



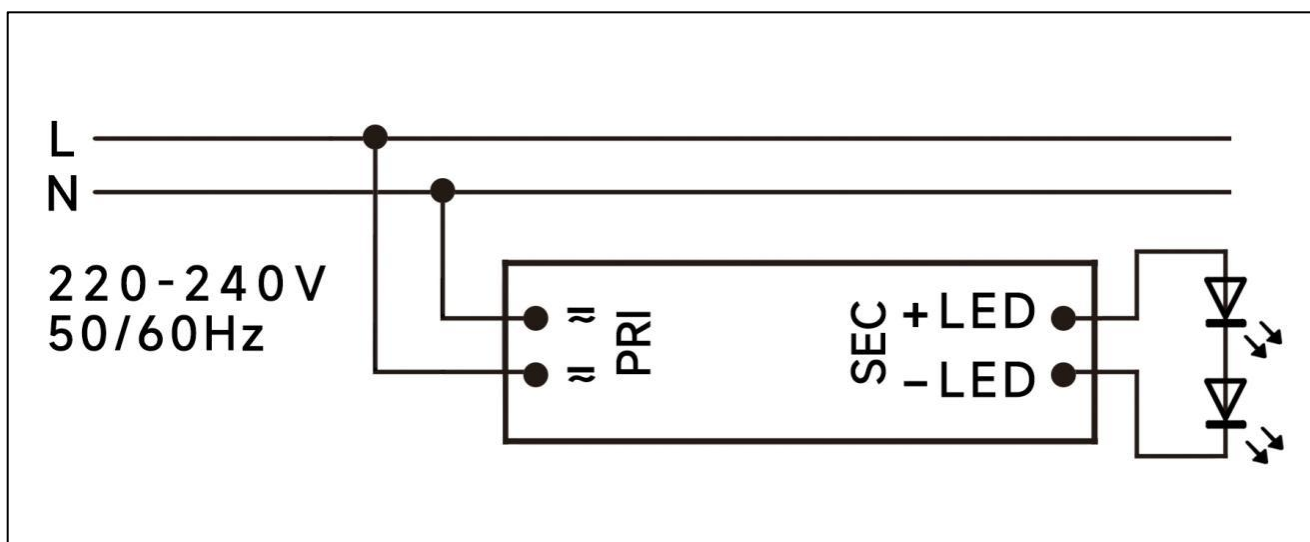
◆ Specification

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℃~-+45℃								
	Humidity	20%-90%RH								
	Tc	80℃								
	Storage Temperature	-25℃~-+60℃								
	Life time	> 30,000h@tc=75℃; > 60,000h@tc=65℃								
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℃ 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.									

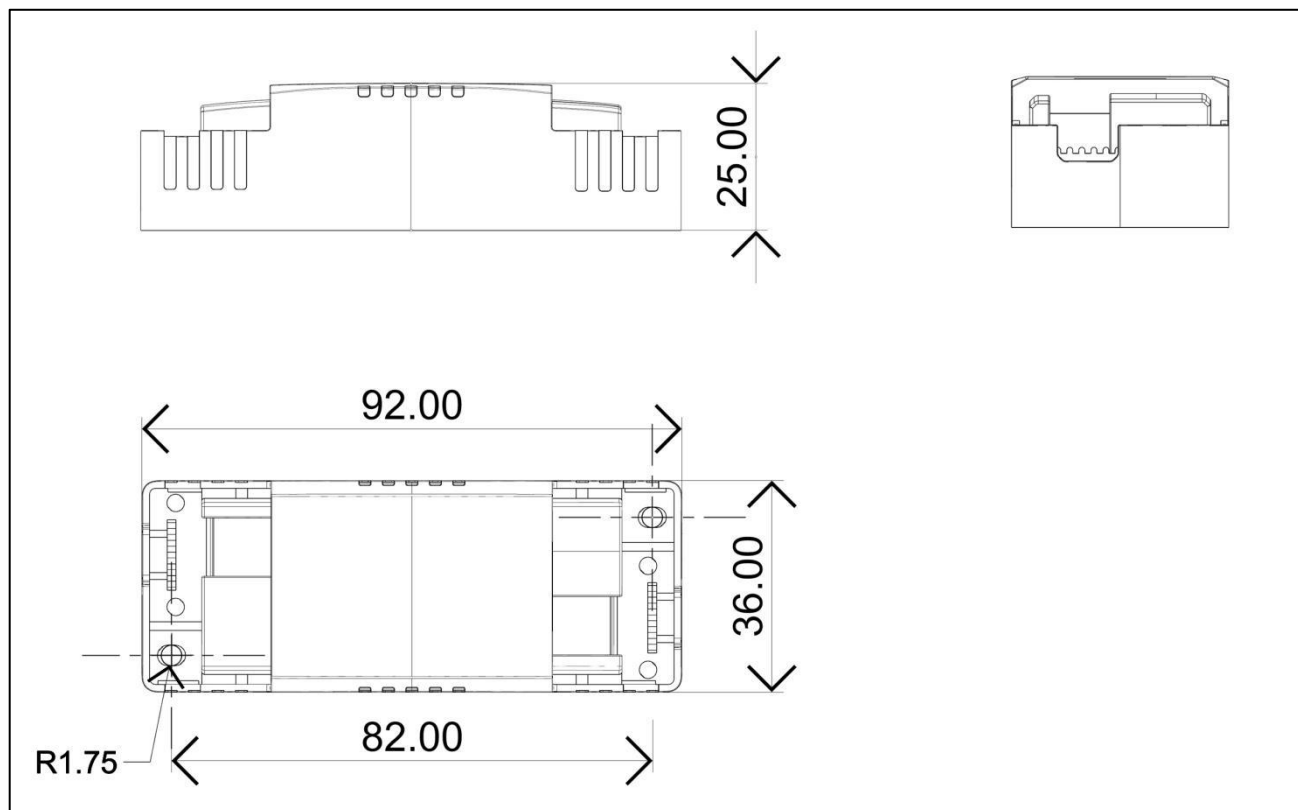
◆ Circuit Breaker

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
14.2A	102 μ s	26pcs	42pcs	53pcs	26pcs	42pcs	53pcs

◆ Wiring diagram



◆ 2D diagram

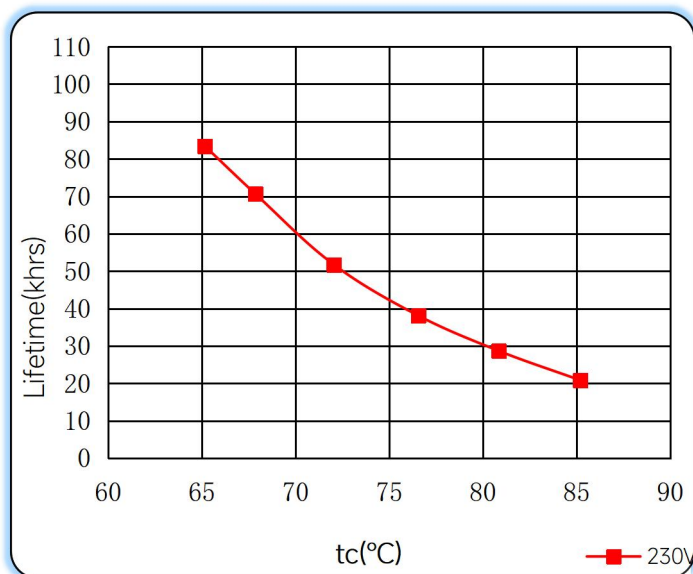


◆ Wiring & Connections

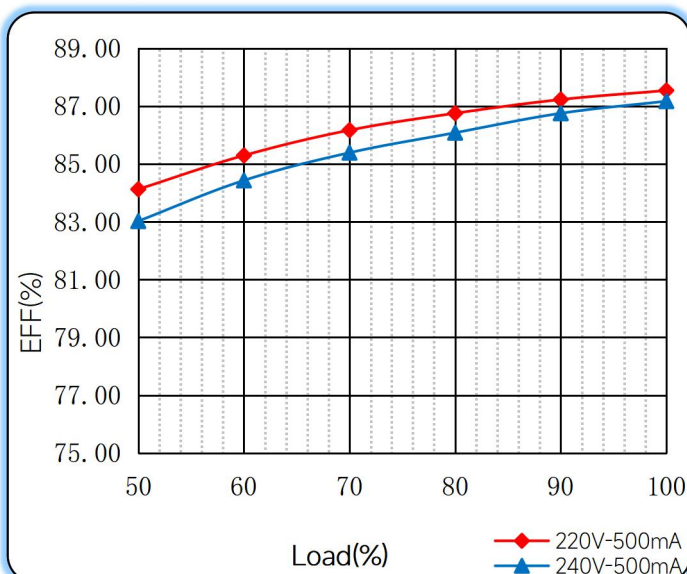
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LC-21-500 SI ECO, $I_o=500mA$

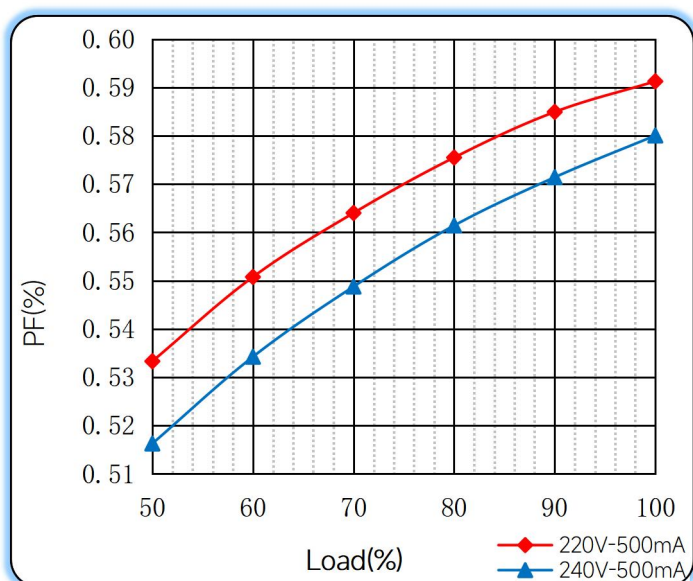
Lifetime vs. Temperature Curve



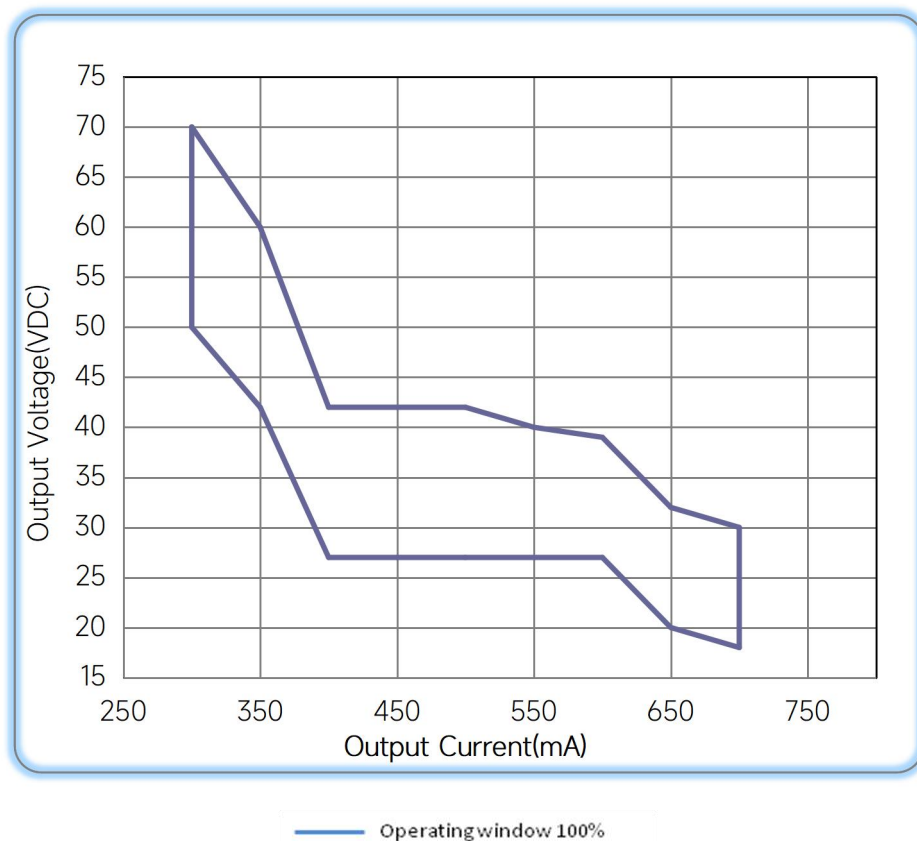
Efficiency vs. Load



Power Factor Characteristics



◆ Operating window



◆ Revision Updates

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