

22W Constant Current power supply



■ Approve

CE CB EN CCC SELV

Features

- Class II, SELV, Built-in
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.9
- Efficiency: 86%
- 5 years warranty
- IP20

Applications

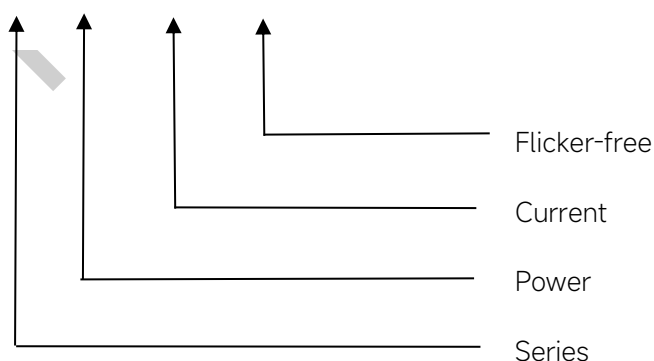
- LED panel, LED ceiling light
- LED spot light

◆ Description

CS-22-XXX LI is a 22W constant current LED driver with 350 to 550mA output current. With it's compact dimensions from $\Phi 50 \times 22 \text{mm}$. It is easy to integrate in LED Panel, spot and ceiling lights product. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

CS-22-XXX LI



◆ Specification

Output	Constant Current (mA)	350	400	450	500	550
	Voltage Range(VDC)	9-42				9-40
	Unload voltage Max.	59VDC				
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	86%				
Input	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	0.9				
	Input Current max (mA)	0.1A	0.12A	0.135A	0.14A	0.15A
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	<10%				
Protection	Over Load Protection	103-130%				
		YES/Auto Resume				
	Over Voltage Protection	59VDC				
		YES/Auto Resume				
capability	Short circuit Protection	YES/Auto Resume				
	Over Temperature Protection	YES/Auto Resume				
	Surge capability (L-N)	2KV				
	Surge capability (L/N-Ground)	4KV				
Environment	Operating Temperature	-20°C~+70°C				
	Humidity	20%-90%RH				
	Tc	100°C				
	Storage Temperature	-20°C~+60°C				
	Life time	> 50000h@Tc=85°C				
	Noise	≤20dB(A)@10cm				
Surface	Dimension	Φ50 x 22mm				
	material	PC				
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN62384				
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5				

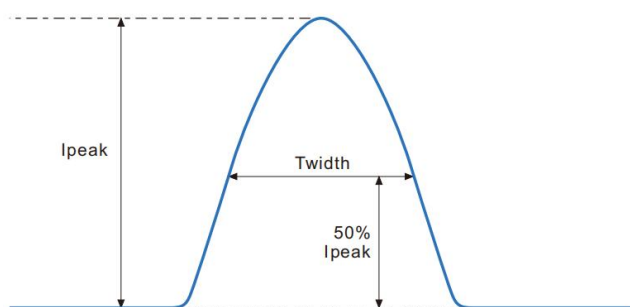
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. 3.Switch and dimmer are not recommended to connect between this product output and luminaries. 4.Surge capability (L/N-Ground) was measured with a metal plate 2-3mm underlay. 5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.	

◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	CS-22-350 LI	350	9-42	59	14.7
2	CS-22-400 LI	400			16.8
3	CS-22-450 LI	450			18.9
4	CS-22-500 LI	500			21
5	CS-22-550 LI	550	9-40		22

◆ Inrush Current

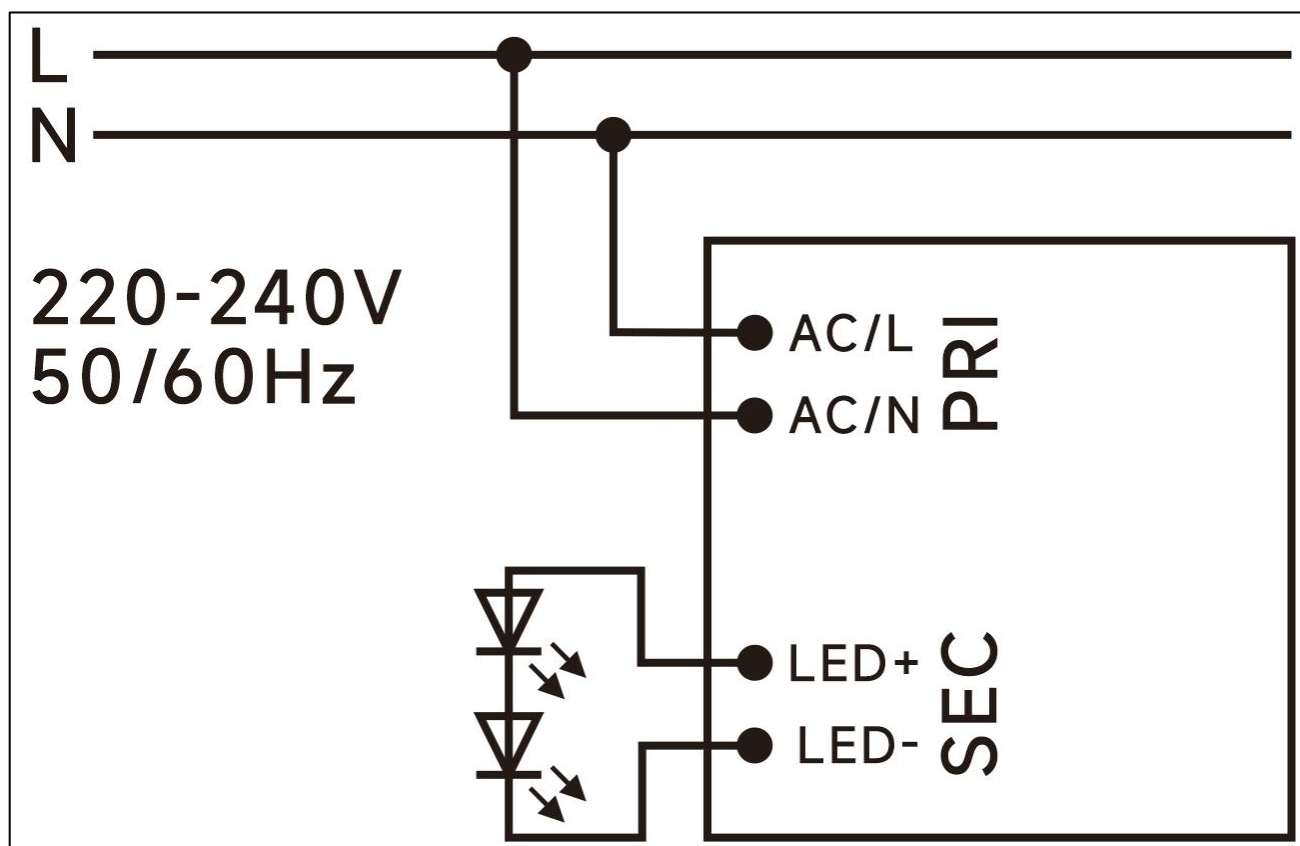
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
17.6A	132μs	36pcs	57pcs	72pcs	60pcs	96pcs	120pcs



Remarks:

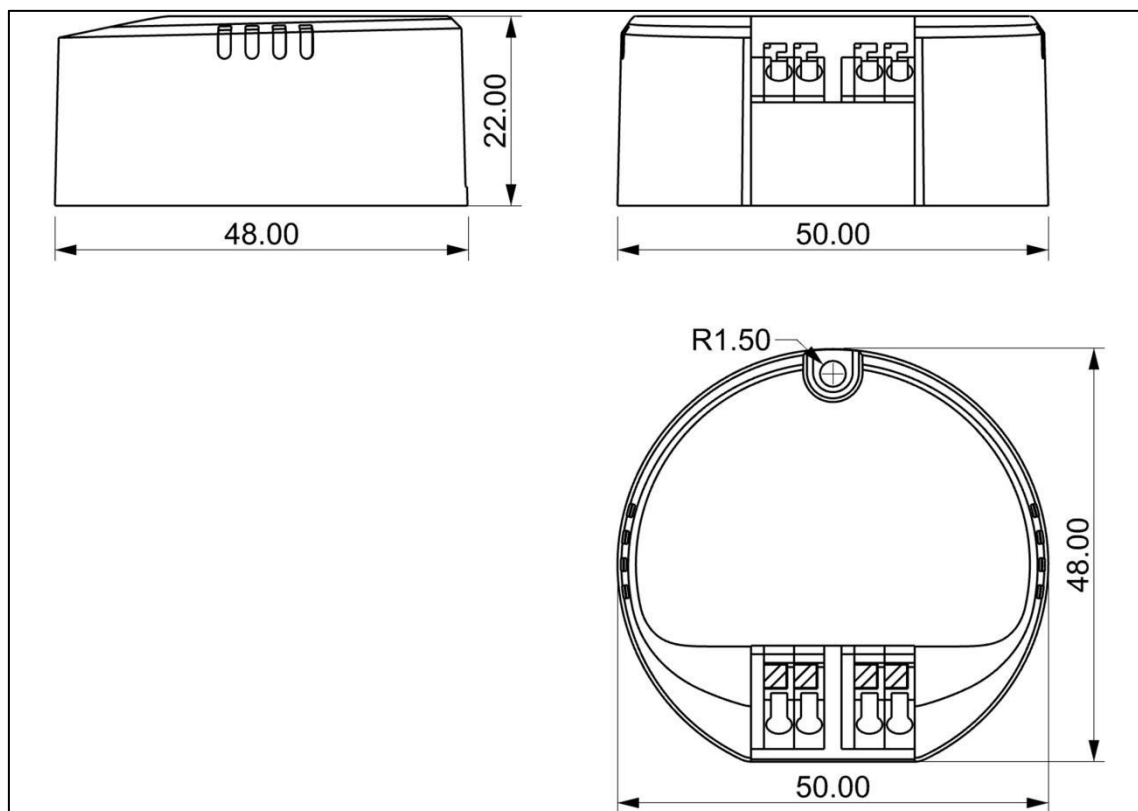
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram

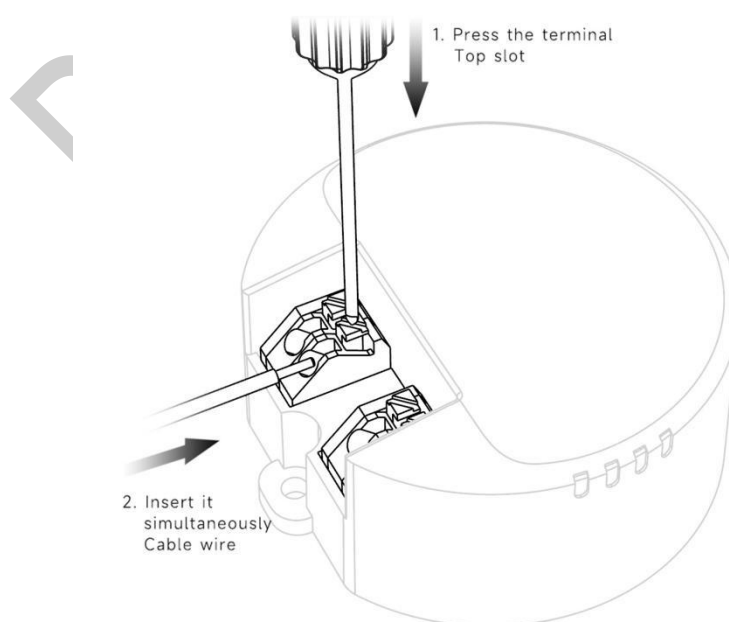


Preliminary

◆ 2D diagram



Terminals



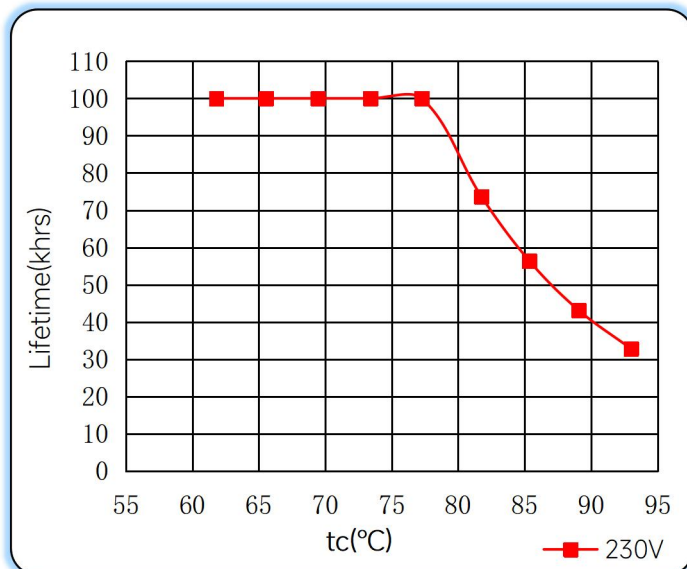
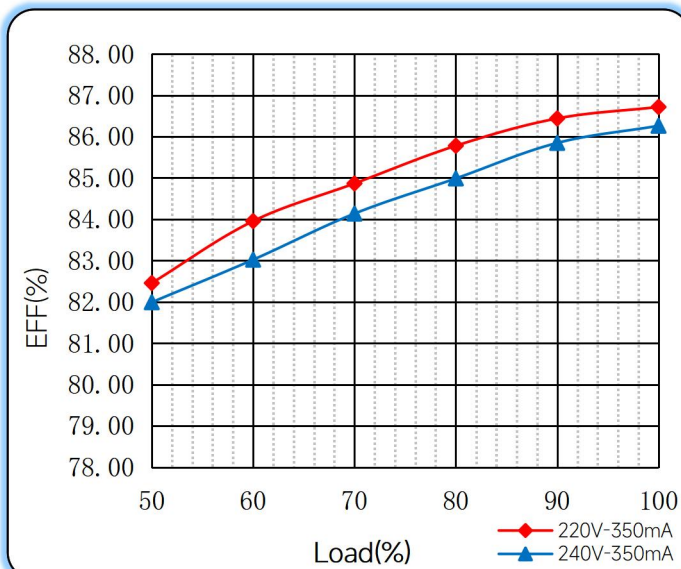
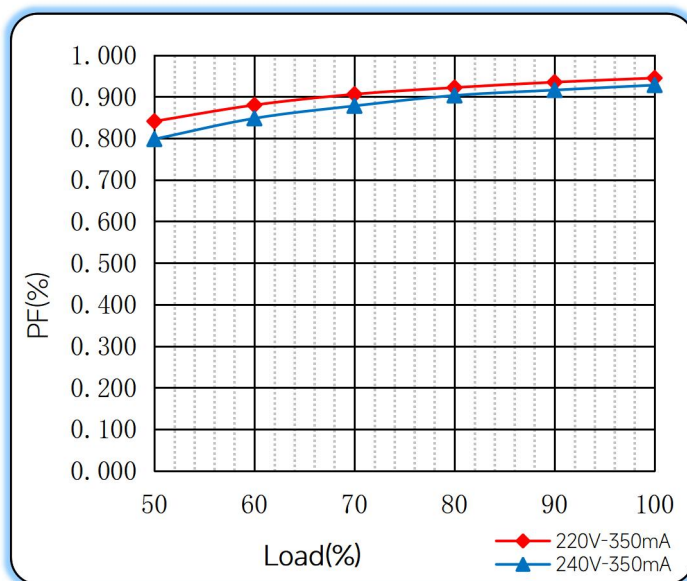
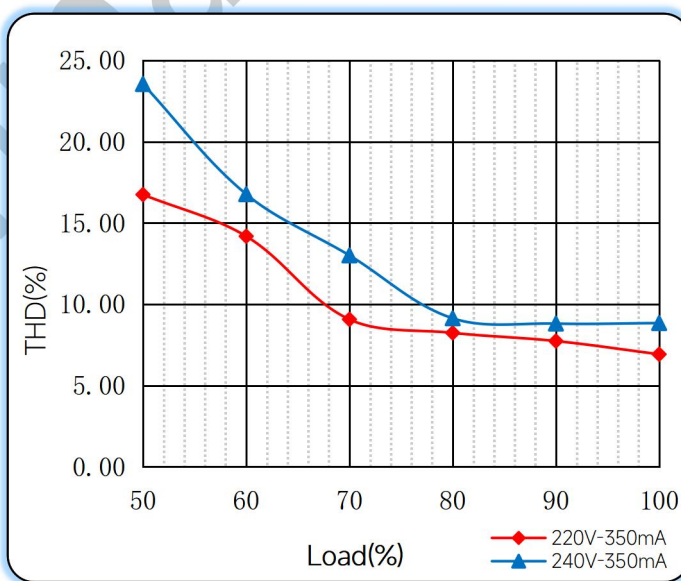
◆ Wiring & Connections

	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

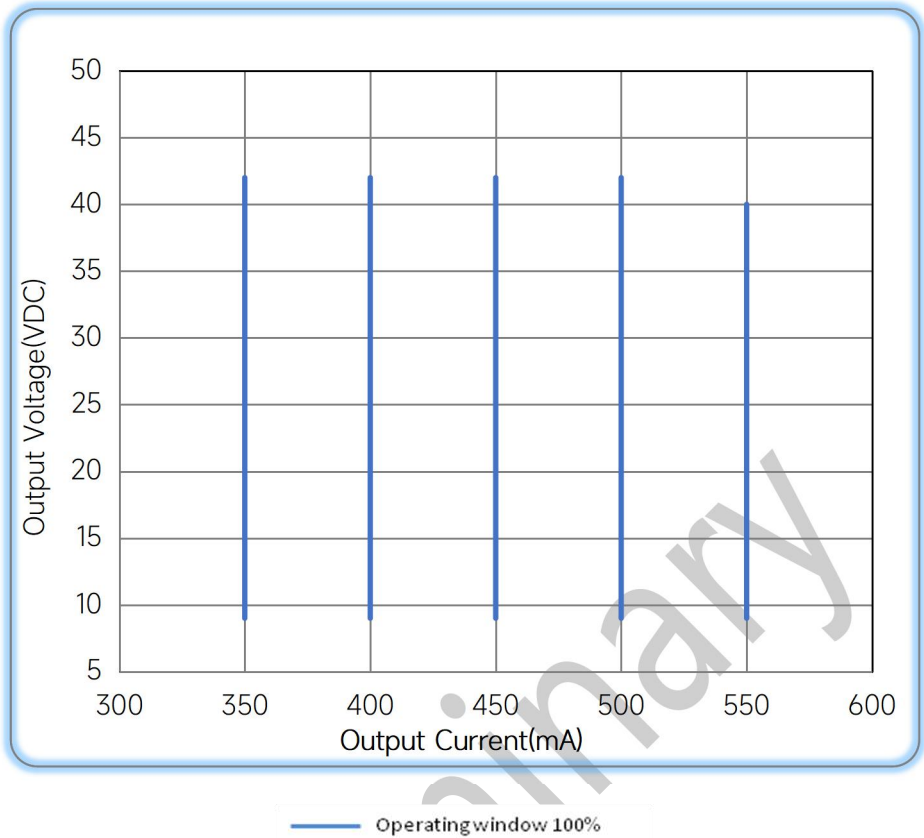
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

Preliminary

◆ Curve for CS-22-350 LI, I_o=350mA

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/12
Ta/TC	60°C/90°C	70°C/100°C	B	2024/04/10

Remark:The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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