

36W Triac Dimming power supply



■ Approve

CE CB EN CCC SELV

Features

- For luminaires of protection Class II, SELV, Built-in
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 85%
- 5 years warranty
- IP20

Applications

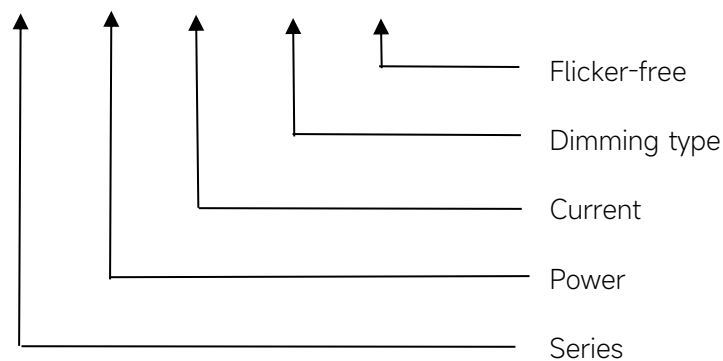
- LED panel, LED down light

◆ Description

CS-36-XXX TRIAC LI is a 36W constant current LED driver that operates from 198-264Vac input with 600-900mA output current. With it's compact dimensions from $\Phi 75 \times 26$ mm it is easy to integrate in LED panel, pendant light and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

CS-36-XXX TRIAC LI



◆ Specification

	Constant Current (mA)	600	650	700	750	800	850	900
Output	Voltage Range(VDC)	28-40						
	Unload voltage Max.	59VDC						
	Current Accuracy	±5%@220-240V						
	Output HF current ripple(≥1KHz)	±5%						
	Output LF current ripple(≤120Hz)	±5%						
	SVM	≤0.4						
	Pst	≤1						
	Efficiency(Typ.)	85%						
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	0.95						
	Input Current max (mA)	0.23A						
	Start-up time	< 0.5S						
	No Load Power	≤0.5W						
	THD (Typ.)	<25%						
Dimming	Dimming	YES						
	Dimming mode	Triac, Leading edge & trailing edge dimmable						
	Dimming depth	8%@220-240V						
	Dimming current range	8 ~ 100%						
Protection	Over Load Protection	103-130%						
		YES/Auto Resume						
	Over Voltage Protection	59VDC						
		YES/Auto Resume						
capability	Short circuit Protection	YES/Auto Resume						
	Surge capability (L-N)	1KV						
Environment	Surge capability (L/N-Ground)	NA						
	Operating Temperature	-20°C~+55°C						
	Humidity	20%-90%RH						
	Tc	95°C						
	Storage Temperature	-25°C~+60°C						
	Life time	> 50000h@Tc=85°C						
	Ripple&Noise	≤30dB(A)@20cm						
Surface	Dimension	Φ75 x 26mm						
	material	PC						

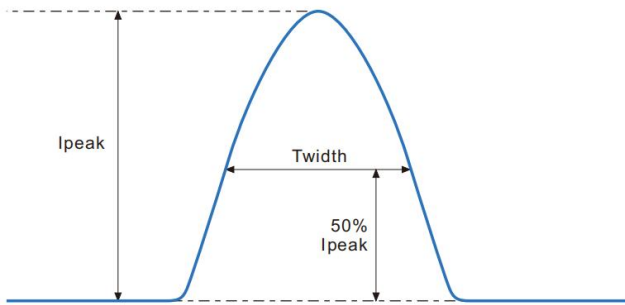
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13; EN62384
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	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.The over-temperature protection of the product is provided by the IC. 4.All Astralux 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-36-600 TRIAC LI	600	28-40	59	24
2	CS-36-650 TRIAC LI	650			26
3	CS-36-700 TRIAC LI	700			28
4	CS-36-750 TRIAC LI	750			30
5	CS-36-800 TRIAC LI	800			32
6	CS-36-850 TRIAC LI	850			34
7	CS-36-900 TRIAC LI	900			36

◆ Inrush Current

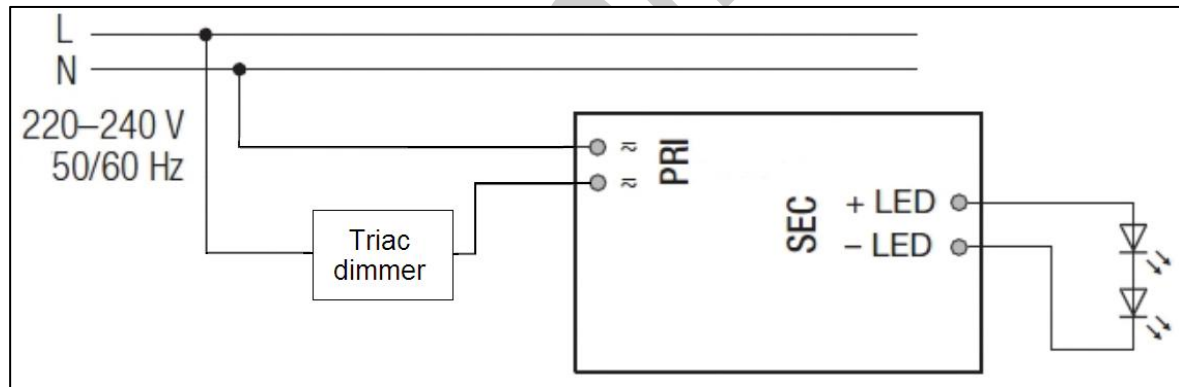
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
4.08A	19.2 μ s	34pcs	55pcs	69pcs	34pcs	55pcs	69pcs



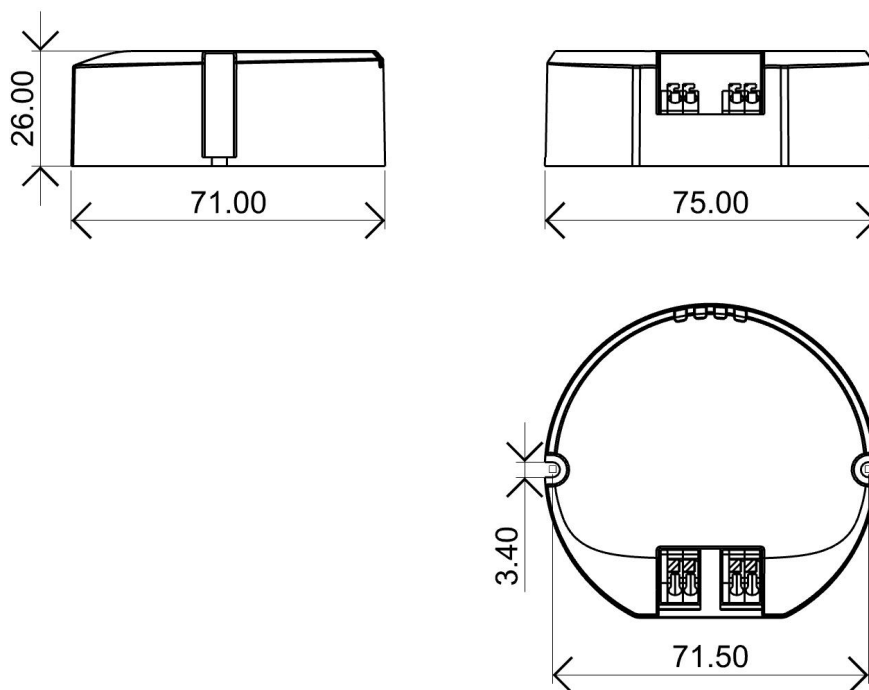
Remarks:

- 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.

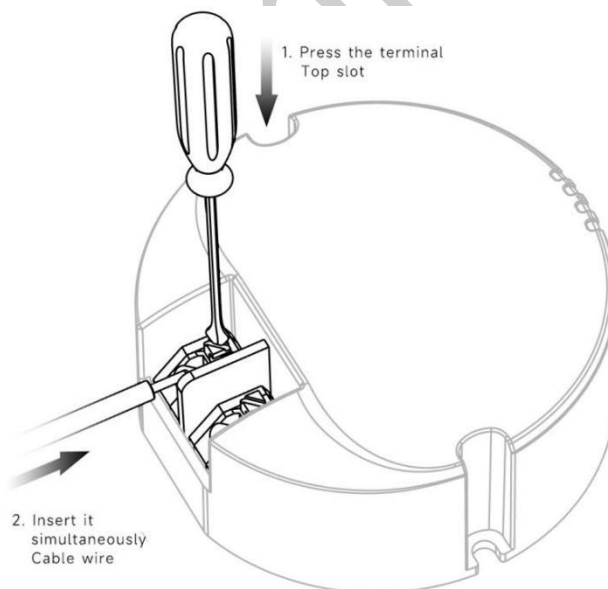
◆ Wiring diagram



◆ 2D diagram



Terminal



◆ Wiring & Connections

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

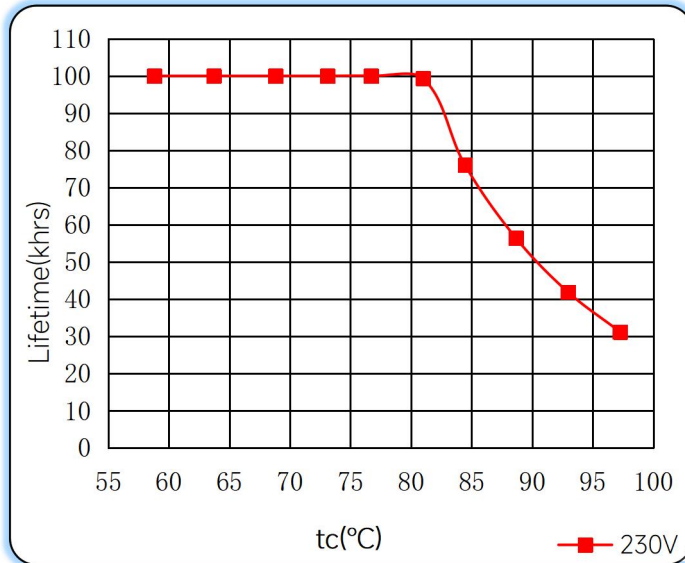
	Input wire strip length	7...9mm
	Output wire cross-section	0.5...1.5 mm ²
Output	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

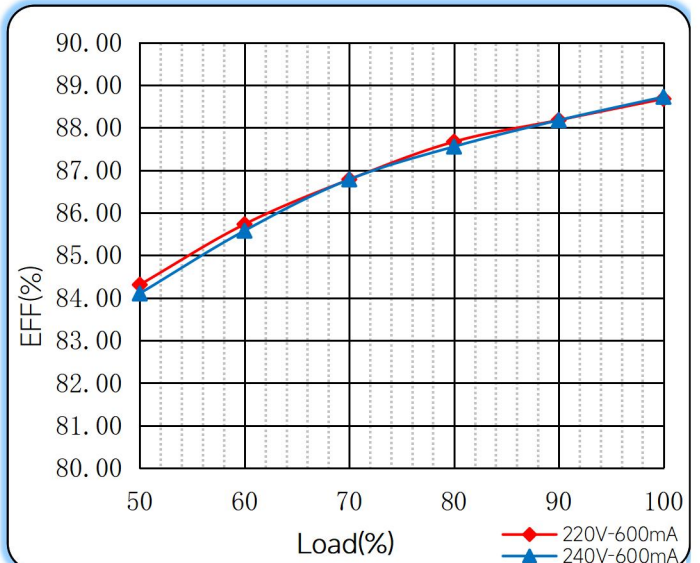
Preliminary

◆ Curve for CS-36-XXX TRIAC LI, $I_o=600\text{mA}$

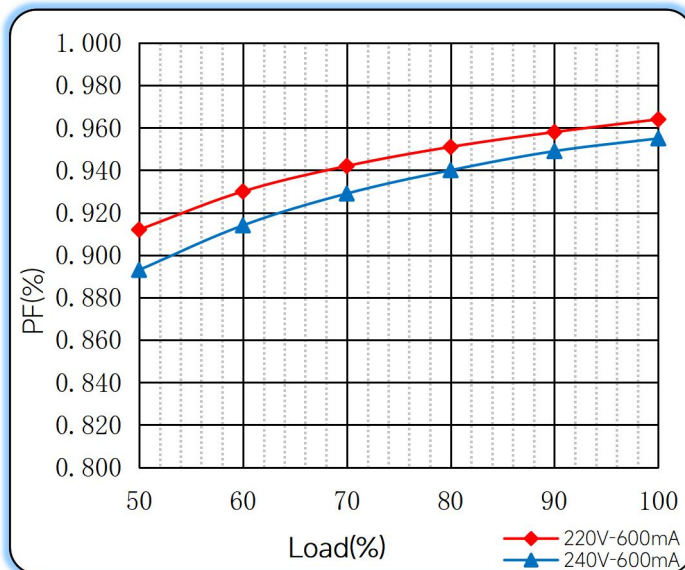
Lifetime vs. Temperature Curve



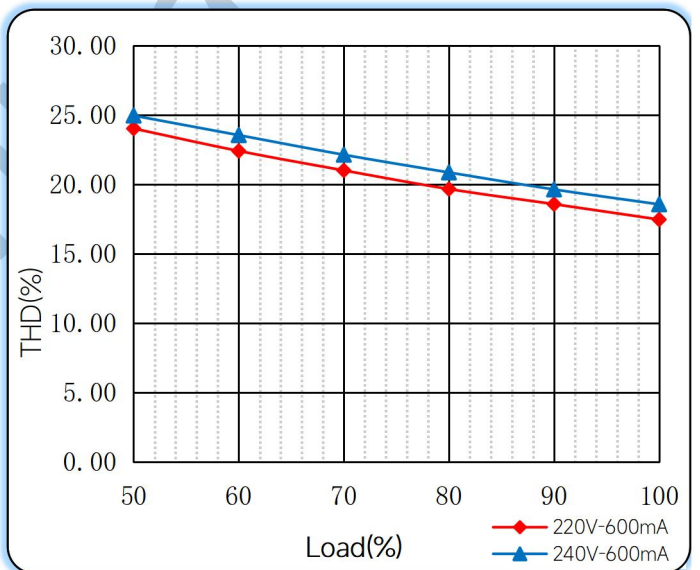
Efficiency vs. Load



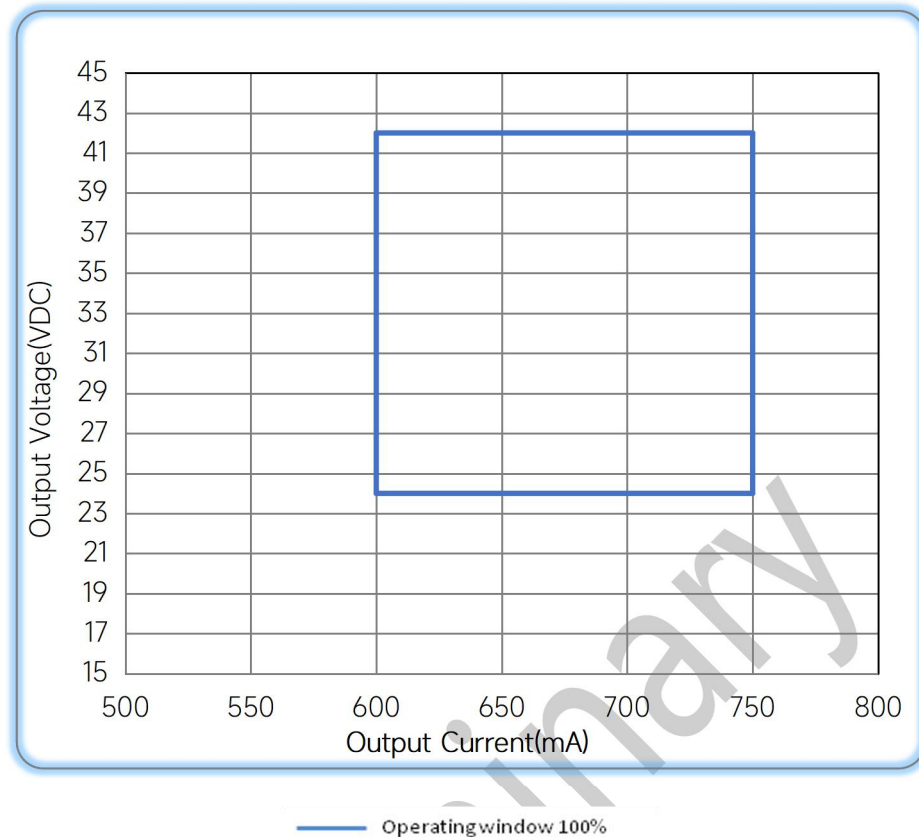
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/07/15
Power Factor	≥ 0.95	0.95	B	2024/07/26
Operating Temperature	-20°C~+60°C	-20°C~+50°C	C	2024/08/03
Operating Temperature	-20°C~+50°C	-20°C~+55°C	D	2024/08/09

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

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