

60W Constant Current power supply

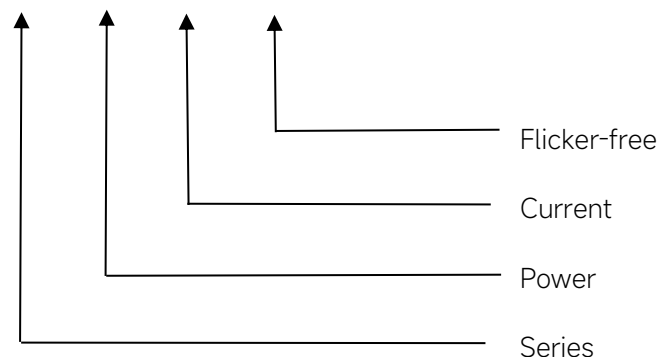


◆ Description

LS-60-XXX LI EXC is a 60W constant current LED driver with 1300 to 1500mA output current. With its compact dimensions from 135 x 41.2 x 25mm it is easy to integrate in LED Panel, spot and down lights product. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-60-XXX LI EXC



Features

- For luminaires of protection Class II, SELV, independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: ≥ 0.95
- Efficiency: 90%
- 5 years warranty
- IP20

Applications

- LED panel, LED down light

◆ Specification

Output	Constant Current (mA)	1300	1350	1400	1450	1500
	Voltage Range(VDC)	15-42V			15-40V	
	Unload voltage Max.	59VDC				
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±3%				
	Output LF current ripple(≤120Hz)	±3%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	90%@full load,230V				
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	> 0.95				
	Power Factor	≥0.95@full load,230V				
	Input Current max (mA)	0.38A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	<10%@full load,230V				
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)	2KV				
Environment	Surge capability (L/N-Ground)	NA				
	Operating Temperature	-20°C~+45°C				
	Humidity	20%-90%RH				
	Tc	90°C				
	Storage Temperature	-30°C~+80°C				
	Life time	> 50000h@Tc=80°C				
Surface	Noise	≤20dB(A)@10cm				
	Dimension	135X41.2X25(LXWXH)mm				
Standards	material	PC				
	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;AS 61347.2.13;EN62384;				
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN				
	ErP	Erp2.0 EU 2019/2020				

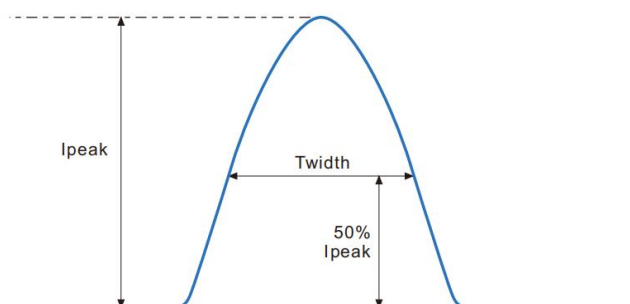
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. 3.Switch and dimmer are not recommended to connect between this product output and luminaries.	

◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	LS-60-1300 LI EXC	1300	15-42V	59	54.6
2	LS-60-1350 LI EXC	1350			56.7
3	LS-60-1400 LI EXC	1400			58.8
4	LS-60-1450 LI EXC	1450	15-40V		58
5	LS-60-1500 LI EXC	1500			60

◆ Inrush Current

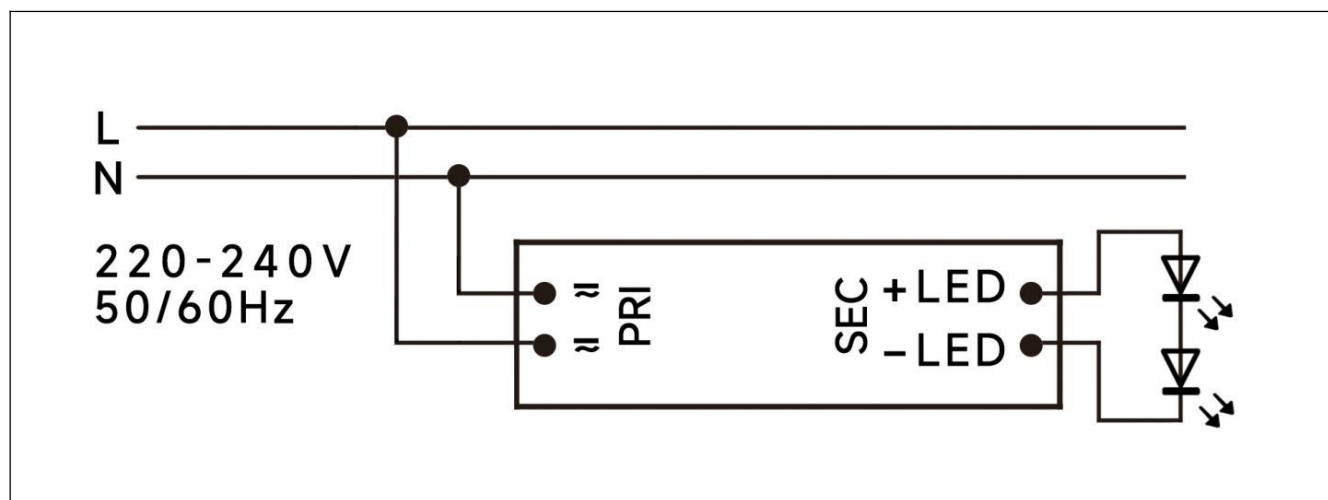
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
35A	208μs	11pcs	17pcs	22pcs	18pcs	29pcs	37pcs



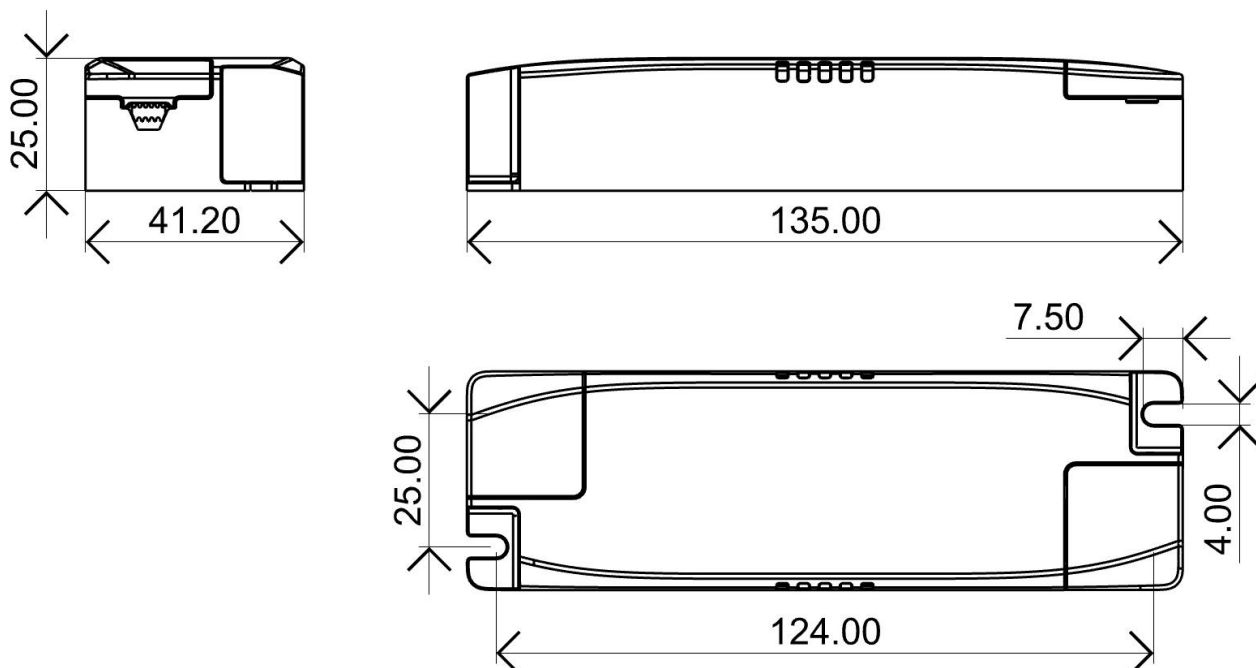
Remarks:

- 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.

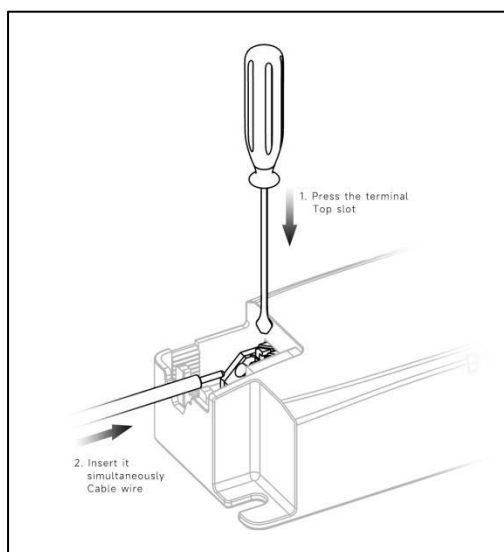
◆ Wiring diagram



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

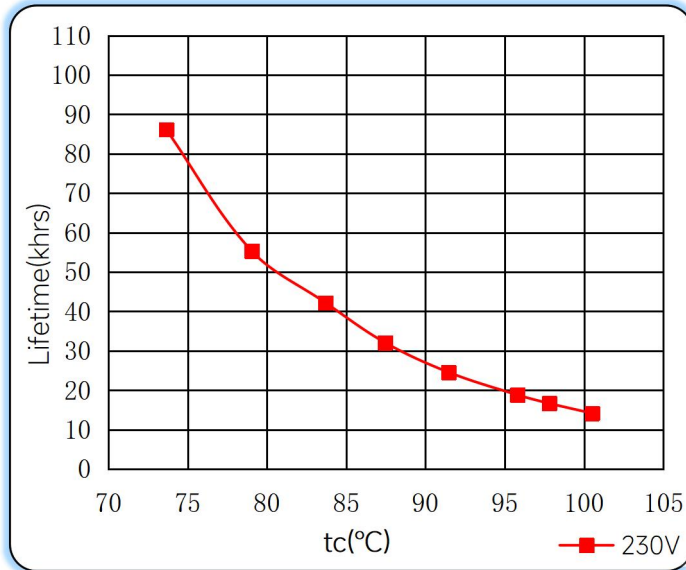
◆ Recommended wire

Wire cross-section	Wire type
2*0.5mm ²	H03VVH2-F 2core
2*0.75mm ²	H03VVH2-F 2core
1.5mm ²	CCC 08(RV-90)
16AWG(1.25mm ²)	UL1015

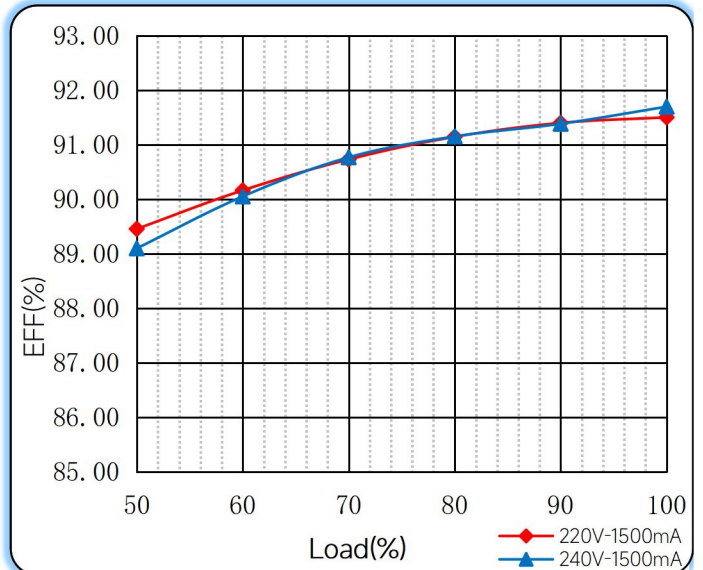
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for LS-60-1500 LI1 EXC, I_o=1500mA

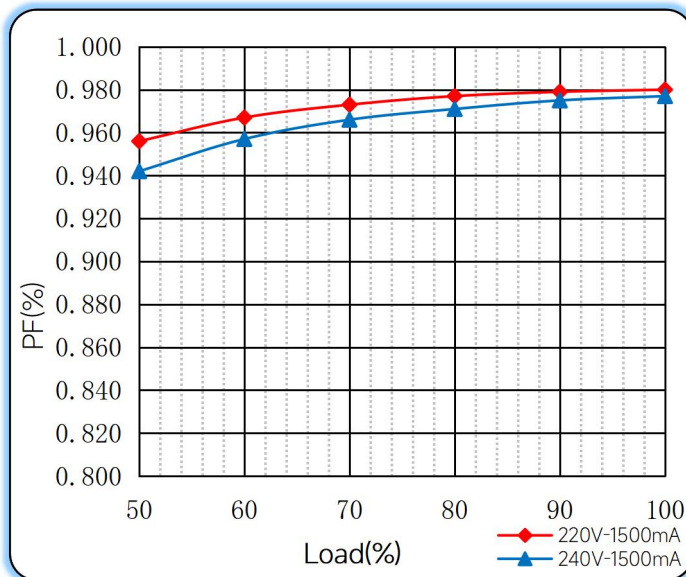
Lifetime vs. Temperature Curve



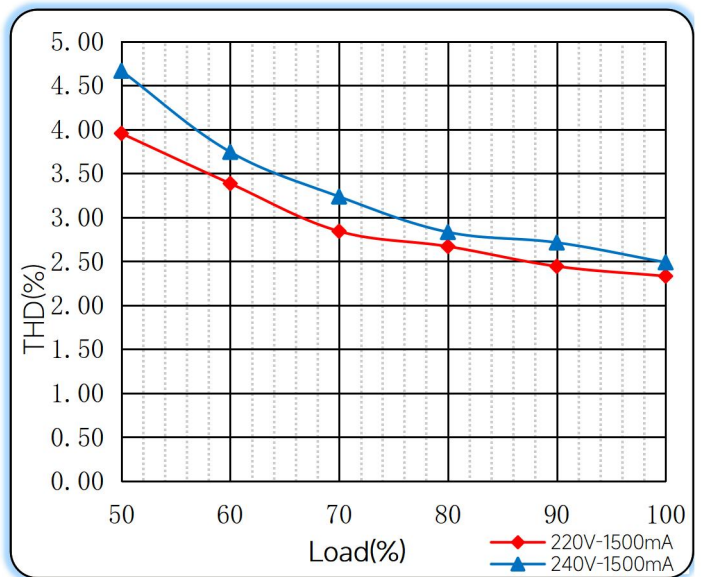
Efficiency vs. Load



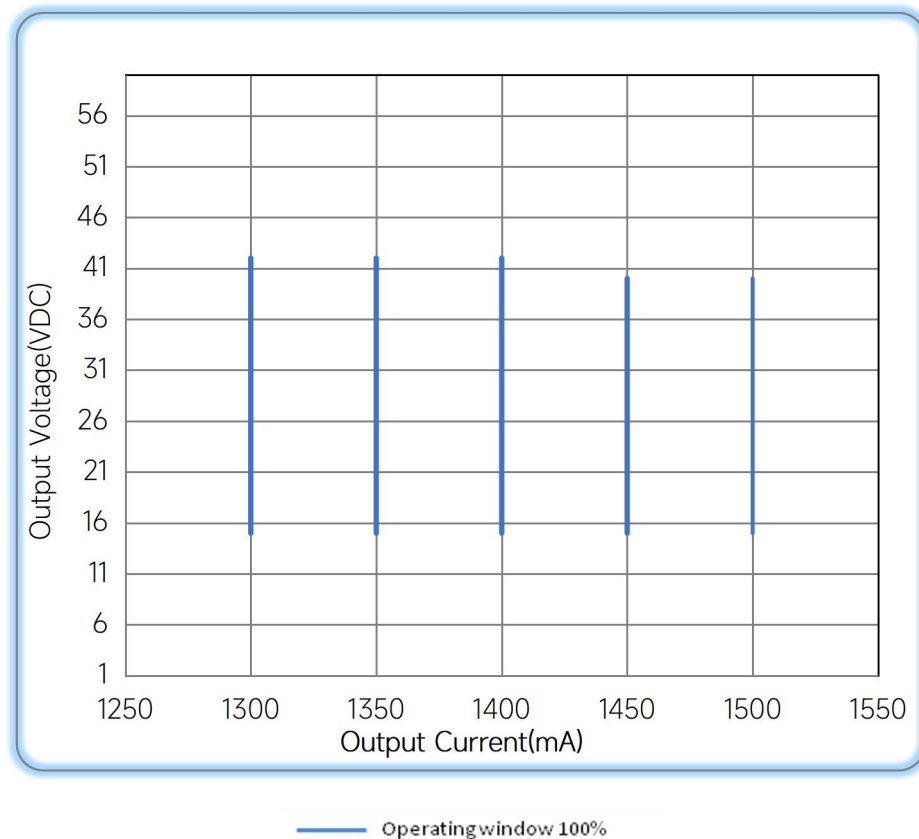
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/11/23

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

E-mail: sales@astralux-driver.com
 Website : www.astralux-driver.com