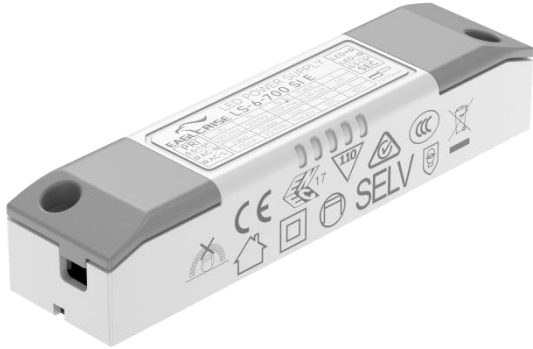


6W Constant Current power supply



Features

- Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.5C
- Efficiency: $\geq 76\%$
- 5 years warranty
- IP20

Applications

- LED panel, LED down light
- LED spot light

■ Approve

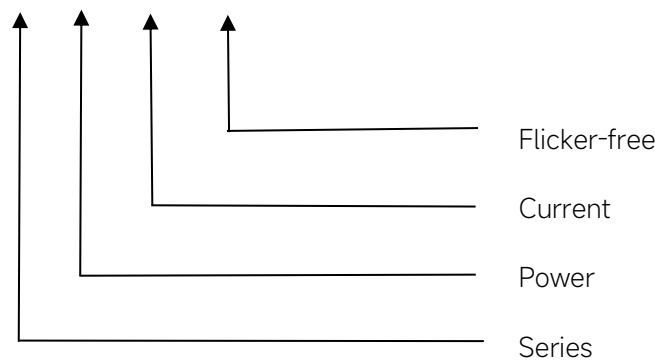


◆ Description

LS-6-XXX SI E is a 6W constant current LED driver with 120~700mA output current. With it's compact dimensions from 84×20.5×16.5mm. 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-6-XXX SI E



◆ Specification

Output	Constant Current (mA)	120	150	180	...	650	700
	Voltage Range(VDC)	27-40	27-40	27-40	...	4-9	4-9
	Unload voltage Max.	59	59	59	...	25	25
	Current Accuracy	±10%@120mA-250mA; ±7%@300mA-400mA; ±6%@450mA; ±5%@500mA-700mA					
	Output HF current ripple(≥1KHz)	±5%					
	Output LF current ripple(≤120Hz)	±5%					
	SVM	≤0.4					
	P _{st}	≤1					
Input	Efficiency(Typ.)	≥76%@Full load,230V					
	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	≥0.7					
	Power Factor	0.5C@Full load,230VAC					
	Input Current max	0.11A					
	Start-up time	< 0.5S					
Protection	No Load Power	≤0.5W					
	Over Load Protection	103-150%					
		YES/Auto Resume					
	Over Voltage Protection(VDC)	> 59	> 59	> 59	...	> 25	> 25
YES/Auto Resume							
Environment	Short circuit Protection	YES/Auto Resume					
	Operating Temperature	-20°C~+50°C					
	Humidity	20%-90%RH					
	T _c	80°C					
	Storage Temperature	-25°C~+60°C					
Surface	Life time	> 50,000h@T _c =70°C					
	Dimension	84×20.5×16.5 (LxWxH)mm					
Standards	EN 61547;EN 61347-1,EN 61347-2-13;IEC 61347-1,IEC 61347-2-13;GB 19510.1,GB 19510.14; GB/T 17743,GB 17625.1;EN 62384;EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3;IS 15885 (Part 2/Sec13)						
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. 3.Data are typical values obtained from test samples 4.Switch and dimmer are not recommended to connect between this product output and luminaries. 5.The series BIS certification includes 150、250、300、500mA.						

◆ Model list

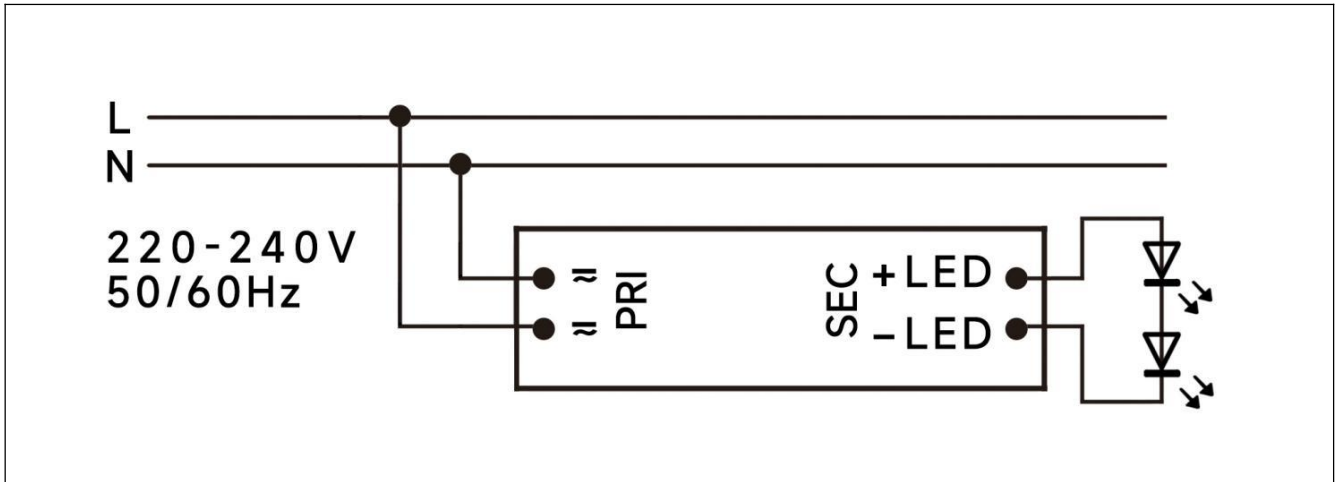
Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	*LS-6-120 SI E	120	27-40	59	4.8
2	*LS-6-150 SI E	150	27-40	59	6
3	*LS-6-180 SI E	180	27-40	59	7.2
4	*LS-6-200 SI E	200	27-40	59	8
5	*LS-6-220 SI E	220	27-40	59	8.8
6	LS-6-250 SI E	250	10-24	45	6
7	*LS-6-300 SI E	300	8-20	40	6
8	*LS-6-350 SI E	350	8-18	40	6.3
9	LS-6-400 SI E	400	5-15	30	6
10	LS-6-450 SI E	450	5-13.5	30	6.05
11	*LS-6-500 SI E	500	5-12	30	6
12	*LS-6-550 SI E	550	5-11	30	6.05
13	LS-6-600 SI E	600	4-9	25	5.4
14	LS-6-650 SI E	650	4-9	25	5.85
15	*LS-6-700 SI E	700	4-9	25	6.3

the "*" symbols means the type we have already mass production.

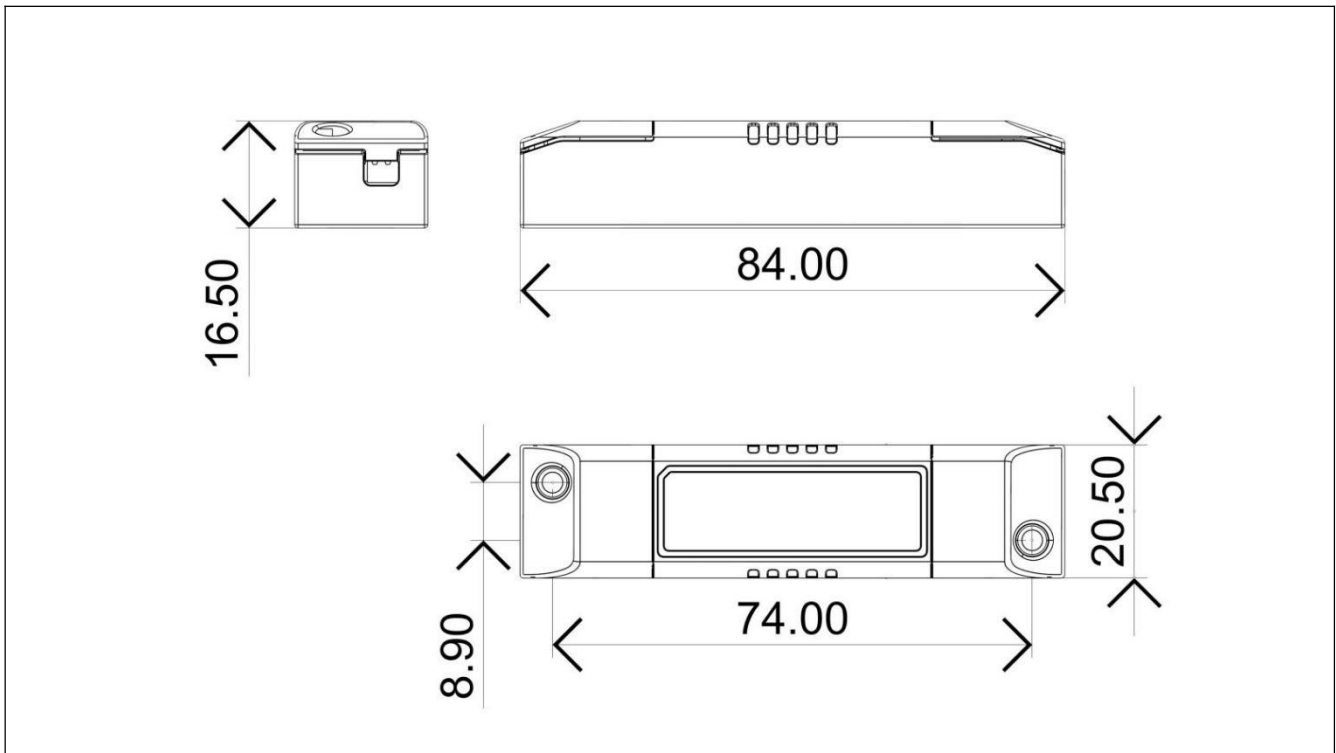
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
4.2A	94μs	72pcs	116pcs	145pcs	72pcs	116pcs	145pcs

◆ Wiring diagram



◆ 2D diagram

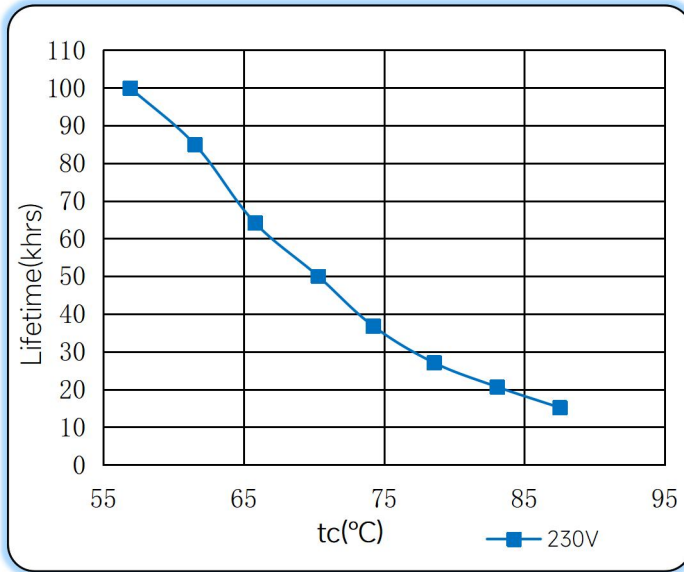


◆ Wiring & Connections

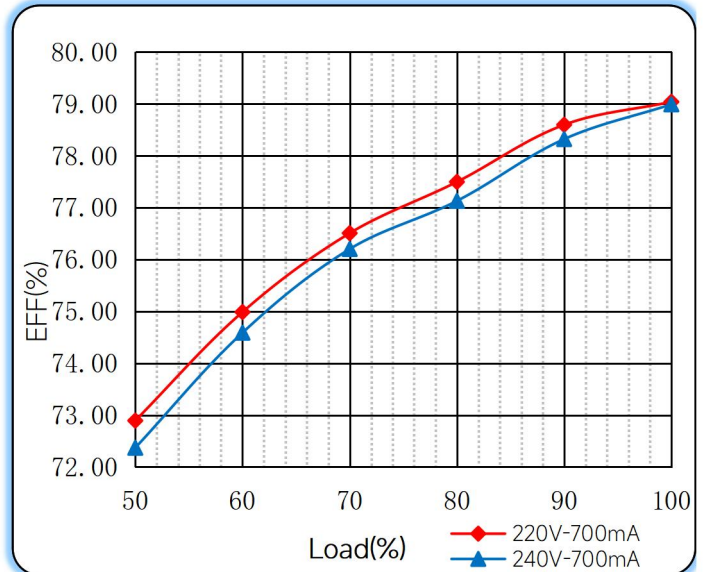
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LS-6-XXX SI E, $I_o=700mA$

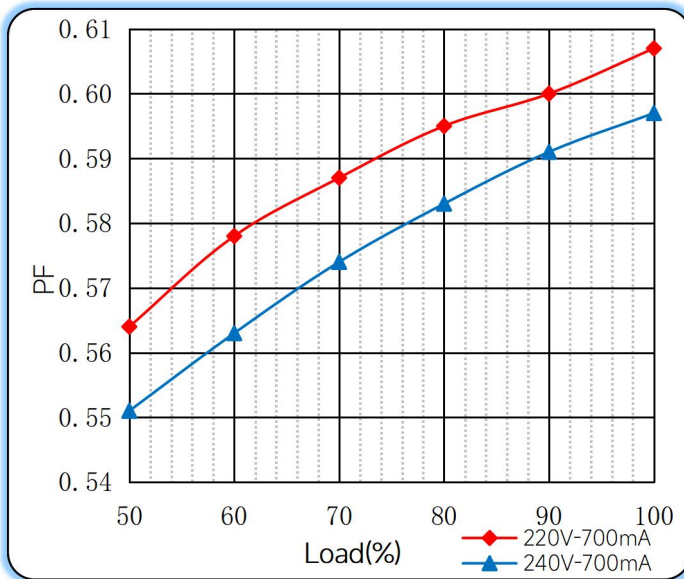
Lifetime vs. Temperature Curve



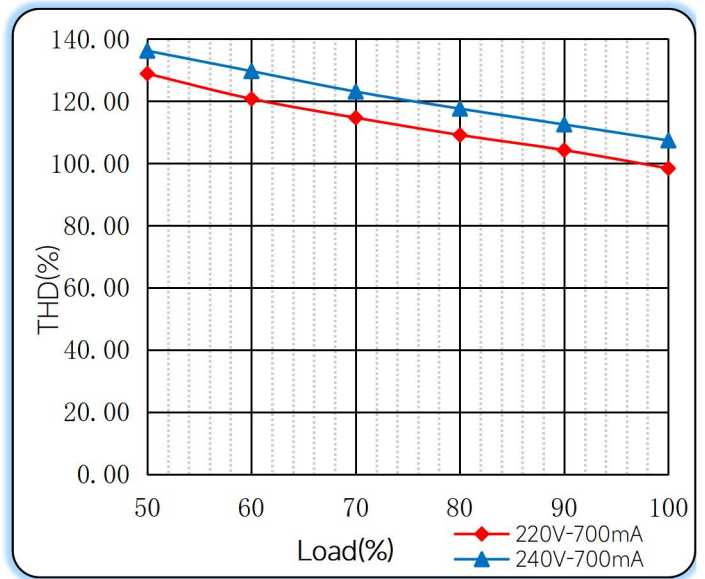
Efficiency vs. Load



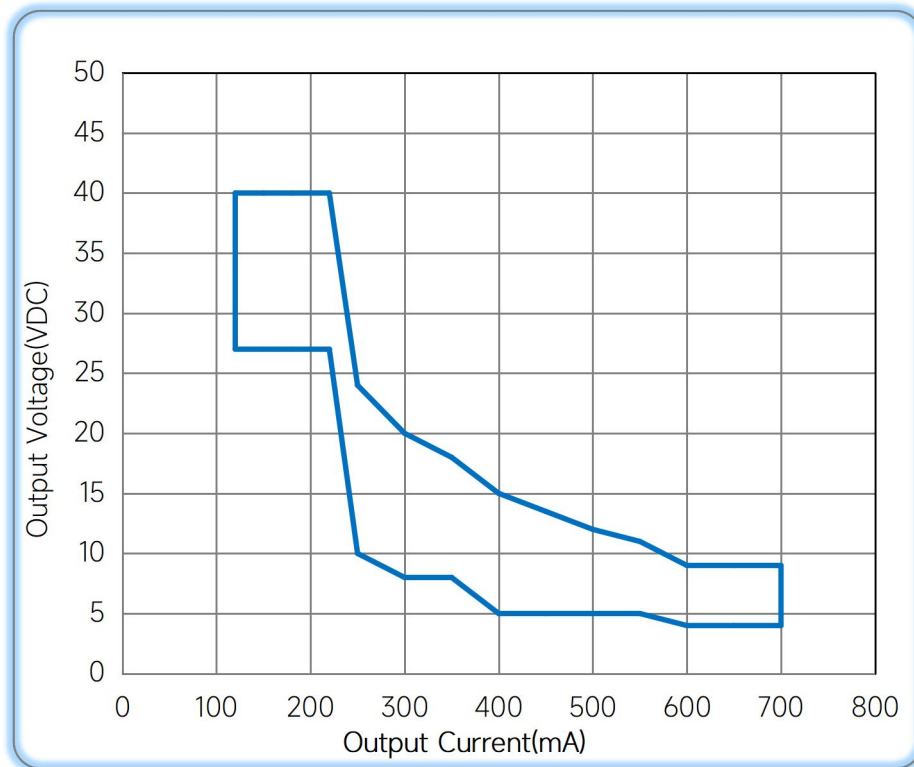
Power Factor Characteristics



THD vs. Load



◆ Operating window



— Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/08/09
Current Accuracy	±5%	±10%@120mA-250mA; ±7%@300mA-400mA; ±6%@450mA	B	2022/11/14
Model list		Added	C	2022/11/18
Specification		Update	D	2022/11/29

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