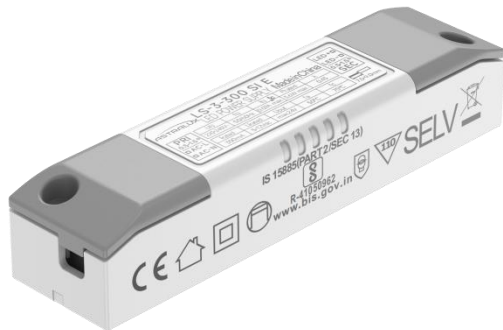


3W Constant Current power supply



■ Approve



IS 15885(PART 2/SEC 13)

*current see Note



SELV



R-41050962
www.bis.gov.in
made in china

Features

- Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.45
- Efficiency: $\geq 73\%$ @ $I_o < 300\text{mA}$
 $\geq 73\%$ @ $300\text{mA} \leq I_o \leq 500\text{mA}$
 $\geq 71\%$ @ $I_o > 500\text{mA}$;
- 5 years warranty
- IP20

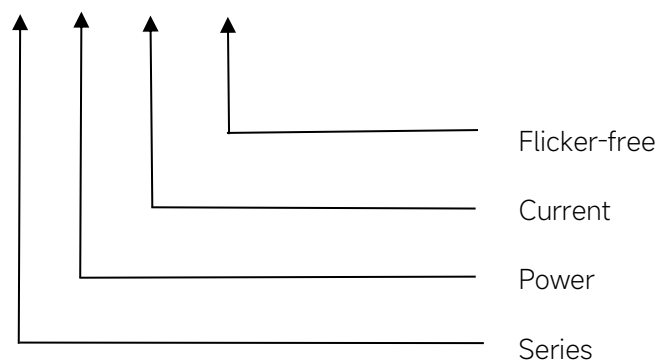
Applications

◆ Description

LS-3-XXX SI E is a 3W constant current LED driver with 150~700mA output current. With it's compact dimensions from 84×20.5×16.5 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

LS-3-XXX SI E



◆ Specification

Output	Constant Current (mA)	150	200	250	300	350	...	700
	Voltage Range(VDC)	5-12	5-12	5-12	5-12	5-12	...	2.5-4.5
	Unload voltage Max.	24	24	24	24	24	...	10
	Current Accuracy	±10%	±8%	±7%	±7%	±7%	...	±7%
	Output HF current ripple(≥1KHz)	±3%						
	Output LF current ripple(≤120Hz)	±3%						
	SVM	≤0.4						
	P _{st}	≤1						
	Efficiency(Typ.)	68%@150mA;≥73% @I _o < 300mA;≥73% @300mA≤I _o ≤500mA; ≥71% @I _o > 500mA;						
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	≥0.7						
	Power Factor	0.45@Full load,230V						
	Input Current max	0.07A						
	Start-up time	< 0.5S						
	No Load Power	≤0.5W						
Protection	Over Load Protection	103-165%						
		YES/Auto Resume						
	Over Voltage Protection(VDC)	> 24	> 24	> 24	> 24	> 24	...	> 10
		YES/Auto Resume						
	Short circuit Protection	YES/Auto Resume						
capability	Surge capability (L-N)	700V						
	Surge capability (L/N-Ground)	NA						
Environment	Operating Temperature	-20℃~-+50℃						
	Humidity	20%-90%RH						
	T _c	75℃						
	Storage Temperature	-25℃~-+60℃						
	Life time	> 30,000h@T _c =75℃						
Surface	Dimension	84×20.5×16.5 (L×W×H)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 300、350、500、700mA.
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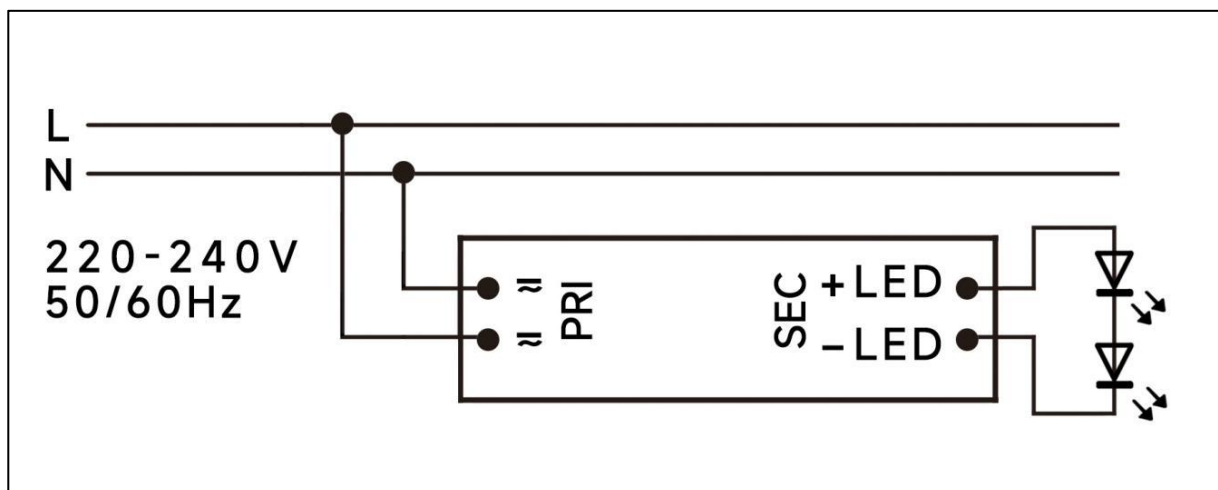
◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	*LS-3-150 SI E	150	5-12	24	1.8
2	LS-3-200 SI E	200			2.4
3	LS-3-250 SI E	250			3
4	LS-3-300 SI E	300			3.6
5	*LS-3-350 SI E	350			4.2
6	LS-3-400 SI E	400	2.5-4.5	16	1.8
7	LS-3-450 SI E	450			2.03
8	*LS-3-500 SI E	500			2.25
9	LS-3-550 SI E	550	2.5-4.5		2.48
10	LS-3-600 SI E	600			2.7
11	LS-3-650 SI E	650	2.5-4.5	10	2.9
12	*LS-3-700 SI E	700	2.5-4.5	10	3.15

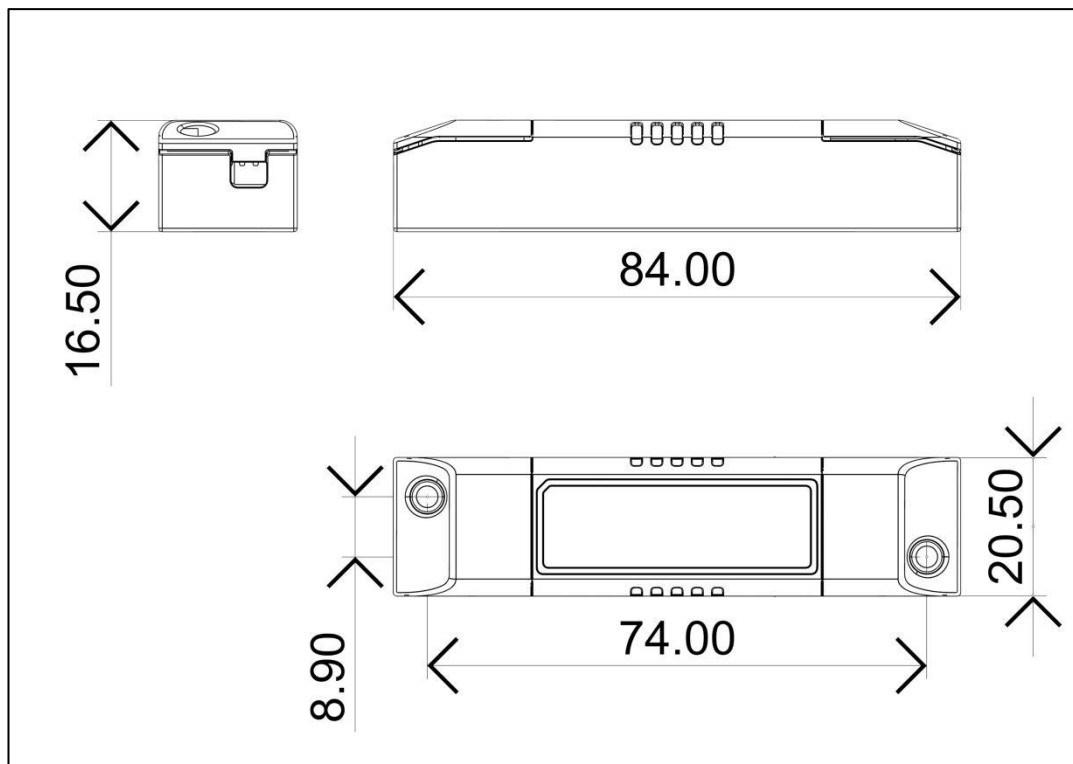
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
2.9A	86μs	114pcs	182pcs	288pcs	114pcs	182pcs	288pcs

◆ Wiring diagram



◆ 2D diagram

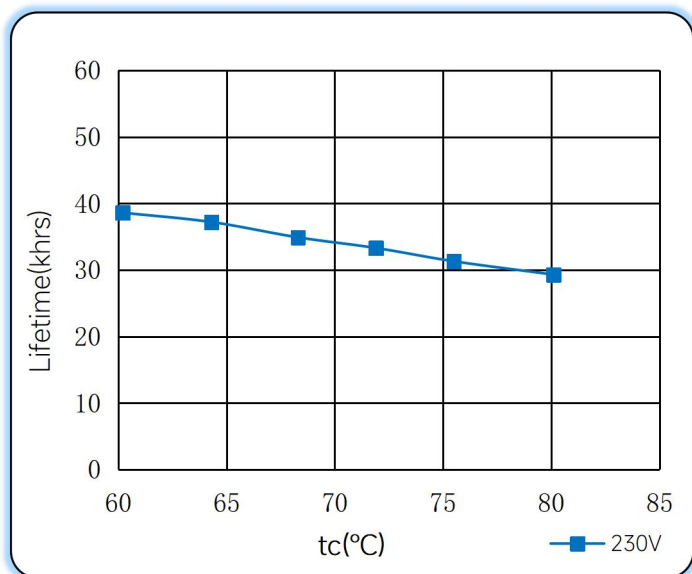


◆ Wiring & Connections

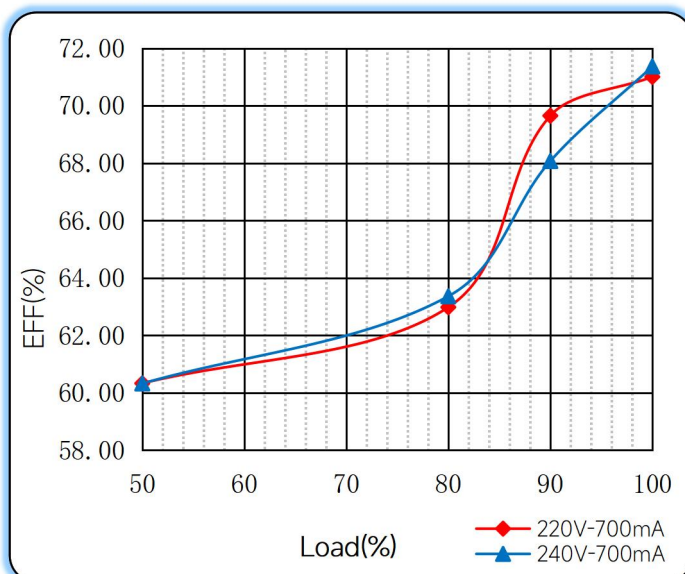
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LS-3-XXX SI E, $I_o=700mA$

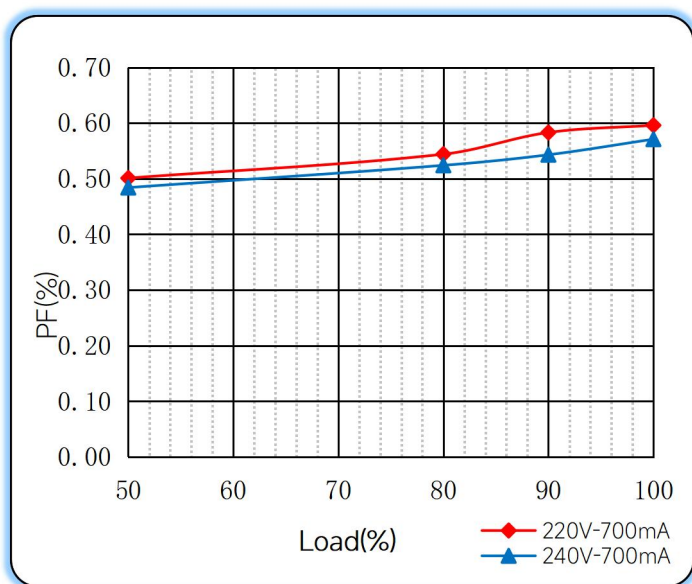
Lifetime vs. Temperature Curve



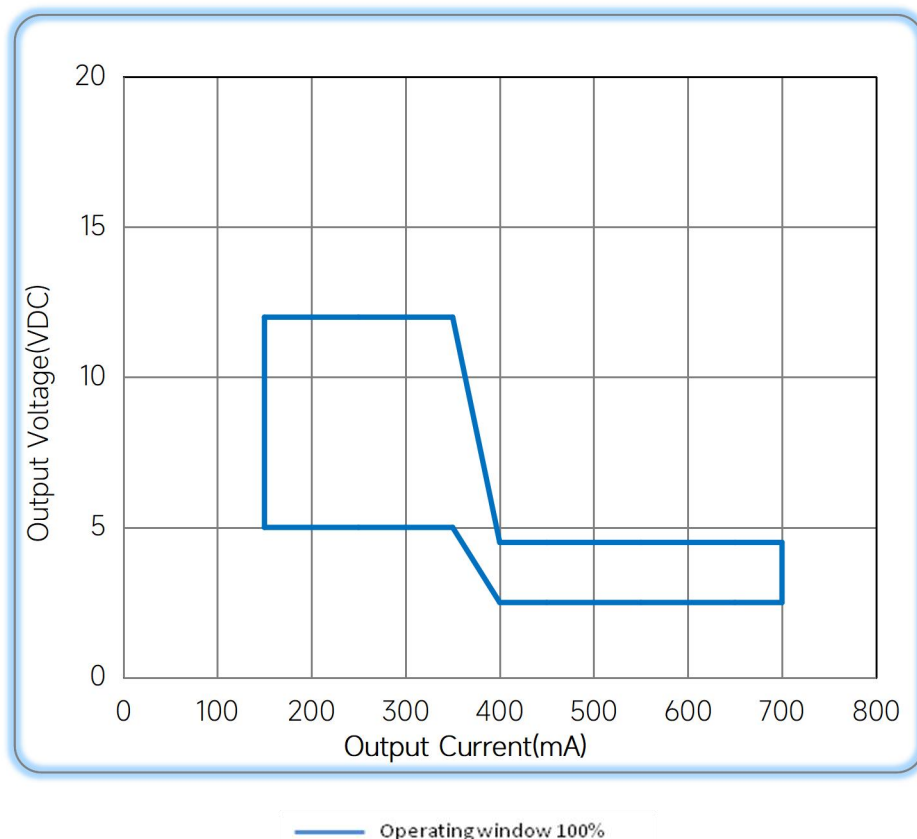
Efficiency vs. Load



Power Factor Characteristics



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/08/09
Current Accuracy	±5%	±10%@150mA; ±8%@300mA; ±7%@400-700mA	B	2022/11/14
Curve		Added		
Model list		update	C	2022/11/29
Circuit Breaker		Added	D	2023/08/15

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

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