

8W Constant Current power supply



Approve

IS 15885(PART 2/SEC 13)

*current see Note



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

SELV

Features

- Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.5C
- Efficiency: $\geq 80\%$
- 5 years warranty
- IP20

Applications

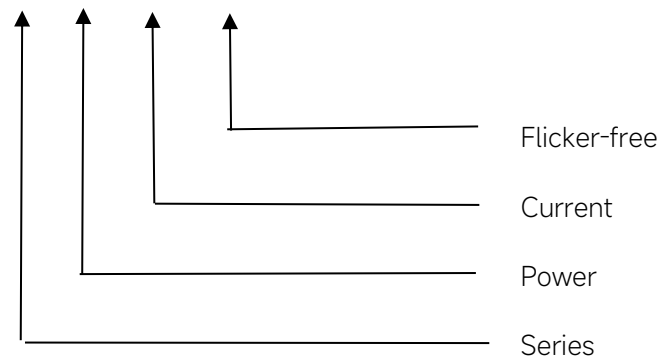
- LED panel, LED down light
- LED spot light

◆ Description

LS-8-XXX SI1 E is a 8W constant current LED driver with 120~350mA output current. With it's compact dimensions from 92 x 36 x 25 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-8-XXX SI1 E



◆ Specification

Output	Constant Current (mA)	120	150	180	200	220	250	300	...	600	
	Voltage Range(VDC)	30-42			30-38.5		16-26	15-24	...	8-13	
	Unload voltage Max.(VDC)	59			59		42	40	...	25	
	Current Accuracy	±9%			±8%		±7%		±10%	
	Output HF current ripple(≥1KHz)	±5%									
	Output LF current ripple(≤120Hz)	±5%									
	SVM	≤0.4									
	P _{st}	≤1									
	Efficiency(Typ.)	≥80%@Full load,230V									
Input	Rated input voltage	220-240VAC									
	Range of input voltage	198-264VAC									
	Frequency(Hz)	50/60 Hz									
	Displacement factor	≥0.5									
	Power Factor	0.5C@Full load,230V									
	Input Current max (mA)	80	90	110	120	70	100		120		
	Start-up time	< 0.5S									
	No Load Power	≤0.5W									
	Standby Power	≤0.5W									
Protection	Over Load Protection	103-120%									
		YES/Auto Resume									
	Over Voltage Protection	59			59		42	40	...	25	
		YES/Auto Resume									
	Short circuit Protection	YES/Auto Resume									
	Over Temperature Protection	YES/Auto Resume									
Environment	Operating Temperature	-20°C~+45°C									
	Humidity	20%-90%RH									
	T _c	75°C (70°C@220mA)									
	Storage Temperature	-20°C~+60°C									
	Life time	> 50,000h@T _c =75°C(> 50,000h@T _c =70°C@220mA)									
Surface	Dimension	92X36X25 (LXWXH)mm									
standards	GB 19510.1,GB 19510.14;IS 15885 (Part 2/Sec13)										
Others	ErP	EU 2019/2020									
	RoHS	RoHS (2011/65/EU) (EU)2015/863									

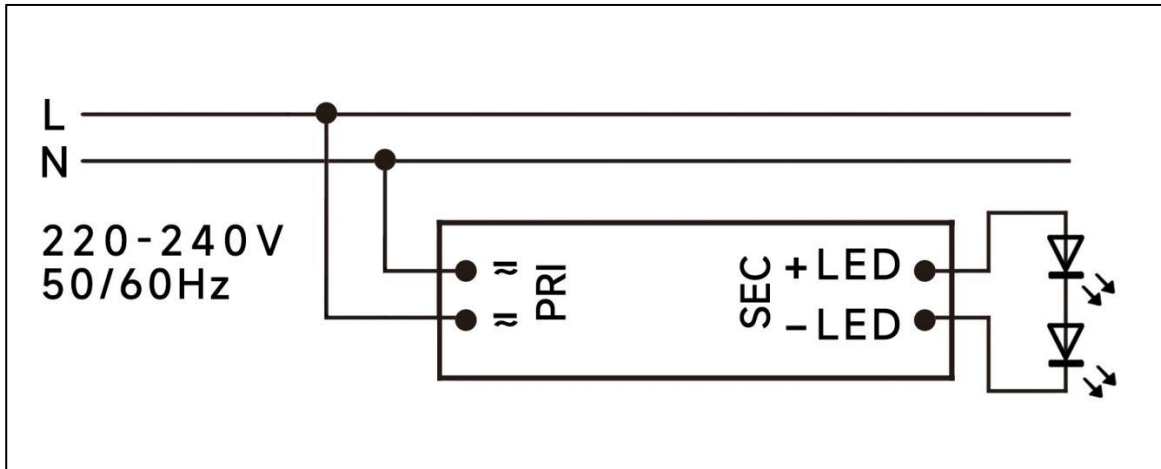
Note

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.
2. 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、200、300mA.

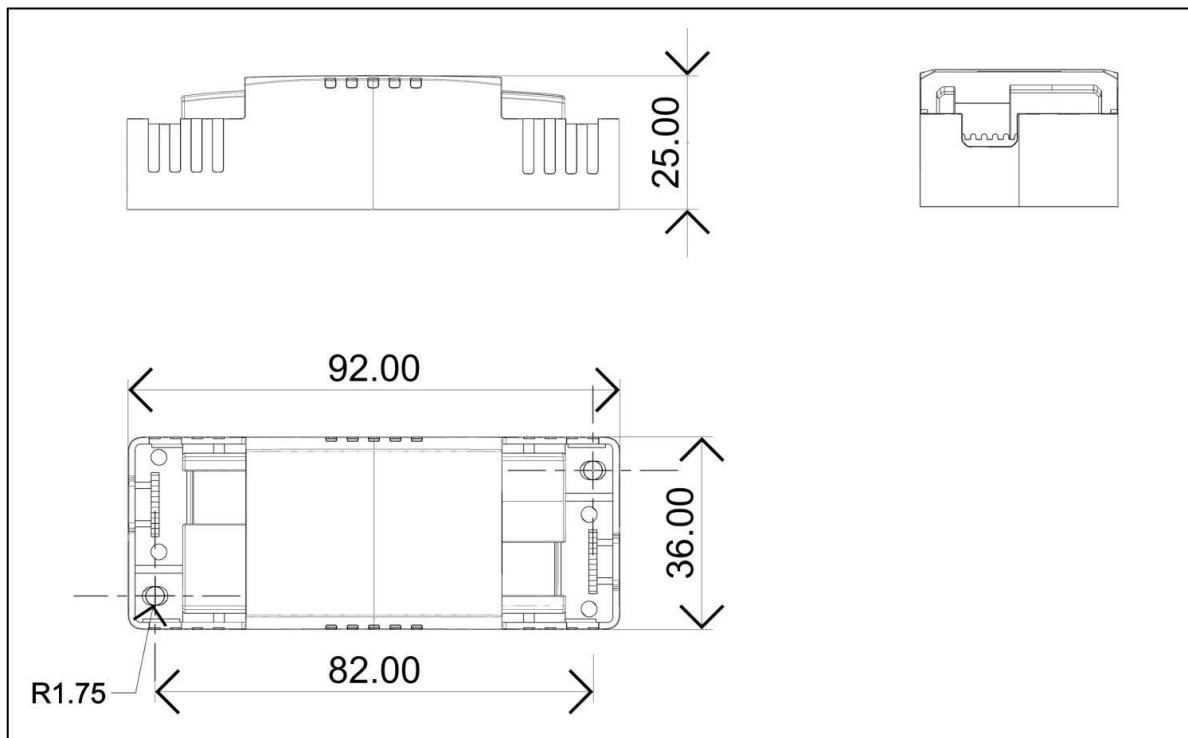
◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	*LS-8-120 SI1 E	120	30-42	59	5.1
2	*LS-8-150 SI1 E	150			6.3
3	*LS-8-180 SI1 E	180			7.6
4	*LS-8-200 SI1 E	200			8.4
5	*LS-8-220 SI1 E	220	30-38.5	59	8.47
6	LS-8-250 SI1 E	250	16-26	42	6.5
7	*LS-8-300 SI1 E	300	15-24	40	7.2
8	*LS-8-350 SI1 E	350		40	8.4
9	LS-8-400 SI1 E	400	12-20	35	8
10	LS-8-450 SI1 E	450	11-18	32	8.1
11	LS-8-500 SI1 E	500	10-16	26	8
12	LS-8-550 SI1 E	550	9-14	25	7.7
13	*LS-8-600 SI1 E	600	8-13	25	7.8

◆ Wiring diagram



◆ 2D diagram

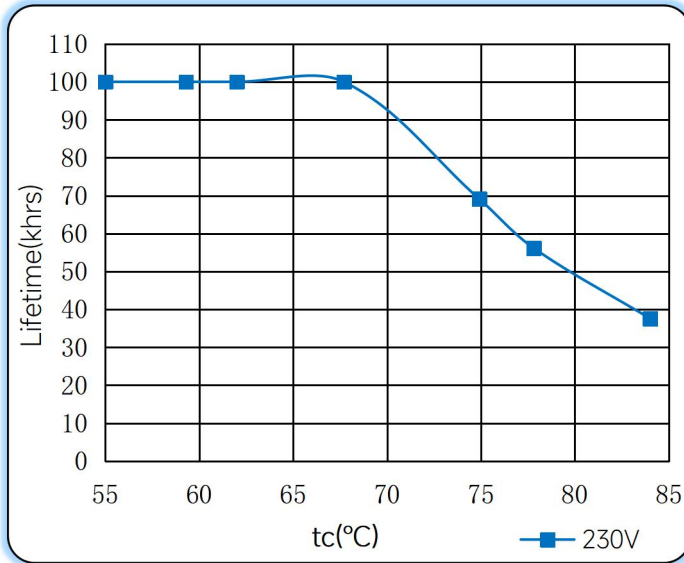


◆ Wiring & Connections

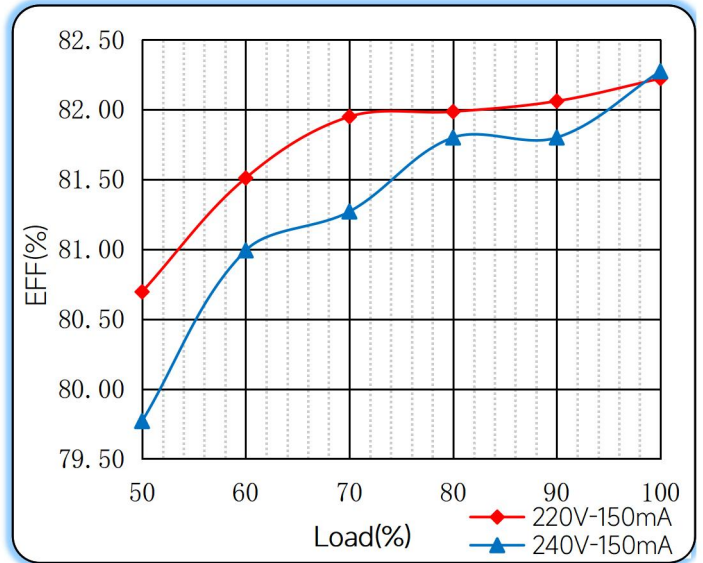
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for LS-8-150 S11 E, I_o=150mA

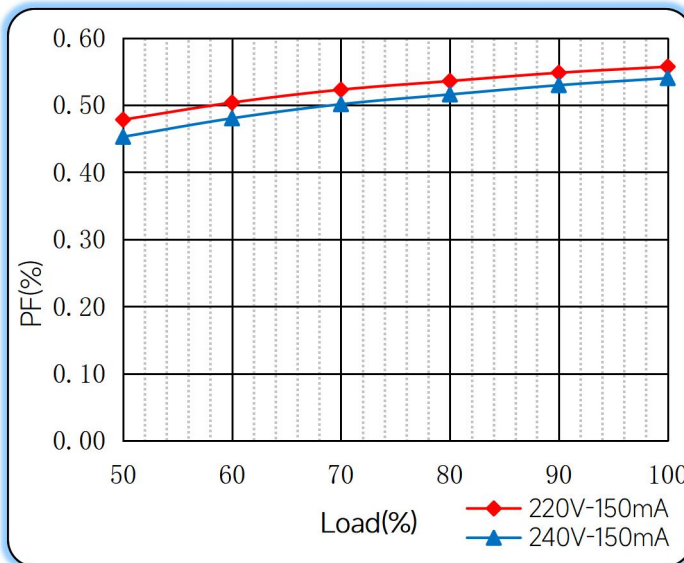
Lifetime vs. Temperature Curve



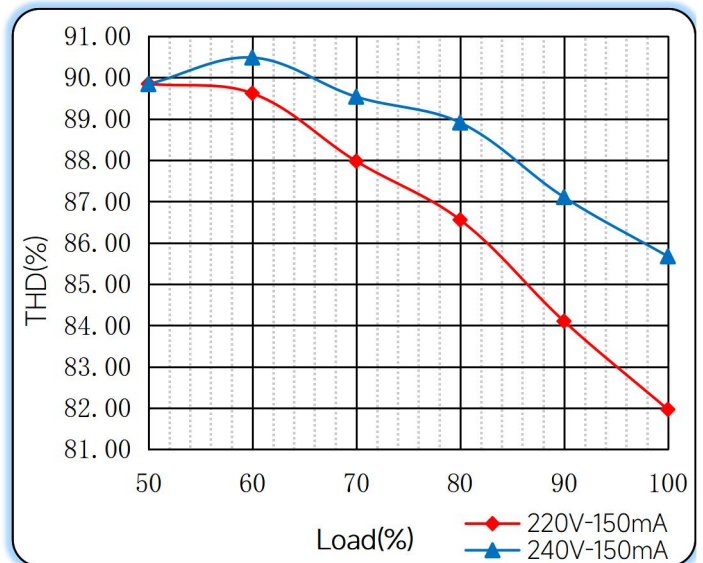
Efficiency vs. Load



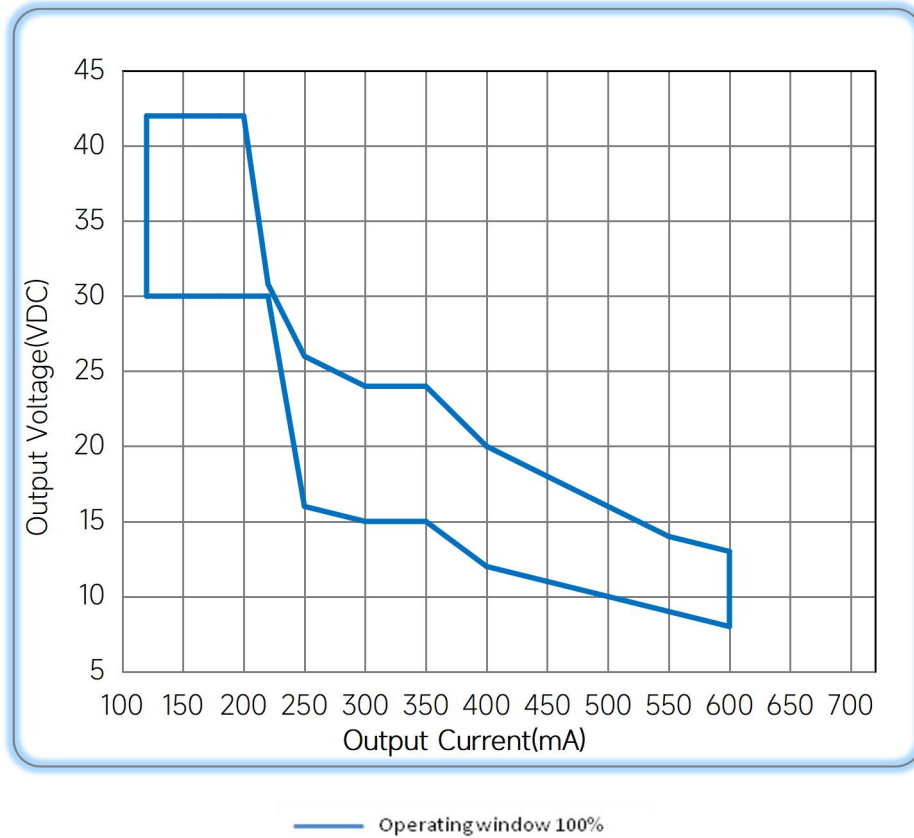
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/09/20
Curve		Added	B	2022/9/30
Model list		Update	C	2022/11/30

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Manual