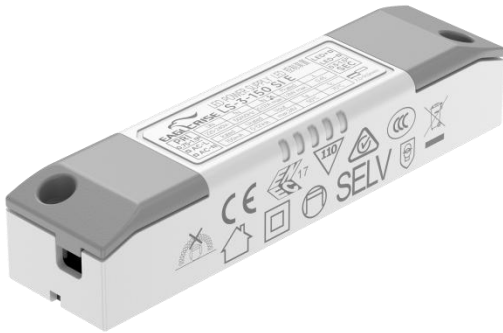


3W Constant Current power supply



Approve



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

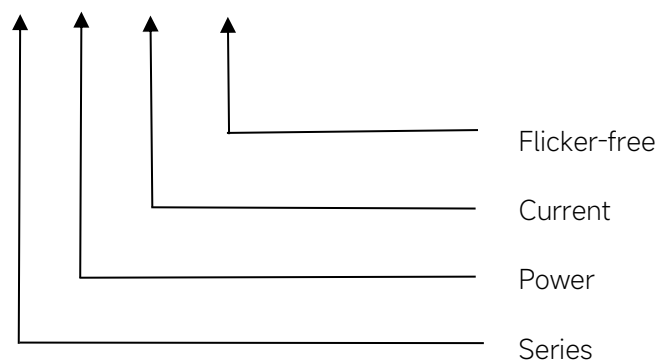
Applications

◆ 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	
	Short circuit Protection	YES/Auto Resume							
Environment	Operating Temperature	-20°C~+50°C							
	Humidity	20%-90%RH							
	T _c	75°C							
	Storage Temperature	-25°C~+60°C							
	Life time	> 30,000h@T _c =75°C							
Surface	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 300、350、500、700mA.

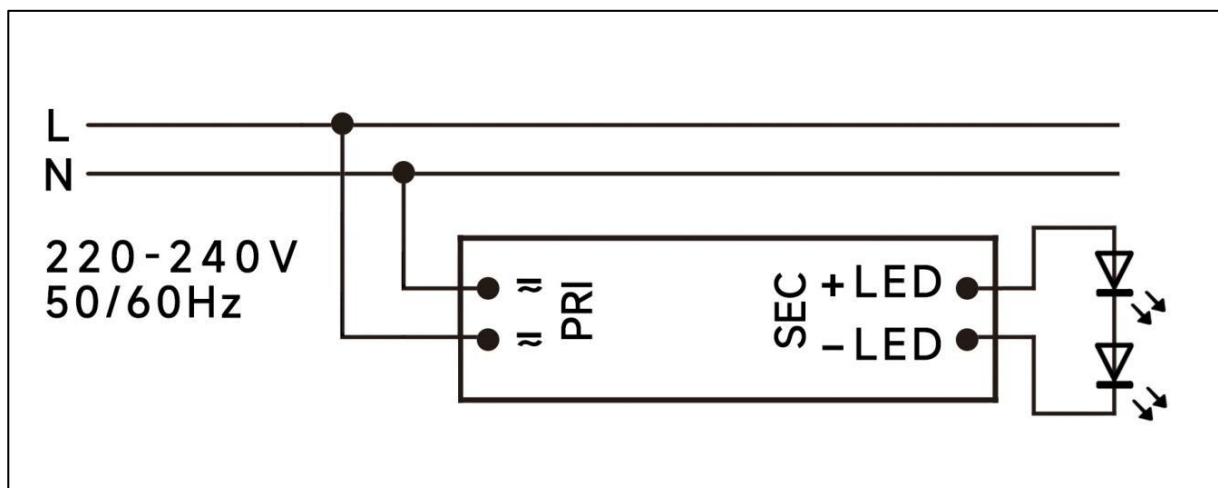
◆ Model list

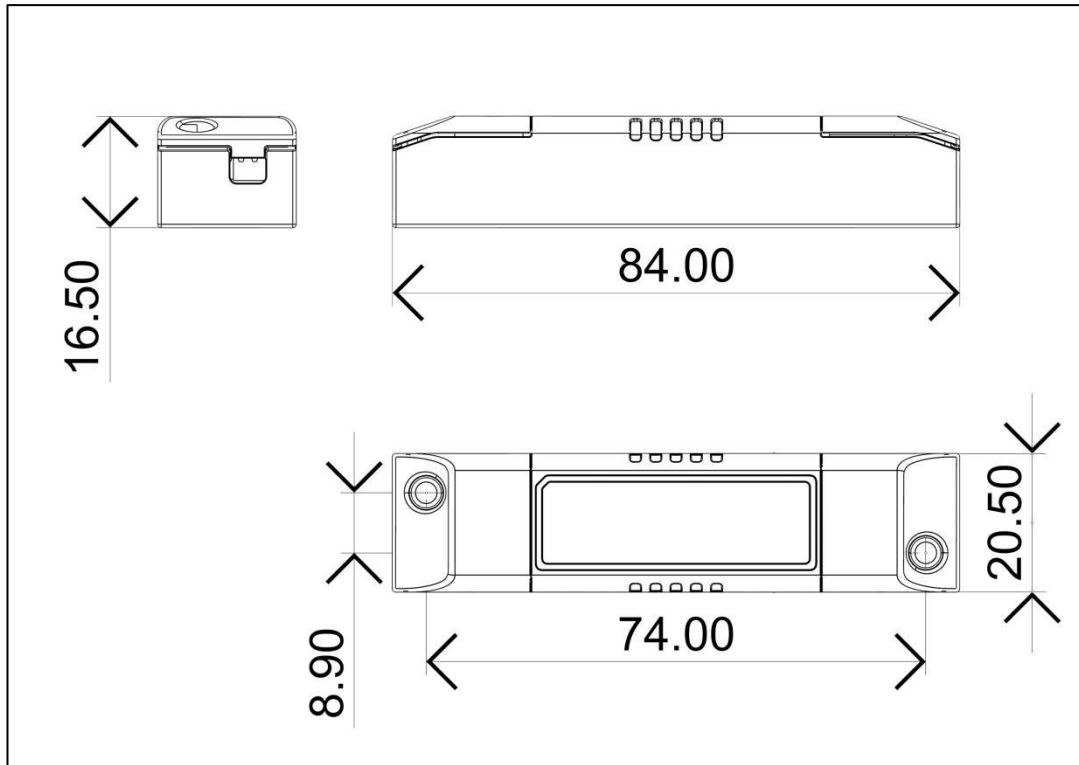
Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	*LS-3-150 SI E	150	5-12	24	1.8
2	LS-3-200 SI E	200			2.4
3	LS-3-250 SI E	250			3
4	LS-3-300 SI E	300			3.6
5	*LS-3-350 SI E	350			4.2
6	LS-3-400 SI E	400	2.5-4.5	16	1.8
7	LS-3-450 SI E	450			2.03
8	*LS-3-500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

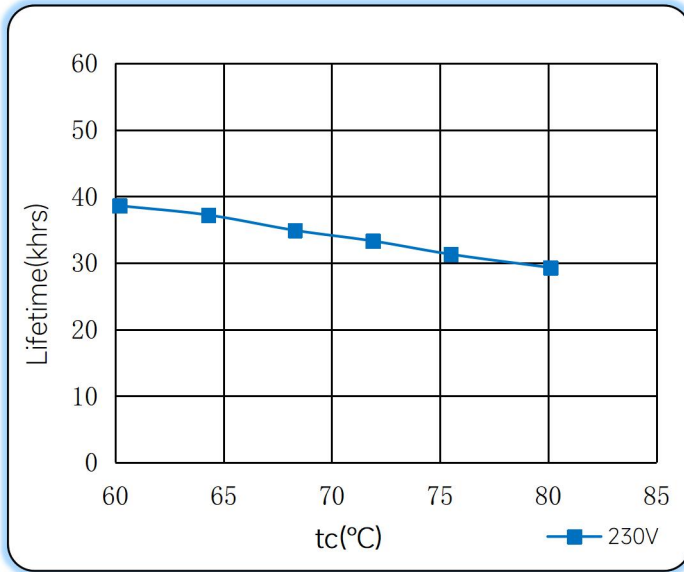


◆ 2D diagram

◆ Wiring & Connections

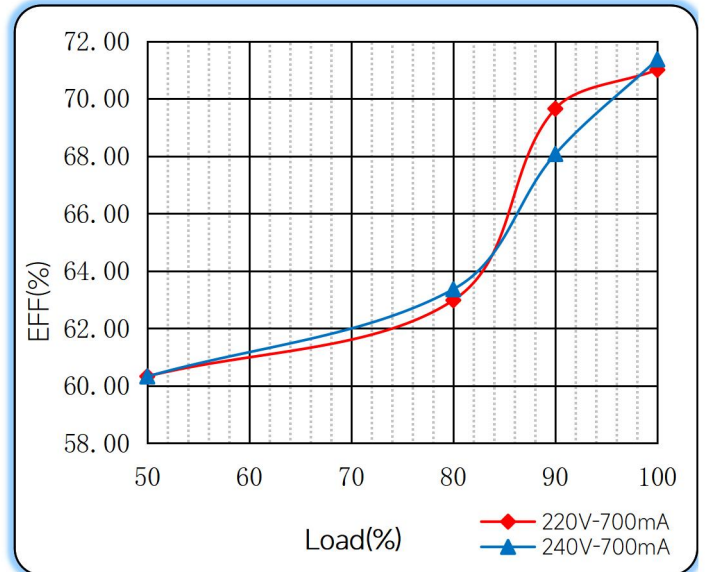
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

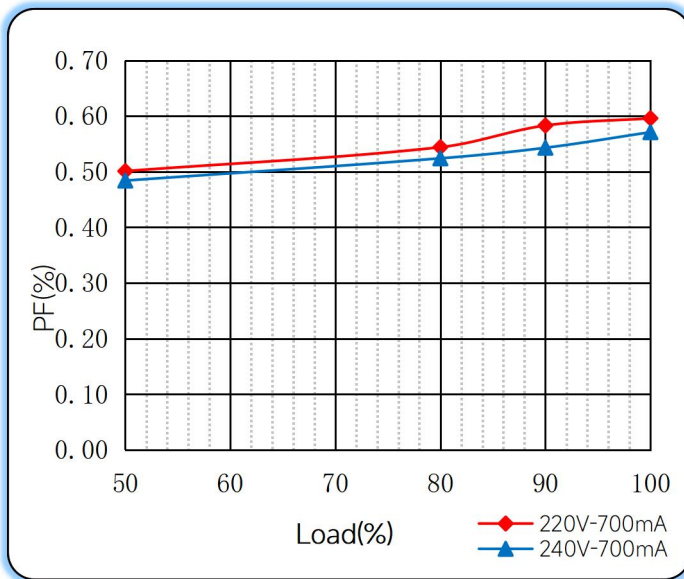
Lifetime vs. Temperature Curve



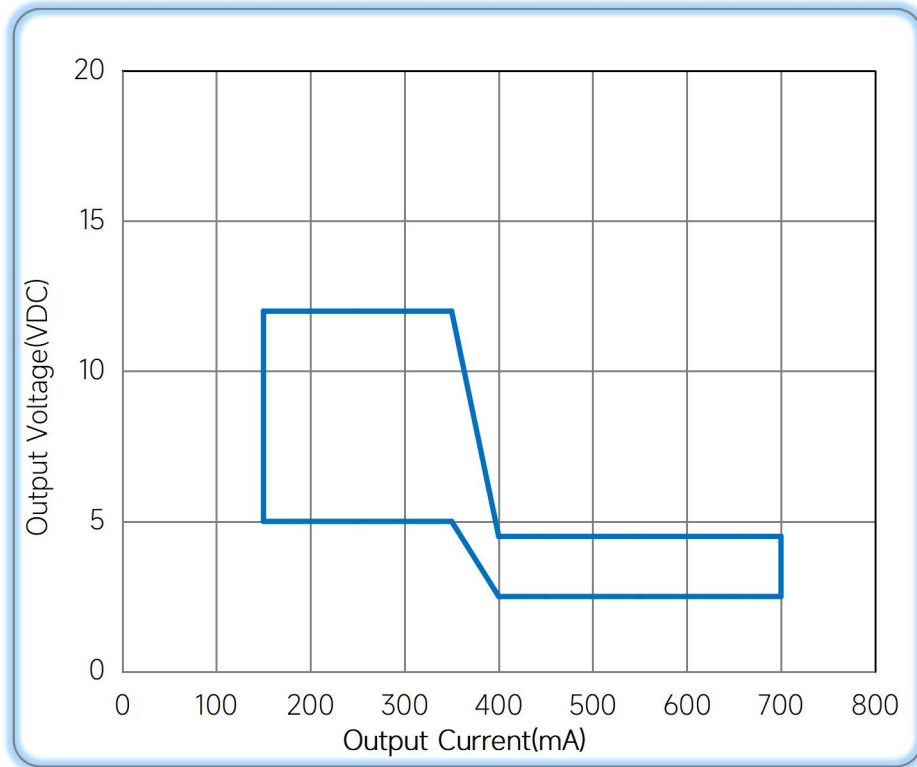
Efficiency vs. Load



Power Factor Characteristics



◆ Operating window



— Operating window 100%

◆ 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

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