8W Constant Current power supply

■**Approve**

CE CB SELV

Features

- Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.6C
- Efficiency: ≥80%
- 5 years warranty
- IP20

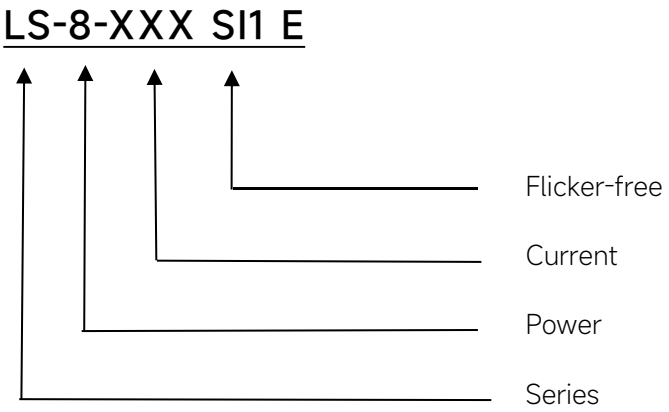
Applications

- LED panel、LED down light
  LED spot light

◆ Description

LS-8-XXX SI1 E is a 8W constant current LED driver with 120-220mA 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



◆ Specification

Output	Constant Current (mA)	120	150	160	180	200	220
	Voltage Range(VDC)	30-40					
	Unload voltage Max.(VDC)	59					
	Current Accuracy	±10%	±7%	±7%	±7%	±7%	±5%
	Output HF current ripple(≥1KHz)	±5%					
	Output LF current ripple(≤	±5%					
	SVM	≤0.4					
	P_{st}	≤1					
	Efficiency(Typ.)	≥80%					
Input	Rated input voltage	220-240VAC					
	Range of input voltage	198-264VAC					
	Frequency(Hz)	50/60 Hz					
	Displacement factor	≥0.7					
	Power Factor	0.6C					
	Input Current max (mA)	70	80	90	100	110	120
	Start-up time	< 0.5S					
	No Load Power	≤0.5W					
Protection	Over Load Protection	103-135%					
		YES/Auto Resume					
	Over Voltage Protection	59V					
		YES/Auto Resume					
	Short circuit Protection	YES/Auto Resume					
capability	Surge capability (L-N)	1KV					
	Surge capability (L/N-Ground)	NA					
Environment	Operating Temperature	-20℃~+45℃					
	Humidity	20%-90%RH					
	Tc	75℃					
	Storage Temperature	-20℃~+60℃					
	Life time	> 50,000h@Tc=65℃(> 50,000h@Tc=65℃@220mA)					
	Noise	≤20dB(A)@10cm					
Surface	Dimension	92X36X25(LXWXH)mm					
	material	PP					
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2-13,EN62384					
	EMC	GB/T17743, GB17625. 1,EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN61000-4-5,EN61000-4-2,3,4,5,6,8,11, EN61547					
	ErP	Erp2.0 EU 2019/2020					
	RoHS	RoHS (2011/65/EU) (EU)2015/863					

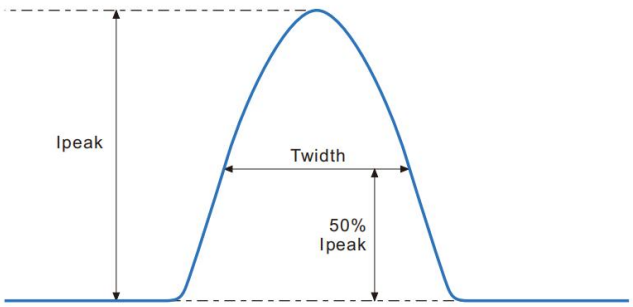
Note	1.All parameters not specially mentioned are measured at 230VAC input , full load and 25℃ of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. 3.Data are typical values obtained from test samples 4.The over-temperature protection of the product is provided by the IC. 5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.

◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	LS-8-120 SI1 E	120	30-40VDC	59VDC	4.8
2	LS-8-150 SI1 E	150			6
3	LS-8-160 SI1 E	160			6.4
4	LS-8-180 SI1 E	180			7.2
5	LS-8-200 SI1 E	200			8
6	LS-8-220 SI1 E	220			8.8

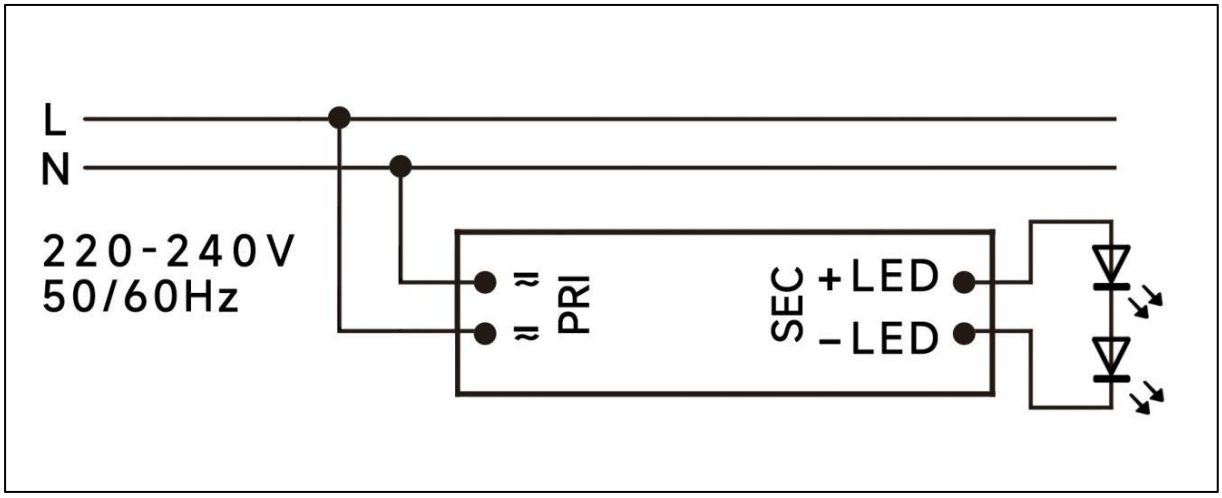
◆ Inrush Current

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
8.6A	80μs	36pcs	58pcs	72pcs	36pcs	58pcs	72pcs

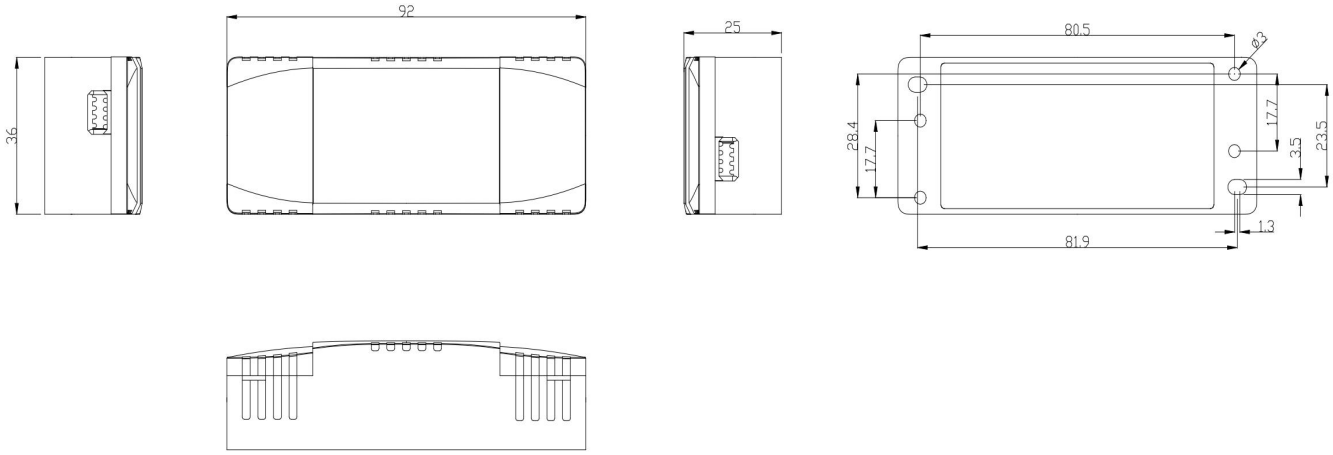


Remarks:
1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



◆ 2D diagram



◆ 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

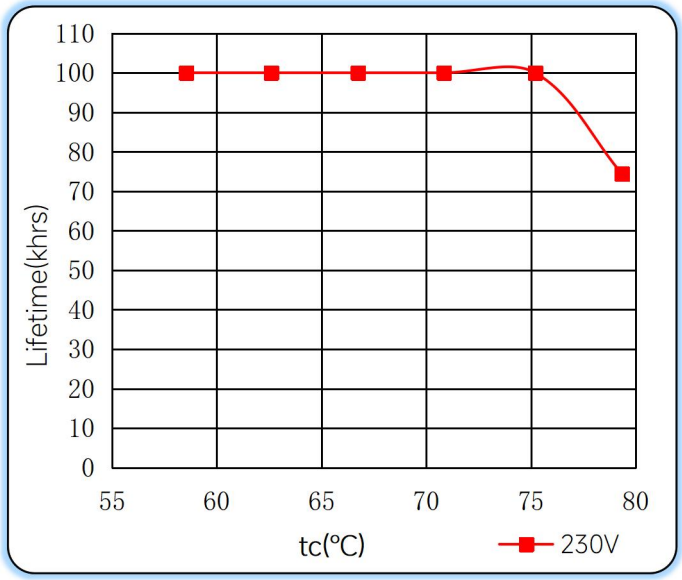
Note:Solid wire is risky to use on an angled terminal.Stranded wire is recommended for this kind of use.

◆ Packaging

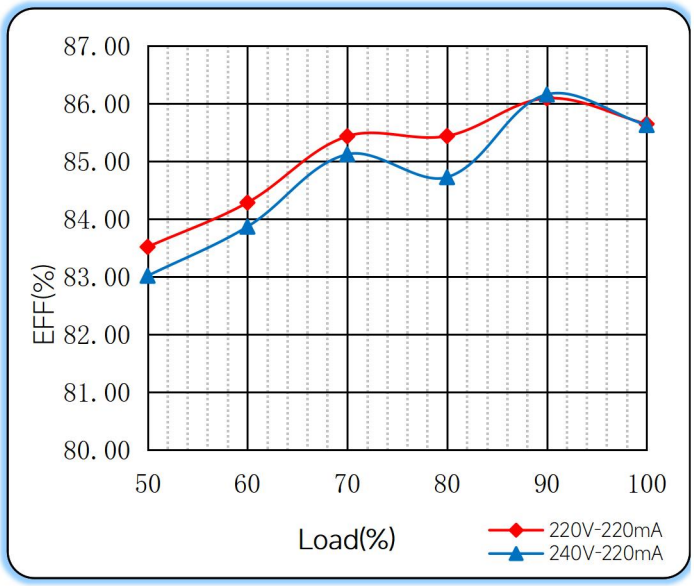
Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
LS-8-XXX SI1 E	92X36X25	0.041	370X275X215	180	7.4	8

◆ Curve for LS-8-220 SI1 E, Io=220mA

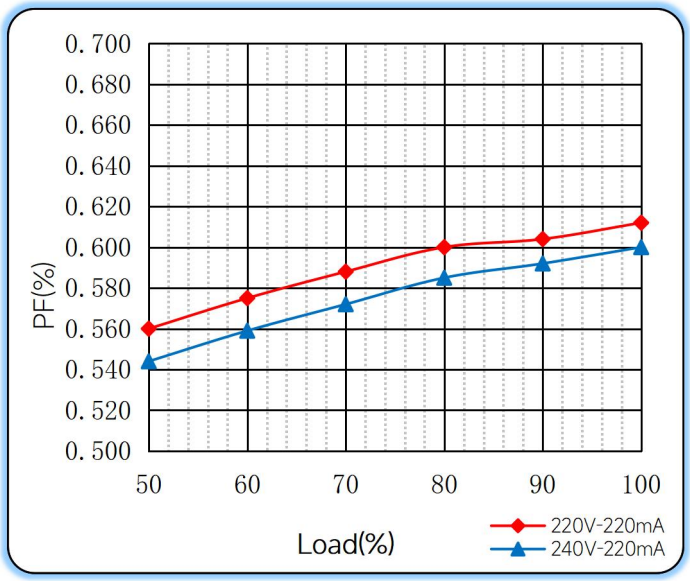
Lifetime vs. Temperature Curve



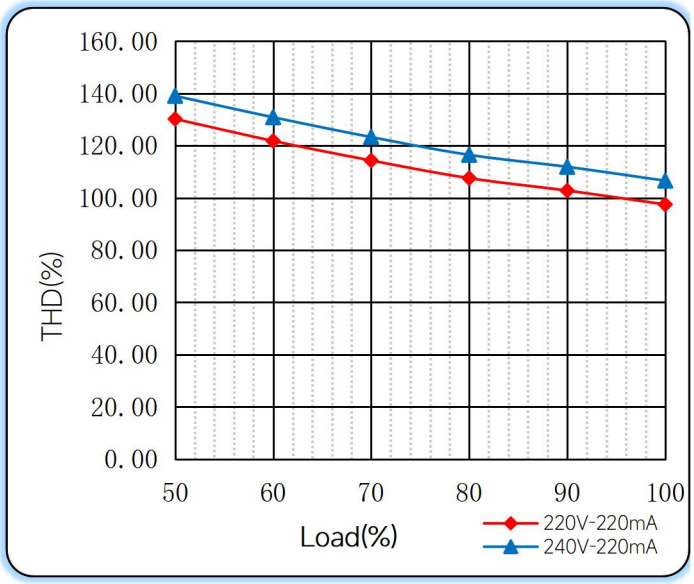
Efficiency vs. Load



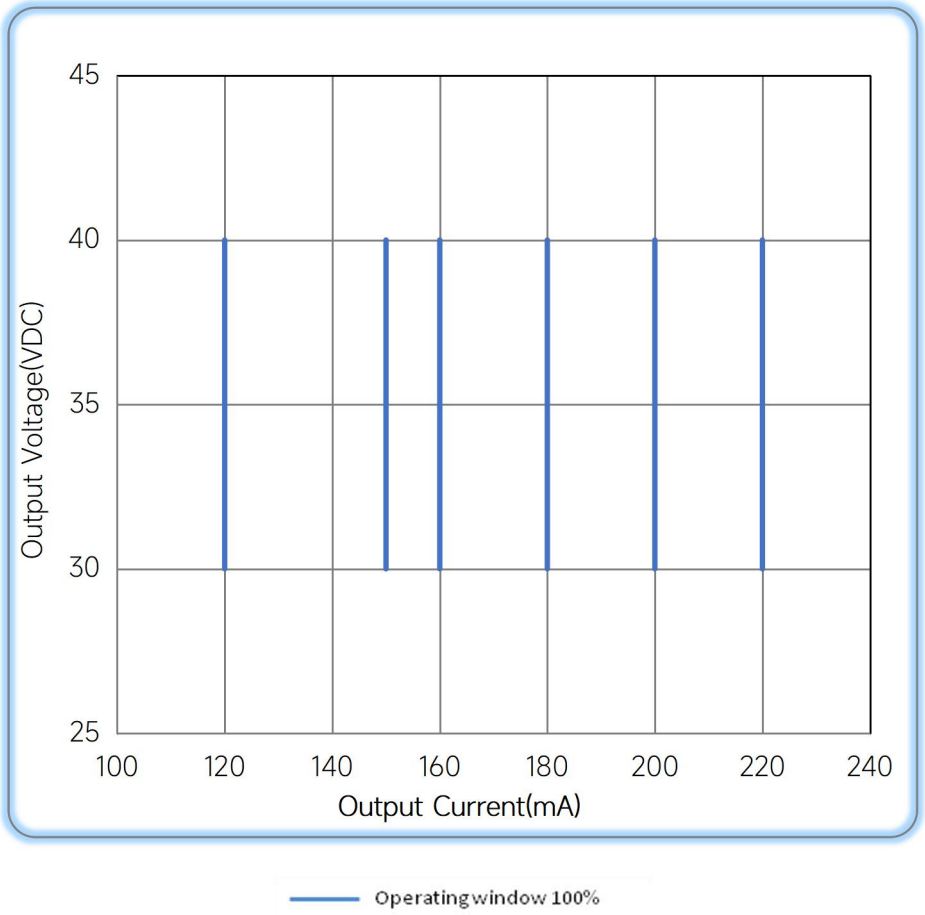
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/09/29
2D diagram		Update	B	2026/04/24

Remark:The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.