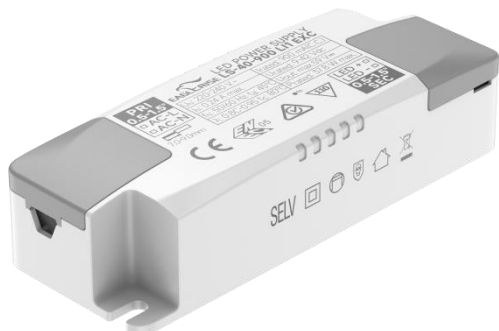


40W Constant Current power supply

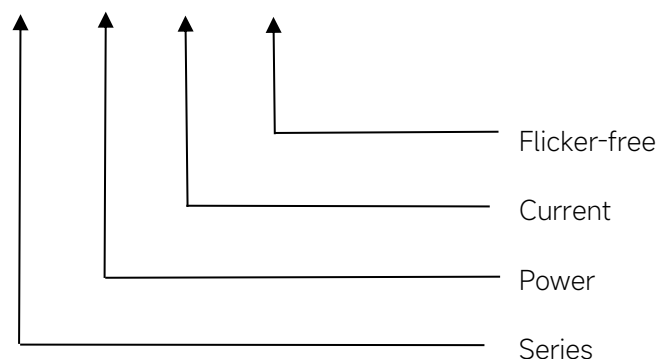


◆ Description

LS-40-XXX LI1 EXC is a 40W constant current LED driver with 600 to 1050mA output current. With its compact dimensions from 102 x 38.2 x 25mm it is easy to integrate in LED Panel, spot and down lights product. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-40-XXX LI1 EXC



Features

- Class II, SELV, independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.8C-0.95
- Efficiency: 91%
- 5 years warranty
- IP20/IP40

Applications

- LED panel, LED down light
- LED spot light

◆ Specification

Output	Constant Current (mA)	600	650	700	750	800	850	900	950	1000	1050
	Voltage Range(VDC)	9-42								9-40	9-38.5
	Unload voltage Max.	59VDC									59VDC
	Current Accuracy	±5%									
	Output HF current ripple(≥1KHz)	±3%									
	Output LF current ripple(≤120Hz)	±3%									
	SVM	≤0.4									
	Pst	≤1									
	Efficiency(Typ.)	91%@full load,230V									
Input	Rated input voltage	220-240V									
	Range of input voltage	198-264VAC									
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition									
	Range of input voltage(VDC)	176-280VDC									
	Frequency(Hz)	0/50/60 Hz									
	Displacement factor	> 0.95									
	Power Factor	0.8C-0.95, > 0.95@34V load,230V									
	Input Current max (mA)	160	180	190	200	220	230	240	250	250	270
	Start-up time	< 0.5S									
	No Load Power	≤0.3W									
	THD (Typ.)	<5%									
Protection	Over Load Protection	103-120%									
		YES/Auto Resume									
	Over Voltage Protection	59VDC									
		YES/Auto Resume									
capability	Surge capability (L-N)	2KV									
	Surge capability (L/N-Ground)	2KV									
Environment	Operating Temperature	-30°C~+45°C									
	Humidity	20%-90%RH									
	Tc	80°C									
	Storage Temperature	-30°C~+80°C									
	Life time	> 50000h@Tc=75°C									
	Noise	≤20dB(A)@10cm									
Surface	Dimension	102X38.2X25(LXWXH)mm									
	material	PC									
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;AS 61347.2.13;EN62384;									

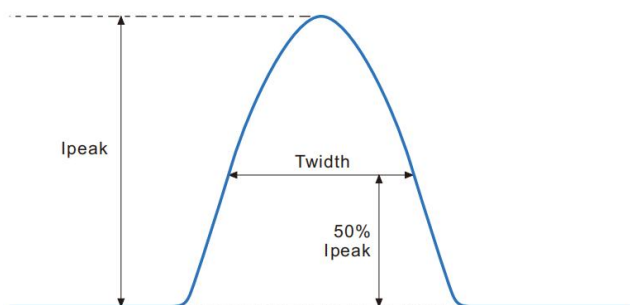
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°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.Switch and dimmer are not recommended to connect between this product output and luminaries. 4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered. 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-40-600 LI1 EXC	600	9-42	59	25.2
2	LS-40-650 LI1 EXC	650			27.3
3	LS-40-700 LI1 EXC	700			29.4
4	LS-40-750 LI1 EXC	750			31.5
5	LS-40-800 LI1 EXC	800			33.6
6	LS-40-850 LI1 EXC	850			35.7
7	LS-40-900 LI1 EXC	900			37.8
8	LS-40-950 LI1 EXC	950			39.9
9	LS-40-1000 LI1 EXC	1000	9-40		40
10	LS-40-1050 LI1 EXC	1050	9-38.5		40.4

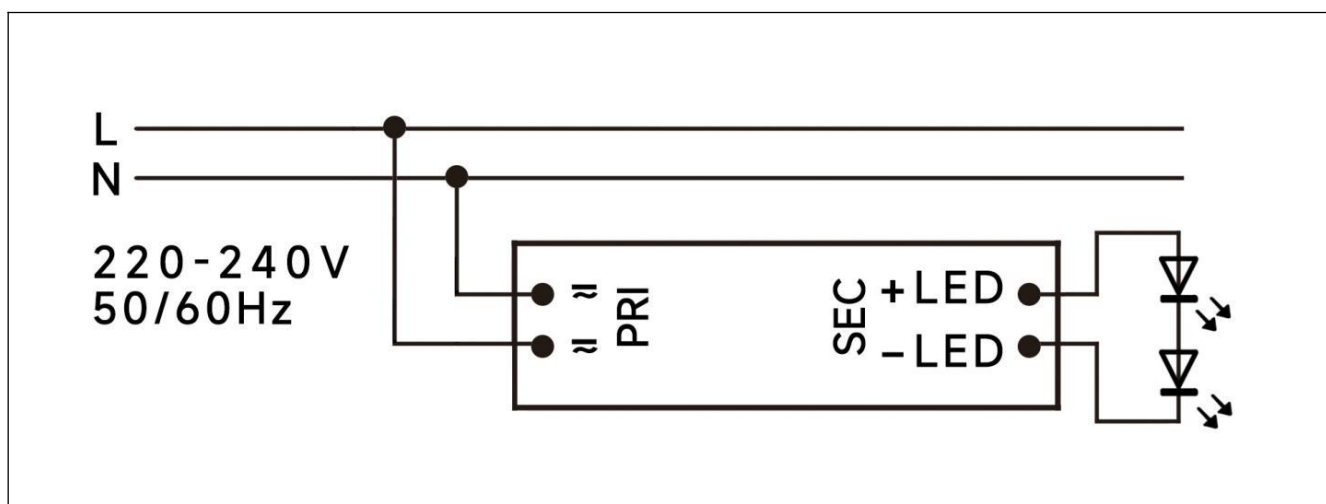
◆ Inrush Current

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
31.2A	124μs	21pcs	34pcs	43pcs	29pcs	47pcs	59pcs

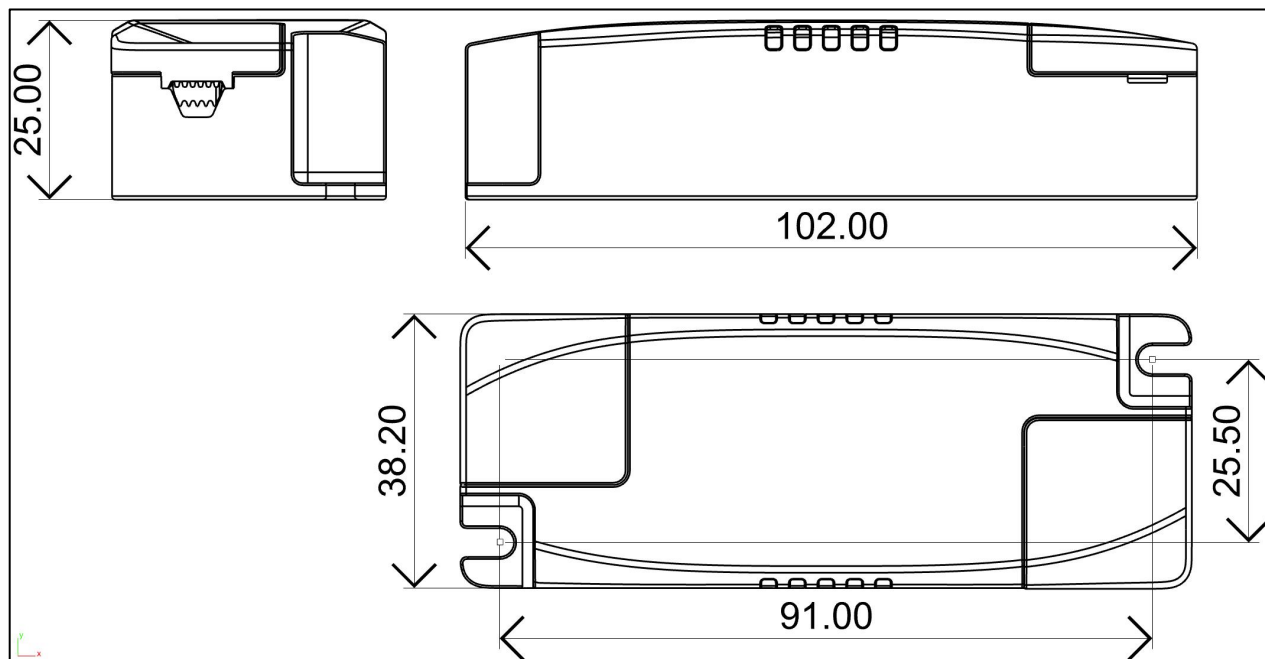

Remarks:

- 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.

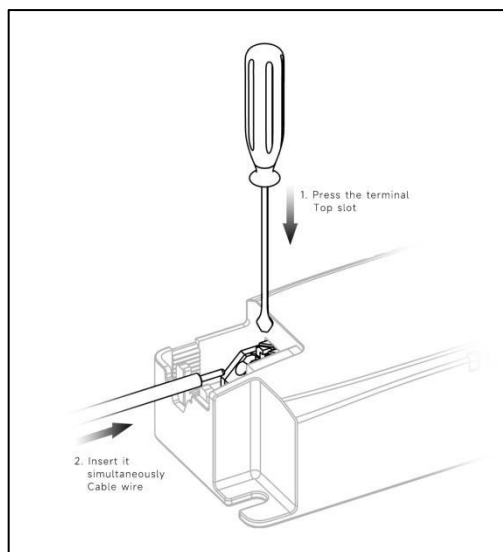
◆ Wiring diagram



◆ 2D diagram



Terminals

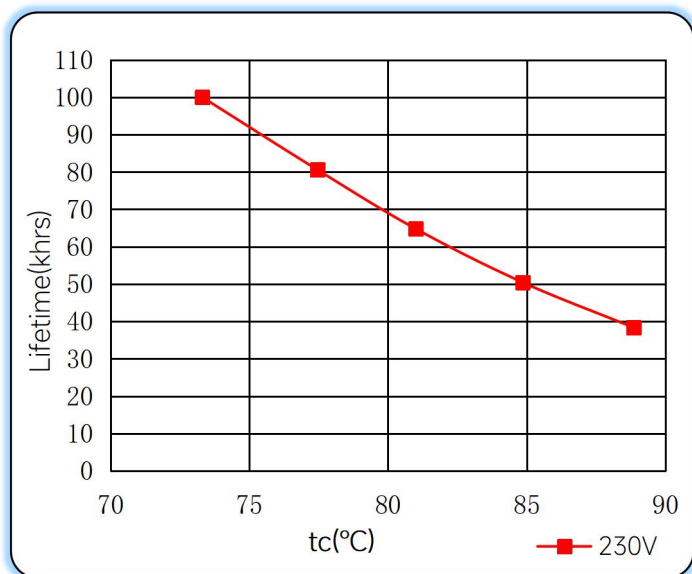
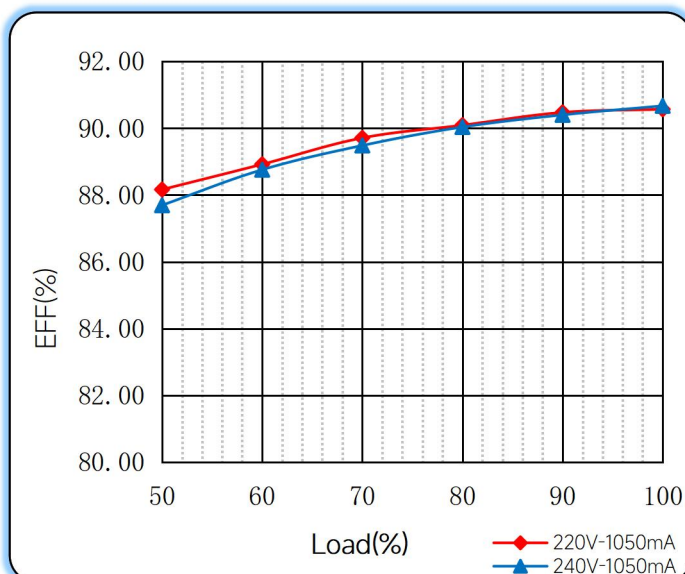
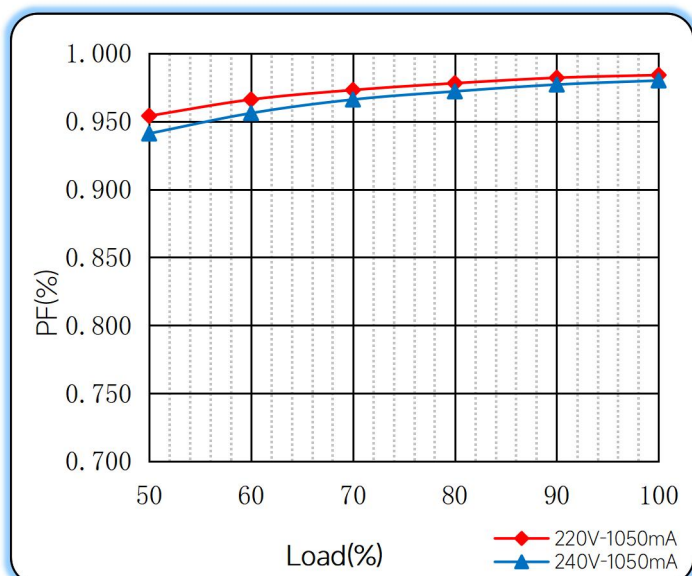
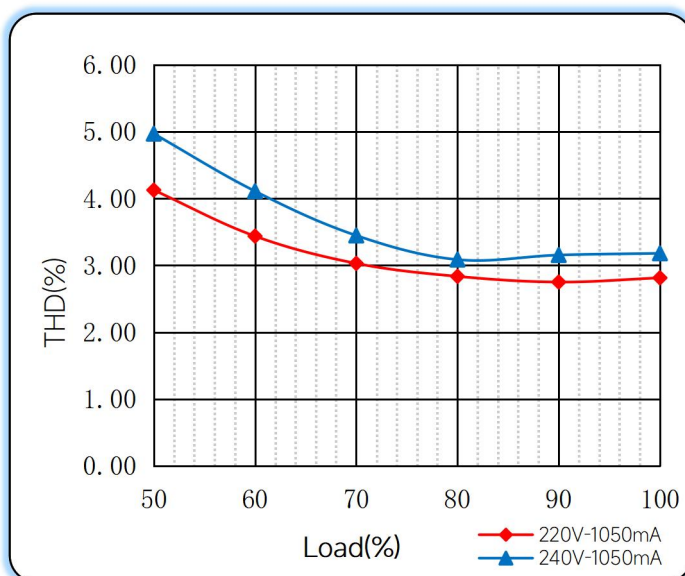


◆ Wiring & Connections

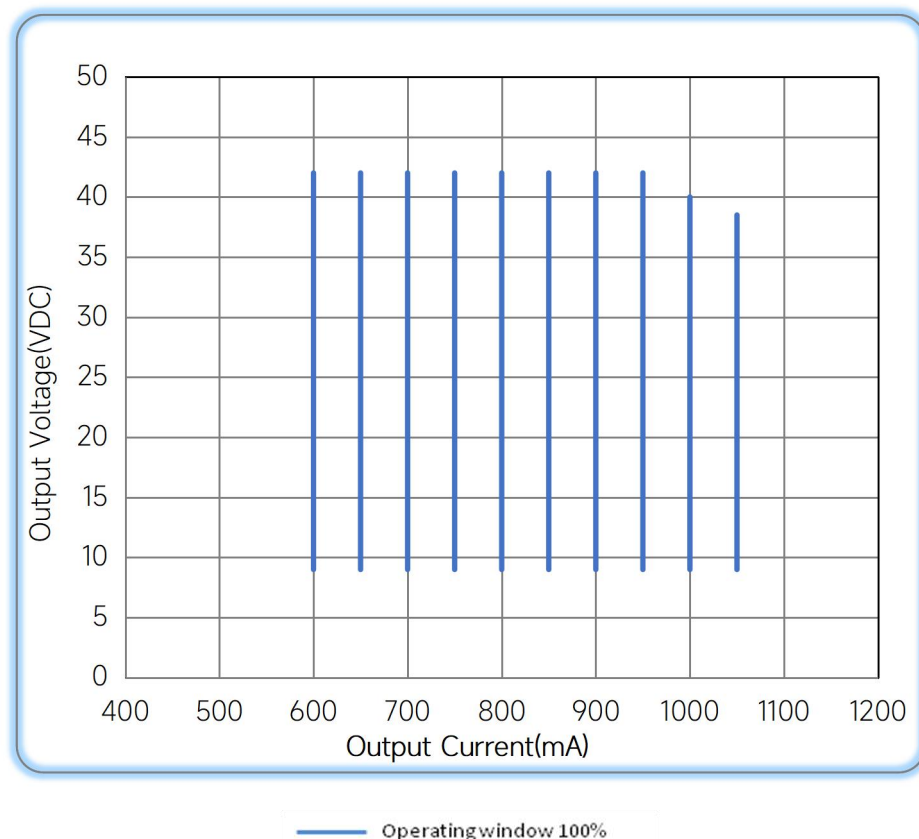
	Specification item	Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

◆ Curve for LS-40-1050 LI1 EXC, $I_o=1050\text{mA}$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/10/13
PF,Tc		update	B	2023/11/23

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

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EAGLERISE



Manual