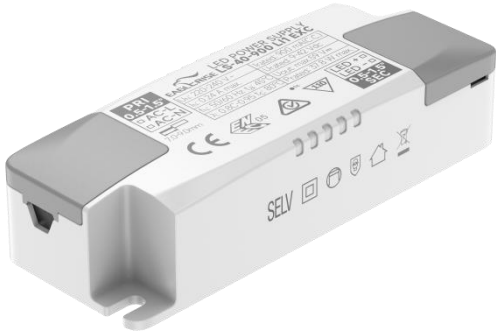


40W Constant Current power supply



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

Approve

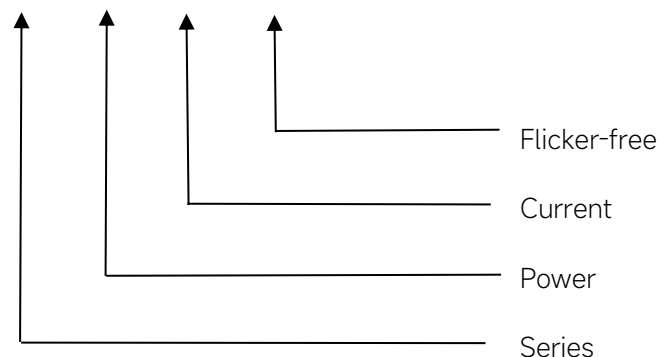


◆ Description

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



◆ 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										
	Short circuit Protection	YES/Auto Resume										
	Over Temperature Protection	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;										

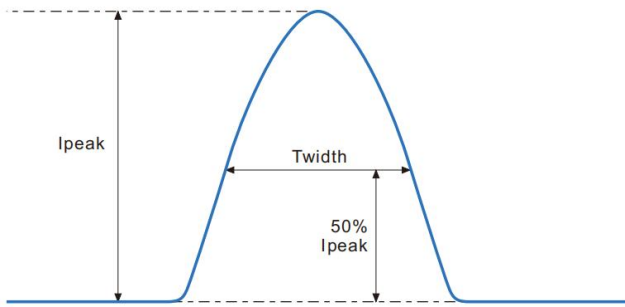
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters not specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>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.</p>	

◆ 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

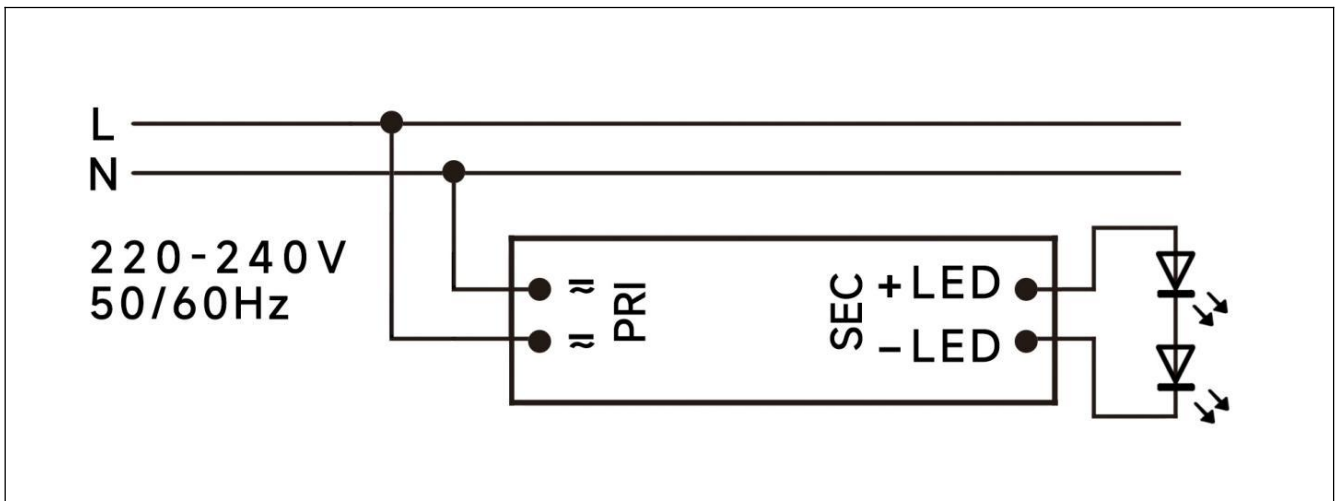
I ^{peak}	T ^{width}	B10	B16	B20	C10	C16	C20
31.2A	124μs	21pcs	34pcs	43pcs	29pcs	47pcs	59pcs

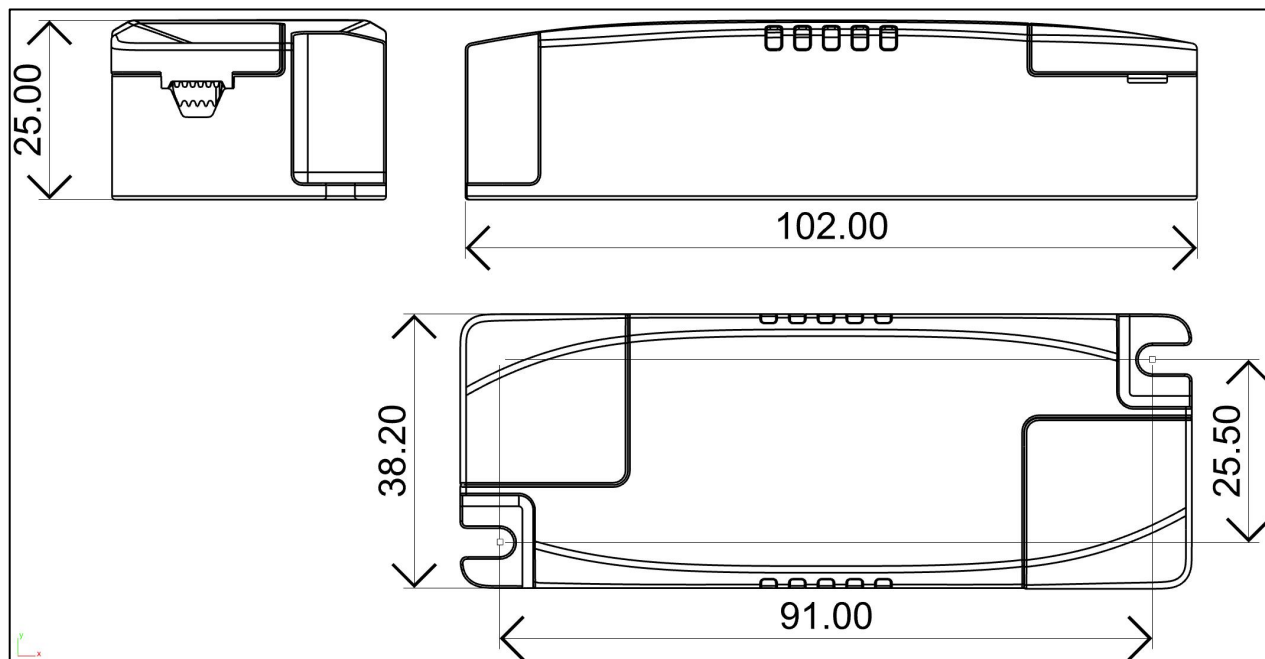
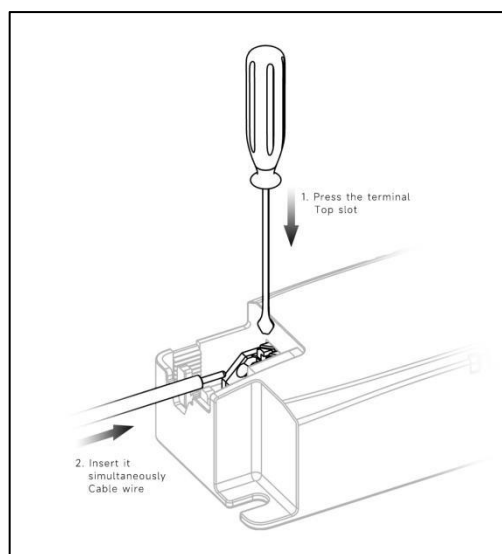


Remarks:

- 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**Termina**

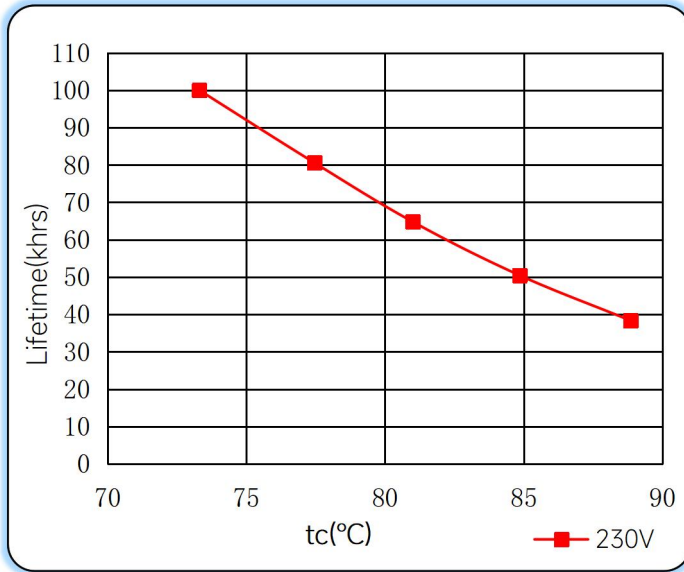
◆ Wiring & Connections

	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

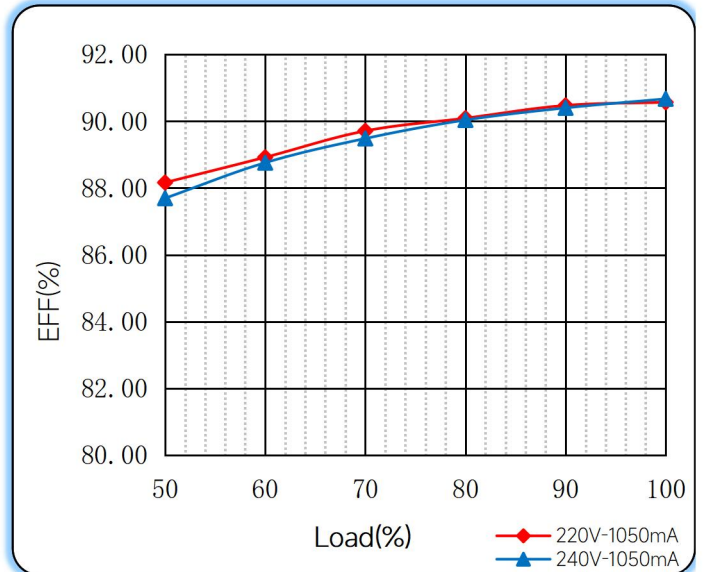
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for LS-40-1050 LI1 EXC, I_o=1050mA

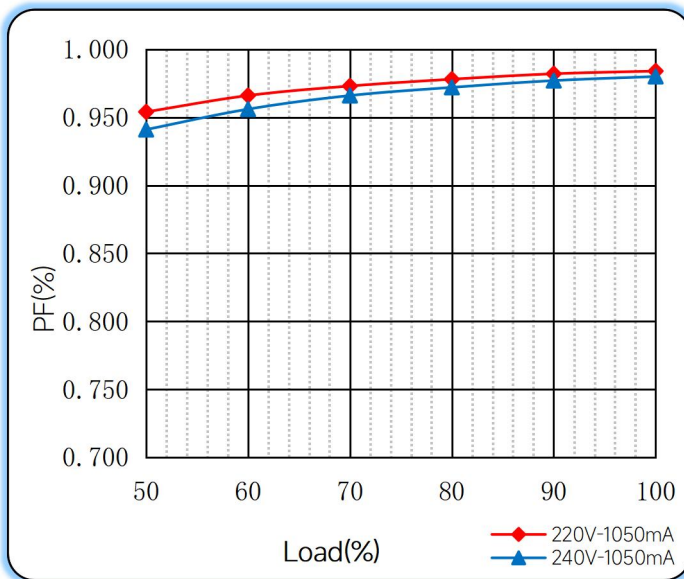
Lifetime vs. Temperature Curve



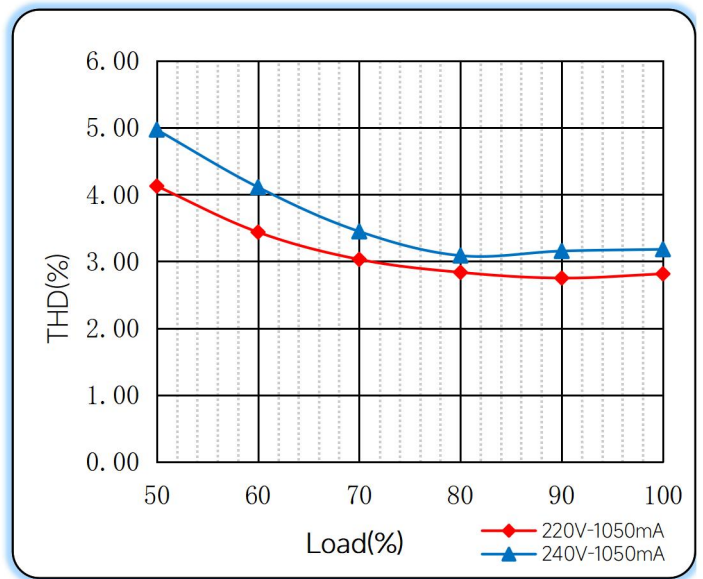
Efficiency vs. Load



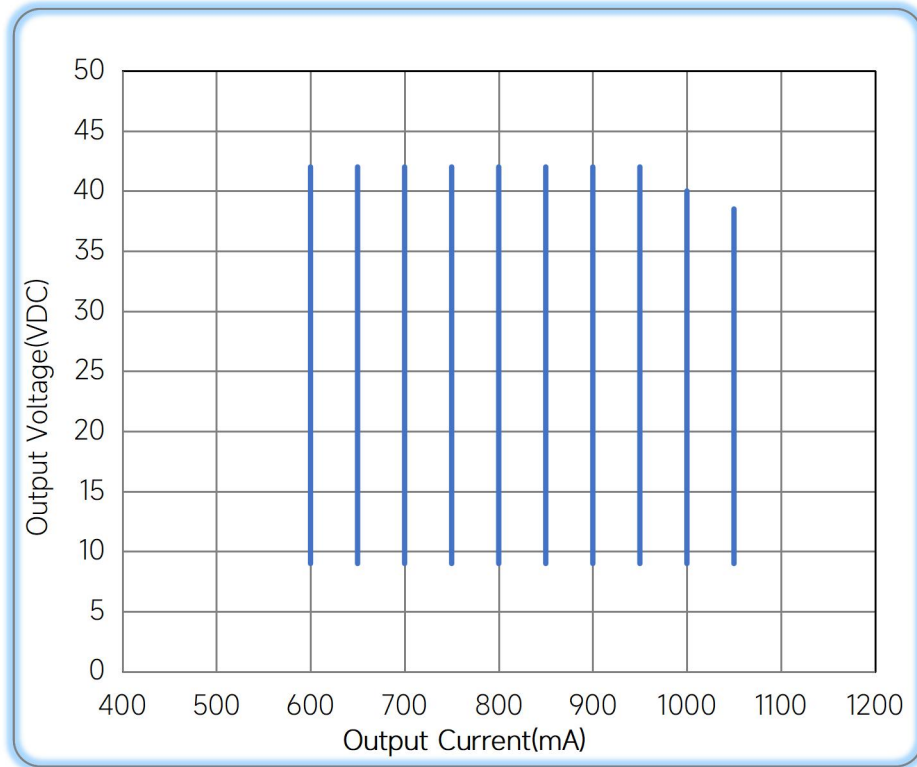
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



— Operating window 100%

◆ **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