

40W Constant Current power supply



■ Approve



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor : 0.95
- Efficiency $\geq 87\%$
- 5 years warranty

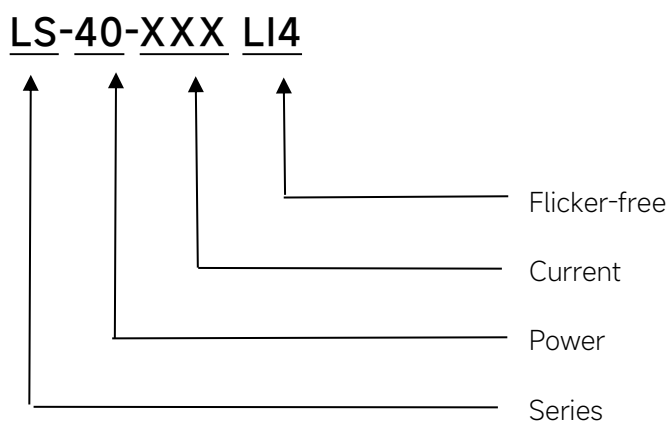
Applications

- LED panel、LED down light
LED spot light

◆ Description

LS-40-XXX LI4 is a 40W constant current LED driver with 600 to 1050mA output current. With it's compact dimensions from 116 x 41 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



◆ Specification

Output	Constant Current	600mA	650mA	700mA	...	1050mA
	Voltage Range	24-42VDC			...	24-38.5VDC
	Unload voltage Max.	50VDC			...	52VDC
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	87%				
Input	Rated input voltage	220-240VAC				
	Range of input voltage	176-264VAC				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	0.95				
	Input Current max	0.29A MAX				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	< 10%				
	Leakage Current	< 0.7mA(240VAC)				
Protection	Over Load Protection	103-120%				
		YES/Auto Resume				
	Over Voltage Protection	> 50VDC			...	> 52VDC
		YES/Auto Resume				
Environment	Short circuit Protection	YES/Auto Resume				
	Operating Temperature	-20°C~+45°C				
	Humidity	20%-90%RH				
	Tc	85°C				
	Storage Temperature	-25°C~+60°C				
Surface	Life time	> 50000h@Tc=80°C				
	Dimension	116X41X25(LXWXH)mm				
Safety & EMC	Safety standards	EN 61347-1; EN61347-2-13; EN62384				
	Withstand voltage	Input-Output: 3750V/5mA/1min				
	Isolation resistance	Input-Output: ≥4MΩ@500VDC				
	EMI	EN55015; EN61000-3-2 Class C; EN61000-3-3				
	EMS	EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V;				
Others	ErP	EU 2019/2020				
	RoHS	RoHS (2011/65/EU) (EU)2015/863				

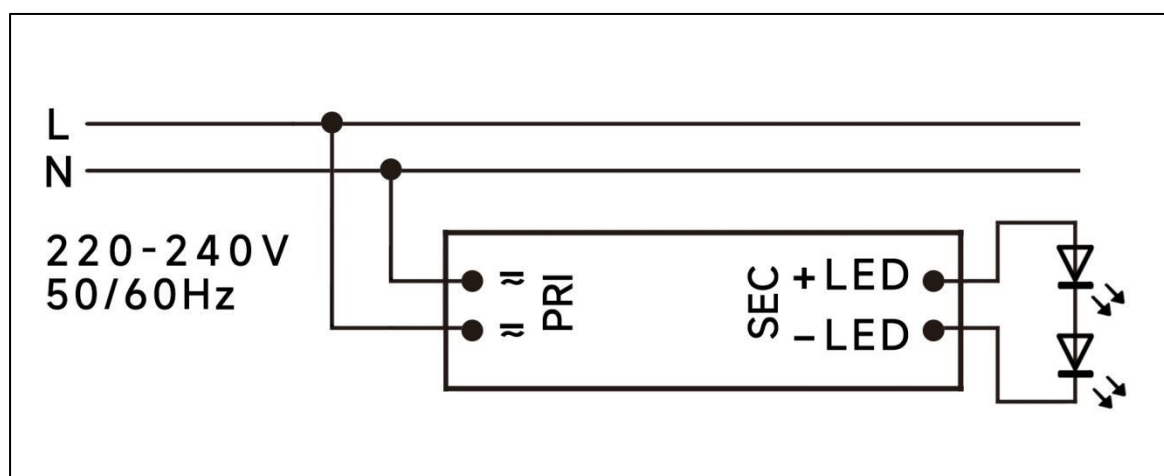
Note

- 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.

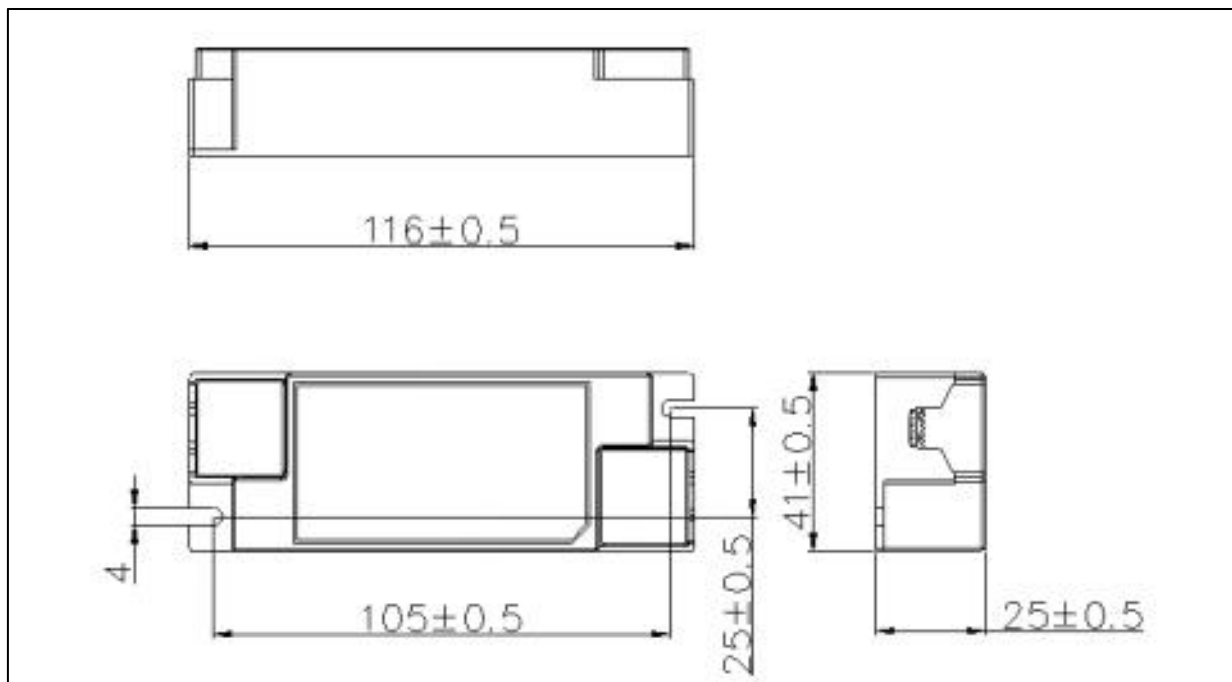
◆ Model list

Number	Model number	Input			Output			
		Voltage (VAC)	Current (A)	Frequency (Hz)	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	LS-40-600 LI4	220-240	0.17	50/60	600	24-42	50	25.2
2	LS-40-650 LI4		0.19		650			27.3
3	LS-40-700 LI4		0.20		700			29.4
4	LS-40-750 LI4		0.22		750			31.5
5	LS-40-800 LI4		0.23		800			33.6
6	LS-40-850 LI4		0.25		850			35.7
7	LS-40-900 LI4		0.26		900			37.8
8	LS-40-950 LI4		0.27		950			39.9
9	LS-40-1000 LI4		0.27		1000	24-40	50	40
10	LS-40-1050 LI4		0.29		1050	24-38.5	52	40.4

◆ Wiring diagram



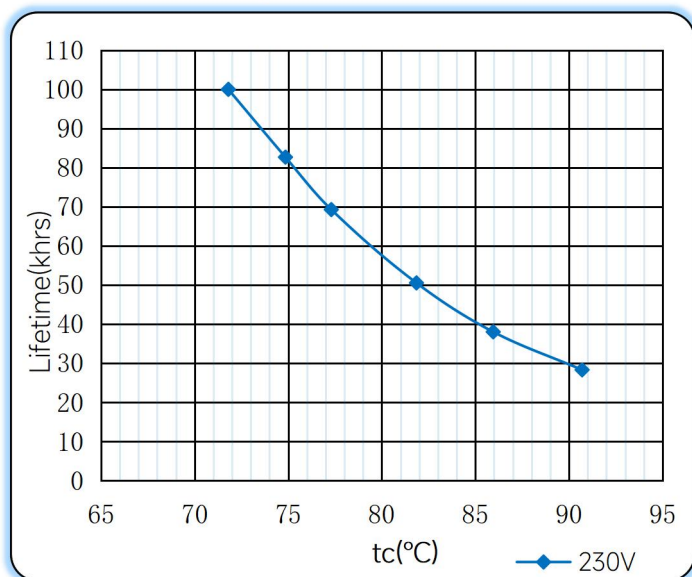
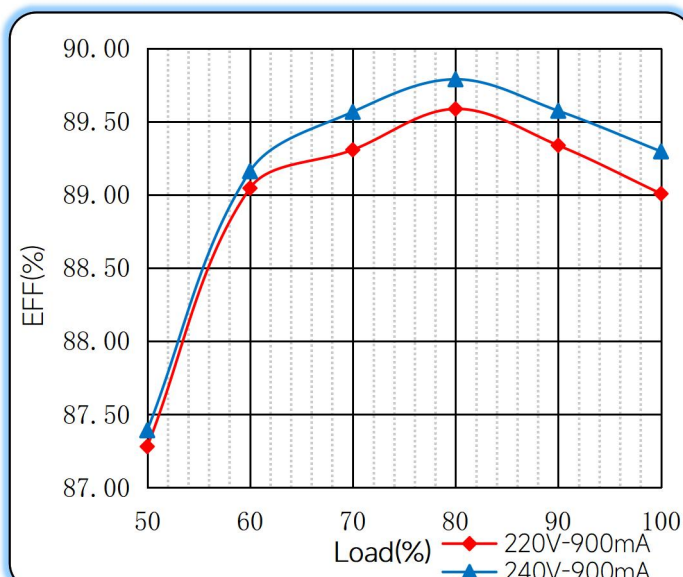
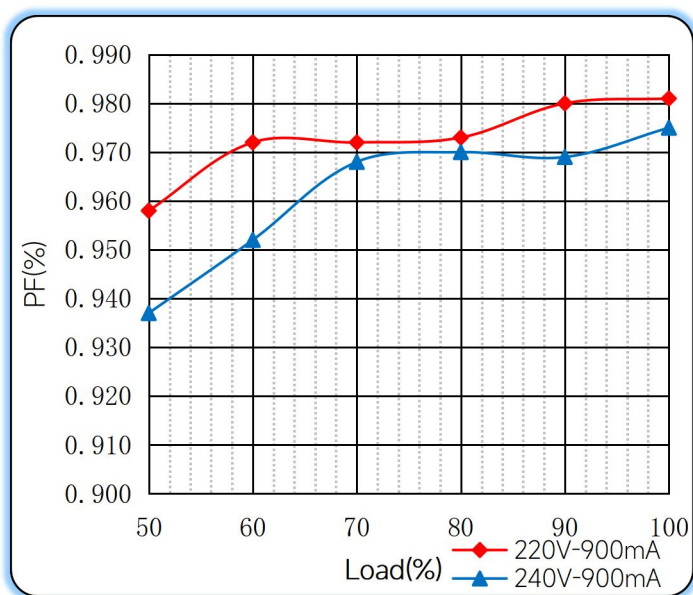
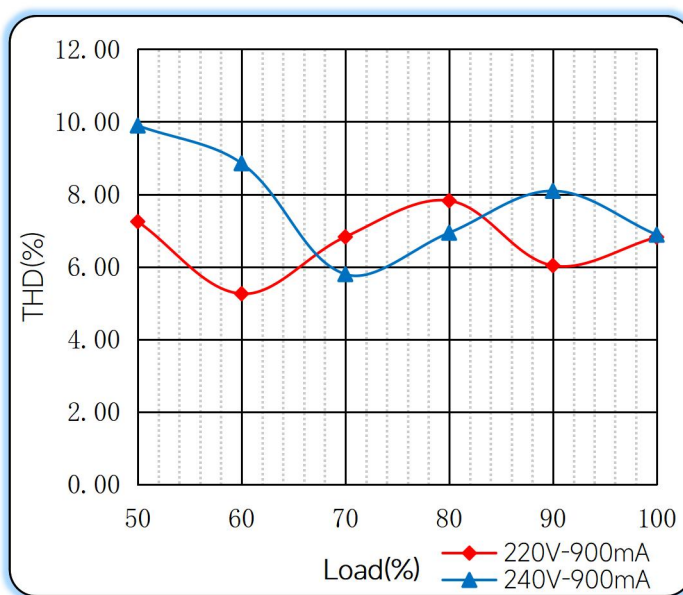
◆ 2D diagram



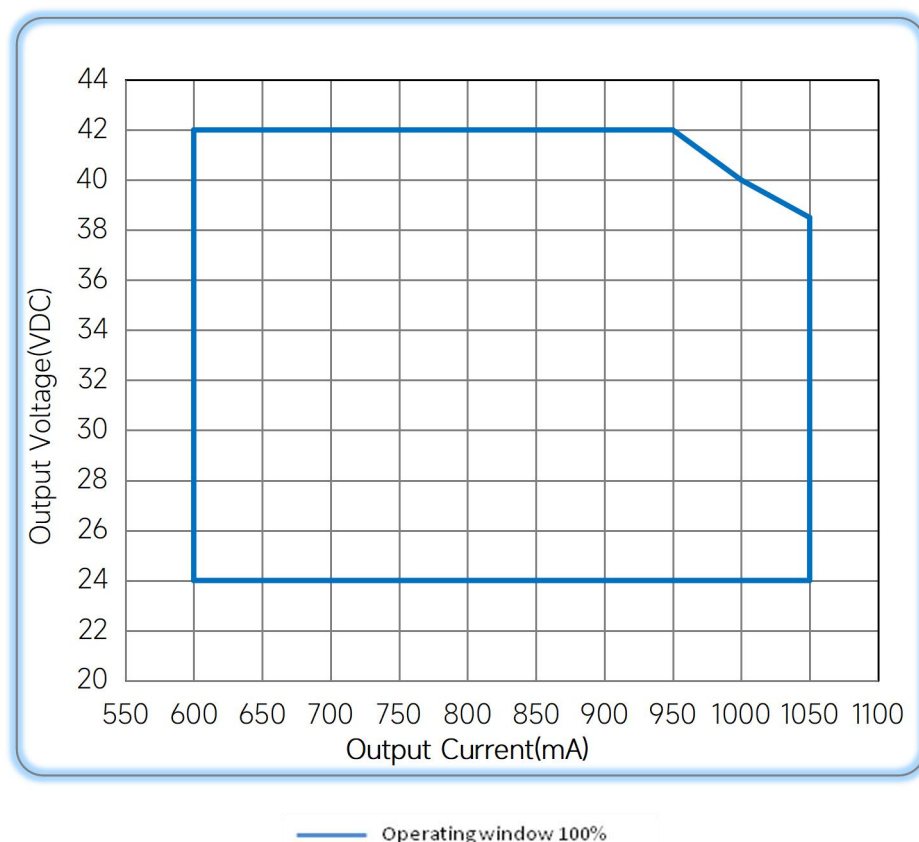
◆ Wiring & Connections

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-40-900 LI4, I_o=900mA

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

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Manual