

40W Constant Current power supply



■ Approve

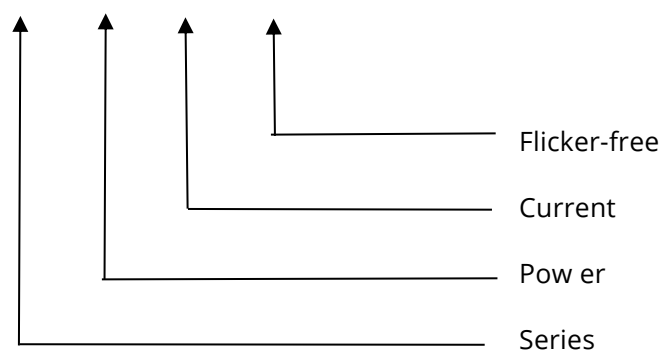


Description

MS-40-XXX LI is a 40W constant current LED driver with 600 to 1000mA output current. With it's compact dimensions from 190 x30 x 25mm. It is easy to integrate in LED Panel, and down lights product. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

Model code

MS-40-XXX LI



Features

Class I, SELV, Built-in
Input Voltage: 220-240VAC
P rotections: S CP/OLP/OVP/OT P
Power Factor: 0.95@Full load
Efficiency: 88%@Full load
5 years warranty
IP20

Applications

LED panel、LED down light

◆ Specification

Output	Constant Current (mA)	600mA	...	1000mA
	Voltage Range(VDC)	24-42VDC	...	24-40VDC
	Unload voltage Max.(VDC)	55VDC		
	Current Accuracy	±5%		
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±3%		
	SVM	< 0.4		
	P _{st}	< 1		
	Efficiency(Typ.)	88%@Full load,230V		
Input	Rated input voltage(VAC)	220~240VAC		
	Range of input voltage(VAC)	198~264VAC		
	Range of input voltage(VDC)	198~280VDC		
	Frequency(Hz)	50/60Hz		
	Displacement factor	> 0.9@Full load		
	Power Factor(Typ.)	0.95@Full load,230V		
	Input Current max	0.25A		
	Start-up time	< 0.5S		
	No Load Power	<0.5W		
	THD (Typ.)	< 10%@Full load,230V		
	Protection	Over Load Protection	103-120%	
		YES/Non-auto Resume		
Over Voltage Protection		55VDC		
		YES/Auto Resume		
	Short circuit Protection	YES/Auto Resume		
	Over Temperature Protection	YES/Auto Resume		
Environment	Operating Temperature	-25°C~60°C		
	Humidity	10%~90%		
	T _c	80°C		
	Storage Temperature	-25°C~80°C		
	Life time	> 50000h@T _c =80°C		
Surface	Dimension	190X30X25mm		
Standards	EN 61347-1,EN 61347-2-13; IEC 61347-1,IEC 61347-2-13; EN 62384; EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3			
Others	ErP	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>			

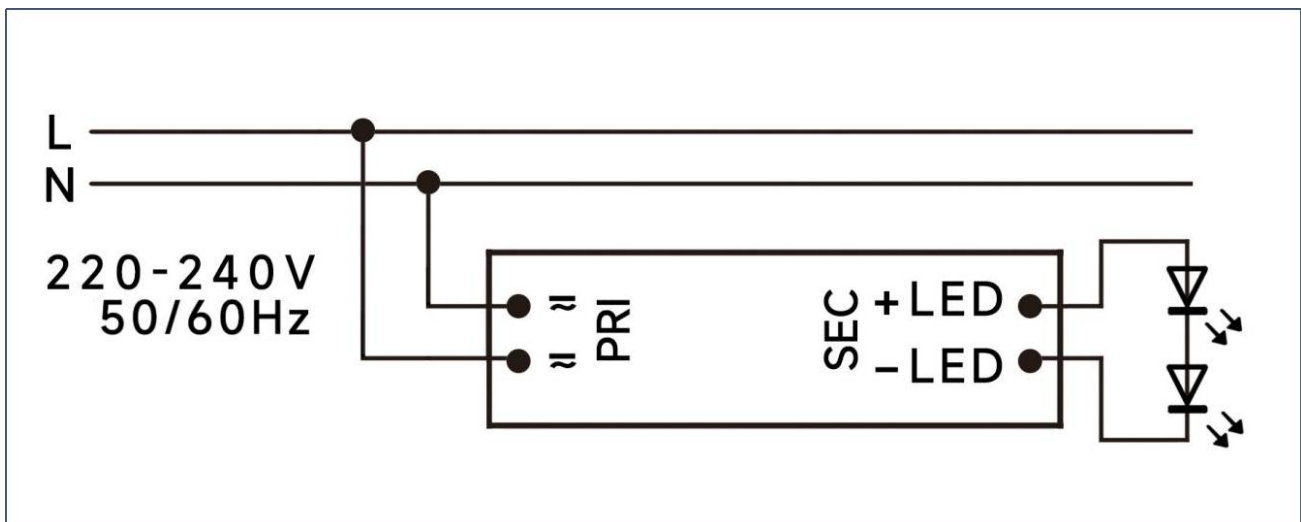
◆ Model list

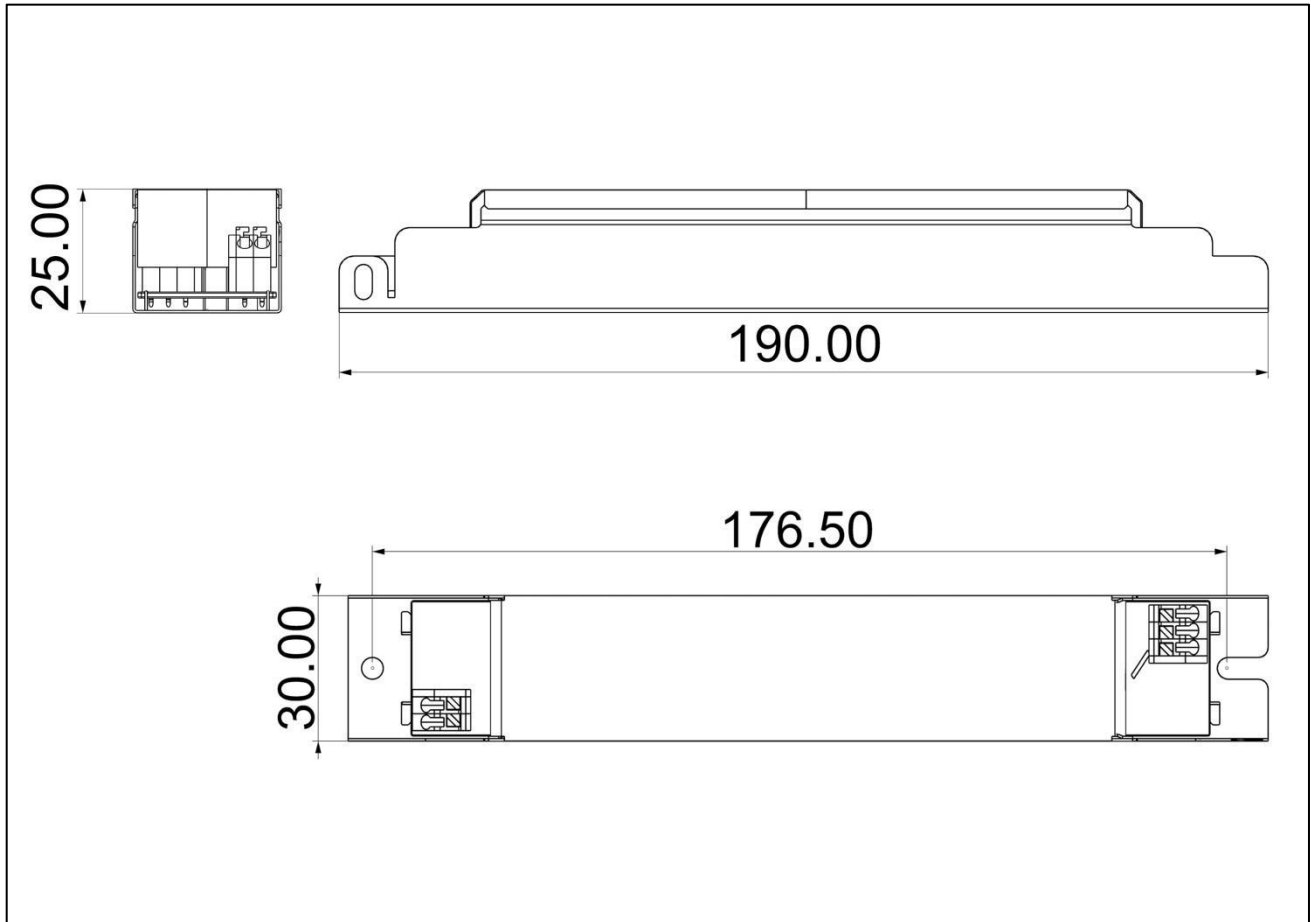
Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	MS-40-600 LI	600	24-42	55	25.2
2	*MS-40-650 LI	650			27.3
3	*MS-40-700 LI	700			29.4
4	*MS-40-750 LI	750			31.5
5	*MS-40-800 LI	800			33.6
6	MS-40-850 LI	850			35.7
7	MS-40-900 LI	900			37.8
8	*MS-40-950 LI	950			39.9
9	*MS-40-1000 LI	1000	24-40		40

◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
20.2A	134μs	30pcs	49pcs	61pcs	32pcs	51pcs	64pcs

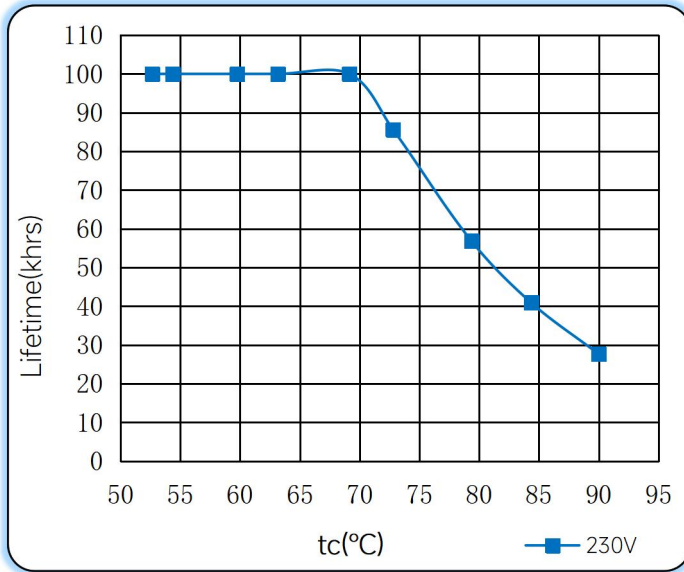
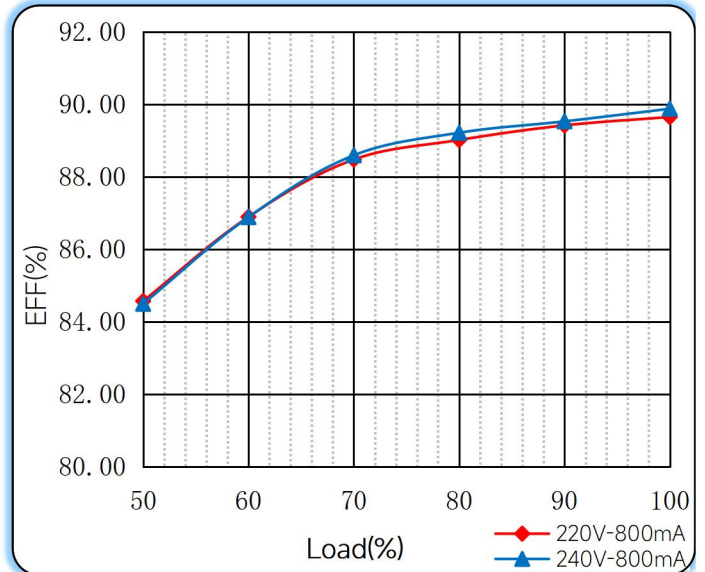
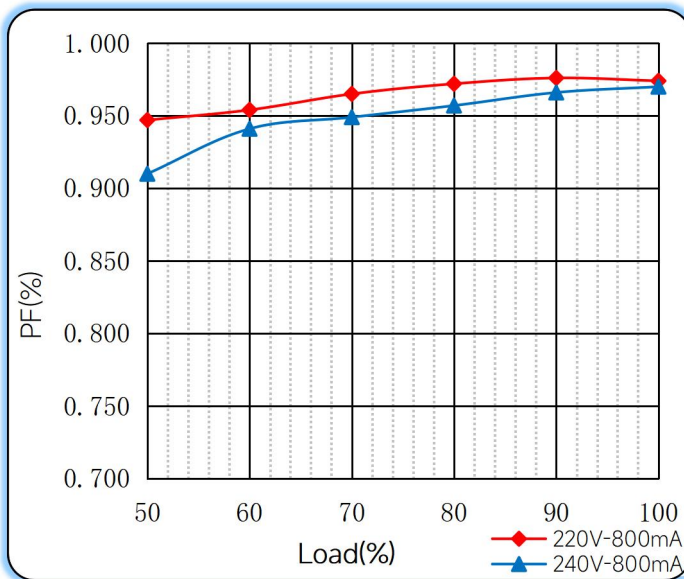
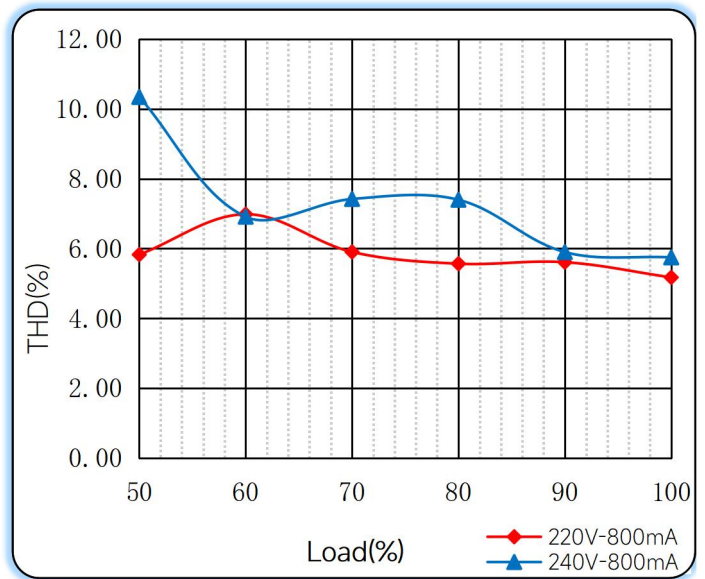
◆ Wiring diagram



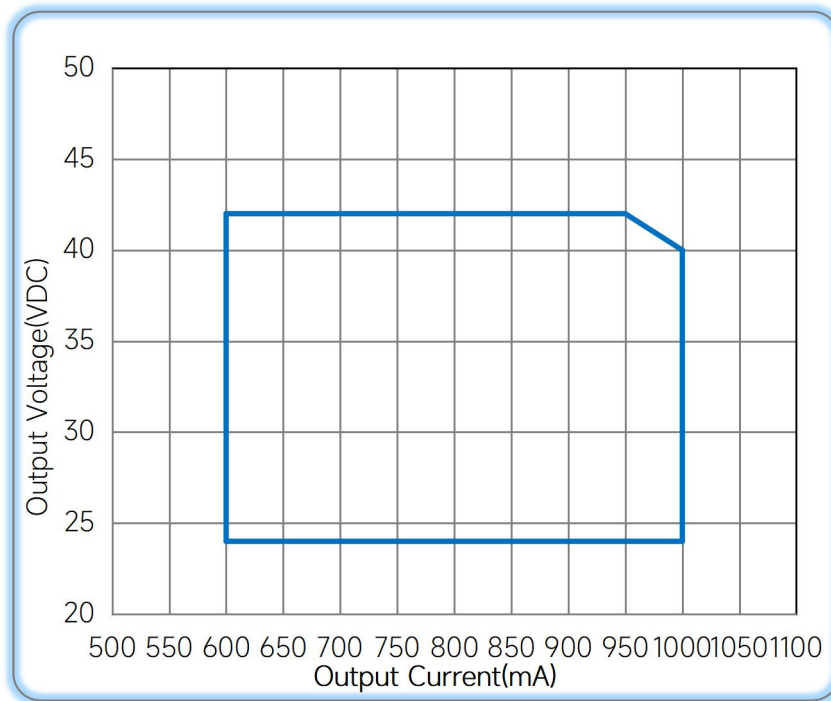
◆ 2D diagram

◆ 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 MS-40-800 LI, I_o=800mA

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	2023/05/23