

42W Constant Current Power Supply



■ Approve



Features

- Class II, SELV, Built-in/Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 88%
- 5 years warranty
- IP20

Applications

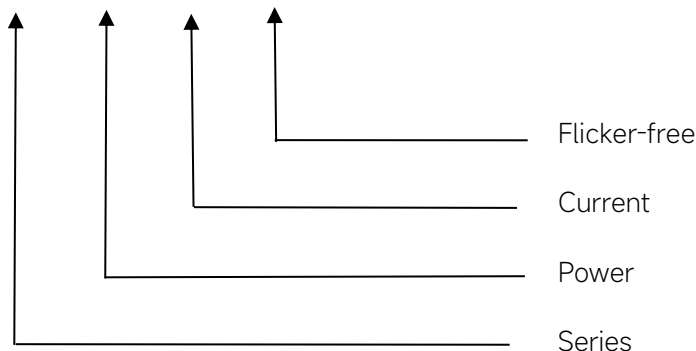
- LED panel, LED down light

◆ Description

FLS-42-1050 LD ADV is a 42W constant current LED driver with 300 to 1050mA output current and a forward voltage range from 9 to 52Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 97 x 43 x 30 mm. It is easy to integrate in LED Panel and down light products. The side covers are available as accessories and allow to use the LED driver independent.

◆ Model code

FLS-42-1050 LD ADV



◆ Specification

Output	Constant Current (mA)	300mA		800mA	850mA		1000mA	1050mA	
	Voltage Range(VDC)	9-52VDC				9-42VDC		9-40VDC	
	Unload voltage Max.(VDC)	60VDC							
	Current Accuracy	±7%	±5%						
	Output HF current ripple(≥1KHz)	±4%							
	Output LF current ripple(≤120Hz)	±3%							
	SVM	≤0.01							
	Pst	≤0.02							
	Flicker index	0.011							
	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)	176-264VDC							
	Frequency(Hz)	0/50/60 Hz							
	Displacement factor	≥0.9							
	Power Factor	0.95@Full load,230V							
	Input Current max	300mA							
	Start-up time	< 0.5S							
	No Load Power	≤0.5W							
	THD (Typ.)	10%@Full load,230V							
Protection	Over Load Protection	103-120%							
		YES/Auto Resume							
	Over Voltage Protection	63VDC							
		YES/Auto Resume							
	Short circuit Protection	YES/Auto Resume							
Over Temperature Protection	YES/Auto Resume								
Environment	Operating Temperature	-25°C~~+45°C							
	Humidity	20%-90%RH							
	Tc	80°C							
	Storage Temperature	-40°C~~+80°C							
	Life time	> 50000h@Tc=80°C							
Surface	Dimension	97X43X30mm (With side caps :131X43X30mm)							
standards	EN 61347-1,EN 61347-2-13;IEC 61347-1,IEC 61347-2-13;GB 19510.1,GB 19510.14;GB/T 17743,GB 17625.1 AS/NZS 61347.1,AS 61347.2.13;EN 62384;EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3;EN 61547								
Others	Surge	L-N:1kV, Conforms to class C							
	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.
- 3.Temperature test: tested at high temperature(45°C)/low temperature(-25°C)/normal temperature(25°C)
- 4.Data are typical values obtained from test samples
- 5.Switch and dimmer are not recommended to connect between this product output and luminaries

◆ Parameter

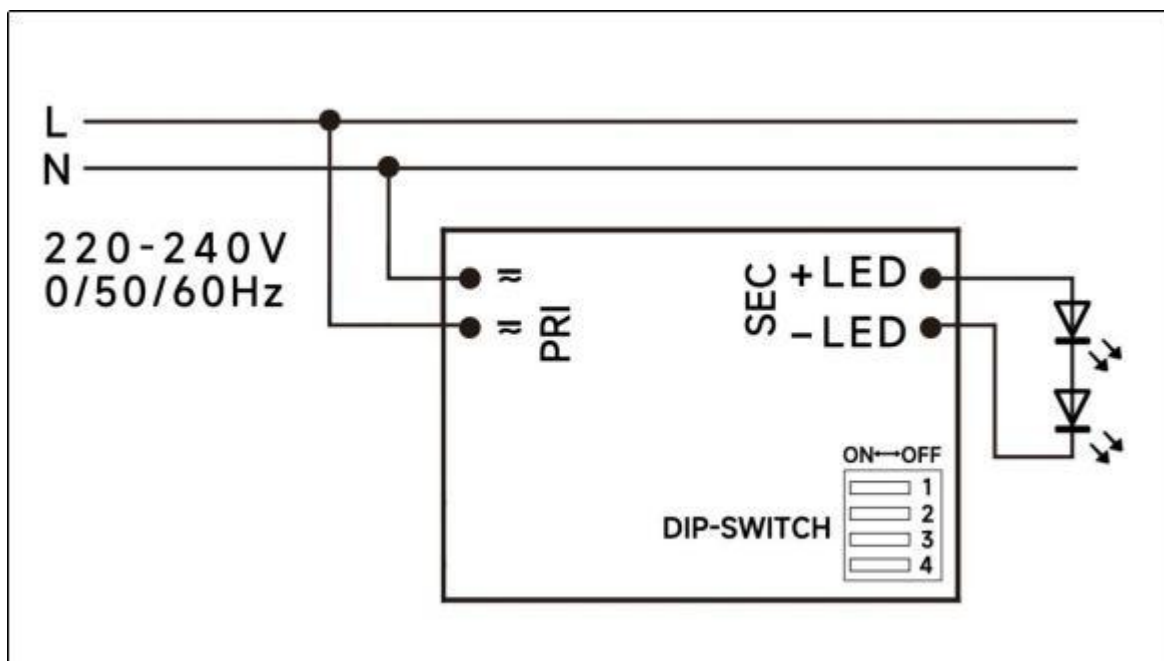
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	9-52VDC	60VDC	15.6	--	--	--	--
2	350mA			18.2	ON	--	--	--
3	400mA			20.8	--	ON	--	--
4	450mA			23.4	ON	ON	--	--
5	500mA			26	--	--	ON	--
6	550mA			28.6	ON	--	ON	--
7	600mA			31.2	--	ON	ON	--
8	650mA			33.8	ON	ON	ON	--
9	700mA			36.4	--	--	--	ON
10	750mA			39	ON	--	--	ON
11	800mA			41.6	--	ON	--	ON
12	850mA			35.7	ON	ON	--	ON
13	900mA	9-42VDC		37.8	--	--	ON	ON
14	950mA			39.9	ON	--	ON	ON
15	1000mA			42	--	ON	ON	ON
*16	1050mA	9-40VDC		42	ON	ON	ON	ON

* Factory default

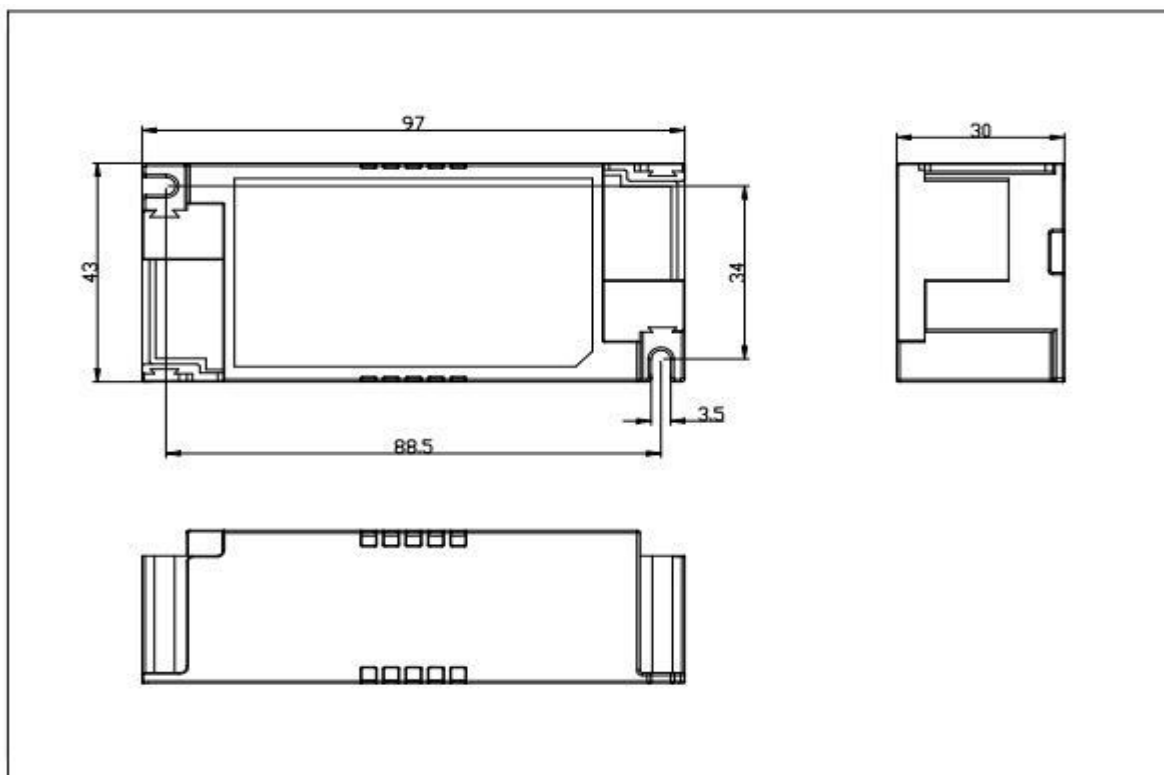
◆ Circuit Breaker

Ipeak	Twidth	B10	B16	B20	C10	C16	C20
5.88A	47.2μs	22pcs	36pcs	45pcs	22pcs	36pcs	45pcs

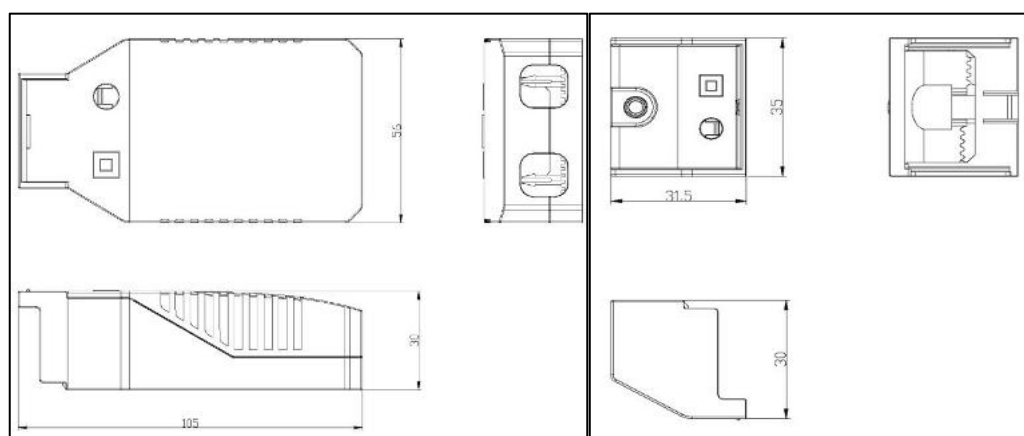
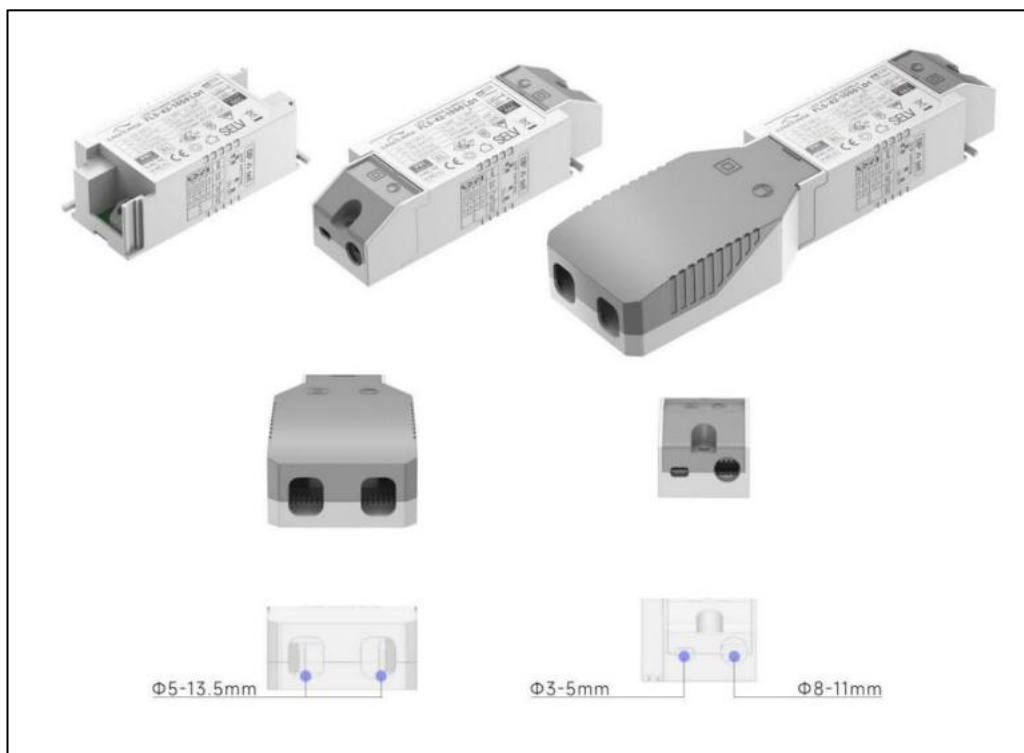
◆ Wiring diagram



◆ 2D diagram



With side caps



A caps

B caps



Top end caps coding: 132021T0079-1
 Bottom end caps coding: 132021T0033
 Strain relief coding: 132038T0046
 Terminal coding: 126016T0009



Top end caps coding: 132021T0080-1
 Bottom end caps coding: 132021T0035

◆ Wiring & Connections

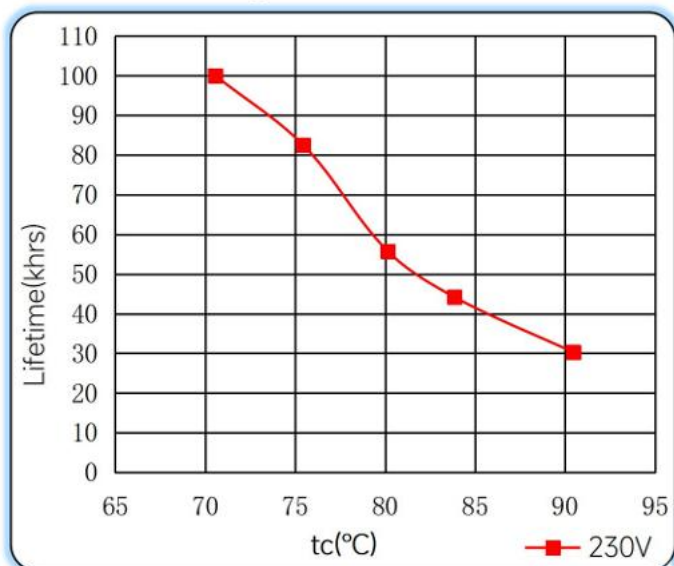
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ² (With A side caps: 0.75...2.5 mm ²)
	Input wire gauge	16...20 AWG (With A side caps: 14...20 AWG)
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge	16...20 AWG
	Output wire strip length	7...9mm

Common ways of wire clamping:

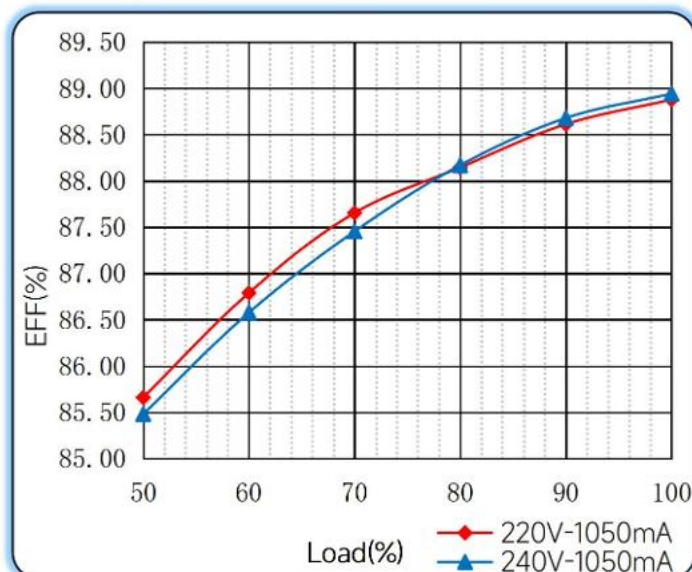
1. Tighten the screws to secure the side cover or clips, to clamp the cables
2. Through the main shell and side cover side teeth to clamp the cables

◆ Curve for FLS-42-1050 LD ADV, $I_o=1050\text{mA}$

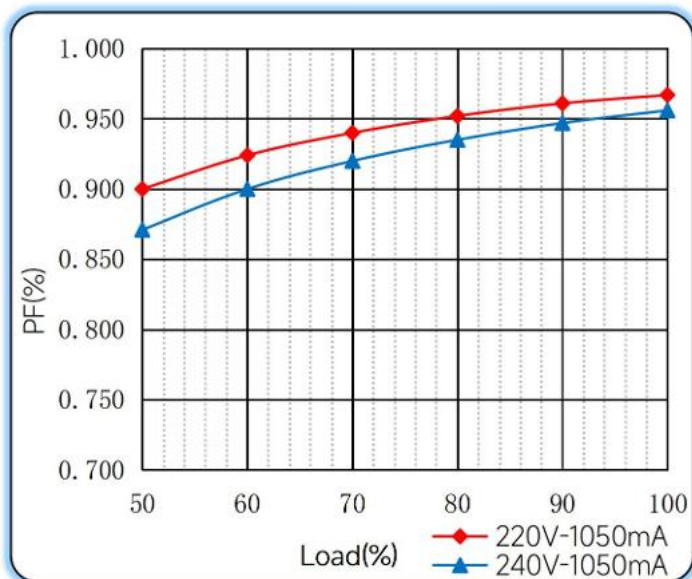
Lifetime vs. Temperature Curve



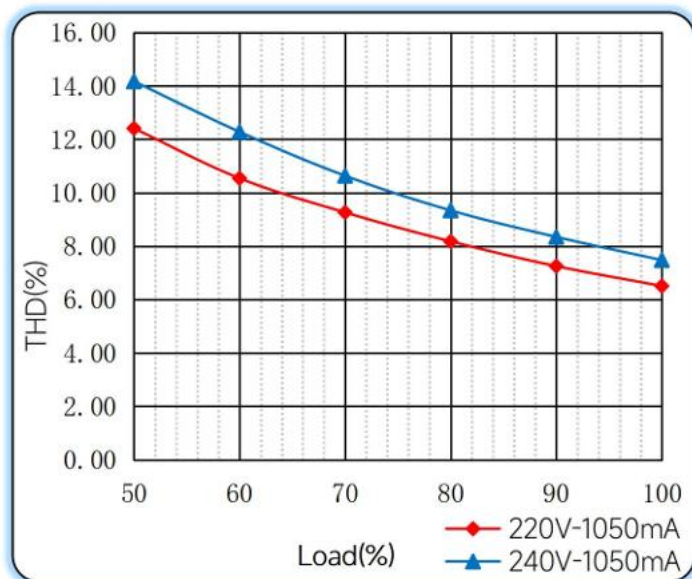
Efficiency vs. Load



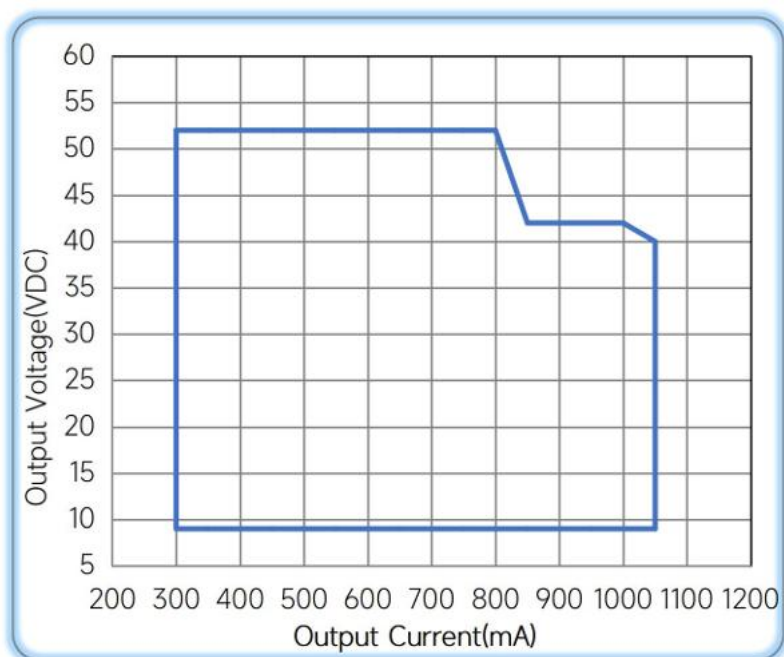
Power Factor Characteristics



THD vs. Load



◆ Operating window



— Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/13
Unload voltage Max.(VDC)	63V	60	B	2022/11/24
Current Accuracy	300mA@±5%	300mA@±7%	C	2023/09/14

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Manual