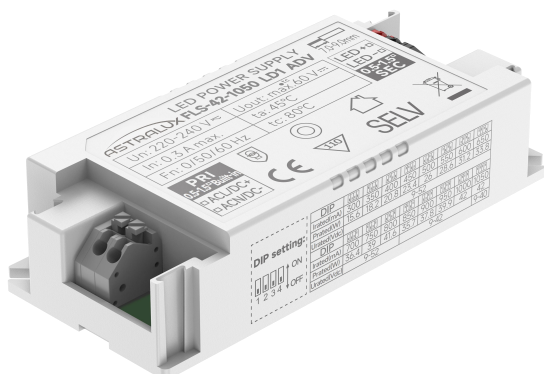


42W Constant Current Power Supply



■ Approve



Features

- Class II, SELV, built-in/independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.95
- Efficiency: 89%
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

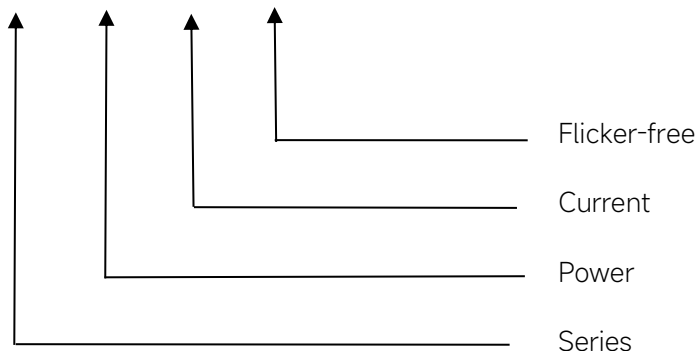
- LED panel, LED down light

◆ Description

FLS-42-1050 LD1 ADV is a 42W constant current LED driver with 300 to 1050mA output current and a forward voltage range from 9 to 40Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 98 x 43 x 22 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 LD1 ADV



◆ Specification

Output	Constant Current (mA)	300mA		800mA	850mA		1000mA	1050mA
	Voltage Range(VDC)	9-40VDC						
	Unload voltage Max.(VDC)	59VDC						
	Current Accuracy	±7%						
	Output HF current ripple(≥1KHz)	±4%						
	Output LF current ripple(≤120Hz)	±3%						
	SVM	≤0.4@Full Load						
	Pst	≤1@Full Load						
	Efficiency(Typ.)	89%						
Input	Rated input voltage(VAC)	220-240VAC						
	Range of input voltage(VAC)	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	≥0.9@full load, 230Vac						
	Power Factor	0.95@full load, 230Vac						
	Input Current max	0.28A max						
	Start-up time(AC mode)	< 0.5S						
	Start-up time(DC mode)	< 0.5S						
	No Load Power	≤0.5W						
	THD (Typ.)	<10%@full load, 230Vac						
Protection	Over Load Protection	103-150%						
		YES/Auto Resume						
	Over Voltage Protection	59VDC						
		YES/Auto Resume						
	Short circuit Protection	YES/Auto Resume						
capability	Over Temperature Protection	YES/Auto Resume						
	Surge capability (L-N)	1KV						
Environment	Operating Temperature	-25°C~+45°C						
	Humidity	20%-90%RH						
	Tc	85°C						
	Storage Temperature	-20°C~+60°C						
	Life time	> 50000h@Tc=80°C						
	Noise	≤25dB(A)@20cm						
Surface	Dimension	98X43X22mm(LXWXH)mm						
	material	PC						

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	
	Surge capability (L-N)	1kV
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	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.The over-temperature protection of the product is provided by the IC.	

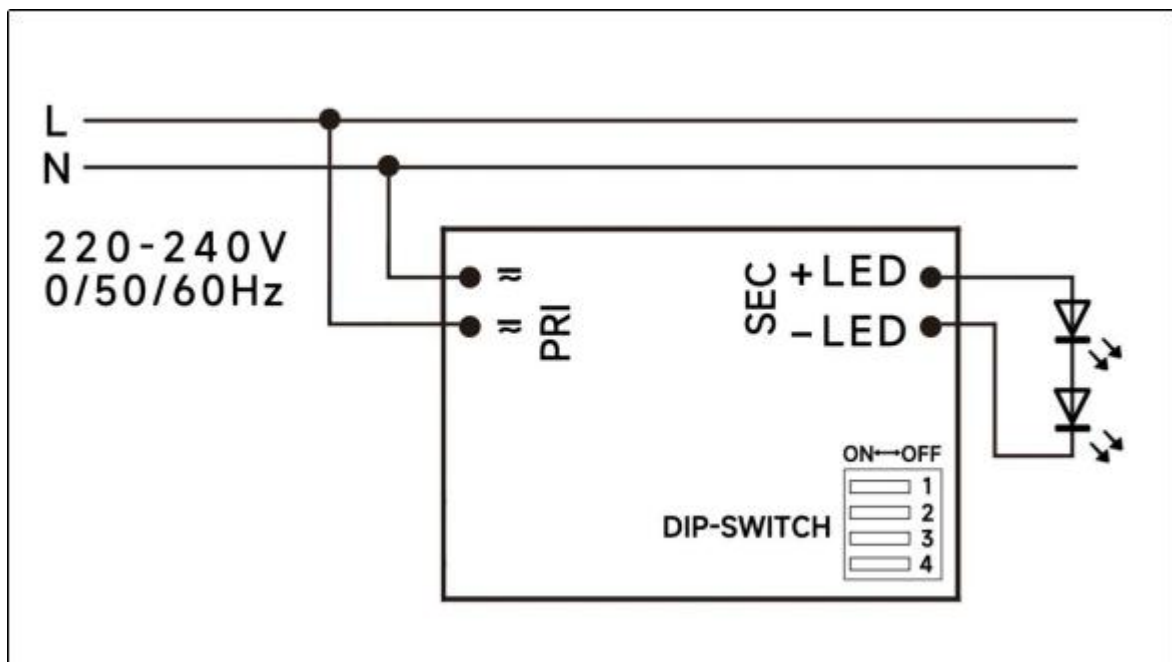
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	9-40VDC	59VDC	12W	--	--	--	--
2	350mA			14W	--	--	--	ON
3	400mA			16W	--	--	ON	--
4	450mA			18W	--	--	ON	ON
5	500mA			20W	--	ON	--	--
6	550mA			22W	--	ON	--	ON
7	600mA			24W	--	ON	ON	--
8	650mA			26W	--	ON	ON	ON
9	700mA			28W	ON	--	--	--
10	750mA			30W	ON	--	--	ON
11	800mA			32W	ON	--	ON	--
12	850mA			34W	ON	--	ON	ON
13	900mA			36W	ON	ON	--	--
14	950mA			38W	ON	ON	--	ON
15	1000mA			40W	ON	ON	ON	--
*16	1050mA			42W	ON	ON	ON	ON

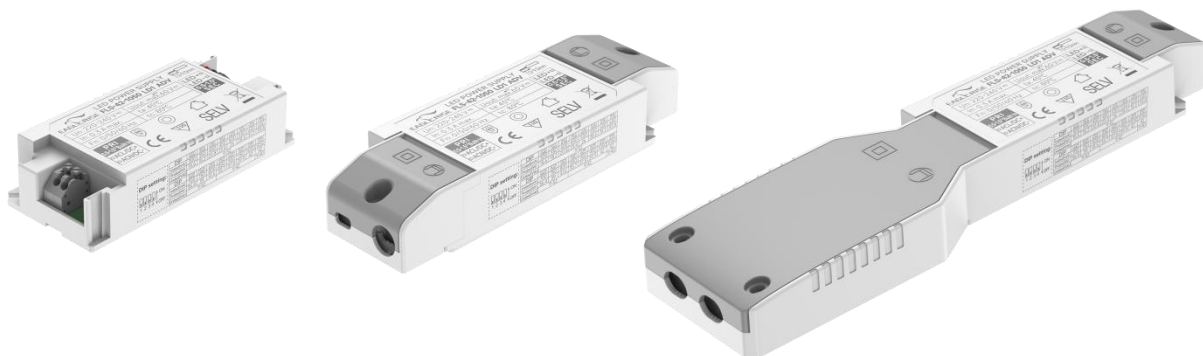
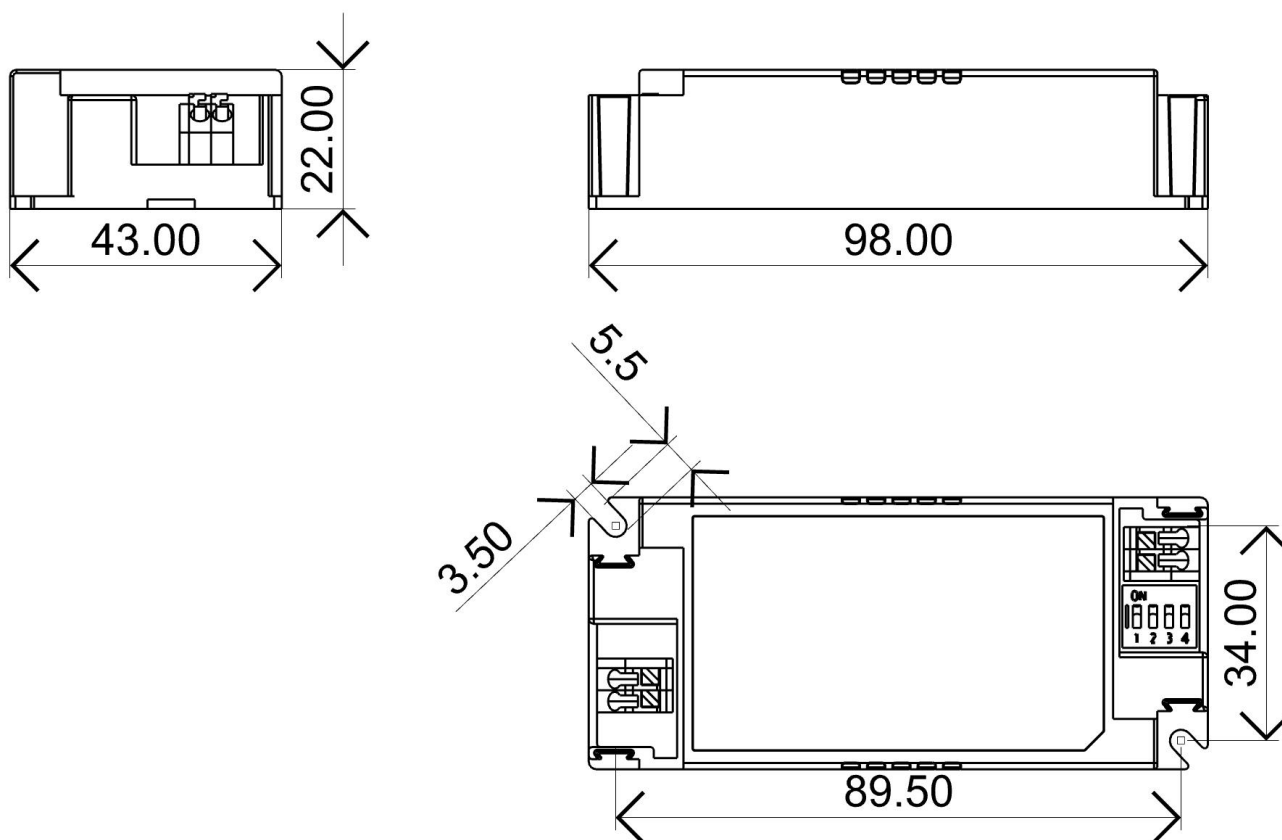
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
5.88A	47.2μs	22pcs	36pcs	45pcs	22pcs	36pcs	45pcs

◆ Wiring diagram



◆ 2D diagram



◆ Wiring & Connections

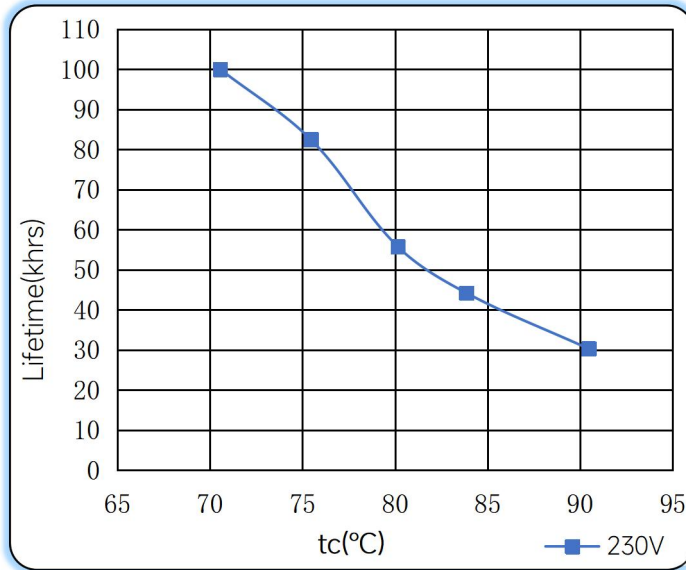
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ² (With A side caps: 0.75...2.5 mm ²)
	Input wire gauge.	16...20 AWG (With A side caps: 14...20 AWG)
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire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

Common ways of wire clamping:

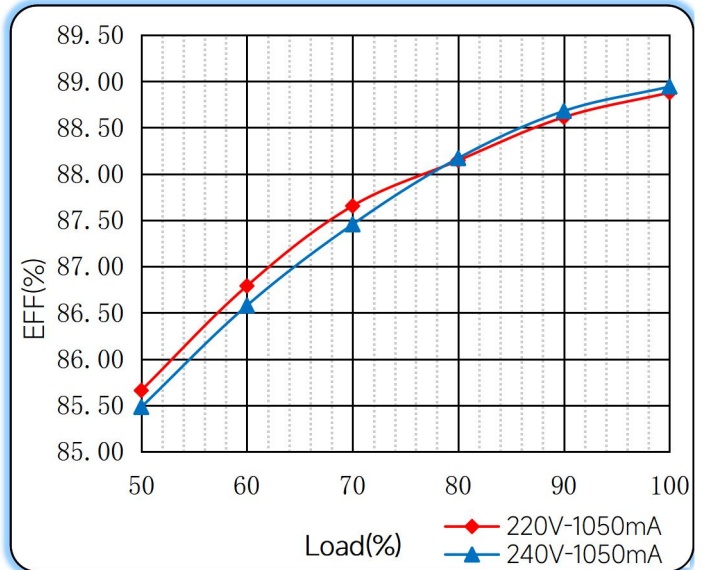
1. Tighten the screws to secure the side cover or clips, to clamp the cables
2. Through the main shell and side cover side teeth to clamp the cables

◆ Curve for FLS-42-1050 LD1 ADV, $I_o=1050\text{mA}$

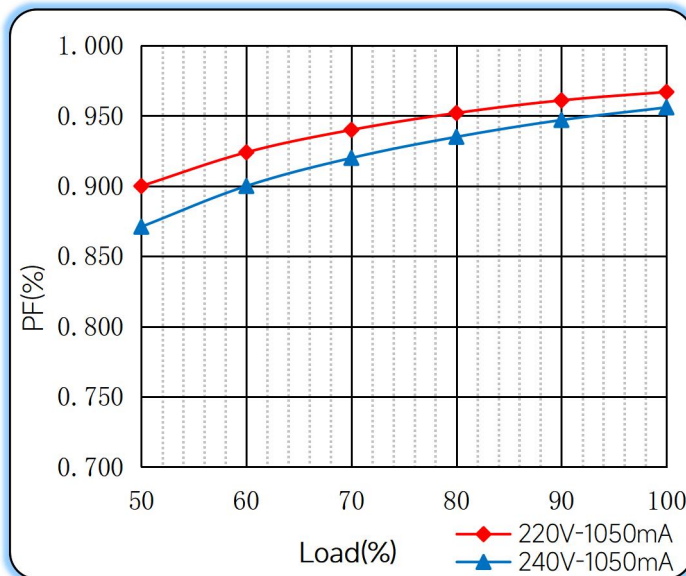
Lifetime vs. Temperature Curve



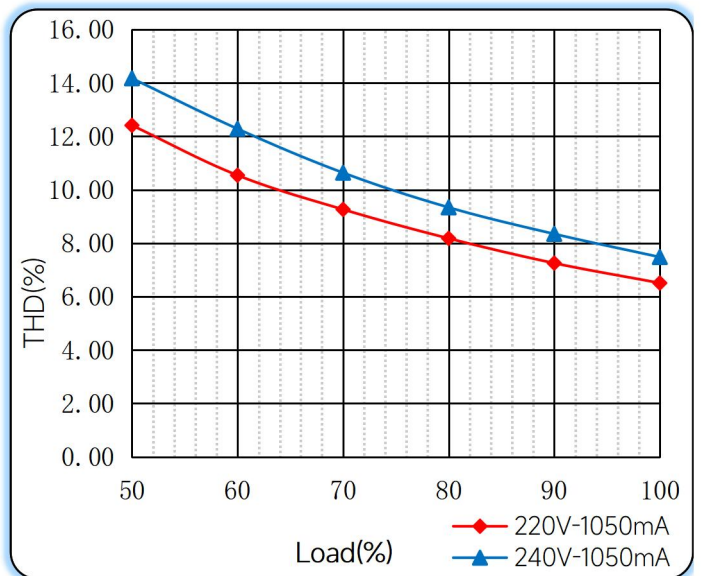
Efficiency vs. Load



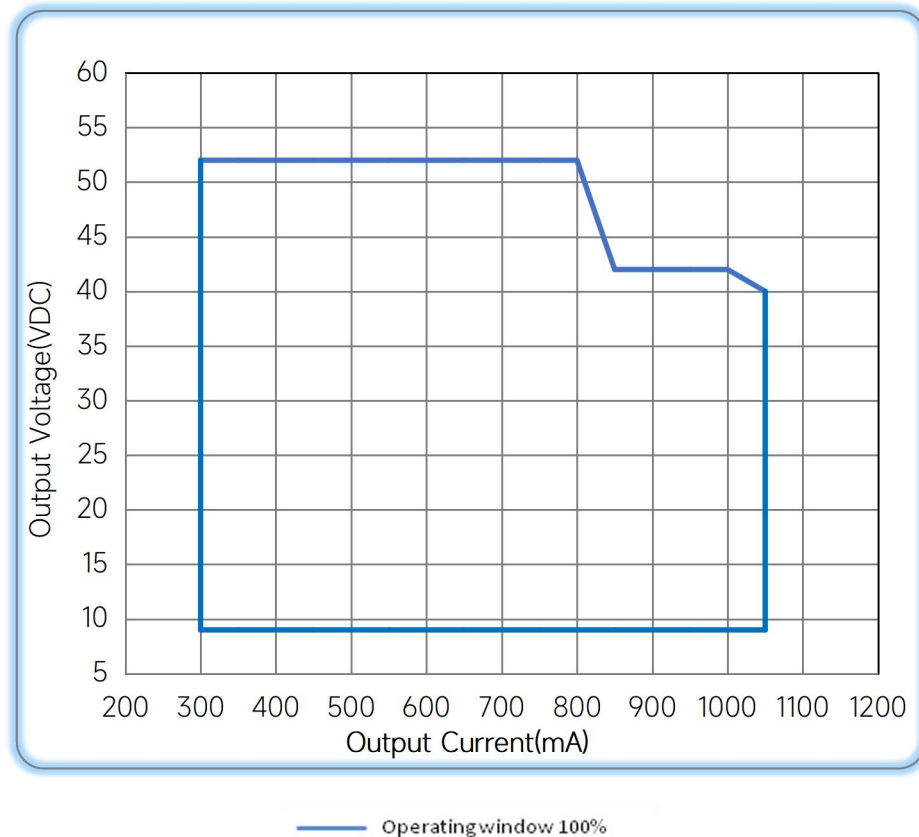
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/10/13
Specification		Updated	B	2023/01/30
Specification		Updated	C	2025/08/16

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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