

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 (Typ.)
- Efficiency: $\geq 89\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

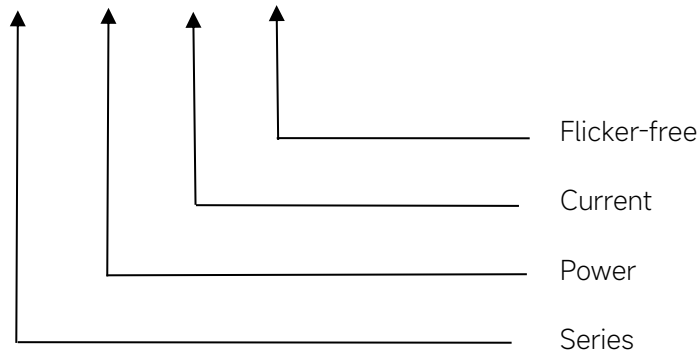
- LED panel, LED down light

◆ Description

FLS-42-1050 LD PRO is a 42W constant current LED driver with 150 to 1050mA output current and a forward voltage range from 2.5 to 42Vdc. 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 LD PRO



◆ Specification

Output	Constant Current (mA)	150mA	200mA	250mA	300mA	1000mA	1050mA	
	Voltage Range(VDC)	2.5-42V							2.5-40V
	Unload voltage Max.(VDC)	59V							
	Current Accuracy	±7%		±6%	±5%				
	Output HF current ripple(≥1KHz)	≤±5%							
	Output LF current ripple(≤120Hz)	≤±3%							
	SVM	≤0.4							
	Pst	≤1							
	Efficiency(Typ.)	≥89% @Full Load,230V							
	EOFI	100%							
Input	Rated input voltage(VAC)	220-240V							
	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	≥0.95 @Full Load,230V							
	Power Factor	≥0.95 @Full Load,230V							
	Input Current max	0.27Amax							
	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		>59V YES/Auto Resume							
Short circuit Protection		YES/Auto Resume							
Over Temperature Protection		YES/Auto Resume							
capability	Surge capability (L-N)	1KV							
	Surge capability (L/N-Ground)	2KV							
Environment	Operating Temperature	-20°C~+45°C@150-950mA;-20°C~+40°C@1000-1050mA							
	Humidity	20%-90%RH							
	Tc	85°C							
	Storage Temperature	-25°C~+60°C							
	Life time	> 50000h@Tc=85°C							
	Ripple&Noise	≤20dB(A)@10cm							
Surface	Dimension	98X43X22mm (With sidecaps):132X43X22mm							
	material	PC							

Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2-13; EN62384;
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-2,3,4,5,6,8,11, EN61547;EN61000-4-5
	Energy Efficiency	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>	

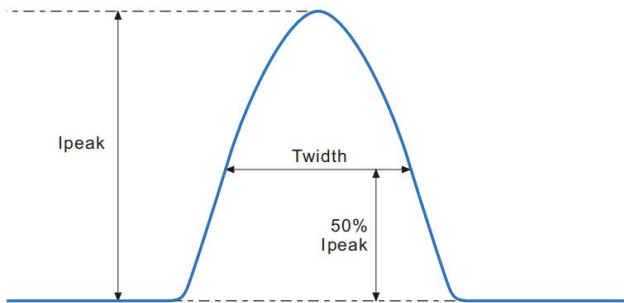
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	150mA	2.5-42VDC	59V	6.3W	--	--	--	--
2	200mA			8.4W	ON	--	--	--
3	250mA			10.5W	--	ON	--	--
4	300mA			12.6W	ON	ON	--	--
5	350mA			14.7W	--	--	ON	--
6	400mA			16.8W	ON	--	ON	--
7	500mA			21W	--	ON	ON	--
8	600mA			25.2W	ON	ON	ON	--
9	700mA			29.4W	--	--	--	ON
10	750mA			31.5W	ON	--	--	ON
11	800mA			33.6W	--	ON	--	ON
12	850mA			35.7W	ON	ON	--	ON
13	900mA			37.8W	--	--	ON	ON
14	950mA			39.9W	ON	--	ON	ON
15	1000mA			42W	--	ON	ON	ON
*16	1050mA	2.5-40VDC		42W	ON	ON	ON	ON

* Factory default

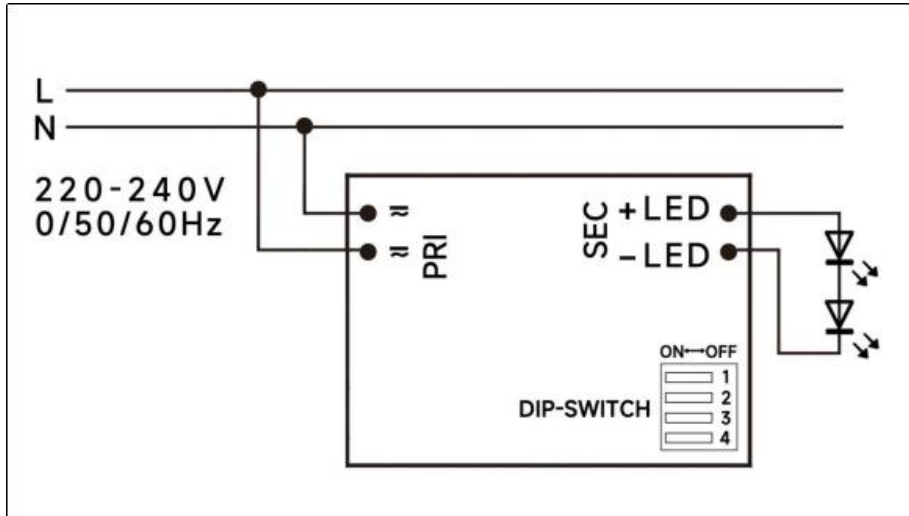
◆ Inrush Current

I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
5.38A	32 μ s	29pcs	47pcs	59pcs	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

◆ Label

LED POWER SUPPLY
EAGLERISE FLS-42-1050 LD PRO

7.0-9.0mm

U _N : 220-240 V ~	f _N : 0/50/60 Hz
U _N : 198-254 V ~	U _{out} : max.59V ~
I _N : 0.27A max.	•tc t _C : 85°C λ: 0.2C-0.95
ta: 40°C (≥1000mA)	ta: 45°C (<1000mA)

PRI
 0.5-1.5[□]
 Built-in

EL

SELV

AC-L
 AC-N

CE

DIP								
I _{rated} (mA)	150	200	250	300	350	400	500	600
P _{rated} (W)	6.3	8.4	10.5	12.6	14.7	16.8	21	25.2
U _{rated} (Vdc)	2.5-42							
DIP								
I _{rated} (mA)	700	750	800	850	900	950	1000	1050
P _{rated} (W)	29.4	31.5	33.6	35.7	37.8	39.9	42	42
U _{rated} (Vdc)	2.5-42							2.5-40

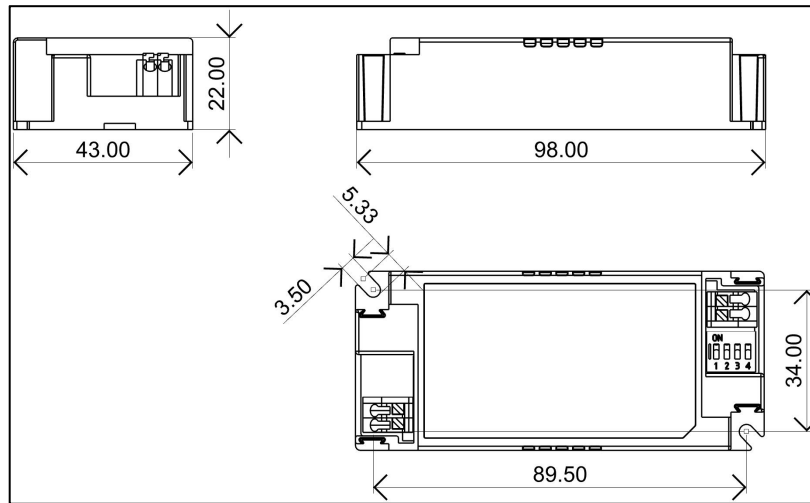
DIP set

DIP setting:

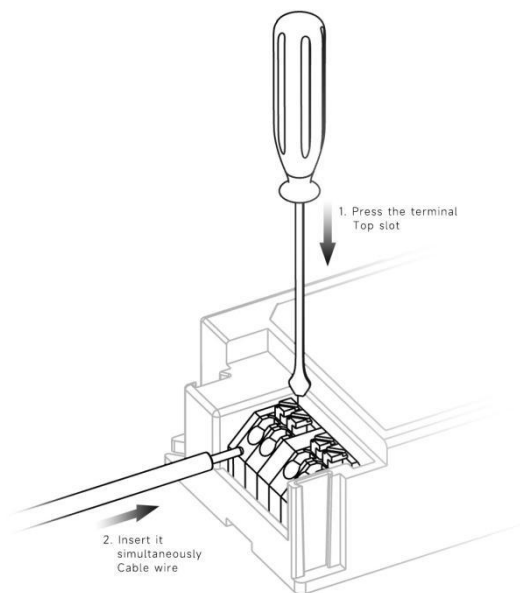
ON
 ↑
 OFF

1 2 3 4

◆ 2D diagram



Termina

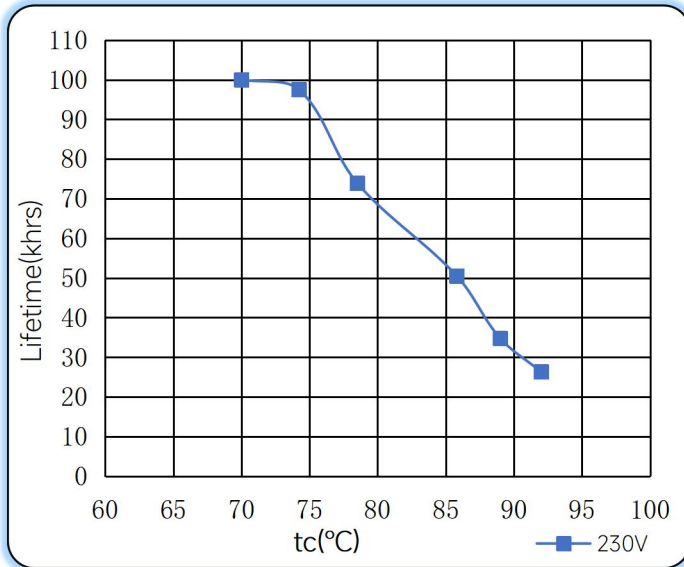


◆ Wiring & Connections

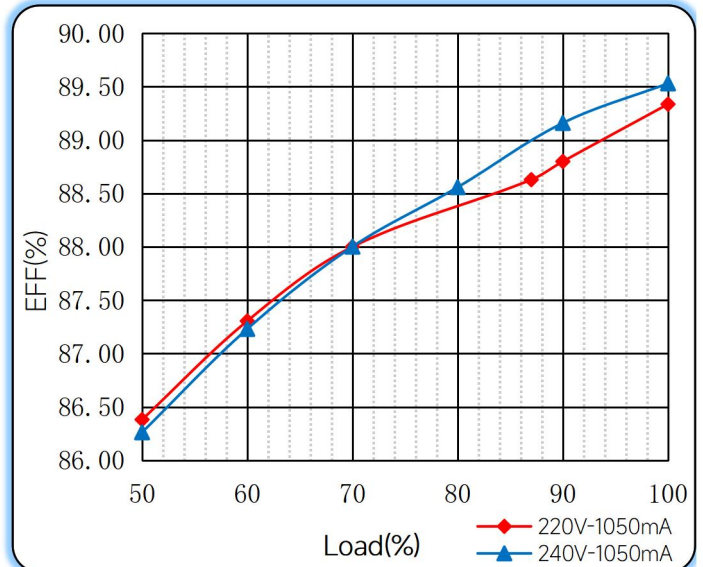
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for FLS-42-1050 LD PRO, I_o=1050mA

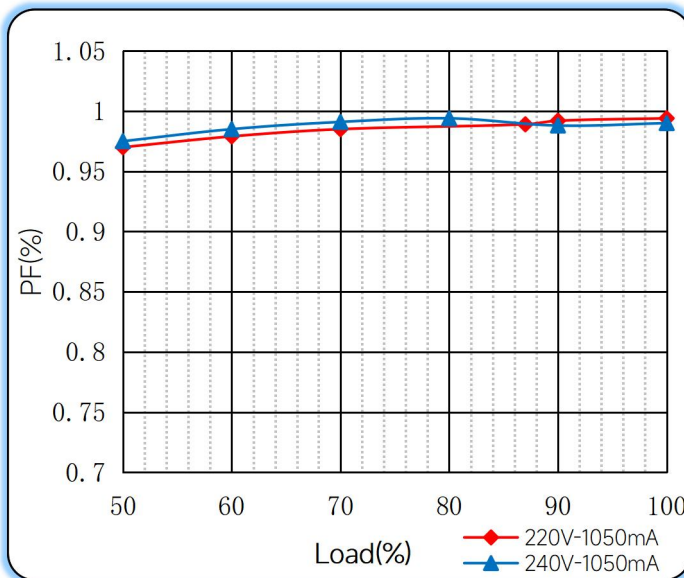
Lifetime vs. Temperature Curve



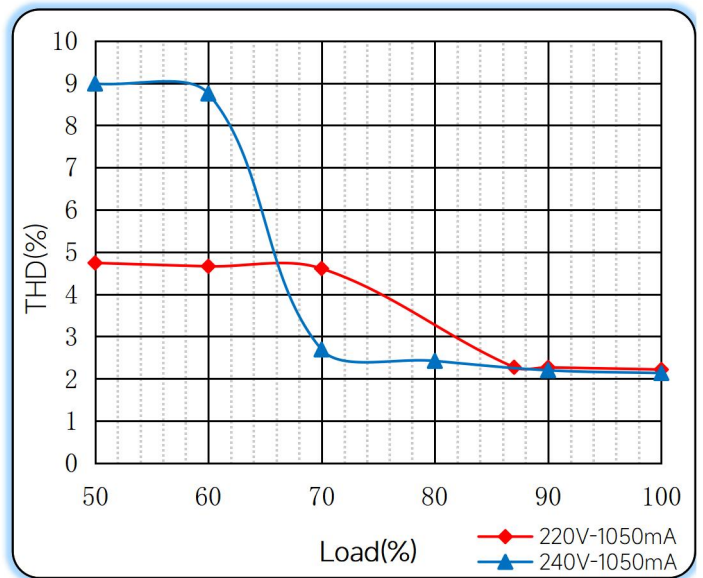
Efficiency vs. Load



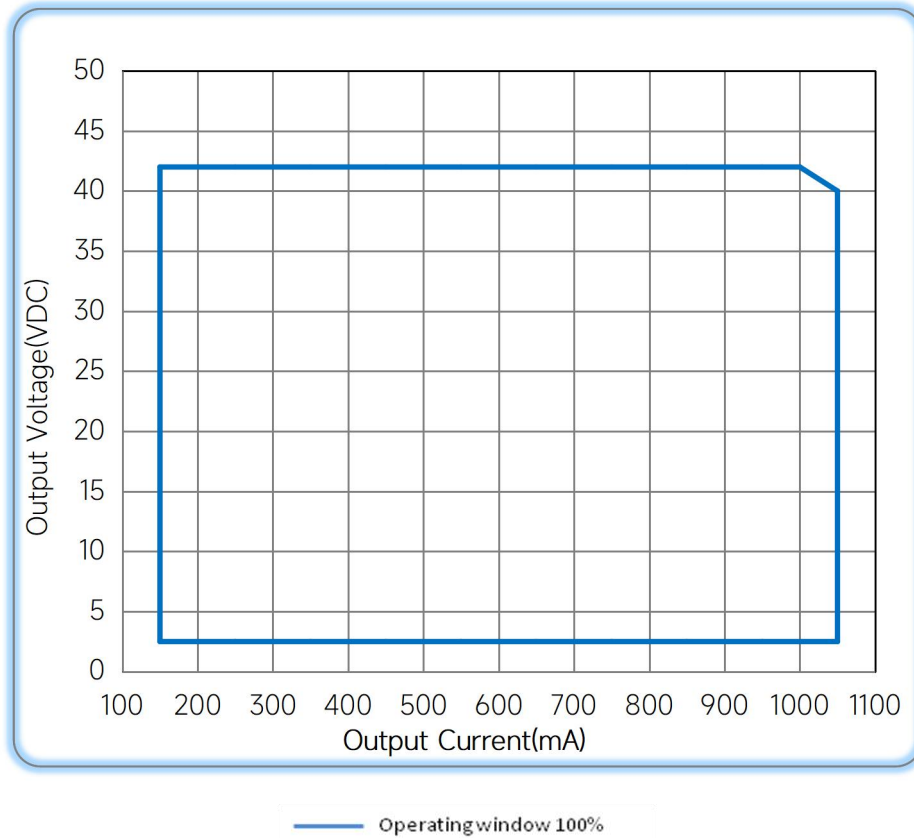
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/06/07
Input Current max		0.27A Max	B	2023/06/08
Lable			C	203/07/19

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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EAGLERISE



Manual