

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

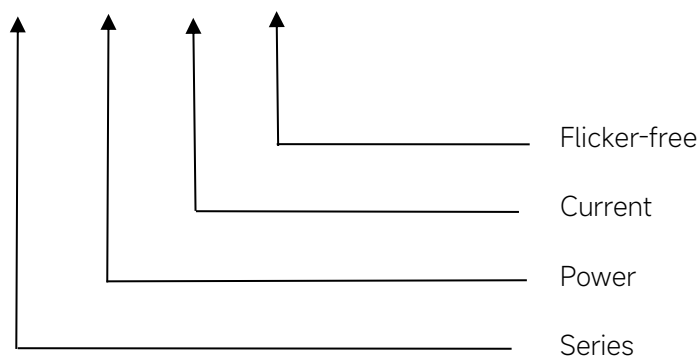
- LED panel, LED down light

◆ 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)	220-240VAC						
	Range of input voltage(VAC)	198-264VAC						
	Rated of input voltage(VDC)	198-254VDC						
	Range of input voltage(VDC)	198-280VDC						
	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@150-1000mA;-20°C~~+40°C@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;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	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.Switch and dimmer are not recommended to connect between this product output and luminaries. 4.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.	

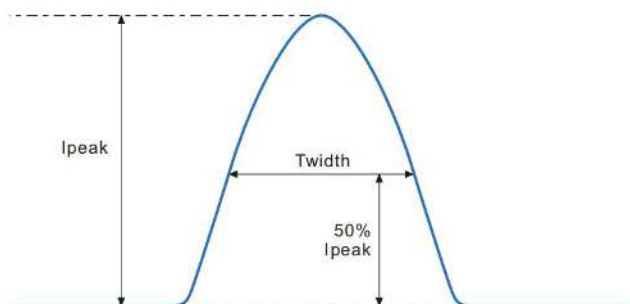
◆ Parameter

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

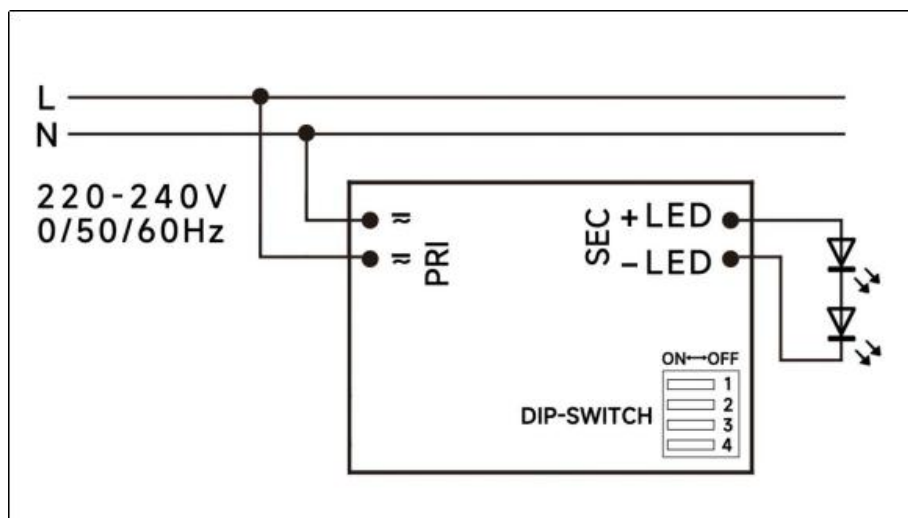
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
5.38A	32μs	29pcs	47pcs	59pcs	29pcs	47pcs	59pcs



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.	•t _c t _c : 85°C λ: 0.2C-0.95
t _a : 40°C (≥1000mA)	t _a : 45°C (<1000mA)

PRI
0.5-1.5"
Built-in

□ AC-L
□ AC-N

EL

CE

17

110

SELV

110

LED+ □
LED- □
0.5-1.5"
SEC

7.0-9.0mm

DIP	0000	0001	0010	0011	0100	0101	0110	0111
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	1111	1110	1011	1010	1001	1000	0111	0110
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

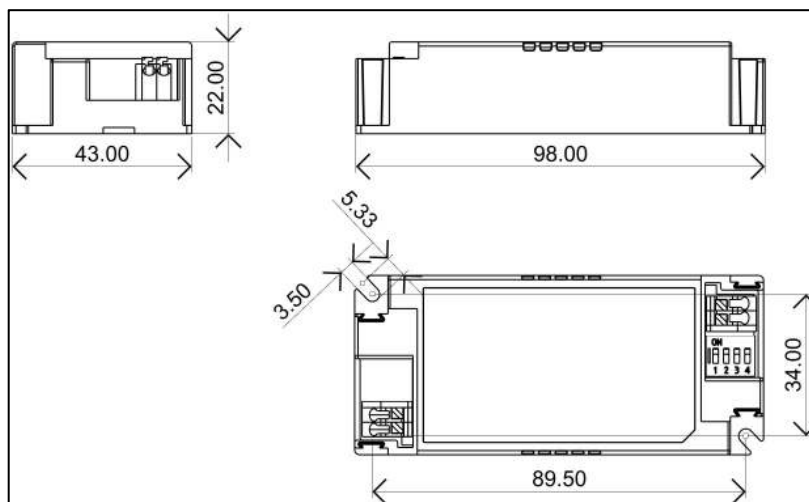
DIP setting:

1 2 3 4

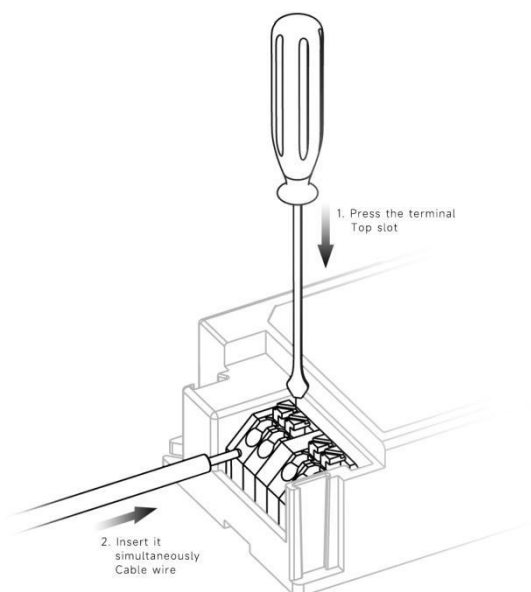
ON ↑

OFF ↓

◆ 2D diagram



Termina

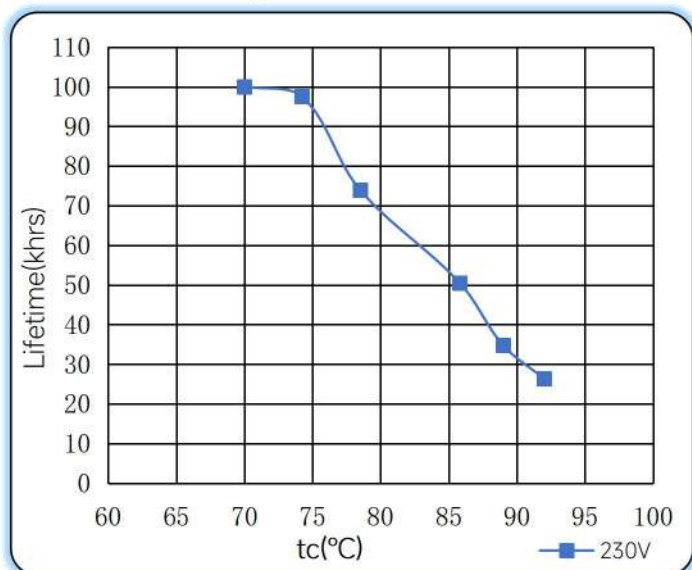


◆ Wiring & Connections

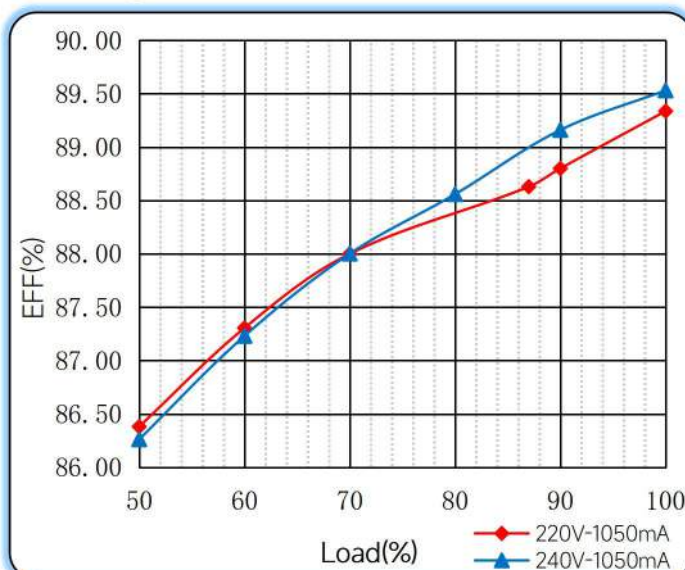
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

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

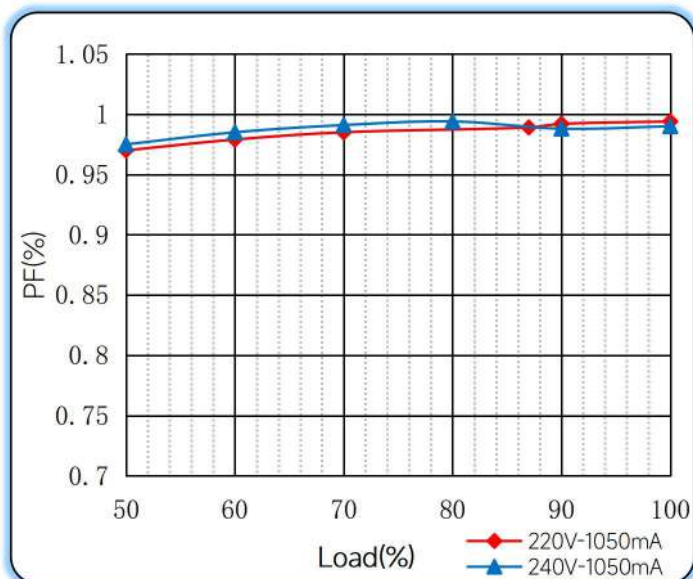
Lifetime vs. Temperature Curve



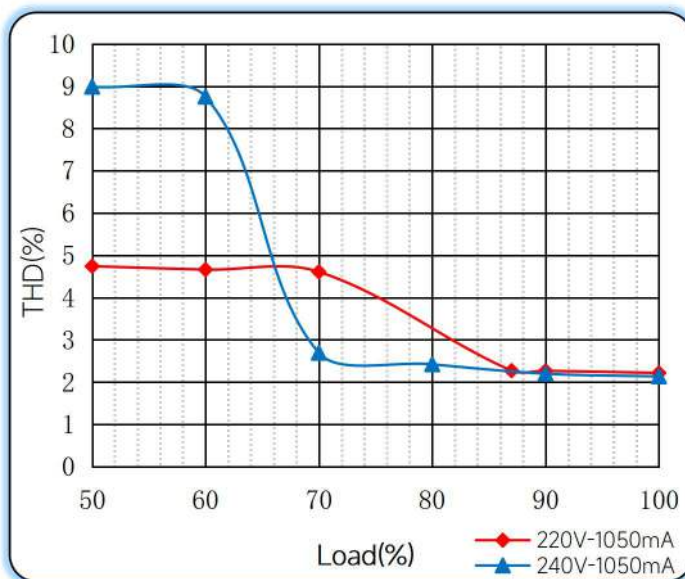
Efficiency vs. Load



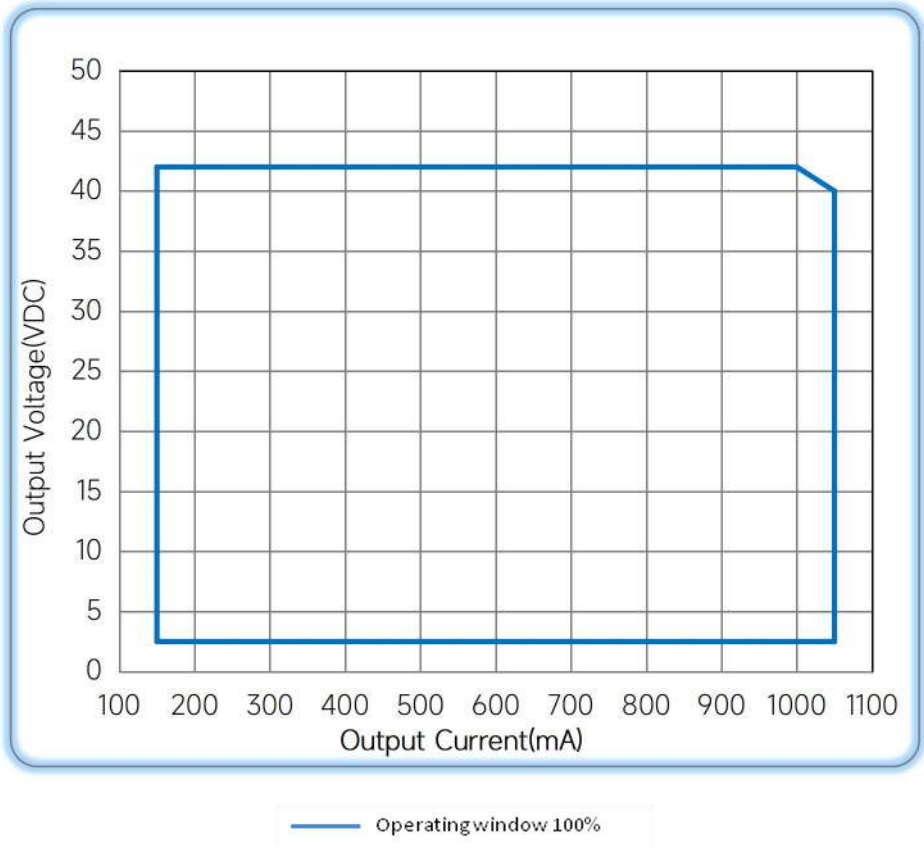
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	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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