

18W Constant Current Power Supply



■ Approve



Features

- For luminaires of protection Class II, SELV, Independent
- Input Voltage: 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: ≥ 0.95 (Typ.)
- Efficiency: $\geq 85\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

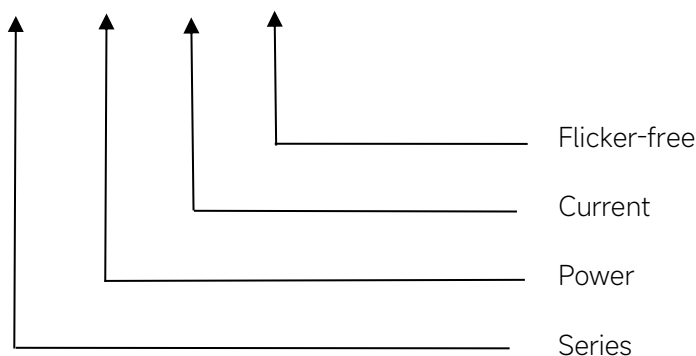
- LED panel, LED down light

◆ Description

FLS-18-1050 LA is a 18W constant current LED driver with 550 to 1050mA output current and a forward voltage range from 2.5 to 33Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 115 x 30 x 20.5 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-18-1050 LA



◆ Specification

Output	Constant Current (mA)	550mA	600mA	650mA	700mA	...	1050mA
	Voltage Range(VDC)	2.5-33V	2.5-30V	2.5-27V	2.5-26V	...	2.5-17V
	Unload voltage Max.(VDC)	50VDC					
	Current Accuracy	±5%					
	Output LF current ripple(≤120Hz)	≤±5%					
	SVM	≤0.4					
	Pst	≤1					
	Efficiency(Typ.)	≥85% @Full Load,230V			≥82% @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	0.125A Max.					
	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	>50VDC					
		YES/Auto Resume					
	Short circuit Protection	YES/Auto Resume					
capability	Surge capability (L-N)	1KV					
Environment	Operating Temperature	-20℃~+45℃					
	Humidity	20%-90%RH					
	Tc	85℃					
	Storage Temperature	-25℃~+60℃					
	Life time	> 50000h@Tc=80℃					
	Ripple&Noise	≤20dB(A)@20cm					
Surface	Dimension	115X30X20.5mm					
	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	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. 5.The over-temperature protection of the product is provided by the IC. 6.Working temperature during DC input was tested at Ta=40°C.	

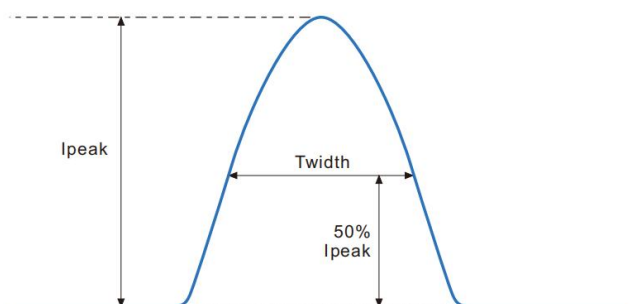
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	550mA	2.5-33V	50VDC	18.2W	--	--	--	--
2	600mA	2.5-30V		18W	ON	--	--	--
3	650mA	2.5-27V		17.6W	--	ON	--	--
4	700mA	2.5-26V		18.2W	--	--	ON	--
5	800mA	2.5-22V		17.6W	--	ON	ON	--
6	850mA	2.5-21V		17.9W	ON	ON	ON	--
7	900mA	2.5-20V		18W	--	--	ON	ON
*8	1050mA	2.5-17V		17.9W	ON	ON	ON	ON

* Factory default

◆ Inrush Current

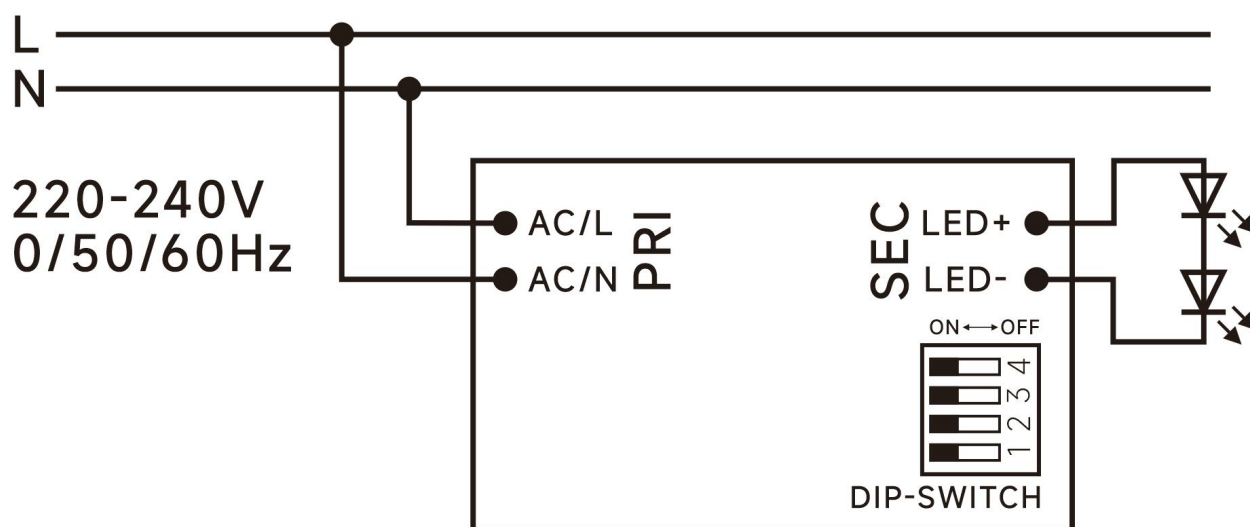
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
2.58A	47.2 μ s	64pcs	102pcs	128pcs	64pcs	102pcs	128pcs



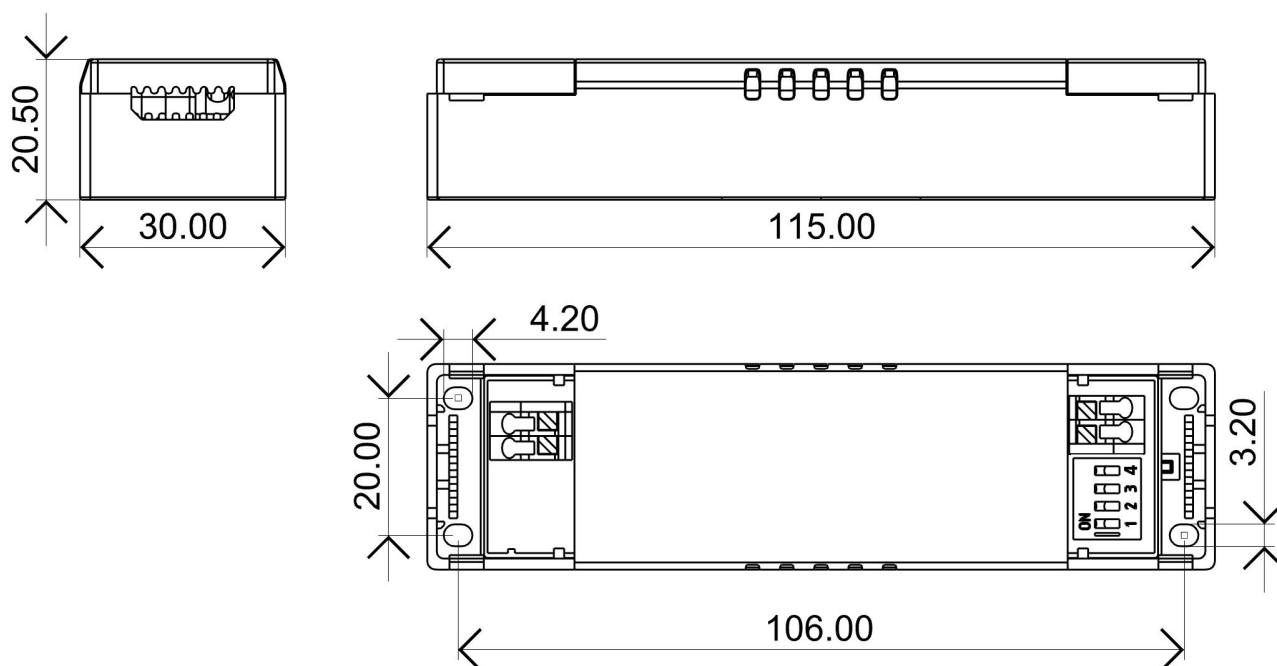
Remarks:

- 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.

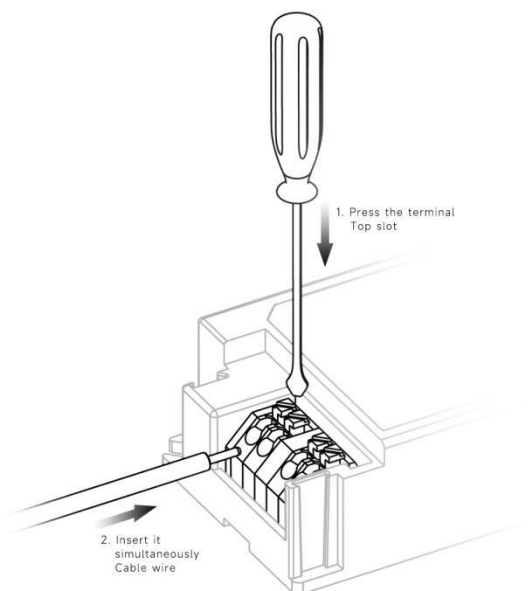
◆ Wiring diagram



◆ 2D diagram



Terminal



◆ Wiring & Connections

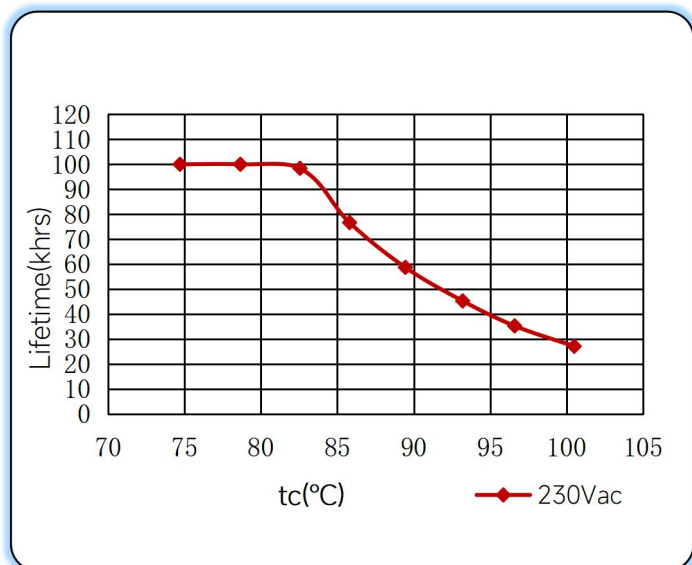
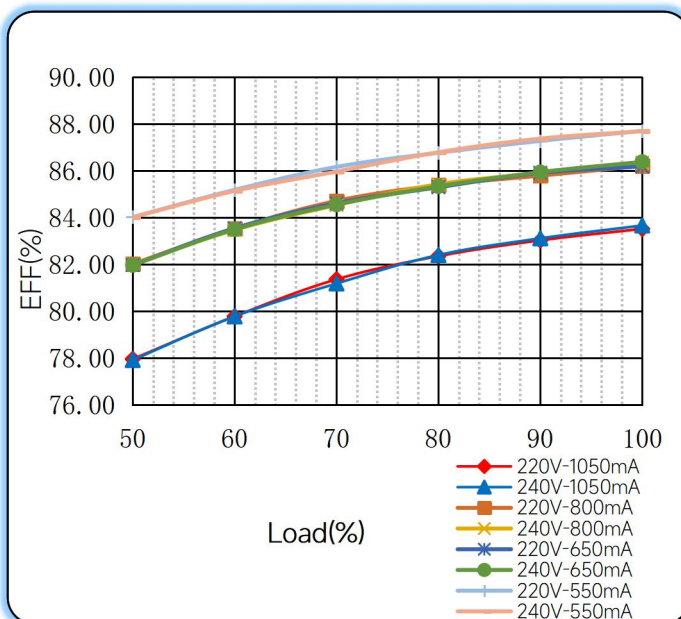
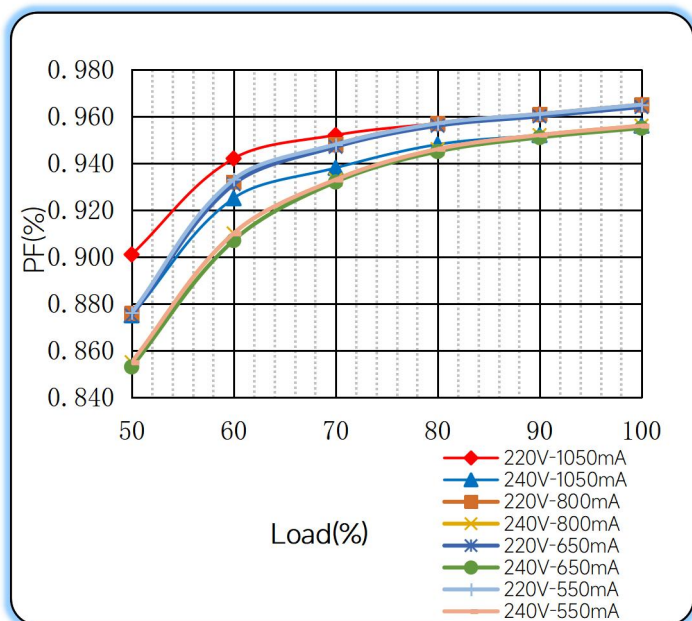
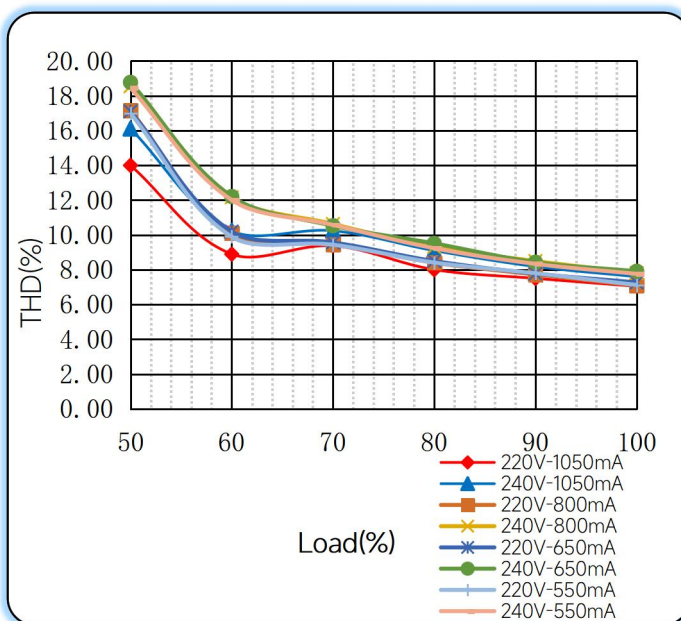
Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ²
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

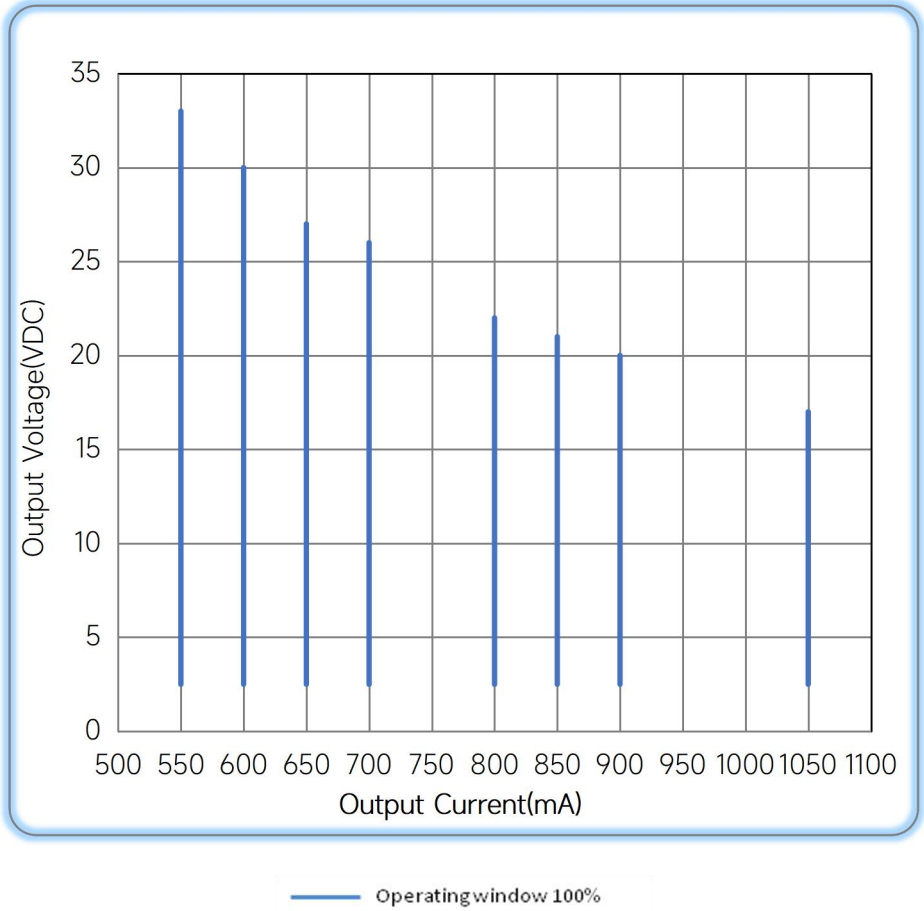
◆ Packaging

Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
FLS-18-1050 LA	115x30x20.5	0.061	370x277x215	243	14.8	15.6

◆ Curve for FLS-18-1050 LA, $I_o=550/650/800/1050\text{mA}$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/05/19

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

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