

80W Constant Current – DIP-Switch



■ Approve



Features

- Class I, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor > 0.95
- Efficiency ≥90%
- 5 years warranty

Applications

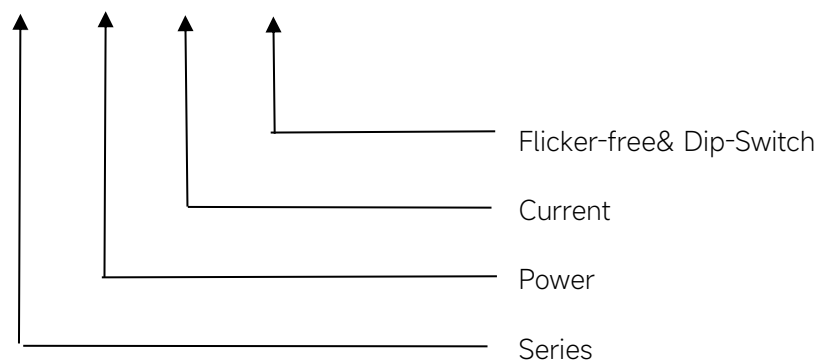
- Linear light

◆ Description

FMS-80-1600 LD is an 80W constant current LED driver that operates from 198-264Vac input with 1200 to 1600mA output current. The output current is selectable by DIP Switch. With it's dimensions from 280 x 30 x 21mm it is easy to integrate in LED linear light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

FMS-80-1600 LD



◆ Specification

Output	Constant Current	1200mA	1300mA	1400mA	1500mA	1600mA
	Voltage Range	36-52VDC				36-50VDC
	Unload voltage Max.	63VDC				
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±3%				
	Output LF current ripple(≤120Hz)	±3%				
	SVM	≤0.4@Full Load				
	Pst	≤1@Full Load				
	Efficiency(Typ.)	90%				
Input	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	Frequency(Hz)	50/60 Hz				
	Power Factor	> 0.95C				
	Input Current max	0.53A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	< 15%.				
Protection	Over Load Protection	103-120%				
		YES/Auto Resume				
	Over Voltage Protection	> 60VDC				
		YES/Auto Resume				
	Short circuit Protection	YES/Auto Resume				
Environment	Operating Temperature	-20°C~+50°C				
	Humidity	20%-90%RH				
	Tc	80°C				
	Storage Temperature	-25°C~+60°C				
	Life time	> 50000h@Tc=65°C,230VAC				
Surface	Dimension	280X30X21(LXWXH)mm				
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;					
Others	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.					

◆ Parameter

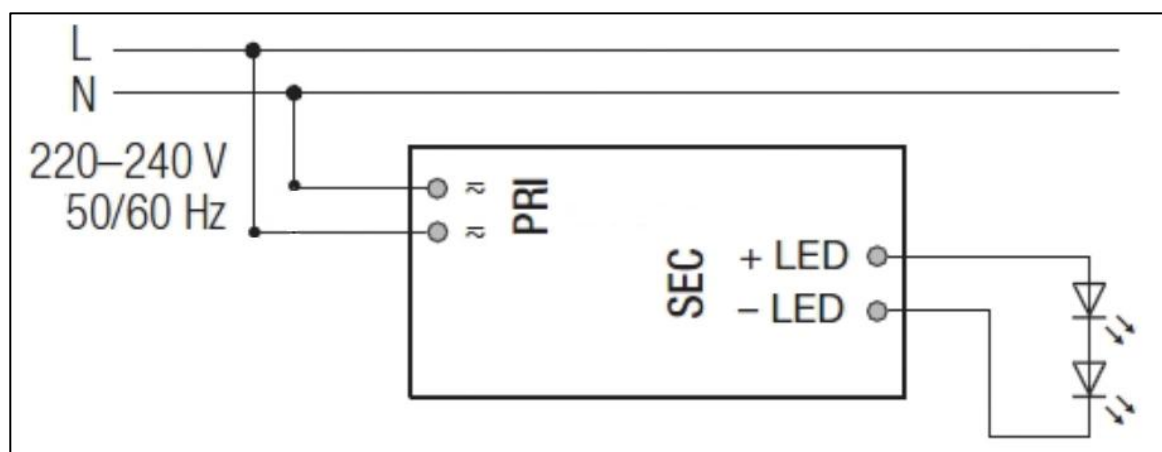
Number	Output				Switch position		
	Current (mA) I1+I2	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3
1	1200mA	36-52VDC	63	62.4W	--	--	--
2	1300mA			67.6W	--	--	ON
3	1400mA			72.8W	--	ON	--
4	1500mA			78W	--	ON	ON
5	1600mA*	36-50VDC		80W	ON	ON	ON

* Factory default

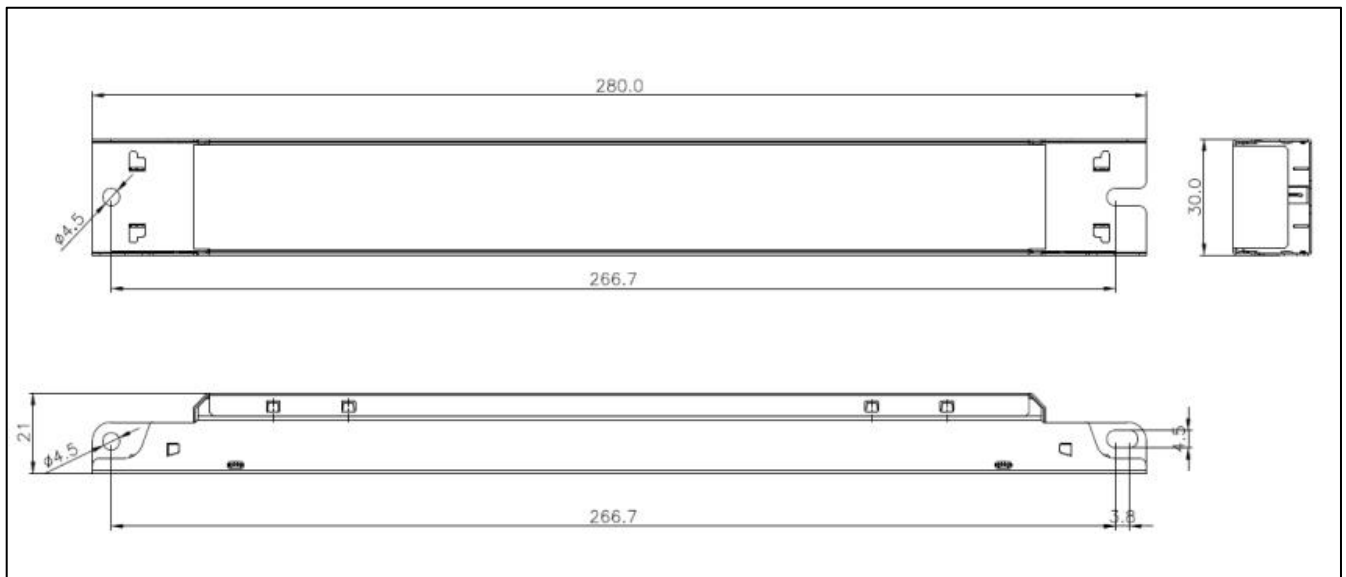
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
30.2A	247.6μs	10pcs	17pcs	21pcs	15pcs	24pcs	30pcs

◆ Wiring diagram



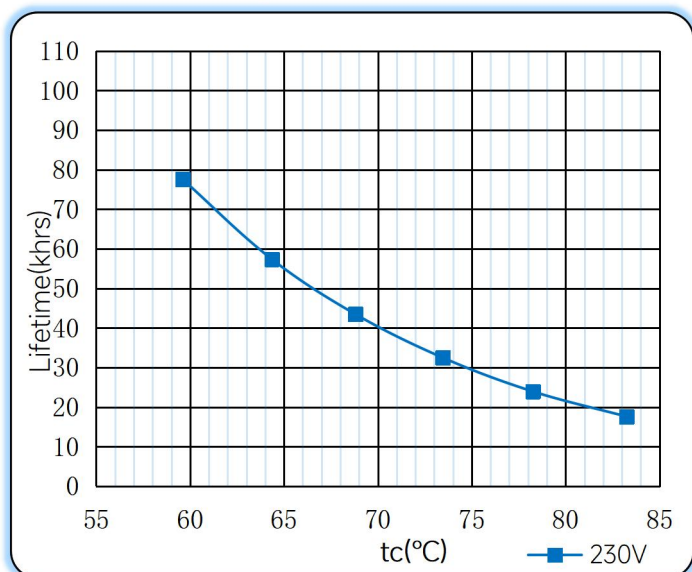
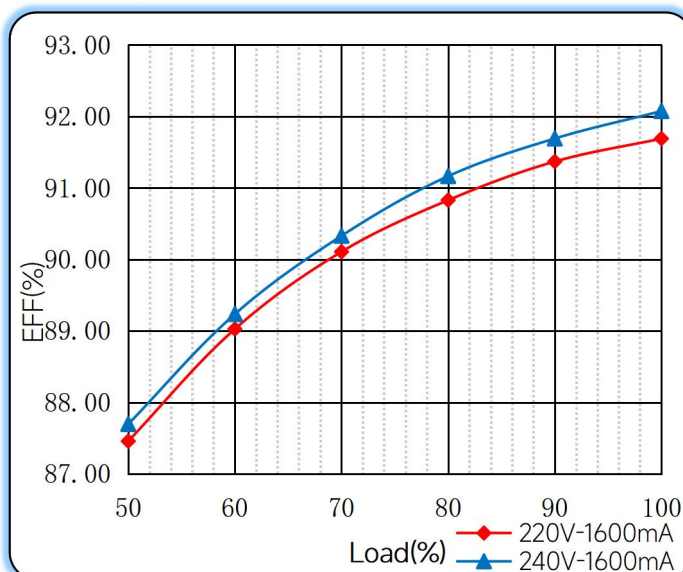
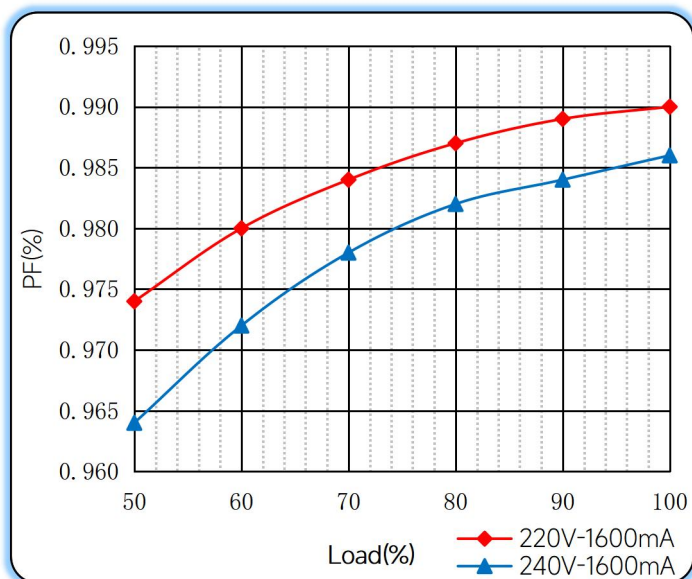
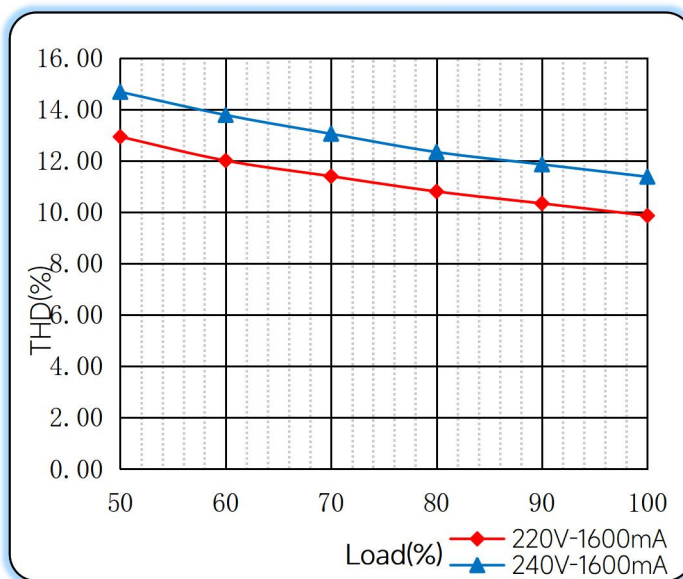
◆ 2D diagram



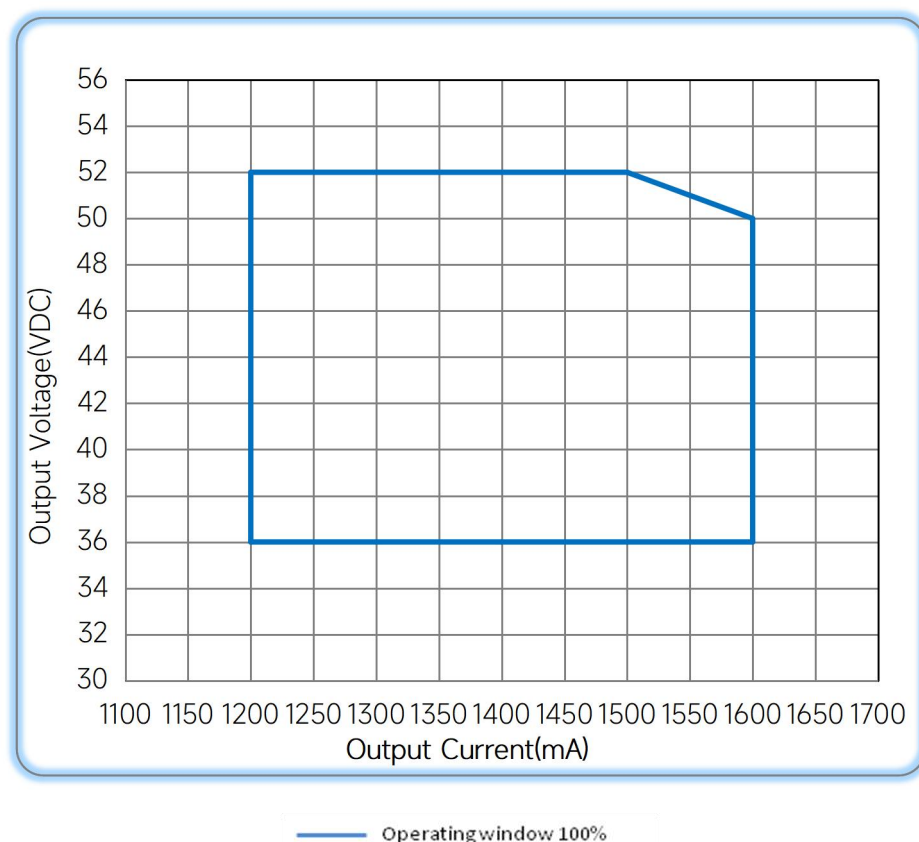
◆ Wiring & Connections

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 FMS-80-1600 LD, $I_o=1600\text{mA}$

Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load


◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15

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Manual