

80W Constant Current – DIP-Switch



Features

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

Applications

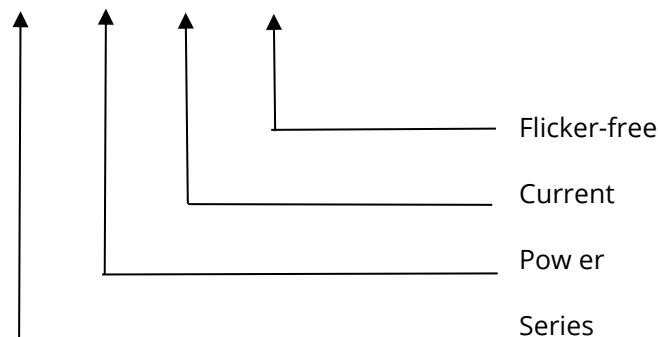
Linear light

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

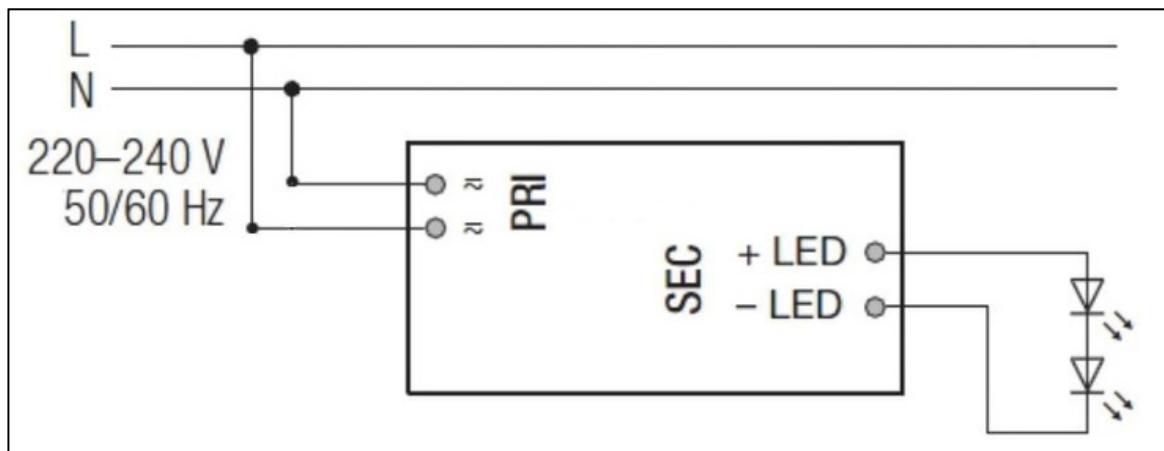
| | | | | | | |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|--------------|--------|---------|
| Output | Constant Current | 1200mA | 1300mA | 1400mA | 1500mA | 16 00mA |
| | Voltage Range | 36-52VDC | | | | |
| | Unload voltage | Max. 63VDC | | | | |
| | CurrentAccuracy | $\pm 5\%$ | | | | |
| | Output HF current ripple($\geq 1\text{KHz}$) | $\pm 3\%$ | | | | |
| | Output LF current ripple($\leq 120\text{Hz}$) | $\pm 3\%$ | | | | |
| | SVM | $\leq 0.4@\text{FullLoad}$ | | | | |
| | Pst | $\leq 1@\text{FullLoad}$ | | | | |
| | Efficiency(Typ.) | $\geq 90\%@\text{FullLoad}$ | | | | |
| Input | Rated input voltage | 220-240VAC | | | | |
| | Range of input voltage | 198-264VAC | | | | |
| | Frequency(Hz) | 50/60Hz | | | | |
| | Power Factor | $>0.95@\text{FullLoad}$ | | | | |
| | Input Current | max 0.53A | | | | |
| | Start-uptime | <0.5S | | | | |
| | No Load Power | $\leq 0.5\text{W}$ | | | | |
| | THD(Typ.) | <15%.@FullLoad | | | | |
| Protection | Over Load Protection | 103-120% | | | | |
| | | YES/Auto Resume | | | | |
| | Over Voltage Protection | >6 0VDC | | | | |
| | | YES/Auto Resume | | | | |
| Environment | Short circuit Protection | YES/AutoResume | | | | |
| | Operating Temperature | -20°C~+50°C | | | | |
| | Humidity | 20%-90%RH | | | | |
| | Tc | 80°C | | | | |
| | Storage Temperature | -25°C~+60°C | | | | |
| | Lifetime | >50000h@Tc=65°C,230VAC | | | | |
| Surface | Dimension | 280X30X21(LWXH)mm | | | | |
| Standards | EN61347-1; EN61347-2-13;EN62384; EN55015;EN61000-3-2 ;EN61000-3-3; EN61547; | | | | | |
| Others | ErP | EU2019/2020 | | | | |
| | 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

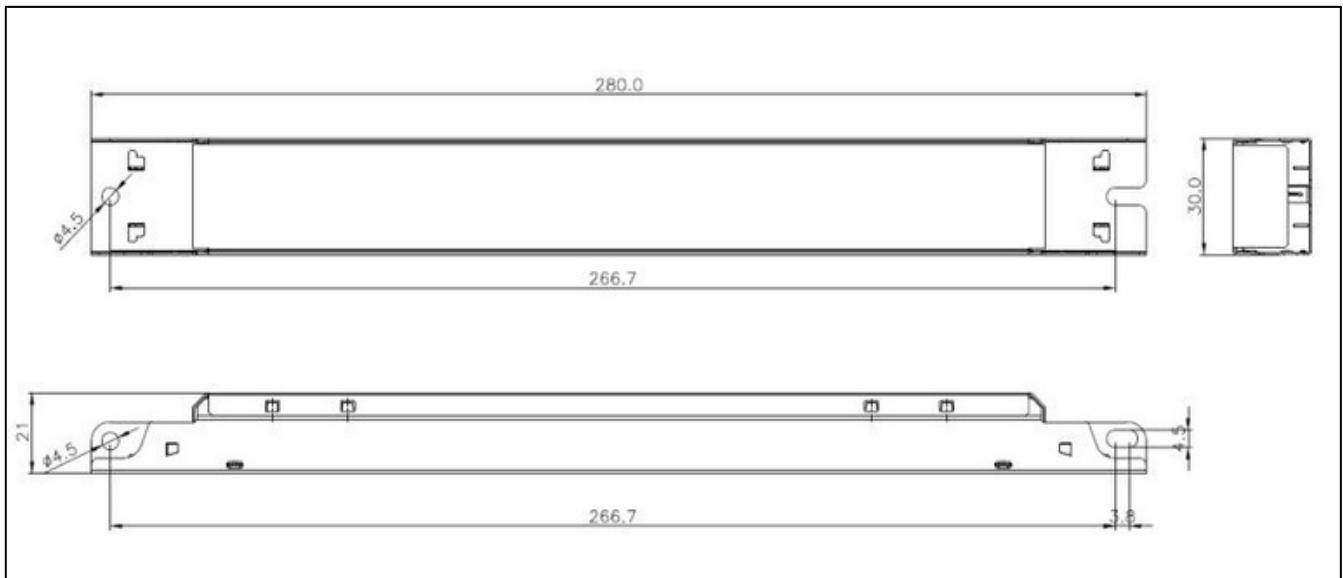
| Number | Output | | | | Switch position | | |
|--------|--------------------------|-------------------|-----------------------------|--------------|-----------------|----|----|
| | Current (mA) I1+I2 | Voltag e (VDC) | Voltage No load (VDC) | Power (W) | 1 | 2 | 3 |
| 1 | 1200mA | 36-52VDC | 63 | 62.4W | -- | -- | -- |
| 2 | 1300mA | | | 67.6W | -- | -- | ON |
| 3 | 14 00mA | | | 72.8W | -- | ON | -- |
| 4 | 1500mA | | | 78W | -- | ON | ON |
| *5 | * 1600mA | | | 80W | ON | ON | ON |

* Factory default

Wiring diagram



2D diagram

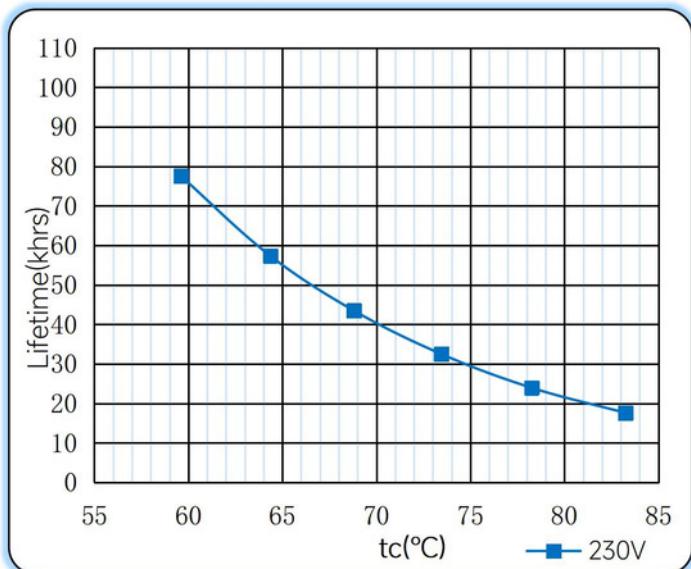


Wiring & Connections

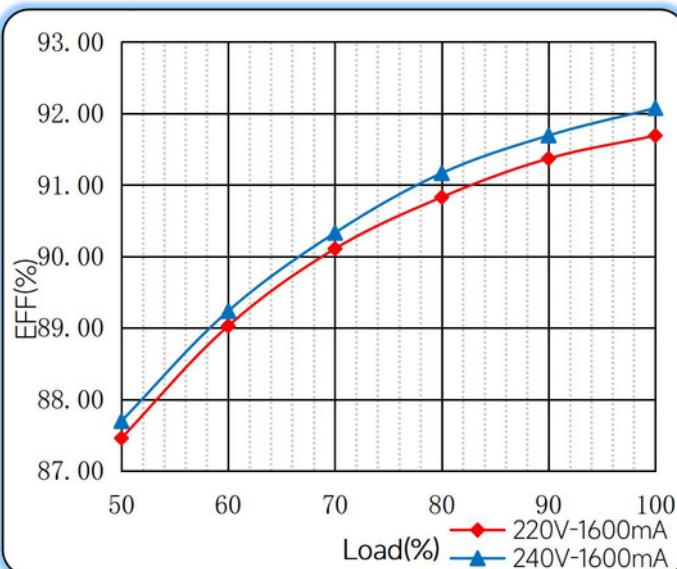
| Specification item | | Value (Unit) |
|--------------------|---------------------------|---------------------------|
| Input | Input wire cross-section | 0.5...1.5 mm ² |
| | Input wire gauge. | 16...20 AWG |
| | Input wire strip length | 7...9mm |
| Output | Output wire cross-section | 0.5...1.5 mm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

Curve for FMS-80-1600 LD, Io=1600mA

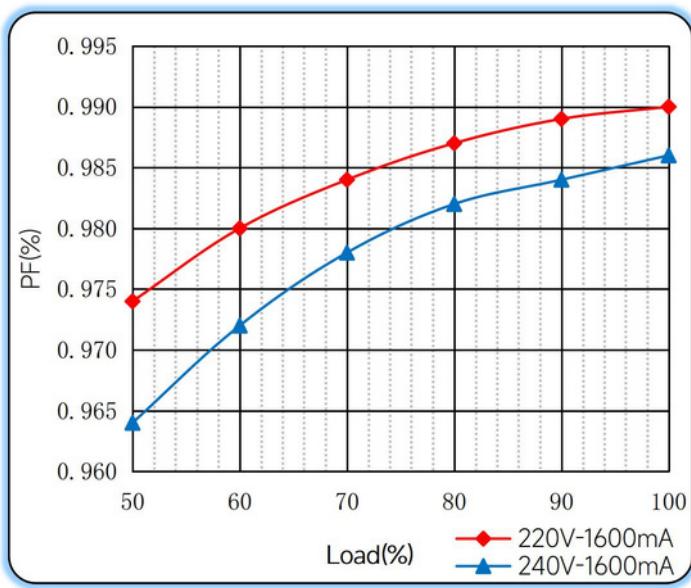
Lifetime vs. Temperature Curve



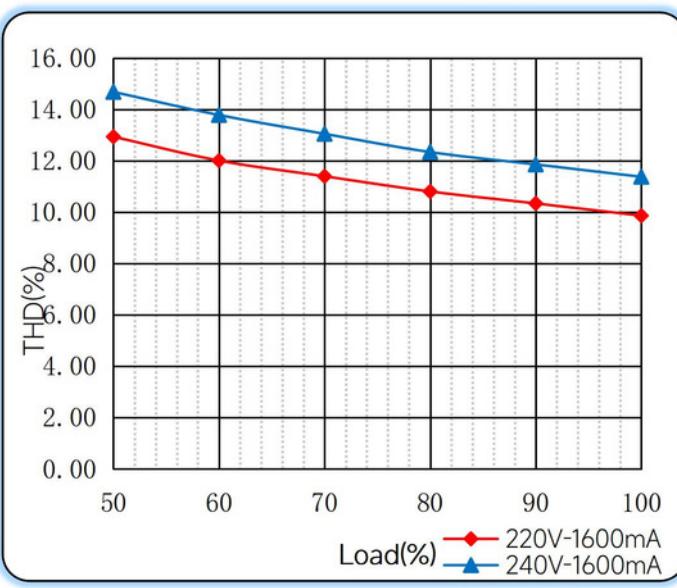
Efficiency vs. Load



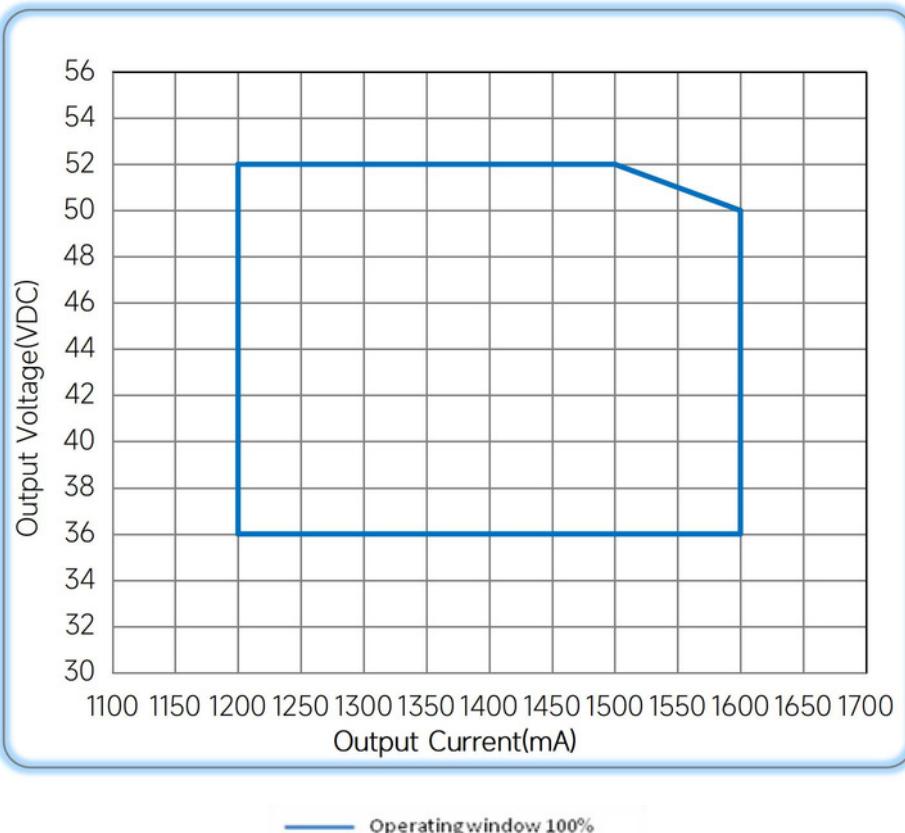
Power Factor Characteristics



THD vs. Load



Operating window



Revision Updates

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