# 75W NFC Constant Current power supply

■Approve

Features

- Class I, Non-Isolated design, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor : 0.95(Typ.)
- Efficiency : 93%(Typ.)
- Adjustable Output Current with NFC
- 5 years warranty

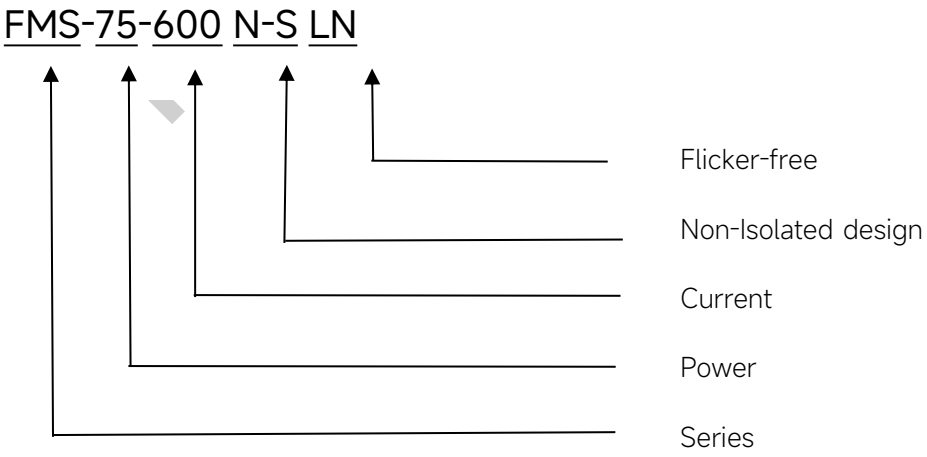
Applications

- Linear light

## ◆ Description

FMS-75-600 N-S LN is a 75W constant current LED driver that operates from 198-264Vac input with 120 to 600mA output current and a forward voltage range from 50 to 220Vdc. The output current is adjustable by NFC. With it's compact dimensions from 280 x 30 x 16 mm. It is easy to integrate in linear light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

## ◆ Model code



## ◆ Specification

| | | |
|---|---|---|
| Output | Constant Current | 120-600mA |
| | Voltage Range | 50-220VDC |
| | Unload voltage Max. | <320V RMS |
| | Current Accuracy | ±5% |
| | Output HF current ripple(≥1KHz) | ±15% |
| | Output LF current ripple(≤120Hz) | ±2% |
| | SVM | ≤0.15@full Load，220-240V |
| | $P_{st}$ | ≤0.15@full Load，220-240V |
| | Efficiency(Typ.) | >93%@full Load，220-240V |
| Input | Rated input voltage(VAC) | 220-240VAC |
| | Range of input voltage(VAC) | 198-264VAC |
| | Rated input voltage(VDC) | 220-240VDC |
| | Range of input voltage(VDC) | 198-280VDC |
| | Frequency(Hz) | 0/50/60 Hz |
| | Displacement factor | ＞0.95 |
| | Power Factor | ＞0.95@full Load，220-240V |
| | Input Current | 0.45A max. |
| | Start-up time | ＜0.5S |
| | No Load Power | ≤0.5W |
| | THD (Typ.) | <10%@full Load，220-240V |
| Protection | Over Load Protection | 103-120% |
| | | YES/Auto Resume |
| | Over Voltage Protection | <320V RMS |
| | | YES/Auto Resume |
| | Short circuit Protection | YES/Auto Resume |
| | Over Temperature Protection | YES/Auto Resume |
| Environment | Operating Temperature | -25℃~+60℃ |
| | Humidity | 10%-90%RH |
| | Tc | 85℃ |
| | Storage Temperature | -25℃~+60℃ |
| | Lifetime | >50000h,@Tc=85℃ |
| Surface | Dimension | 280 x 30 x 16(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℃ of ambient temperature.<br>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.<br>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements，EMC is not considered.<br>4.Switch and dimmer are not recommended to connect between this product output and luminaries. |

## ◆ Parameter

| Number | Output | | | |
|---|---|---|---|---|
| | Current (mA) | Voltage (VDC) | Voltage No load (VDC) | Power (W) |
| *1 | 120mA | 50-220VDC | 320 | 26.4 |
| 2 | ... | ... | ... | ... |
| 3 | 340mA | 50-220VDC | 320 | 74.8 |
| 4 | ... | ... | ... | ... |
| 5 | 600mA | 50-125VDC | 320 | 75 |

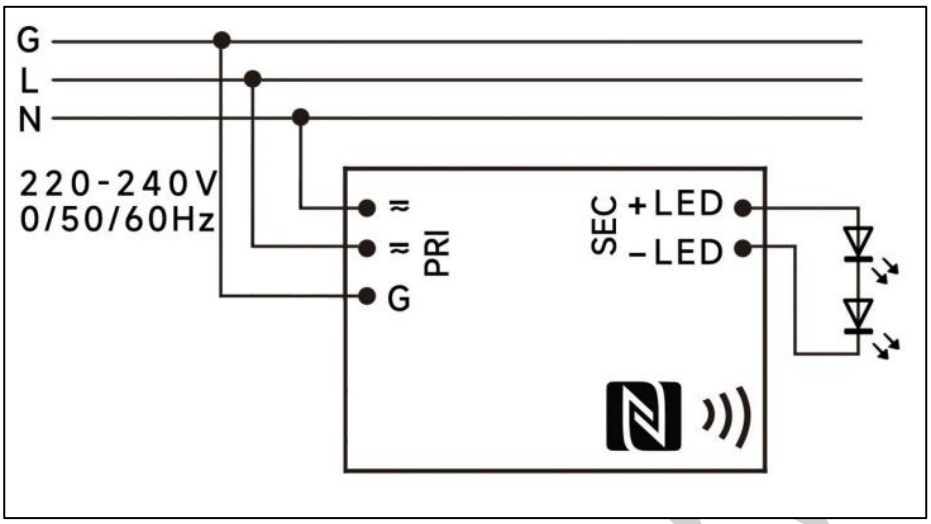
* Factory default



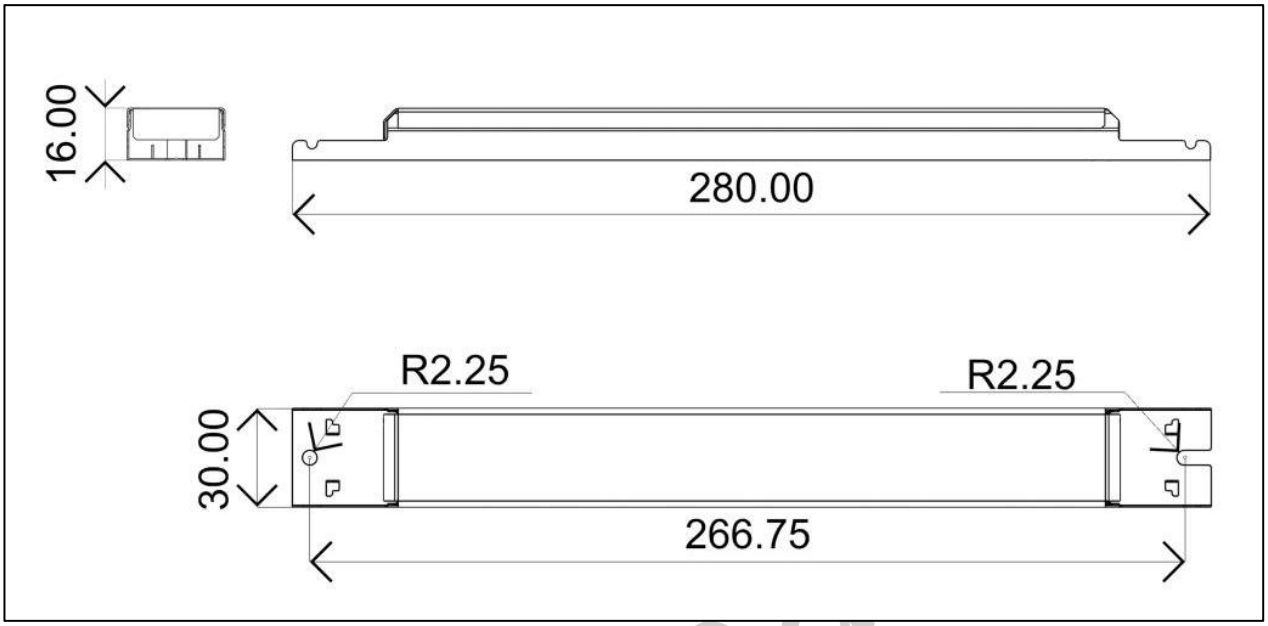
## ◆ Circuit Breaker

| Ipeak | Twidth | B10 | B16 | B20 | C10 | C16 | C20 |
|---|---|---|---|---|---|---|---|
| 43.8A | 168μs | 11pcs | 17pcs | 22pcs | 17pcs | 28pcs | 35pcs |

## ◆ Wiring diagram



## ◆ 2D diagram

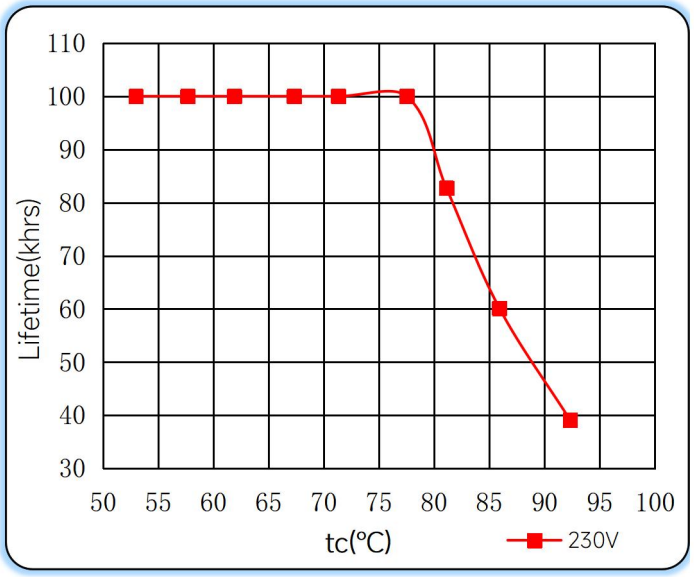



## ◆ Wiring & Connections

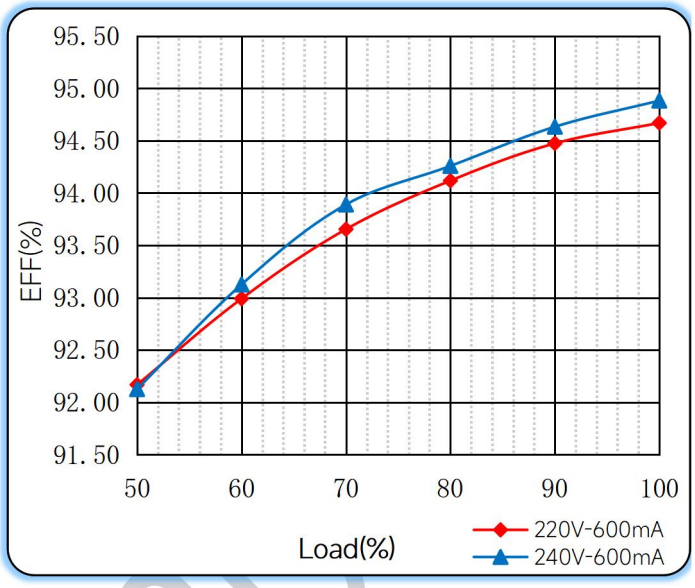
| Specification item | | Value （Unit ） |
|---|---|---|
| Input | Input wire cross-section | 0.5...1.5 $mm^2$ |
| | Input wire gauge. | 16...20 AWG |
| | Input wire strip length | 7...9mm |
| Output | Output wire cross-section | 0.5...1.5 $mm^2$ |
| | Output wire gauge. | 16...20 AWG |
| | Output wire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

## ◆ Curve for FMS-75-600 N-S LN, Io=600mA

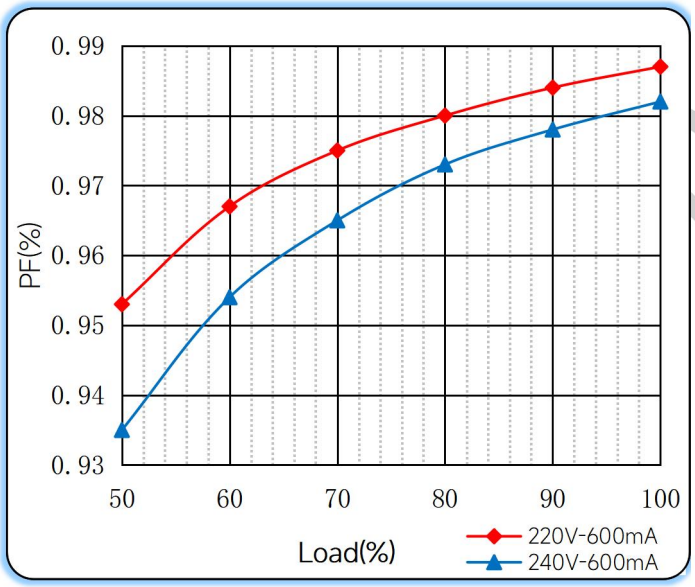
### Lifetime vs. Temperature Curve



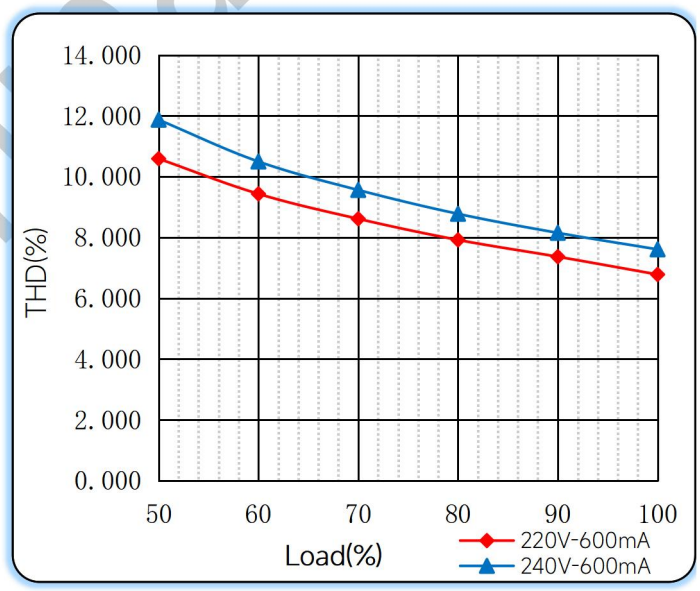

### Efficiency vs. Load



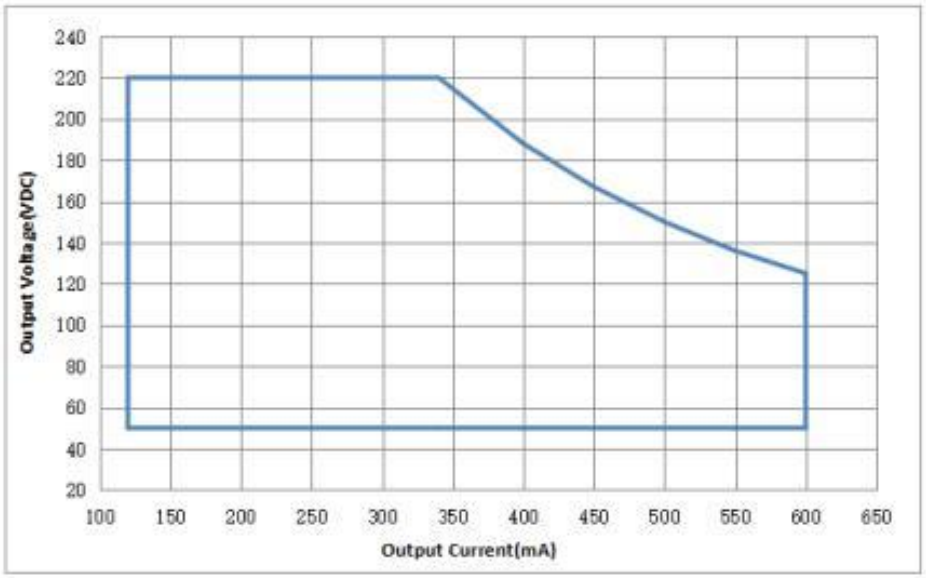

### Power Factor Characteristics




### THD vs. Load



## ◆ Operating window




Operating window 100%

## ◆ Revision Updates

| ITEM | BEFORE | AFTER | VERSION | DATE |
|---|---|---|---|---|
| Initial | | | A | 2022/09/30 |
| Curve | | Added | B | 2023/01/11 |
| Unload voltage Max. | <400V RMS | <320V RMS | C | 2023/05/17 |
| PF | PF≥0.95 | PF > 0.95 | D | 2023/07/11 |



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Manual