

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 : 94%(Typ.)
- Adjustable Output Current with NFC
- 5 years warranty

Applications

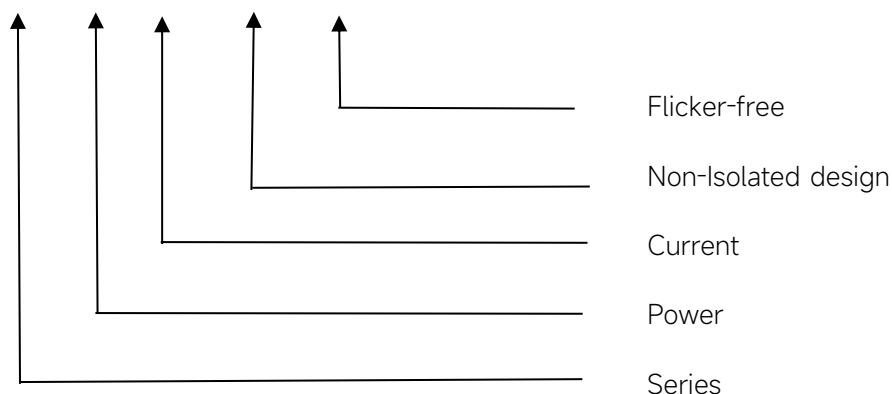
- Linear light

◆ 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

FMS-75-600 N-S LN



◆ Specification

Output	Constant Current	120-600mA
	Voltage Range	50-220VDC
	Unload voltage Max.	<400V RMS
	Current Accuracy	±5%
	Output HF current ripple(≥1KHz)	±15%
	Output LF current ripple(≤120Hz)	±2%
	SVM	≤0.15@Full Load
	P _{st}	≤0.15@Full Load
	Efficiency(Typ.)	>94%@220-240VAC, full load
Input	Rated input voltage	220-240VAC
	Range of input voltage	198-264VAC
	Rated input voltage(DC)	198-280VDC
	Frequency(Hz)	0/50/60 Hz
	Displacement factor	≥0.95
	Power Factor	>0.95@220-240VAC, full load
	Input Current	0.45A max.
	Start-up time	< 0.5S
	No Load Power	≤0.5W
	THD (Typ.)	<10%@220-240VAC, full load
Protection	Over Load Protection	103-120% YES/Auto Resume
	Over Voltage Protection	<400V RMS YES/Auto Resume
	Short circuit Protection	YES/Auto Resume
	Over Temperature Protection	YES/Auto Resume
Environment	Operating Temperature	-25°C~+60°C
	Humidity	10%-90%RH
	T _c	85°C
	Storage Temperature	-25°C~+60°C
	Lifetime	>50000h,@T _c =85°C
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°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.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.

◆ Parameter

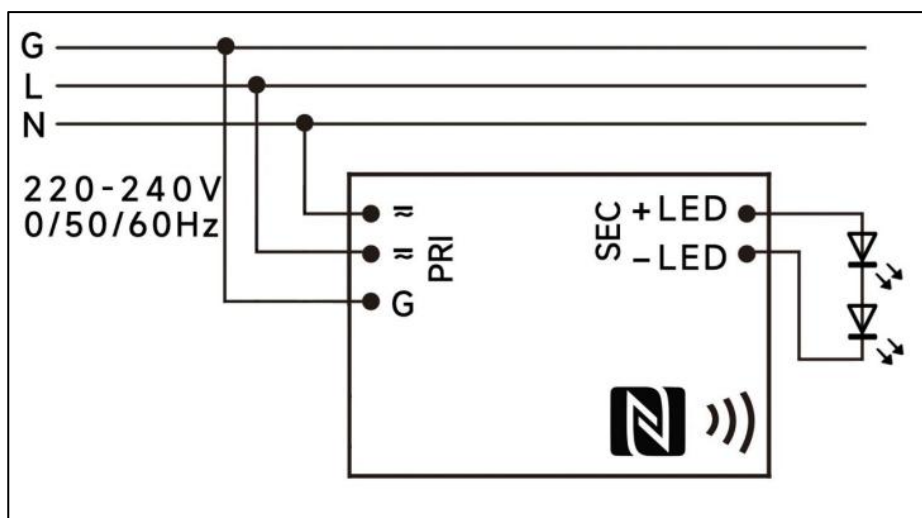
Number	Output			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
*1	120mA	50-220VDC	400	26.4
2	...	...	...	...
3	340mA	50-220VDC	400	74.8
4	...	...	...	...
5	600mA	50-125VDC	400	75

* Factory default

◆ Circuit Breaker

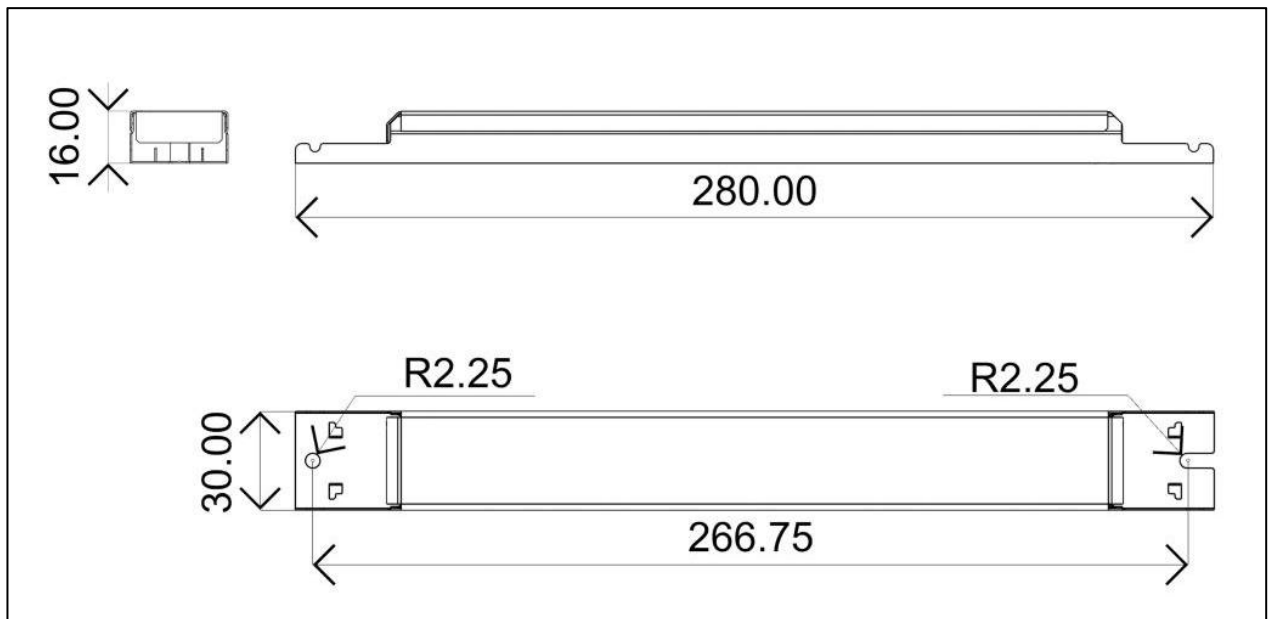
Ipeak	Twidth	B10	B16	B20	C10	C16	C20
43.8A	168μs	11pcs	17pcs	22pcs	17pcs	28pcs	35pcs

◆ Wiring diagram



Preliminary

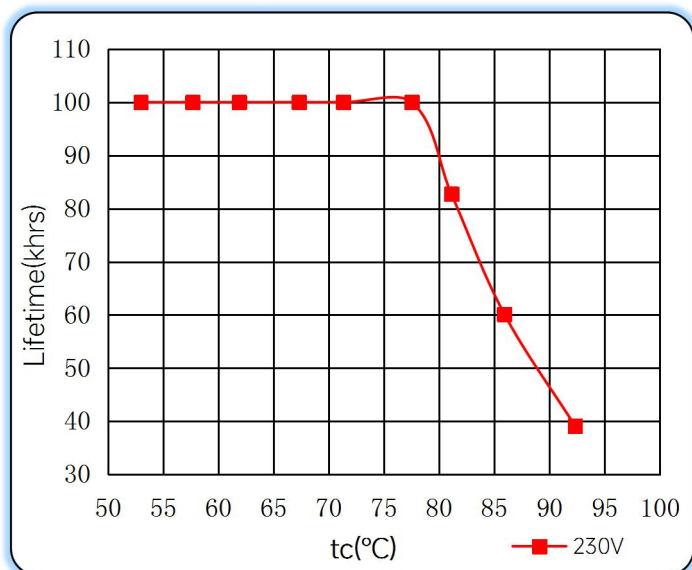
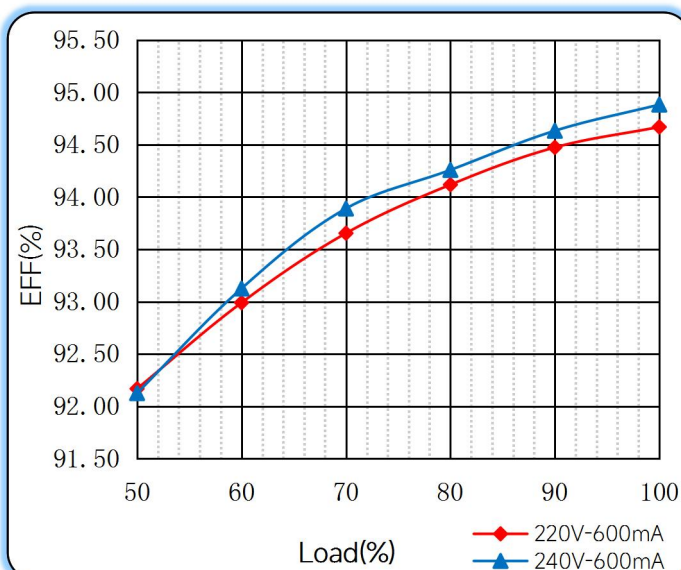
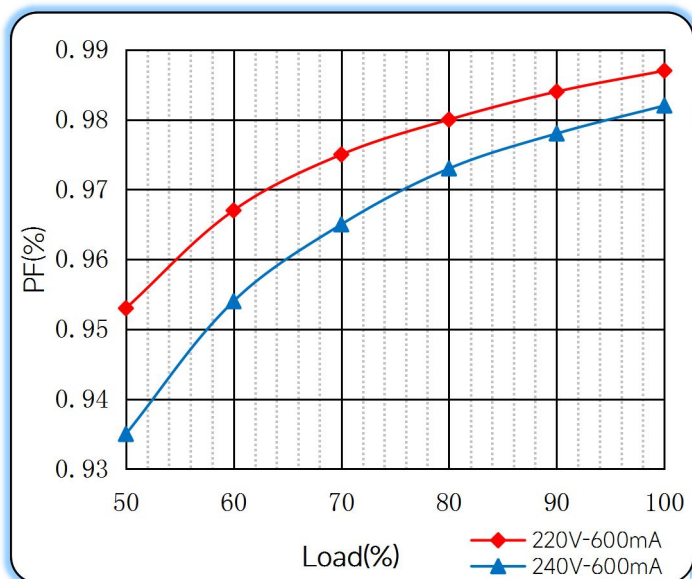
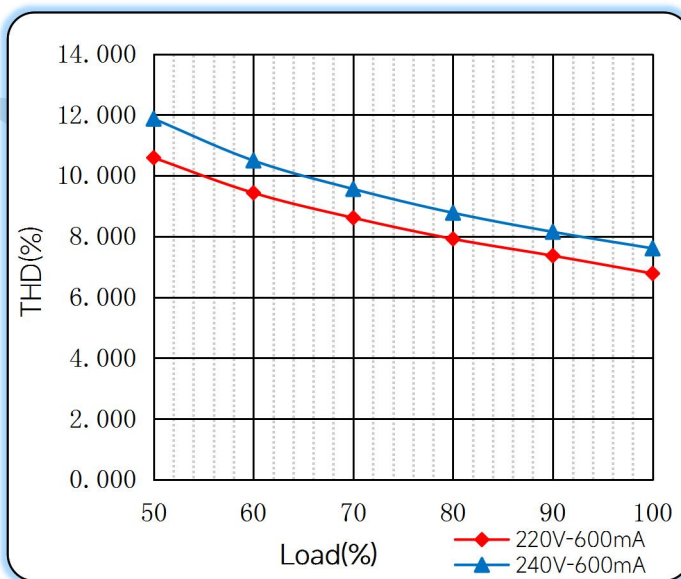
◆ 2D diagram



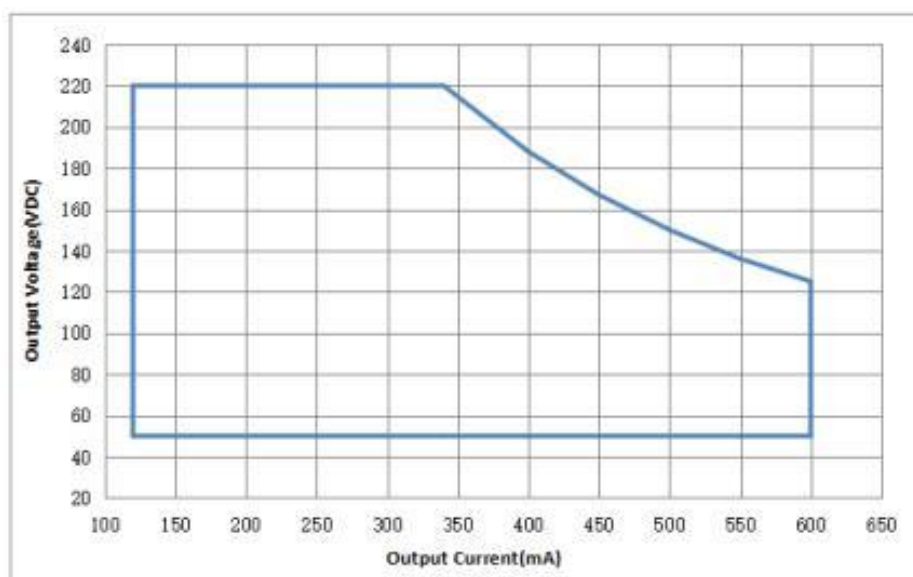
◆ Wiring & Connections

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	8...9mm
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Curve for FMS-75-600 N-S LN, $I_o=600\text{mA}$

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	2022/12/06

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Manual