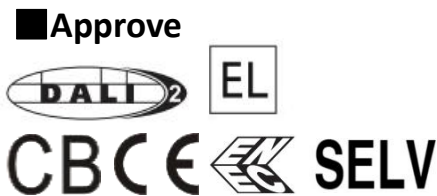# 75W DALI+PUSH+NFC Dimming power supply

Features

- Class I， Non-Isolated design， built-in
- Input Voltage 198-264VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor ： >0.95
- Efficiency ： >92%
- Adjustable Output Current with NFC
- Support DALI-2,Push Dimming
- DALI maintainace(Part 251,252,253)
- 5 years warranty

Applications

- Linear light

■Approve

DALI2 EL
CB C€ SELV

◆ Description

FMS-75-600 N-S DALI-2 LN1 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 280x30x16mm 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 DALI-2 LN1

- Flicker-free
- Dimming type
- Non-Isolated design
- Current
- Power
- Series
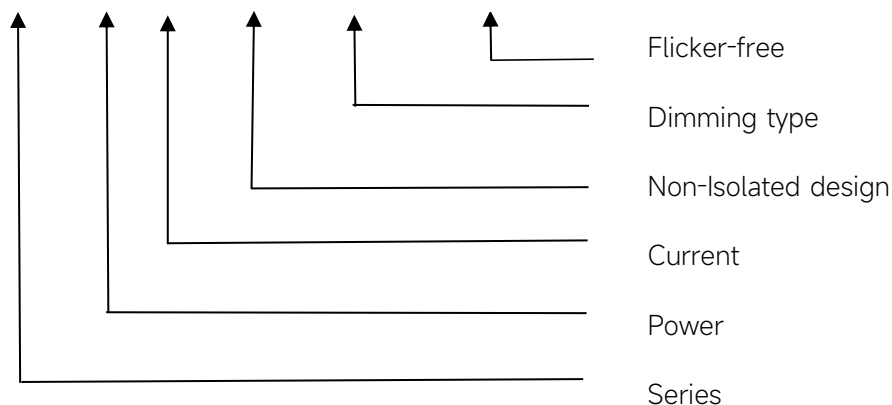
◆ Specification

Output	Constant Current (mA)	120-600mA
	Voltage Range(VDC)	50-220VDC
	Unload voltage Max.(VDC)	<250V RMS
	Current Accuracy	±5%
	Output HF current ripple(≥1KHz)	±15%
	Output LF current ripple(≤120Hz)	±3%
	SVM	≤0.4@full load
	Pst	≤1@full load
	Efficiency(Typ.)	>92%
Input	Rated input voltage(VAC)	220-240VAC
	Range of input voltage(VAC)	198-264VAC
	Range of input voltage(VDC)	198-280VDC
	Frequency(Hz)	0/50/60 Hz
	Displacement factor	>0.95
	Power Factor (Typ.)	>0.95
	Input Current max	0.45A Max
	Start-up time	＜0.7S
	No Load Power	≤0.5W
	Standby Power	≤0.5W
	Network standby power	≤0.5W
	THD (Typ.)	＜10%
Dimming	Dimming	YES
	Dimming mode	DALI-2（IEC 62386-101,102,207,251,252,253）& Push Dimming (Corridor Function)
	Dimming depth	2mA@≤200mA,1%@＞200mA
	Dimming current range	1-100%
Protection	Over Load Protection	103-120%
		YES/Latch off
	Over Voltage Protection	250VDC
		YES/Latch off
	Short circuit Protection	YES/Latch off
	Over Temperature Protection	YES/Auto Resume
Environment	Operating Temperature	-25℃~+55℃
	Humidity	20%-90%RH
	Tc	85℃
	Storage Temperature	-25℃~+60℃
	Life time	>50000h,@Tc=85℃

| Surface	Dimension	280x30x16(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
DALI performance	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2,including part251,252,253)	
Note	1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25℃ of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth. 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	250	26.4
2	…	…	…	…
3	340mA	50-220VDC	250	74.8
4	…	…	…	…
5	600mA	50-125VDC	250	75

* Factory default

◆ Circuit Breaker

I^{peak}	T_{width}	B10	B16	B20	C10	C16	C20
41.8A	188μs	10pcs	16pcs	20pcs	17pcs	27pcs	34pcs

◆ Wiring diagram

◆ 2D diagram

16.00

280.00

R2.25   R2.25

30.00

266.75
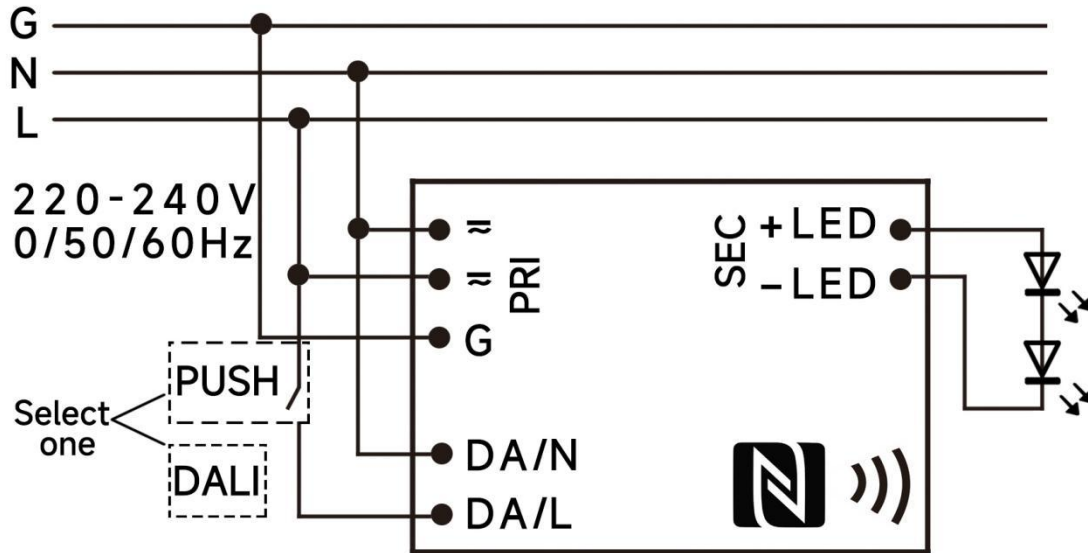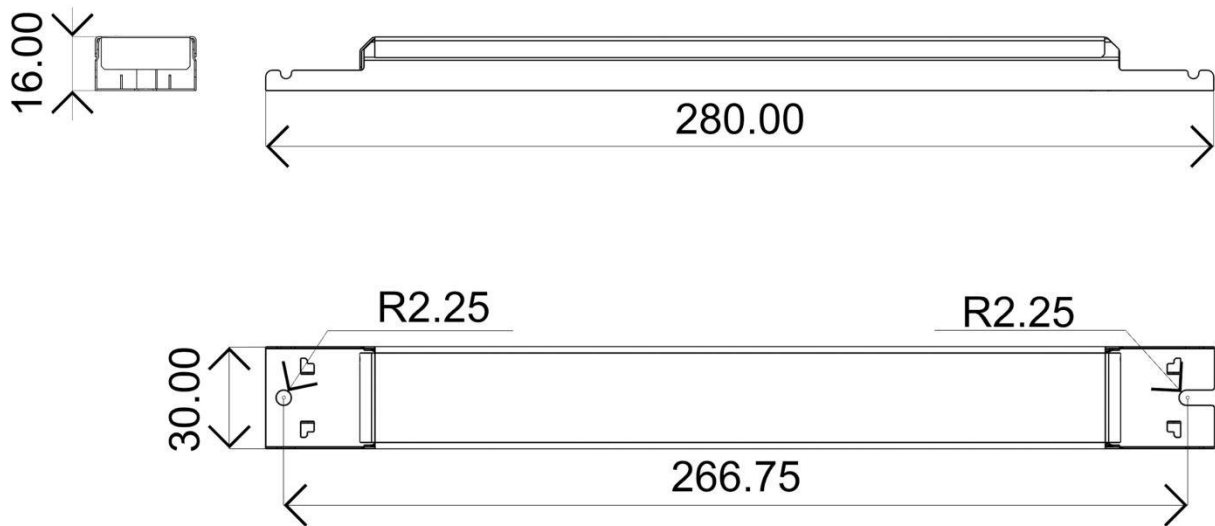
◆ Wiring & Connections

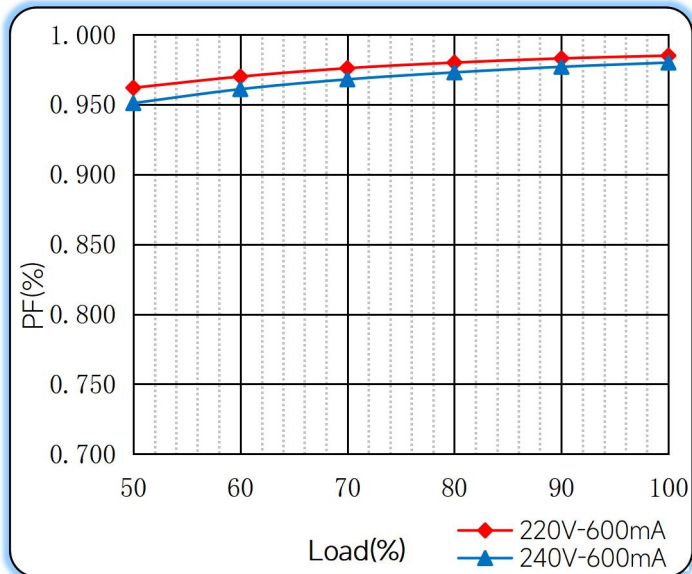|	Specification item	Value （Unit）
Input	Input wire cross-section	0.5...1.5 mm2
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm2
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

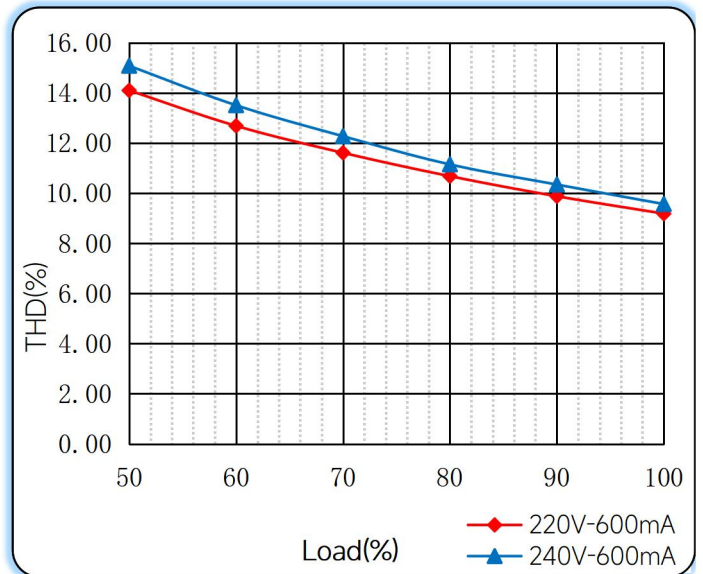# ◆ Curve for FMS-75-600 N-S DALI-2 LN1，Io=600mA

Lifetime vs. Temperature Curve

X-axis: tc(℃), Y-axis: Lifetime(khrs), legend: 230V

Efficiency vs. Load

X-axis: Load(%), Y-axis: EFF(%), legend: 220V-600mA, 240V-600mA
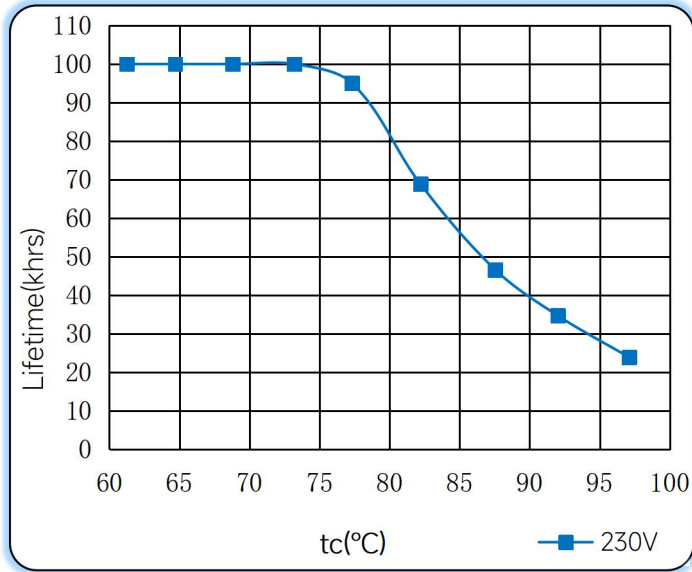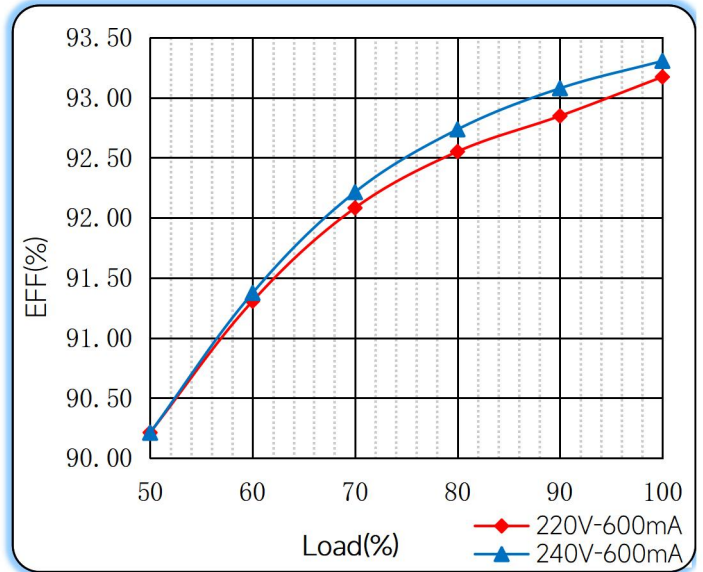
Power Factor Characteristics

X-axis: Load(%), Y-axis: PF(%), legend: 220V-600mA, 240V-600mA

THD vs. Load

X-axis: Load(%), Y-axis: THD(%), legend: 220V-600mA, 240V-600mA

◆ **Push dimming operation**

| Action	Action duration	Function
Short push	<0.5s	Turn on/off
Short push twice	<0.5s	LED on：Save current brightness level LED off： Delete saved level and turn on at 100% brightness
Short push five times	<3s	Quit Corridor mode
Long push	0.5-14s	Dimming up or down
Long push	15s-2mins	Sync all LEDs to be 100% brightness
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins. Then brightness will turn to be 10% within 32s if no action during 2mins 100% brightness.

Note:

1.The factory default brightness is at 100%.

2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button

3.The maximum length of the cable from the push button to the last driver is 200 meters.

◆ Corridor mode
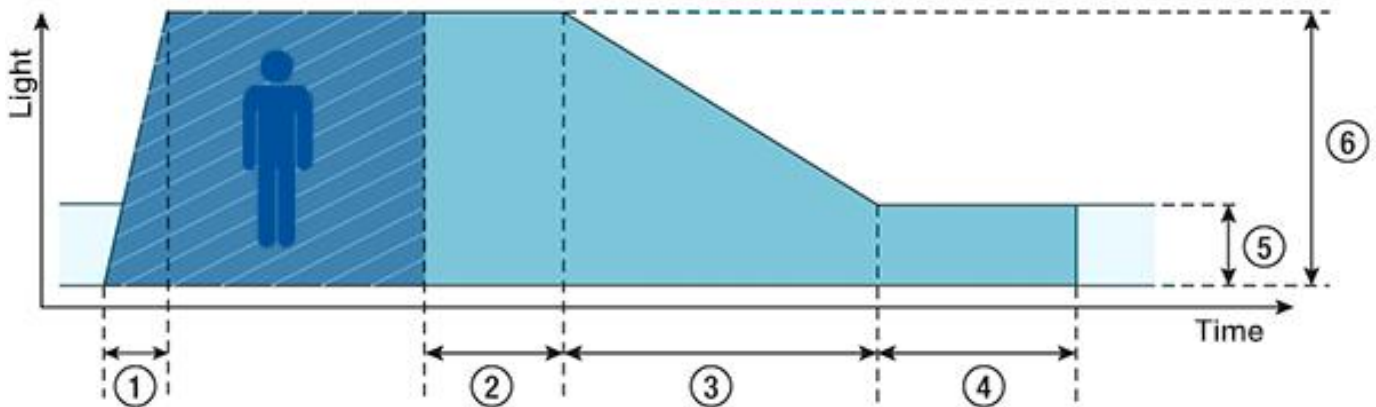
◆ ①**Fade-in time(0.5s):** the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.

◆ ②**Run-on time(120s):** the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.

◆ ③**Fade time(32s):** the time during which the luminous intensity is faded from the presence value to the absence value.

◆ ④**Switch-off delay (Never Off):** the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.

◆ ⑤**Absence value(default: 10 %):** the luminous intensity when there is no person present.

◆ ⑥**Presence value (default: 100 %):** the luminous intensity when persons are present.

◆ Operating window

Operating window 100%
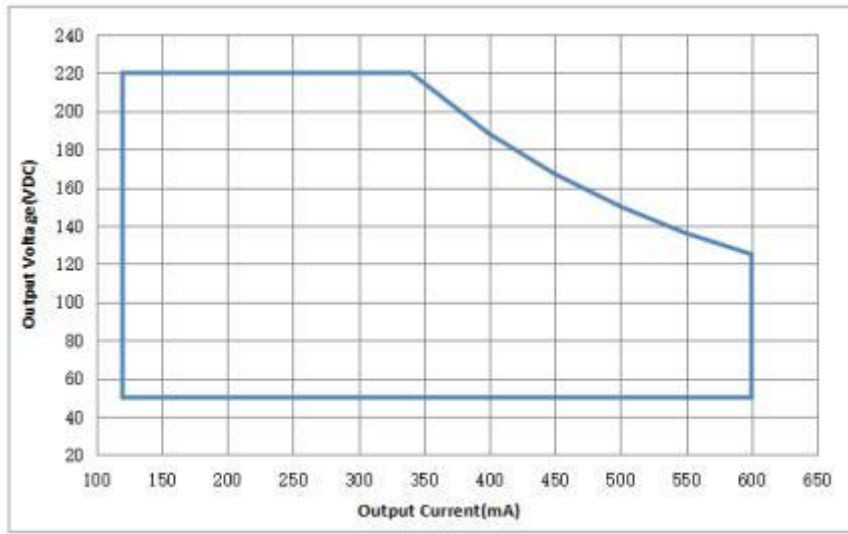
◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/09/30
SVM	≤0.15@Full Load	≤0.4@full load	B	2022/11/09
Pst	≤0.15@Full Load	≤1@Full Load		
update software			C	2024/01/22

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