

45W DALI+PUSH Dimming power supply



■ Approve



Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor > 0.95
- Efficiency ≥86%
- 5 years warranty
- Support DALI-2, Push Dimming

Applications

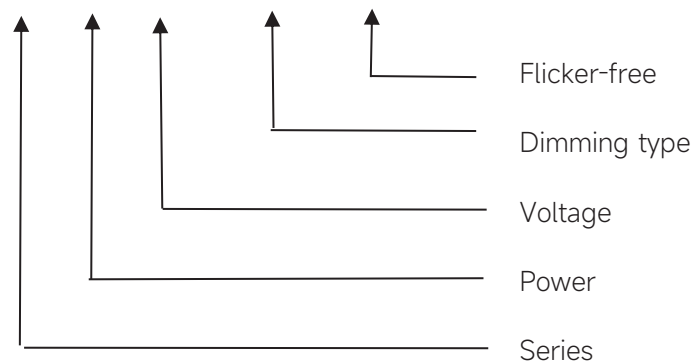
- LED strips

◆ Description

LS-45-24 DALI-2 LI is a 45W constant Voltage LED driver that operates from 176-264Vac input with 24V output voltage. With its compact dimensions from 187 x 45 x 30.5 mm it is easy to integrate in LED strips products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code

LS-45-24 DALI-2 LI



◆ Specification

| | | |
|-------------|----------------------------------|--|
| Output | Constant Voltage | 24VDC |
| | Current Range | 0-1.88A |
| | Voltage Accuracy | ±5% |
| | Output HF current ripple(≥1KHz) | ±1% |
| | Output LF current ripple(≤120Hz) | ±1% |
| | SVM | ≤0.4 |
| | Pst | ≤1 |
| Input | Efficiency(Typ.) | 86% |
| | Rated input voltage | 220-240VAC |
| | Range of input voltage | 176-264VAC |
| | Rated input voltage(DC) | 176-280V |
| | Frequency(Hz) | 0/50/60 Hz |
| | Displacement factor | ≥0.9 |
| | Power Factor | 0.95 |
| | Input Current max | 0.35A MAX |
| | Start-up time | < 0.5 S |
| | No Load Power | ≤0.5W |
| | Standby Power | ≤0.5W |
| | Network standby power | ≤0.5W |
| Dimming | THD (Typ.) | < 20% |
| | Dimming | YES |
| | Dimming mode | DALI-2 IEC 62386-101,102,207 & Push |
| | Dimming depth | 1% |
| Protection | Dimming current range | 1-100% |
| | Over Load Protection | 105-150% rated output power YES/Auto Resume |
| | Over Voltage Protection | > 25.2VDC Protection type: Auto Resume |
| | Short circuit Protection | YES/Auto Resume |
| | Over Temperature Protection | YES/Auto Resume |
| Environment | Operating Temperature | -20°C...+50°C |
| | Humidity | 20%-90%RH |
| | Tc | 85°C |
| | Storage Temperature | -30°C...+65°C |
| | Life time | ≥50,000h@Tc=75°C, full load |
| Surface | Dimension | 187x45x30.5mm(LXWXH)mm |

| | | |
|-----------|--|--------------------------------|
| standards | EN 61347-1; EN61347-2-13; EN62384 | |
| Others | ErP | EU 2019/2020 |
| | RoHS | RoHS (2011/65/EU) (EU)2015/863 |
| Note | <p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>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.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> | |

◆ Model list

| Number | Model number | Input | | Output | | |
|--------|--------------------|---------------|-----------------|----------------------------|----------------------------|-----------|
| | | Voltage (VAC) | Max.Current (A) | Normal working current (A) | Normal working current (A) | Power (W) |
| 1 | LS-45-24 DALI-2 LI | 220-240 | 0.35 | 50/60 | 24 | 0-1.88 |

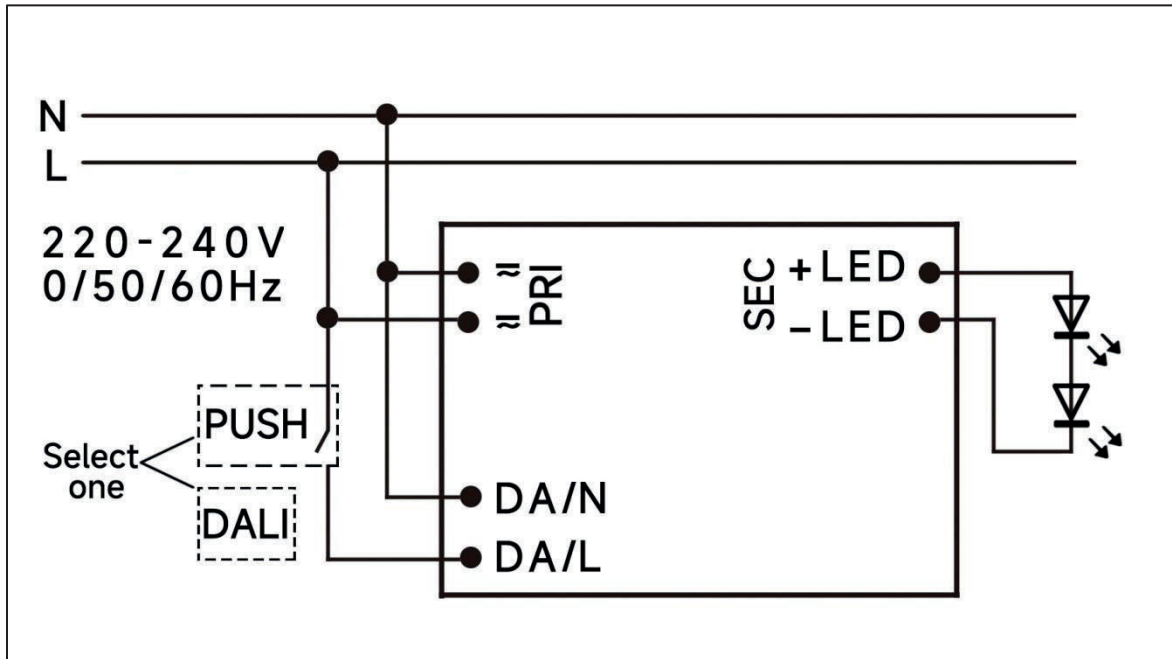
Note:

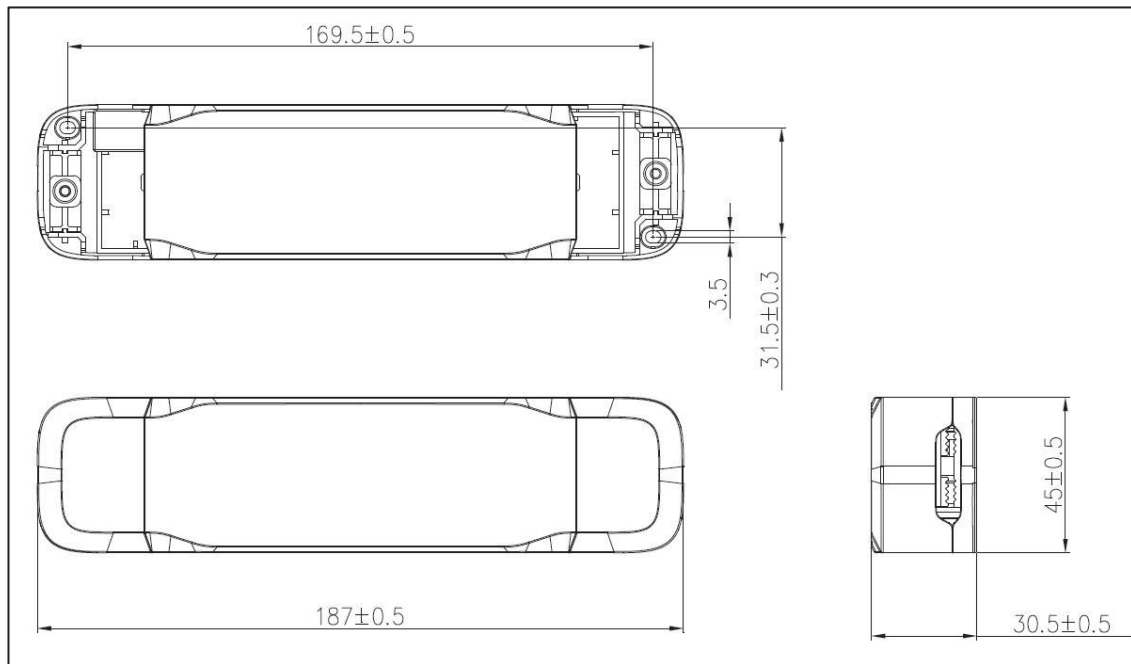
Test condition: 230Vac/50Hz, at full Load;

◆ Circuit Breaker

| I ^{peak} | T ^{width} | B10 | B16 | B20 | C10 | C16 | C20 |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------|
| 29.1A | 215.4μs | 13pcs | 20pcs | 26pcs | 21pcs | 34pcs | 43pcs |

◆ Wiring diagram

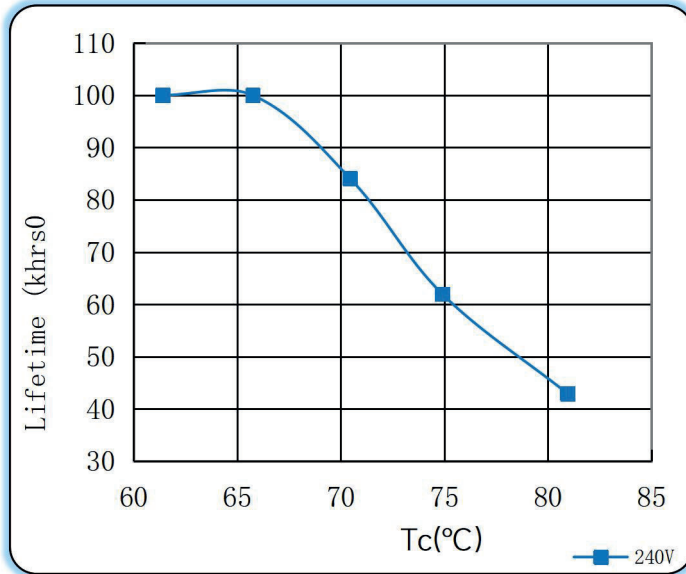


◆ 2D diagram

Wiring & Connections

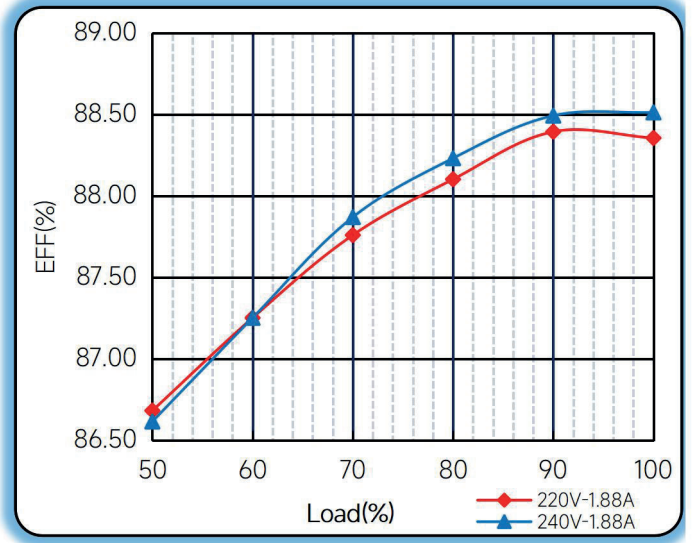
| | Specification item | Value (Unit) |
|--------|---------------------------|---------------------------|
| Input | Input wire cross-section | 0.5...1.5 mm ² |
| | Input wire gauge. | 16...20 AWG |
| | Input wire strip length | 7...9mm |
| Output | Output wire cross-section | 0.5...1.5 mm ² |
| | Output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

◆ Curve for LS-45-24 DALI-2 LI

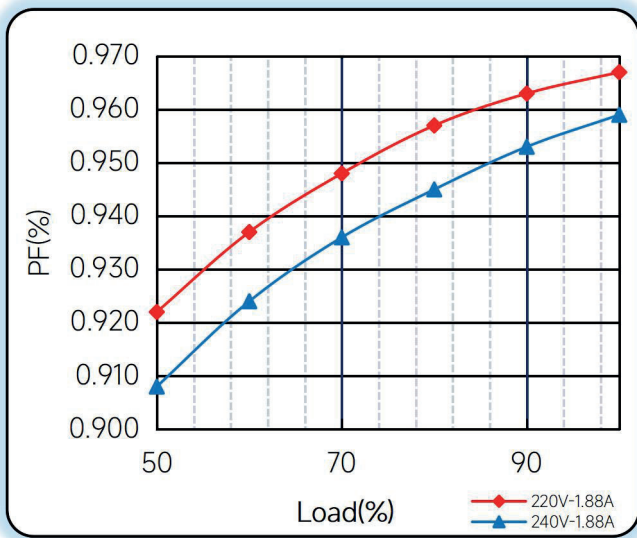
Lifetime vs. Temperature Curve



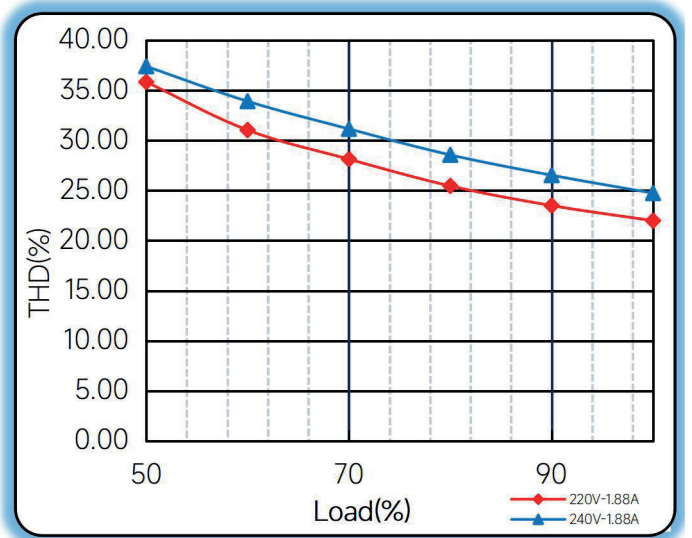
Efficiency vs. Load



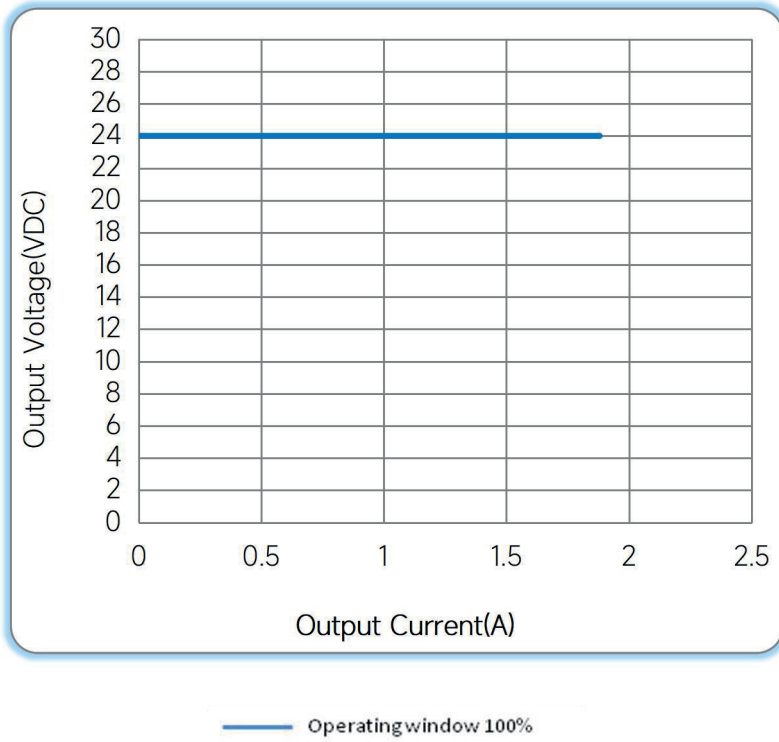
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

| ITEM | BEFORE | AFTER | VERSION | DATE |
|---------|--------|-------|---------|------------|
| Initial | | | A | 2022/02/15 |
| | | | | |