



■ Approve



## ■ Features

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

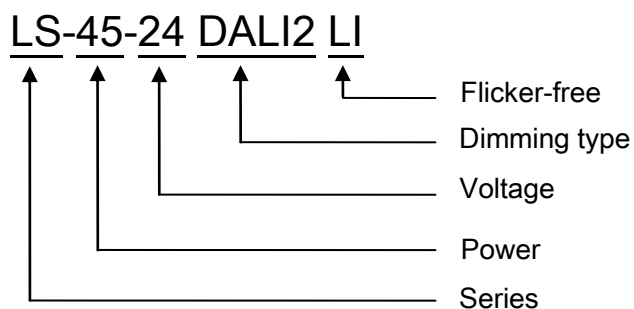
## ■ Applications

- LED strips
- Linear light
- Troffer light

## ■ Description

LS-45-24 DALI2 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 linear light and troffer light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

## ■ Model code



## 45W Constant Voltage DALI2-LS Series

LS-45-24 DALI2 LI

### ■Specification

|              |                                                                                                                                                                                                                                                                  |                                                                         |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Input        | Rated input voltage                                                                                                                                                                                                                                              | 220-240VAC                                                              |
|              | Range of input voltage                                                                                                                                                                                                                                           | 176-264VAC                                                              |
|              | DC voltage range                                                                                                                                                                                                                                                 | 176-280V                                                                |
|              | Frequency(Hz)                                                                                                                                                                                                                                                    | 0/50/60 Hz                                                              |
|              | Power Factor                                                                                                                                                                                                                                                     | > 0.95@Full Load,230VAC                                                 |
|              | Input Current max                                                                                                                                                                                                                                                | 0.35A MAX. @Full Load,176VAC                                            |
|              | Start-up time                                                                                                                                                                                                                                                    | < 1S                                                                    |
|              | Unload Power Consumption                                                                                                                                                                                                                                         | ≤0.5W                                                                   |
|              | Inrush Current                                                                                                                                                                                                                                                   | 40A Max.                                                                |
|              | THD                                                                                                                                                                                                                                                              | ≤20% @Full Load,240VAC                                                  |
|              | Leakage Current                                                                                                                                                                                                                                                  | < 0.5mA(240VAC)                                                         |
| Output       | Constant Voltage                                                                                                                                                                                                                                                 | 24VDC                                                                   |
|              | Current Range                                                                                                                                                                                                                                                    | 0-1.88.A                                                                |
|              | Rated power                                                                                                                                                                                                                                                      | 45W Max.                                                                |
|              | Voltage Accuracy                                                                                                                                                                                                                                                 | ±5%@220-240VAC                                                          |
|              | Voltage Regulation                                                                                                                                                                                                                                               | ±1% @Full Load                                                          |
|              | Load Regulation                                                                                                                                                                                                                                                  | ≤2%                                                                     |
|              | Hold-up Time                                                                                                                                                                                                                                                     | 1s max.@Full Load                                                       |
|              | Ripple& Noise *Note.2                                                                                                                                                                                                                                            | ≤0.24Vp-p@Full Load,240VAC                                              |
|              | Output LF current ripple(<120Hz)                                                                                                                                                                                                                                 | ≤±1% @Full Load,240VAC                                                  |
|              | PWM Frequency                                                                                                                                                                                                                                                    | 4kHz                                                                    |
|              | Efficiency(Typ.)                                                                                                                                                                                                                                                 | ≥86%                                                                    |
| Dimming      | Dimmable                                                                                                                                                                                                                                                         | YES                                                                     |
|              | Dimming mode                                                                                                                                                                                                                                                     | DALI II, Push                                                           |
|              | Dimming current range                                                                                                                                                                                                                                            | 1%~100%                                                                 |
| Protection   | Over Load Protection                                                                                                                                                                                                                                             | 105-150%<br>Protection type: Auto Resume                                |
|              | Over Voltage Protection                                                                                                                                                                                                                                          | > 25.2VDC<br>Protection type: Auto Resume                               |
|              | Short circuit Protection                                                                                                                                                                                                                                         | Protection type : Latch off , Auto recovery after power off and restart |
|              | Over Temperature protection                                                                                                                                                                                                                                      | Protection type: Auto Resume                                            |
| Environment  | Operating Temperature                                                                                                                                                                                                                                            | -20°C...+50°C                                                           |
|              | tc                                                                                                                                                                                                                                                               | 85°C                                                                    |
|              | Storage Temperature                                                                                                                                                                                                                                              | -30°C...+65°C                                                           |
|              | Temperature coefficient                                                                                                                                                                                                                                          | ±0.03%/°C(0-50°C)                                                       |
|              | Life time                                                                                                                                                                                                                                                        | > 44,000h@ta=50°C                                                       |
|              | Humidity                                                                                                                                                                                                                                                         | 20%-90%RH                                                               |
| Others       | Dimension                                                                                                                                                                                                                                                        | 187X45X30.5(LXWXH)mm                                                    |
| Safety & EMC | Safety standards                                                                                                                                                                                                                                                 | EN 61347-1; EN61347-2-13; EN62384;                                      |
|              | Withstand voltage                                                                                                                                                                                                                                                | Input-Output : 3750V/5mA/1min                                           |
|              | Isolation resistance                                                                                                                                                                                                                                             | Input-Output : ≥4MΩ@500VDC                                              |
|              | EMI                                                                                                                                                                                                                                                              | EN55015; EN61000-3-2 Class C; EN61000-3-3                               |
|              | EMS                                                                                                                                                                                                                                                              | EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V;                            |
| Note         | 1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C 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. |                                                                         |

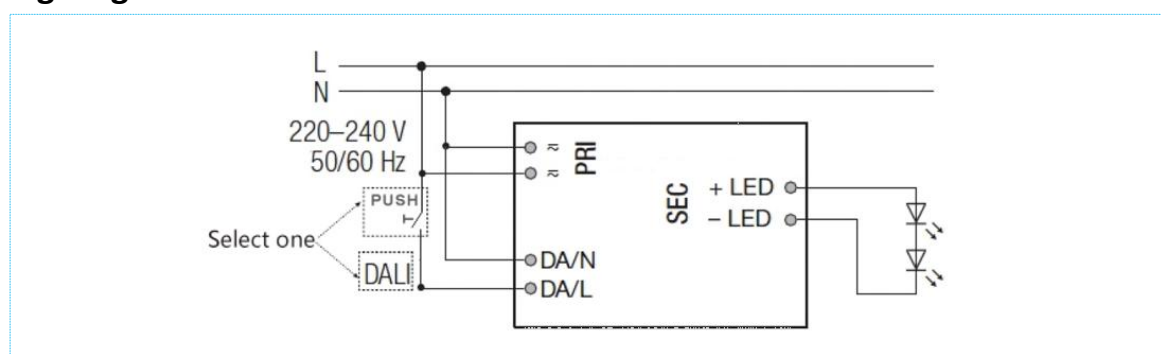
## 45W Constant Voltage DALI2-LS Series

### LS-45-24 DALI2 LI

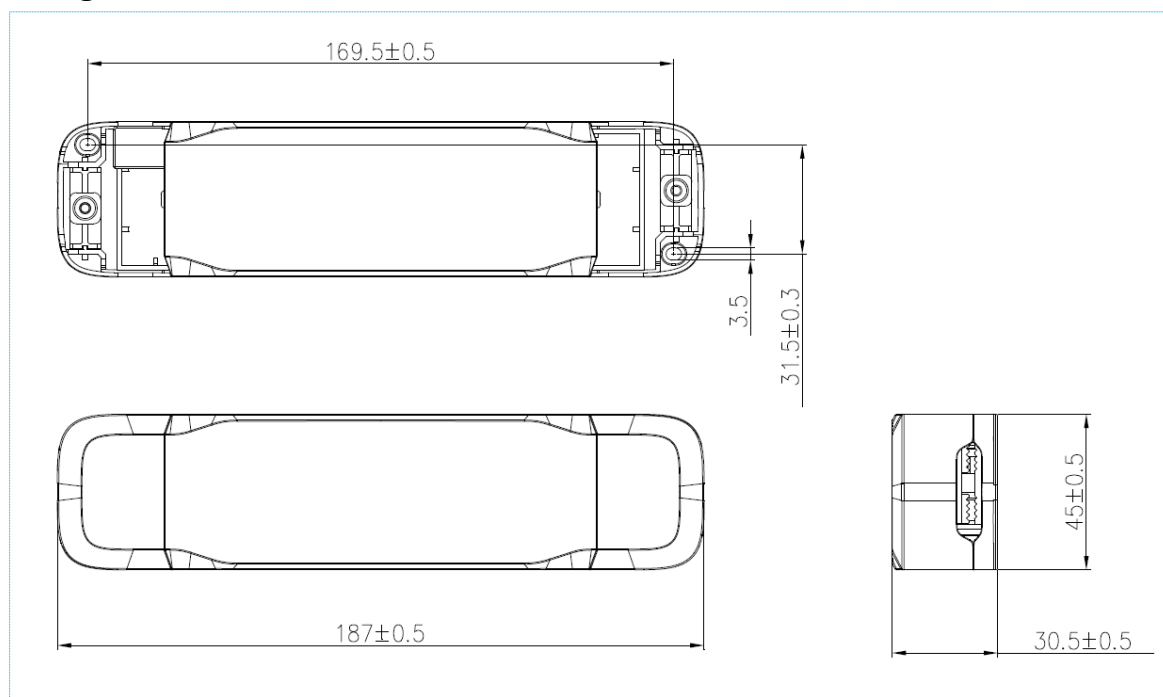
#### ■Model list

| No. | Model number      | Input         |             |                | Output                 |                            |                        |
|-----|-------------------|---------------|-------------|----------------|------------------------|----------------------------|------------------------|
|     |                   | Voltage (VAC) | Current (A) | Frequency (Hz) | Constant voltage (VDC) | Normal working current (A) | P <sub>rated</sub> (W) |
| 1   | LS-45-24 DALI2 LI | 220-240       | 0.35        | 50/60          | 24                     | 0-1.88                     | 45                     |

#### ■Wiring diagram



#### ■2D diagram

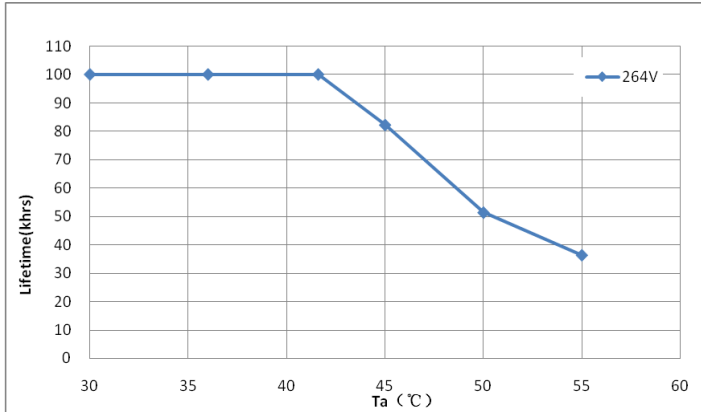


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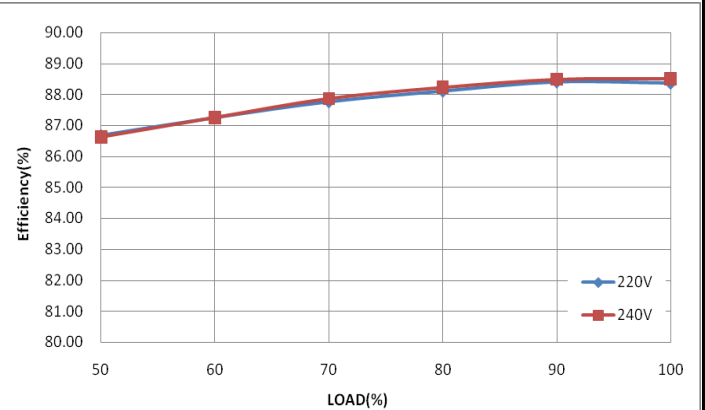
## LS-45-24 DALI2 LI

### ■Curve

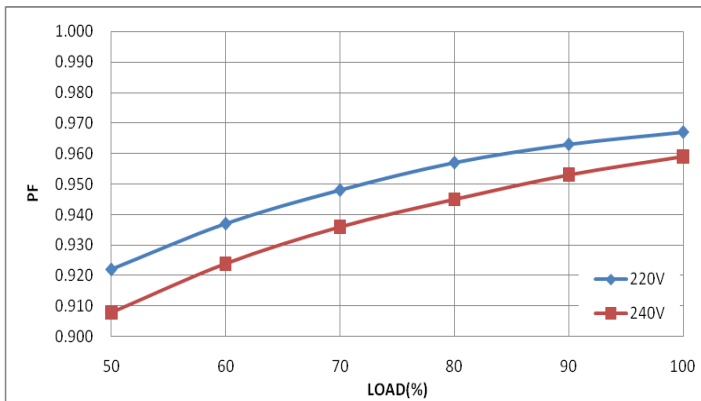
**Lifetime vs. Ambient Temperature Curve**



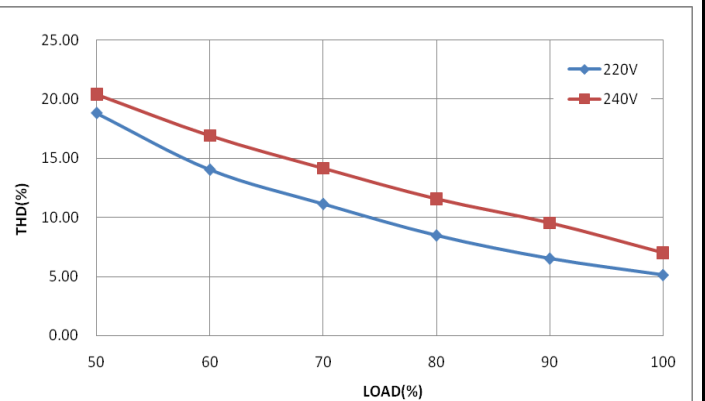
**Efficiency vs. Load**



**Power Factor Characteristics**



**THD vs. Load**



### ■Operating window

