

# Datasheet & Operating instructions

## Model: LS-45V24E-DALI2

LED power supply for 24 Vdc constant voltage  
1.88 A (45 W) max., IP20, independent installation  
dimmable with DALI2, PUSH (pri.)  
Flicker free according to IEEE 1789



### Exploded view



## Electrical data

|  |  |                                  |
|--|--|----------------------------------|
| <b>Rated input voltage</b>                 | 220...240 Vac                            |                                  |
| <b>Range of input voltage</b>              | 198...264 Vac                            |                                  |
| <b>Range of input voltage (DC)</b>         | 176...280 Vdc                            |                                  |
| <b>Mains frequency</b>                     | 50/60 Hz                                 |                                  |
| <b>Power factor (<math>\lambda</math>)</b> | 0.95                                     | Full load, 230 V                 |
| <b>Input current</b>                       | 0.3 A max.                               |                                  |
| <b>Inrush current</b>                      | 24.4 A max.                              |                                  |
| <b>Output voltage</b>                      | 24 Vdc                                   |                                  |
| <b>Output current</b>                      | 0...1.88 A max.                          |                                  |
| <b>Output power (nominal)</b>              | 45 W max.                                |                                  |
| <b>Efficiency</b>                          | $\geq 87\%$                              | Full load, 230 V                 |
| <b>Standby Power</b>                       | < 0.5 W                                  |                                  |
| <b>Life time</b>                           | > 50,000 h                               | $T_c=75^\circ\text{C}$ , 230 VAC |
| <b>Dimming</b>                             | DALI-2 (1-100%)<br>Primary PUSH (1-100%) |                                  |

## Operating condition

|   |              |
|---|--------------|
| <b>Operating temperature range (<math>t_a</math>)</b> | -20...+45 °C |
| <b>Max. Surface temperature (<math>t_c</math>)</b>    | 85 °C        |
| <b>Permitted rel. humidity</b>                        | 20...90 %    |
| <b>Protection class</b>                               | II           |
| <b>Type of protection</b>                             | IP20         |

## Protection

|                                 |       |             |
|---------------------------------|-------|-------------|
| <b>Short circuit protection</b> | Yes * |             |
| <b>Overload protection</b>      | Yes * | 105...150 % |
| <b>Overvoltage protection</b>   | Yes   |             |
| <b>Overheating protection</b>   | Yes * |             |

(\*) The output switches off and recovers automatically once the problem is resolved.

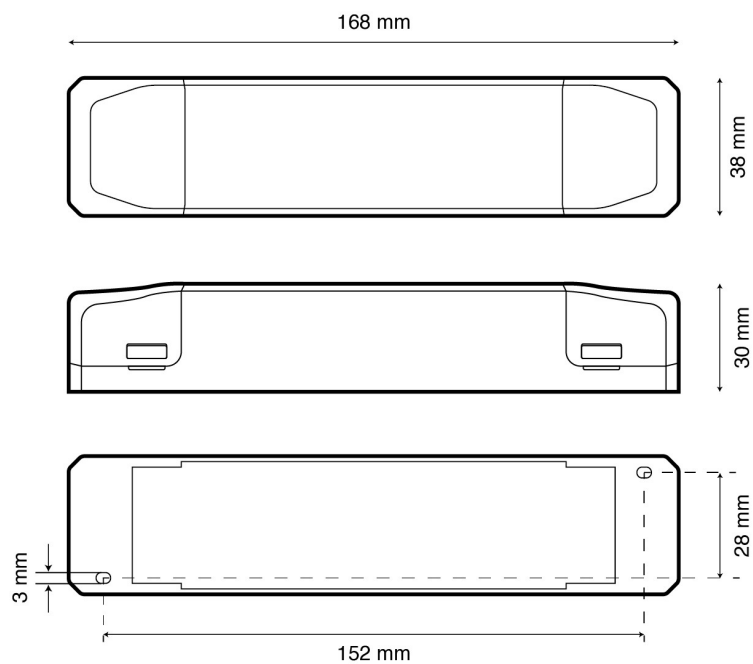
## Standards

|                                 |  |
|---------------------------------|--|
| <b>Standards</b>                | EN 61347-1, EN 61347-2-13<br>EN 62384, EN 55015, EN 61547<br>EN 61000-3-2, EN 61000-3-3,<br>EN 62493 |
| <b>Dali Standard (DT-6)</b>     | EN 62386-101, EN 62386-102, EN 62386-207<br>(including part251,252,253)                              |
| <b>Energy Efficiency</b>        | Erp 2.0 (EU 2019/2020)   |
| <b>Environmental Protection</b> | RoHS (2011/65/EU), (EU) 2015/863   |
| <b>Marking</b>                  | CE, UKCA   |

## Installation

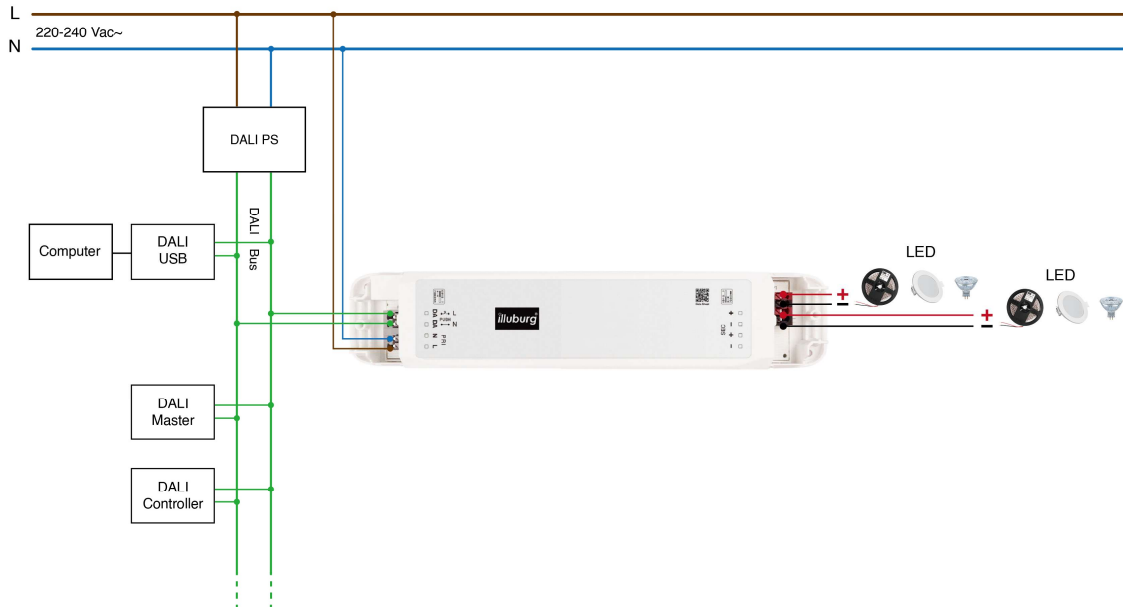
|  |  |  |
|--|--|--|
| <b>Type of installation</b>                  | Independent installation                                       |  |
| <b>Type of connection</b>                    | Spring-loaded terminal   |  |
| <b>Cable cross-section, input side</b>       | 1.0...1.5 mm <sup>2</sup>                                      |  |
| <b>Cable cross-section, output side</b>      | 1.0...1.5 mm <sup>2</sup>                                      |  |
| <b>Cable preparation length, input side</b>  | 7...9 mm   |  |
| <b>Cable preparation length, output side</b> | 7...9 mm   |  |
| <b>Circuit breaker</b>                       | 10A Type B: 16 pc.<br>16A Type B: 27 pc.<br>20A Type B: 33 pc. | 10A Type C: 26 pc.<br>16A Type C: 42 pc.<br>20A Type C: 53 pc. |

## Dimension

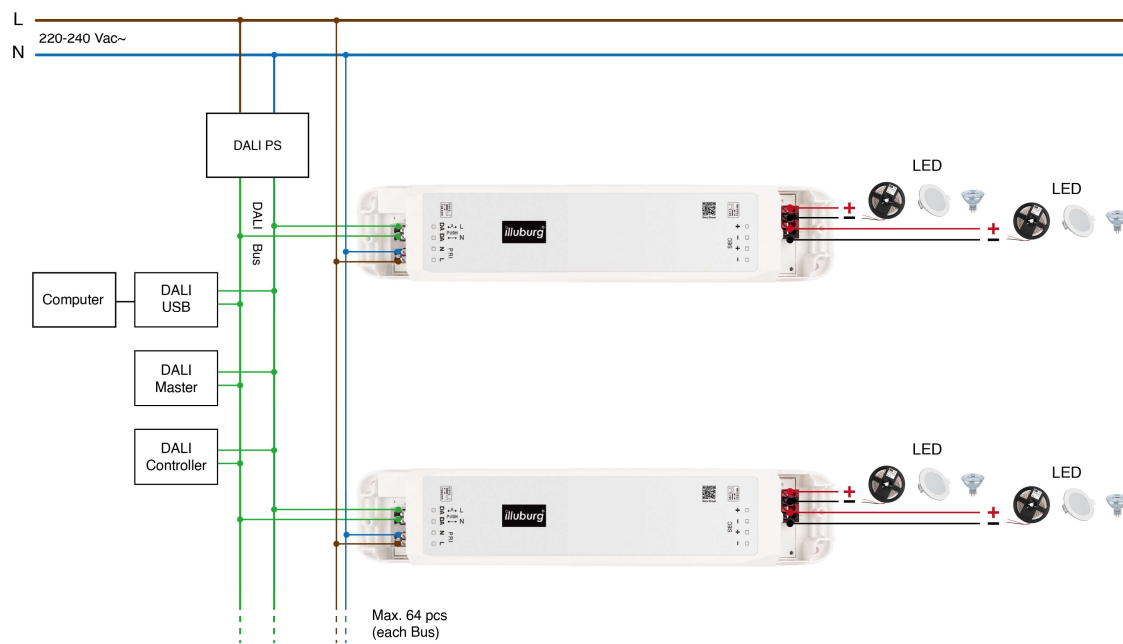


## Connection

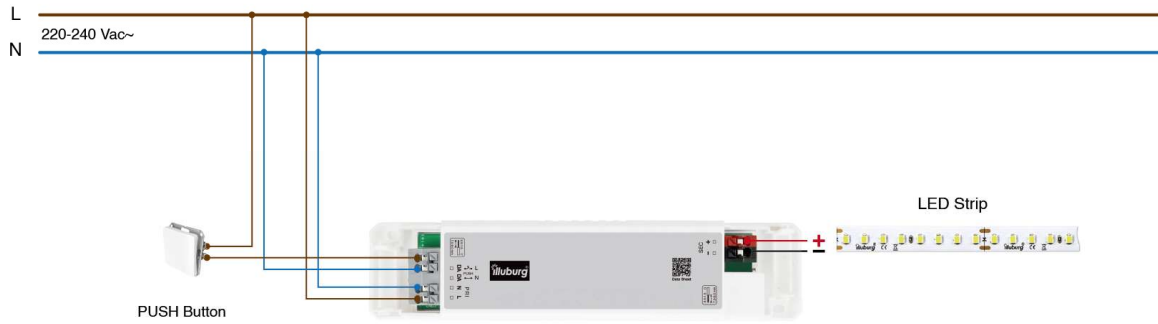
### DALI Dimming (single)



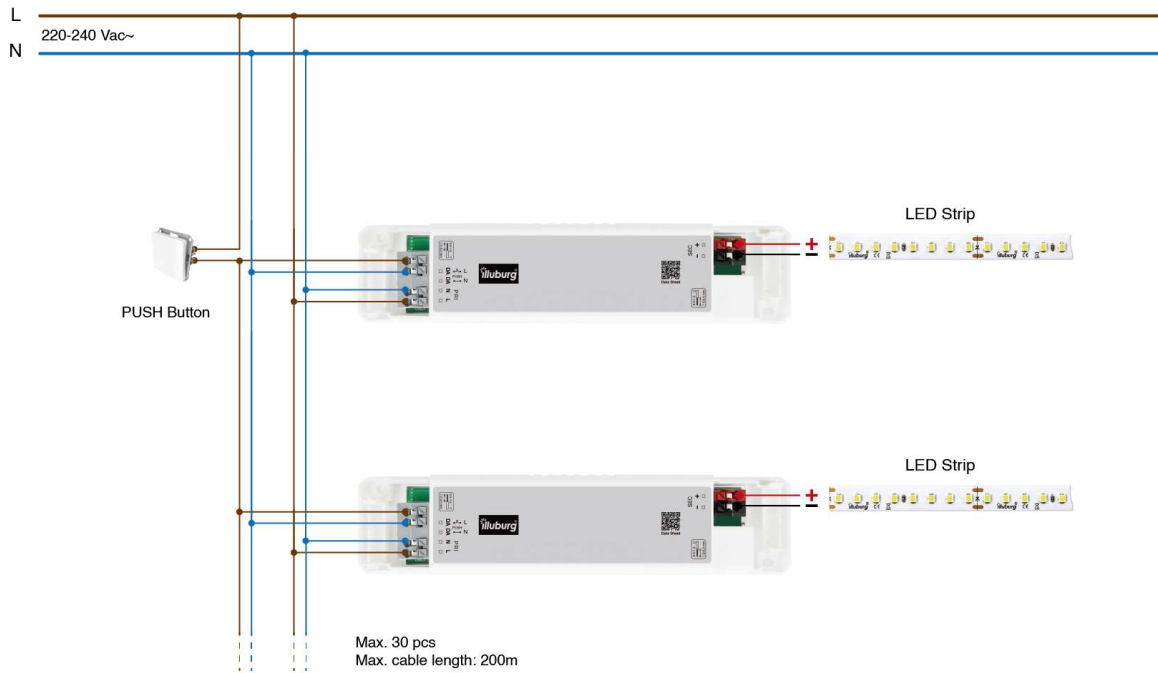
### DALI Dimming (parallel)



### Primary side PUSH Dimming (single)



### Primary side PUSH Dimming (parallel)



## Control via PUSH Button

| Status     | Action           | Duration      | Function   |
|------------|------------------|---------------|--|
| LED on     | Short push once  | < 0.5 s       | Turn off LED drivers   |
| LED off    |                  |               | Turn on LED drivers with saved brightness level.   |
| LED on     | Short push twice | < 0.5 s       | Save current brightness level  |
| LED off    |                  |               | Delete saved brightness level and turn on at 100%  |
| LED on/off | Long push        | 0.5 - 14 s    | Dim brightness up / down.<br>The dimming direction changes each time the button is pressed |
| LED on/off |                  | 15 s – 2 Min. | Sync all LEDs to 100% brightness *   |

\* For connection of multiple LED drivers in parallel with a single PUSH button

## Important notice

Download the safety instructions at [www.illuburg.de/infocenter](http://www.illuburg.de/infocenter), read them carefully and observe the listed instructions and information for proper use.

## Disclaimer of liability

Subject to changes and errors excepted. Make sure you are using the latest version.

## Manufacturer Information

If you have any further questions, please contact our technical support.

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