Light Control System for Indoor Applications

DALI POWER SUPPLY

For in-luminaire installation

The DALI Power Supply unit was designed to enable space-saving installation in a luminaire and lets you determine DALI devices within luminaires. The unit is particularly ideal for smart lighting concepts for office or industrial luminaires. And the DALI Power Supply unit can be used to implement island solutions with a maximum of flexibility.

new

The DALI Power Supply also serves as a power supply for existing DALI applications in order to make them Blu2Light-capable.

DALI Power Supply Functions

- 45 mA DALI BUS POWER SUPPLY UNIT
- SLIM-LINE CASING FOR LINEAR LUMINAIRE CONCEPTS.
DALI Power Supply

For in-luminaire installation
These light control devices are designed for operation inside a luminaire.

Technical Specifications
Ambient temperature $t_a$: 5 to 50 °C
Service life: 50,000 h
Push-in terminals with a lever opening: 0.5–1.5 mm²
Degree of protection: IP20
Radio interference suppression
For luminaires of Protection Classes I and II
DALI devices are connected directly to the DALI bus.
The number of control gear units (DALI devices): depends on the power consumption of the connected devices.

Connections
Mains connection:
220–240 V AC/DC, 0/50–60 Hz,
max. power consumption 2 W
1 DALI bus on 2 pairs of terminals: max. current on the DALI bus = 45 mA
(for the current consumption of individual components, please see the respective datasheet)
The standard version of the DALI bus is not SELV-compliant. As a result, the DALI cable must be mains-voltage-proof.
The DALI bus is fitted with electronic reversible overload and short-circuit protection.

Functions
Supply unit [45 mA] for DALI bus systems.
Extendable by switching outputs in parallel.
(max. 5 outputs, 5 x 45 mA)
Connection of up to 10 ballasts to a single DALI address

DALI Power Supply
Dimensions: [LxWxH]: 147x21x18 mm
Weight: 38 g
Ref. No.: 186693

The values specified in this datasheet can change due to technical innovations; any such changes will be made without separate notification.
General Safety Instructions

- LiCS products may be installed and commissioned only by authorised and suitably trained staff.
- Prior to installation and commissioning, please read these instructions with care to ensure safe and correct handling.
- Only ever conduct any work on the devices in a voltage-free state.
- All valid safety and accident prevention directives must be observed.
- Unauthorised opening of the products is not permitted since this poses a danger to life through electrical shock. Repairs may be carried out only by the manufacturer.
- Never apply mains voltage or any other external voltage to the DALI control line as this can destroy individual components.

DALI Power Supply

Installation

- Install any way up.
- Only install in dry rooms or luminaires, boxes, casings or similar.
- If the DALI Power Supply unit is destined for use in outdoor applications or high humidity rooms, casings with a corresponding degree of protection must be used.
- Attach with the help of 3 mm or 4 mm screws.
- Ensure a flat, solid surface for installation.

Application/Function

- Suitable for luminaire installation, must not be operated as a standalone device.
- Power supply unit (45 mA) for DALI bus systems.

Installation Instructions

- Conductor cross-section for all terminals: 0.5–1.5 mm²
- Cable preparation (see right)
- The standard version of the DALI bus features only basic insulation. All DALI cables must therefore be mains-voltage-proof.
- The maximum permissible length of the DALI bus must not be exceeded during installation: the maximum length of the DALI bus totals 300 m, with a conductor cross-section of 1.5 mm².
- Depending on the number of connected DALI devices, the maximum permissible length of 300 m can be substantially reduced. See datasheet for DALI devices.
- Laying the DALI bus line alongside the power supply line in a single cable is permissible up to a maximum of 100 m, with NYM 5 x 1.5 mm².

Additional Notes

- Switching the outputs of the DALI Power Supply (45 mA) unit in parallel is permissible (max. 5 x 45 mA).
- Polarity must be observed.
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**Light Control System for Indoor Applications**

**Circuit Diagram of the DALI Power Supply Unit**

![Diagram of the DALI Power Supply Unit]

**Technical Specifications of the DALI Power Supply Unit**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DALI Power Supply</th>
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<tbody>
<tr>
<td>Ref. No.</td>
<td>186693</td>
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<tr>
<td>Supply voltage</td>
<td>220–240 V AC/DC, 1/50–60 Hz</td>
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<tr>
<td>Power consumption</td>
<td>2 W</td>
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<tr>
<td>Ambient temperature ta</td>
<td>5 to 50 °C</td>
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<tr>
<td>DALI Output (da+/–)</td>
<td>Max. 45 mA consumption</td>
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<tr>
<td>Degree of Protection</td>
<td>IP20</td>
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<tr>
<td>Protection Class (luminaires)</td>
<td>1 and II</td>
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<td>Weight</td>
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</tr>
<tr>
<td>CE requirement</td>
<td>Immunity to electromagnetic interference (EMC) in acc. with EN 61547, Radio interference suppression in acc. with EN 55015, Safety in acc. with EN 61347-2-11</td>
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