Smart Node
Simplify Your Smart Living

Last Update
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Datasheet

DALI PS.D1

Quick Links

| Product Info | Features | Specifications |
| Benefits | Installation | Dimension & Wiring |

Product Name: DALI Power Supply

Model Number: PS.D1

Description: The DALI power supply provides 16V DC to the DALI bus, with an input voltage range of 100-240VAC, ensuring stable communication for lights, dimmers, and sensors. Provides 5 year warranty*, it ensures long-term reliability and efficiency.

Application : Smart home lighting systems, Cove lighting, wall washer, corridor, luminous ceilings, when combined with appropriate lighting fixtures and controllers.

Features

- DALI-2 compliant power supply.
- Single power supply consists of two independent power outputs, allowing user to run two separate buses from one power supply, ensuring flexibility and scalability.
- Single DALI Bus support provides 225mA (with a tolerance of ±5%) output for reliable operation on a single DALI bus.
- Easy Installation with options for DIN Rail.
- High Efficiency with an efficiency rating above 85%, minimizing energy loss.
- Compact size for space-saving installation, with a width of 53 mm.
- Comprehensive Protection includes thermal shutdown, over-voltage, short-circuit, and overload protection.

Product Technical Details:-

Input Voltage Range	100-265 VAC
Max. Input Supply Current	100-110mA (@100Vac),42-47 mA (@265 Vac)
Output Voltage	16V
Rated current	225mA ± 5%
Guaranteed DALI Supply current	225mA (Each Channel)
Max. Output Power	7.2W (Both channels combined)
Rated insulation voltage	1000V
Main Frequency	50/60Hz
Power consumption	5W
Start up time	240ms
Control System	DALI
Max. Level Voltage DC, DALI	16V
Min. Level Voltage DC, DALI	10V
Maximum Bus Length	300m (Acc to DALI standard)
Mounting Option	DIN Rail
Housing Material	ABS Material

Environment Information:-

Operating Temperature	-20°C to +50°C
Storage Temperature	-25°C to +55°C
Transport temperature	-25°C to +70°C
Humidity	95%RH

LED Indication:-

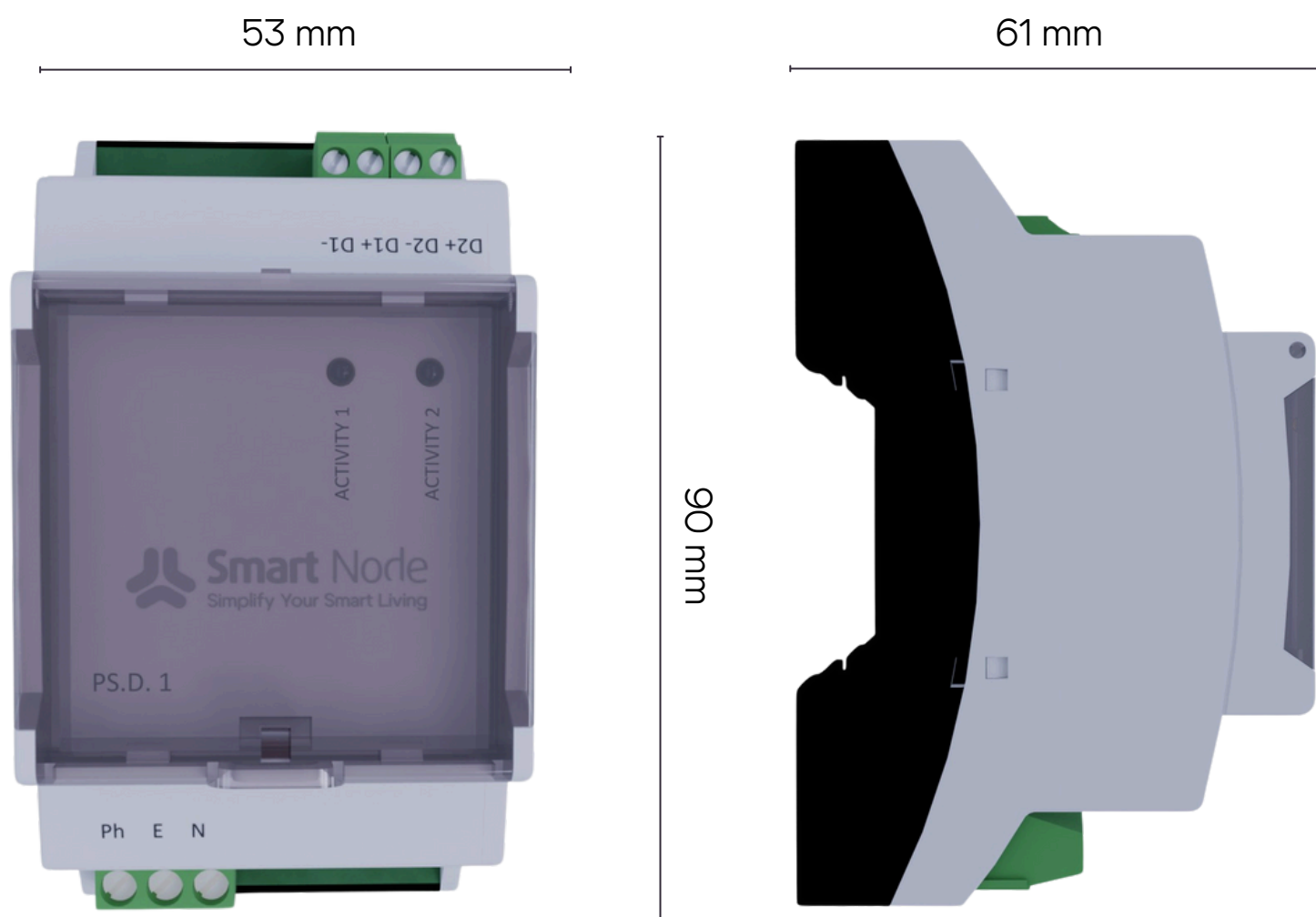| OFF	No power/normal	Normal operation or no power
Blink	Data transmission	Data exchange via DALI bus
Continuous ON	Fault condition	Short circuit or excessive DALI load

- Equipped with Dual Power Supply, saving space.
- LED Indication for easy status monitoring.
- Ensuring flexibility and scalability with dual power outputs to support multiple systems and expand capacity.
- The compact, flexible design allows for easy installation, including in luminaries.
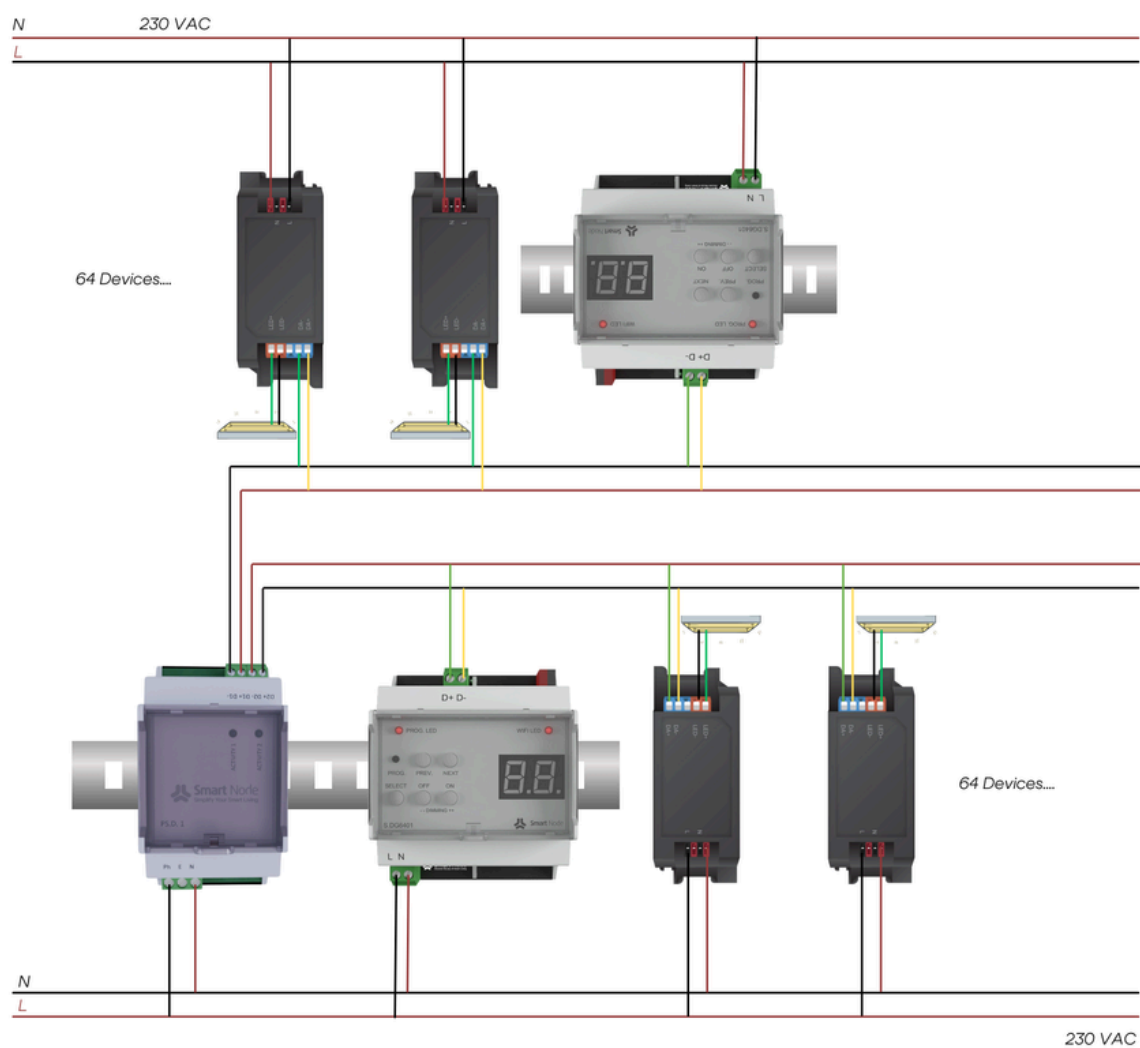
Installation

1. Turn off the main power supply to avoid electrical shock.

2. Ensure the Dali power supply matches your system's voltage and current.

3. Ensure all DALI devices are installed and wired correctly.

4. Mount the power supply in a dry, ventilated area on a 35mm DIN rail.

5. Connect Live (L) and Neutral (N) to the correct AC input terminals.

6. Connect DALI+ and DALI- to the DALI bus using standard 0.75 mm² twisted-pair cables in a series or star configuration(for long distances, use shielded cables).

7. Check all wiring connections are correct and secure.

8. Turn on the power at circuit breaker/the power supply and check LED status: Off = normal, Blink = data transmission, Continuous on = fault.

9. Test DALI devices to ensure proper communication and responsiveness to commands like dimming or switching using a DALI controller

10. Tighten all connections, close the panel to protect the power supply, and label wiring for future reference.

11. Regularly check for damage or loose connections and use the LED indicators or datasheet to troubleshoot issues.

*Note: The maximum cable length of the DALI signal wires must not exceed 300m or drop more than 2V on the signal line voltage. Do not connect AC wires in DALI bus.

53 mm

61 mm

90 mm

ACTIVITY 1 ACTIVITY 2

D2+ D2- D1+ D1-

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PS.D. 1

Ph E N

Wiring

N   230 VAC
L

N 1

64 Devices...

D+ D-

64 Devices...

L N

L N

N
L

230 VAC

Safety Information:-

- Installation by licensed electrician only.
- Turn off electrical supply before installation.
- No user-serviceable parts; servicing voids warranty.
- DALI is LV, not SELV.
- Leave this manual with the building owner after installation.