



Characteristics

- PS3-30/DALI provides 30 W total power for both iNELS bus (27 V DC) and DALI devices (16 V DC), ensuring efficient power distribution for central units, external masters, and peripheral devices including DALI BUS.
- PS3-30/DALI includes an internally integrated bus isolator to power one branch of the iNELS BUS, maintaining reliable and isolated power supply for connected peripheral units.
- Equipped with electronic protection against short circuits, overvoltage, power overload, and temperature overload, ensuring safe and stable operation.
- Offers over 85% efficiency, optimizing energy consumption and reducing heat generation.
- Compact Design: 3-module unit designed for easy mounting on DIN rail EN60715, allowing for streamlined installation in switchboards and control panels.
- Supports a wide input voltage range of 100-240 V AC and operates in temperatures from -20°C to +55°C, suitable for various environmental conditions.
- Meets safety standards EN 60950-1 and EN 62368-1, EMC standards EN 55032 and EN 55024, and is RoHS compliant, ensuring adherence to international safety and environmental regulations.

General instructions

CONNECTION TO THE SYSTEM. INSTALLATION BUS

iNELS3 peripheral units are connected to the system through the BUS installation. Installation BUS conductors are connected to the terminal units to BUS+ and BUS- terminals, wires cannot be interchanged. For installation of BUS it is necessary to use a cable with a twisted pair of wires with a diameter of at least 0.8 mm, the recommended cable is iNELS BUS Cable, whose features best meet the requirements of the BUS installation. Bearing in mind that in terms of all the properties it is possible in most cases also use the cable JYSTY 1x2x0.8 or JYSTY 2x2x0.8, however it is not recommended as the best option. In the case of a cable with two pairs of twisted wires it is not possible to use the second pair of the other for modulated signal due to the speed of communications; it is not possible within one cable to use one pair for one segment BUS and the second pair for the second segment BUS. For installation of BUS it is vital to ensure that it is kept at a distance from the power lines of at least 30 cm and must be installed in accordance with its mechanical properties. To increase mechanical resistance of cables we recommend installation into a conduit of suitable diameter. BUS topology installation is free except for the ring, wherein each end of the bus must terminate at the terminals BUS + and BUS- peripheral unit. While maintaining all the above requirements, the maximum length of one segment of the installation BUS can reach up to 300 m. Due to the data communication and supply of units in one pair of wires, it is necessary to keep in mind the diameter of wires with regards to voltage loss on the lead and the maximum current drawn. The maximum length of the BUS applies provided that they comply with the tolerance of the supply voltage.

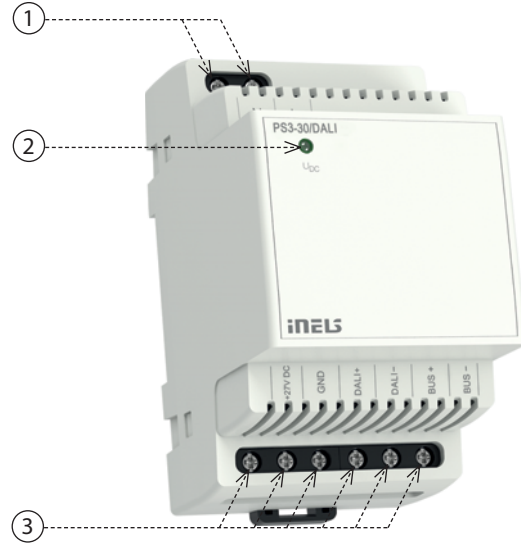
CAPACITY AND CENTRAL UNIT

You can connect the power supply PS3-30/Dali to the central unit CU3-08/09/10M on a single BUS using BUS1+ and BUS1- terminals, and to the Dali bus via DA+ and DA- terminals. The BUS can support up to 32 units depending on the power requirements of the devices, and the Dali BUS can handle up to 64 devices. Ensure that the total current on any BUS line does not exceed 1000 mA. If connecting units that require more than 1A, an additional power supply may be necessary.

GENERAL INFORMATION

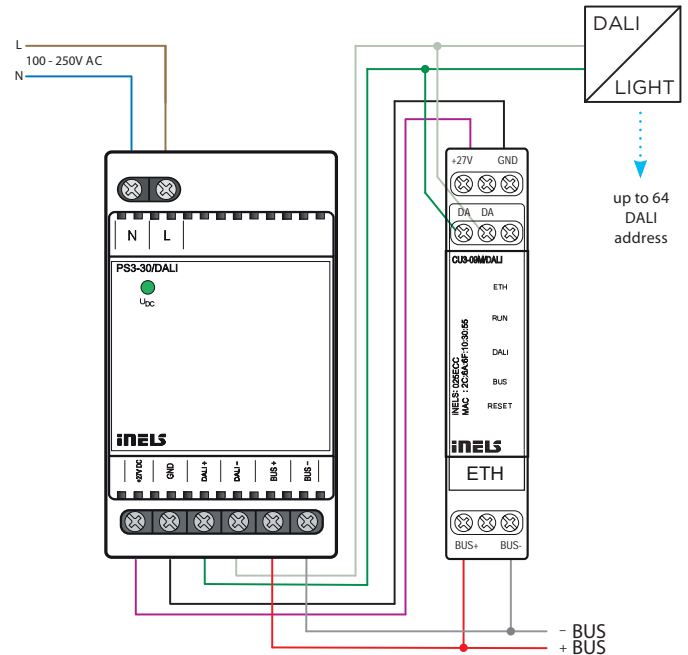
To operate the unit, it is necessary that the unit is connected to a central unit CU3 series, connected to the central unit of the system CU3, or to a system that already contains this unit as its expansion to include further system.

Description of device



1. Terminals of supply voltage
2. Indication LED
3. Terminals of output voltage

Connection



Technical parameters

Input AC	
Supply voltage:	100 - 250 V AC/50 - 60 Hz
Power dissipation:	max. 6.5 W
No-load power (apparent/active):	max. 10 VA/1.5 W
Power consumption at max. Load (apparent/active):	max. 54 VA/33 W
Protection:	T2A fuse inside the device

Outputs	
27 V	
Output voltage:	27 V
Max. load capacity:	1 A
BUS	
Output voltage:	27 V
Max. load capacity:	1 A
DALI	
Output voltage:	16 V
Max. load capacity:	250 mA
Max. total load capacity*	30 W
Overall resource efficiency:	> 82 %
Time delay after Connection to AC network:	max. 5 s

Indication LED	
Green LED U _{bc} :	output voltage indication

Operating conditions	
Electrical power INPUT AC - OUTPUT BUS:	4 kV
Connection terminals:	Ordinal
Cross-section of connecting wires (mm ²):	max. 1 x 2.5, max. 2 x 1.5 (With core max. 1 x 1.5)
Working temperature:	-20 °C to +55 °C
Storage temperature:	-30 °C to +70 °C
Working air humidity:	20 to 90 % RH
Degree of protection:	IP20 device, IP40 with cover in the control cabinet
Surge category:	III.
Degree of pollution:	2
Working position:	any, optimally vertical
Installation:	to the control cabinet for DIN rail EN 60715
Design:	3-MODULE
Dimensions:	90 x 52 x 65 mm
Weight:	174 g
Related standards:	general: EN61204, safety: EN61204-7, EMC: EN61204-3

*The maximum total load capacity is the sum of the loads of the individual outputs.
(iNELS BUS + DALI BUS)

Warning

Before the device is installed and operated, read this instruction manual carefully and with full understanding and Installation Guide System iNELS3. The instruction manual is designated for mounting the device and for the user of such device. It has to be attached to electro-installation documentation. The instruction manual can be also found on a web site www.inels.com. Attention, danger of injury by electrical current! Mounting and connection can be done only by a professional with an adequate electrical qualification, and all has to be done while observing valid regulations. Do not touch parts of the device that are energized. Danger of life-threat! While mounting, servicing, executing any changes, and repairing it is essential to observe safety regulations, norms, directives and special regulations for working with electrical equipment. Before you start working with the device, it is essential to have all wires, connected parts, and terminals de-energized. This instruction manual contains only general directions which need to be applied in a particular installation. In the course of inspections and maintenance, always check (while de-energized) if terminals are tightened.

DECLARATION OF CONFORMITY

ELKO EP declares that the PS3-30/DALI type of equipment complies with Directives 2014/30/EU, 2011/65/EU, 2015/863/EU and 2014/35/EU. The full EU Declaration of Conformity is available at: <https://www.elkoep.com/power-supply---ps3-30dali>