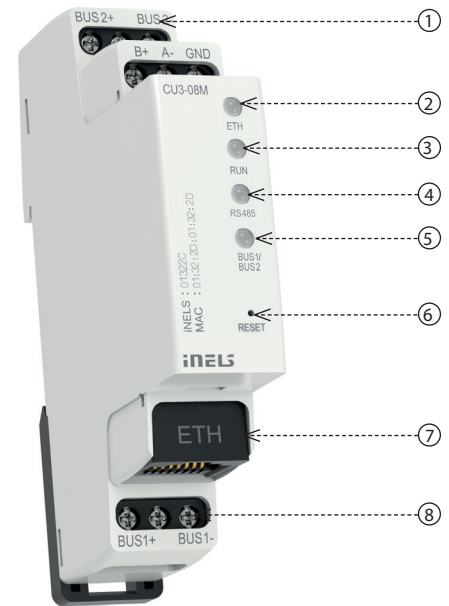




## Characteristics

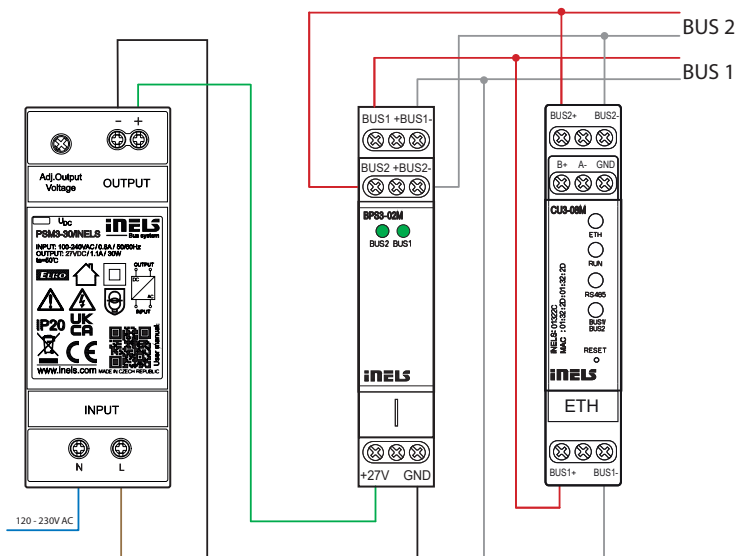
- CU3-08M is one of the basic system control units of iNELS BUS installations.
- The unit can work independently, as an autonomous project, or it can be controlled by the IP-MASTER as part of a larger project.
- The unit is equipped with two BUS to which it can connect up to 32 iNELS BUS units.
- The current load of one line is max, 1 A, BPS3-01M with 3 A can be used in case of connected device with more than 1 A.
- The RJ45 100 Mbps Ethernet connector is used for direct communication with the cloud for mobile app control or for communication with the superior unit within the iNELS IP topology.
- Configuration takes place in the iNELS3 Designer & Manager software (iDM3).
- Through iDM3 it is possible to update the firmware of central units and bus connected peripheral units.
- The unit is powered by 27 V DC from iNELS power supply.
- System units CU3-07M in 1-MODULE design are designed for mounting into a switchboard on DIN rail EN60715.

## Description of device



- |   |                                  |
|---|----------------------------------|
| 1. Supply voltage terminals                           | 6. LED indication of the BUS     |
| 2. Bus EBM  | 7. Reset button                  |
| 3. LED indication Ethernet LINK/SPEED                 | 8. Ethernet port 100 Mbps (RJ45) |
| 4. LED indication of the operating status of the unit | 9. BUS data bus                  |
| 5. LED bus indication EBM                             |                                  |

## Connection



max. 32 units per BUS branch; max. 1A (PS3-30 / iNELS) per BUS branch

**CU3-07M**

**Indication LED STATUS**

Green - RUN:	The main program runs
Red- ERR:	The main program stalled

**Communication**

System bus BUS1/BUS2

Status indication (LED BUS):	green - indication of the operating status of the bus red - error indication on the bus
Maximum number of units:	2x32 Units
Maximum line length:	max. 300 m (depends on power loss)

**Ethernet**

Connector:	RJ45
Communication speed:	100 Mbps
Ethernet status indication (LED ETH):	green - Ethernet communication yellow - Ethernet speed 100 Mbps
Default IP address:	192.168.1.1

**RESET button**

Restart:	Short press
Reset (factory reset settings):	press the button to bring power on, button release 10 s after power is supplied

**Power**

<b>BUS1</b>	
Supply voltage/tolerance:	27 V DC, -20/+10 %
Rated current:	50 mA (at 27 V DC)

<b>BUS2</b>	
Supply voltage/tolerance:	27 V DC, -20/+10 %
Rated current:	50 mA (at 27 V DC)

**Operating conditions**

Working temperature:	-20 to +55 °C
Storage temperature:	-25 to +70 °C
Air humidity:	max. 80%
Degree of protection:	IP20 device, IP40 with cover in the control cabinet
Surge category:	II.
Degree of pollution:	2
Working position:	any
Installation:	to the control cabinet for DIN rail EN 60715
Design:	1-MODULE
Terminal plate:	max. 2.5 mm <sup>2</sup>

**Dimensions and weight**

Dimensions:	94 x 17.6 x 64 mm
Weight:	72 g

**CU3-08M**

**Installation BUS:**

- Two-wired BUS with an arbitrary topology (not only to be as closed circle).
- With its own modulated communications on the DC voltage supply.
- One line of BUS allows you to connect up max. 32 units of iNELS3. The current load of one line is max. 1 A. When connecting units which draw greater than 1A, power supply PS3-100 iNELS and BPS3-01M with max. 3 A sampling can be used.
- Maximum length of the BUS is approximately 300 m (depends on the voltage drop).
- Recommended cable:
  - iNELS BUS Cable - Twisted pair of copper wires with size of AWG20 wire (diameter of 0.8 mm, cross-section of 0.5 mm<sup>2</sup>).
- The configurations of units and the whole system are done via Ethernet, through configuration software - iNELS3 Designer & Manager (iDM3), which is designed for operating systems Windows 10 and Windows11.
- The central unit features two communication protocols:
  - ELKONET - to communicate with Connection Server or directly with the application iHC.
- Supported Software:
  - Parameterization, configuration, control and visualization: iNELS3 Designer & Manager (iDM3).
- By means of iDM3, you can update firmware of central units and peripheral units connected by 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](http://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 CU3-08M 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/central-unit-minicu-cu3-08m>