

energia

Load management module

Installation guide



KSI2700001.300

INTRODUCTION

energia peripheral BUS is a module for energy loads management. It allows to manage the power used in your single-phase electrical system, on each one of its two lines.

energia module provides two distinct power lines on which measuring both voltage and current, each line can support loads up to 6kW.

The values of the voltage of the two lines expressed in Volts and the current measured on each line L1 and L2 expressed in Ampere, measured in one tenths of Ampere, are displayed in real time.

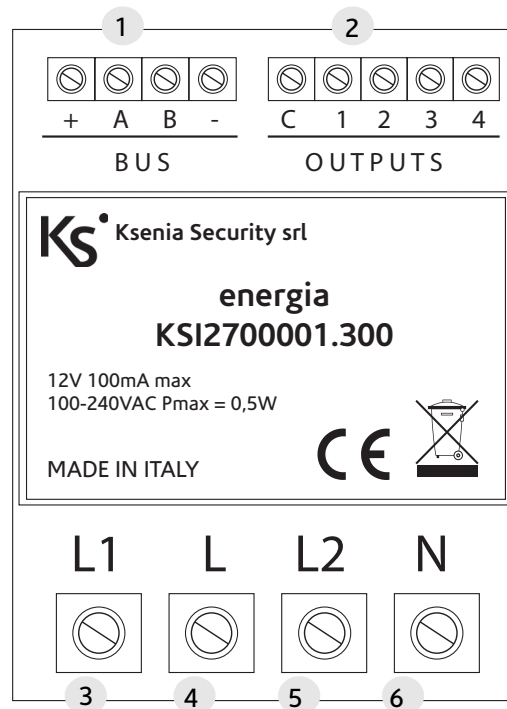
On **energia** module there are 4 outputs relays which can be used both to drive external relays for overloaded circuits disconnection and as generic outputs of the control unit panel.

energia module must be linked to the lares 4.0 control panel via the KS-BUS. It becomes the ideal complement when lares 4.0 is used in the home & building automation field.

FUNCTIONS

- **energia** can measure and manage the power consumption on each of its two lines;
- it can control the power consumption trend through displaying bar charts for an immediate analysis;
- it can program the disconnection of loads after exceeding two thresholds (the first sends push and sound notifications, the second starts disconnection);
- it can control the status of household appliances in real time (connected/disconnected) from lares 4.0 App and Maps.

DESCRIPTION OF THE PRODUCT



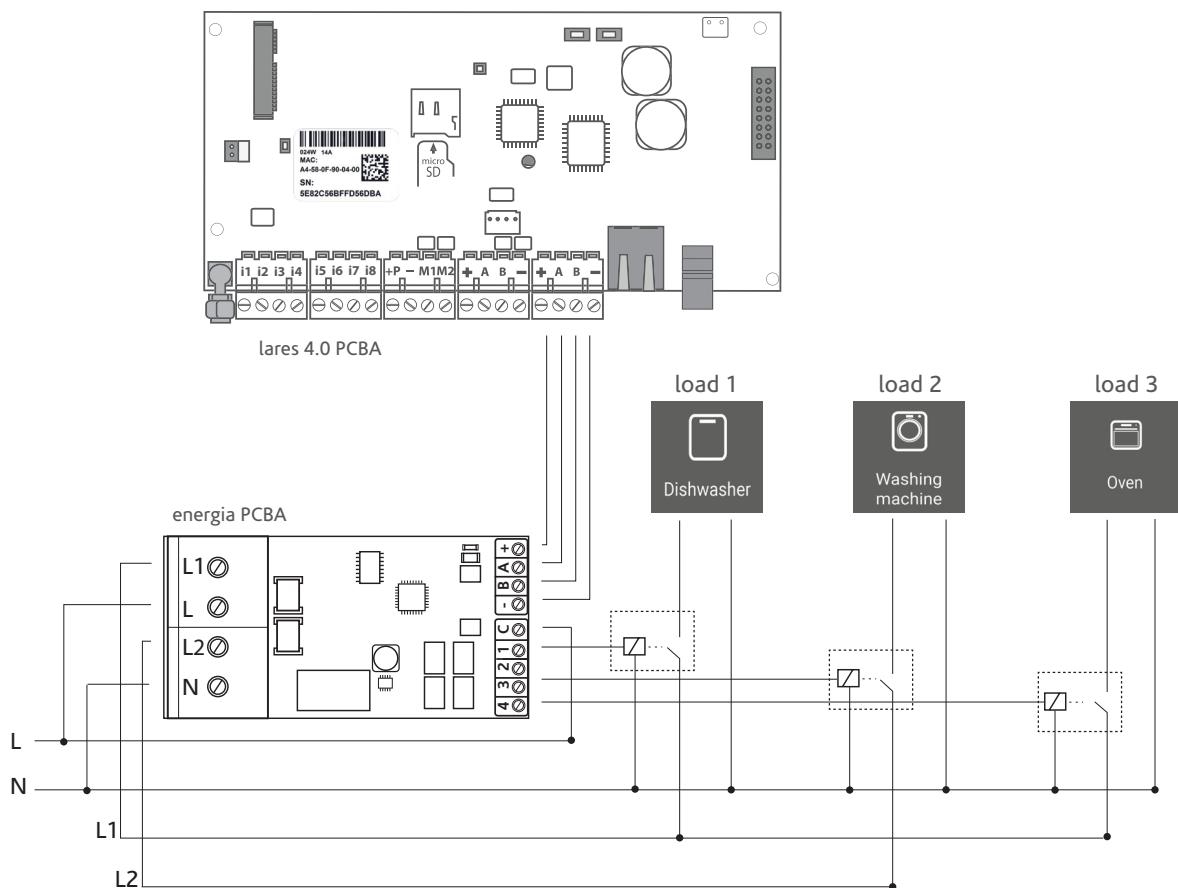
TERMINALS DESCRIPTION		
1.	+ A B -	Connection terminals for lares 4.0 control panel
2.	C	Common terminal
	1 / 2 / 3 / 4	Relay outputs
3.	L1	Phase power supply output L1
4.	L	Mains power supply (phase)
5.	L2	Phase power supply output L2
6.	N	Mains power supply (neutral)

CONNECTION DIAGRAM

The following diagram shows an example of **energia** module connection with the BUS of the lares 4.0 and 3 relay outputs used to drive as many external relays for the disconnection of 3 loads (dishwasher, washing machine and oven).

The installation of **energia** must ensure the inclusion in a protective, fireproof, electrical and mechanical box. Arrange outside the **energia** module an isolating device. An omnipolar power supply switch must be incorporated into the electrical installation of the building. Install the board inside an enclosure that guarantees protection against fire propagation (UL 94 V-0 metal or plastic material).

SAFETY WARNINGS! It is necessary to install a magnetothermic circuit breaker device suitably sized for the connected electrical loads.



TECHNICAL CHARACTERISTICS

- Power supply 100-240Vac - Maximum consumption 0.5W
- Power supply 12V - Maximum absorption 100mA
- DIN rail mounting
- Maximum power: 2x6kW (if 220Vac) - 2x3kW (if 110Vac)
- Number of output relays: 4 (250V - 1A)
- KS-BUS interface
- Dimensions: 3 DIN modules (90x53x62 mm)

CONFIGURATION

The configuration of **energia** module and **meters** is performed by the configuration program "Installer" as described in the "Programming Manual" of the lares 4.0 platform.

QUANTITY DATA

lares 4.0 models	wls 96	16	40	40 wls	140 wls	644 wls
Maximum number of energia modules	1	-	1	3	6	6
Meters maximum number	2	-	3	6	12	18
Configurable outputs maximum number	4	4	4	4	8	8

COMPLIANCE

Europe - CE, RoHS



Technical specification, appearance, functionality and other product characteristics may change without notice.

ENVIRONMENTAL CARE

energia has been specifically designed and manufactured for the environment respect as follows:

1. No PVC
2. Halogen-free laminates and lead-free PCBA
3. Low consumption
4. Packaging realized mainly with recycled fibers and materials

*Installation of these systems must be carried out strictly in accordance with the instructions described in this manual, and in compliance with the local laws and bylaws in force. **energia** has been designed and made with the highest standards of quality and performance adopted by Ksenia Security. It is recommended that the installed system should be completely tested at least once a month. Test procedures depends on the system configuration. Ask to the installer for the procedures to be followed. Ksenia Security srl shall not be responsible for damage arising from improper installation or maintenance by unauthorized personnel. The content of this guide can change without prior notice from KSENIA SECURITY.*

Information for users: Disposal (RAEE Directive)

Warning! Do not use an ordinary dustbin to dispose of this equipment.

Used electrical and electronic equipment must be treated separately, in accordance with the relative legislation which requires the proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation of directives in member states, private households within the EU may return their used electrical and electronic equipment to designated collection facilities free of charge. Local retailers may also accept used products free of charge if a similar product is purchased from them.*

If used electrical or electronic equipment has batteries or accumulators, these must be disposed of separately according to local provisions.

Correct disposal of this product guarantees it undergoes the necessary treatment, recovery and recycling. This prevents any potential negative effects on both the environment and public health which may arise through the inappropriate handling of waste.

** Please contact your local authority for further details.*

