Electricity measuring module (3 channels) for Niko Home Control

550-00803

This module is used to measure your overall electricity consumption, solar production and energy consumption of your individual appliances. All values measured are sent to the Niko Home Control installation and are saved on your connected controller, providing you with insight into your total electricity consumption and the electricity production. The measuring module also enables you to use smart energy alerts in Niko Home Control that notify you in case of abnormal energy consumption. If you activate the Niko Home Control solar mode you can start increasing your self-consumption by automatically activating your appliances in case of excessive solar energy. The peak mode enables you to control your peak consumption. The module is equipped with one feedback LED per channel and a status LED.

Technical data

Electricity measuring module (3 channels) for Niko Home Control.

- Function: The electricity measuring module is available with one channel or three channels and is used for measuring the consumption or electricity production on one or several switching circuits or phases. Typical applications for these modules:
- measuring the total electricity consumption of the dwelling that is connected to a single-phase supply network.
- measuring the total electricity consumption of a dwelling connected to a three-phase supply network 3P+N (400 Vac) or 3P (3 x 230 Vac)
- measuring the amount of energy generated by photovoltaic solar panels.
- measuring the consumption of specific circuits, such as the upper floor of a house, for instance.
- assessing which devices are heavy electricity users.

The measuring module measures the electrical current in one or several conductors via the current clamps supplied. The module measures the voltage of the phase to be measured via the connection terminals. By measuring both electrical current and voltage, the installation can accurately assess how much electricity is consumed or produced in the home. All values measured are sent to the Niko Home Control installation and are saved on your connected controller, providing you with insight into your total electricity consumption and the electricity production. A detailed overview of these data can be requested via the touchscreen, a smartphone or the Niko Home Control energy software. If you want to keep track of your home's past electricity consumption, then the installation must be fitted with an IP module that logs the measuring data.

Select an electricity measuring module with one channel or an electricity measuring module with three channels, based on the number and type of channels you wish to measure. Alternatively, the electricity consumption can be measured by a pulse counter provided that the electricity meter is fitted with a pulse output.

Provided that everything is installed correctly, the electricity consumption will always be displayed as a positive number while the amount of electricity generated (e.g. by solar panels) will always be displayed as a negative number.

The following settings can be selected per channel via the programming software:
- channel name.

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- single-phase or three-phase use.
- channel type: global (meter from the energy supplier), consumer, amount generated.

When the module is functioning properly, the STATUS LED will light up in TEST mode only. If one or several errors occur, the LED will blink to indicate the error code of the error with the highest priority.
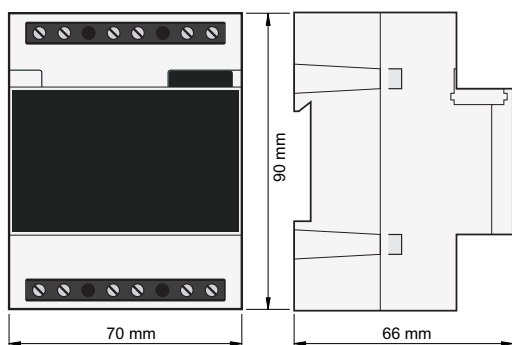
- measuring range with current clamps supplied: 5 - 14 500 W, 22 mA - 63 A
- maximum measuring range for the entire measuring module: 32768 W
- accuracy: IEC62053-21 class 1 (R), class 2 (L)

Applies to 3P+N (400 Vac), 50 Hz and a single-phase supply network (230 Vac), 50 Hz.

- Sliding contact to connect the module to the following module on the DIN rail
- Input voltage: 230 Vac ± 10 %, 50 Hz
- Maximum MCB rating: 20 A (limited by national installation rules)
- Connection terminals: 3 x 2 screw terminals to measure the voltage of the connected switching circuit and 3 x 2 screw terminals to connect the current clamps included
- Wire capacity
  – 3 x 1.5 mm² of 2 x 2.5 mm² or 1 x 4 mm² wire per terminal
- DIN dimensions: DIN 4TE
- Dimensions (HxWxD): 90 x 70 x 66 mm
- Marking: CE

CE

Dimensions

Wiring diagram

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