

5. Regulation

5.1 A-Zrouter SMART



A-Zrouter SMART is an adjustable regulator of self-consumption of photovoltaic power plants. After Proper installation and adjustment of the controller optimizes the consumption of electricity produced your photovoltaic power plant.

The SMART A-Router consists of a DRP-3SM measuring unit installed in the cabinet and wireless control unit DRP-3SL installed on the wall.

Main functions and characteristics:

- Three-phase indirect current measurement
- Three-phase direct voltage measurement
- Independent calculation of current direction and total power for each measured phase
- Independent measurement at each stage increases the control accuracy for asymmetric systems inverters
- The overflow regulation takes place independently in each phase
- The HDO input on the measuring unit together with the settings allows forced closing appliances according to user requirements
- The MODE input allows switching between two device scenarios (settings)
- Integrated real-time module backed up by a lithium battery
- Wireless connection of units speeds up installation and expands placement options

The SMART A-Zrouter set is used to efficiently use energy produced from photovoltaic power plants. It continuously measures the overall energy balance of the building and prevents the flow of energy from the building to the public distribution network, so-called overflow.



Energy overflow is undesirable from the point of view of economics of photovoltaic power plant operation, because it is the energy produced which is the place of efficient use in the household sent to the distribution network free of charge.

However, it is necessary to ensure sufficient storage capacity for the SMART A-Router function itself appliances that store its own overflows for later use (e.g., storage heater DHW, pool heating, etc ...).

The overflow control system itself consists of a measuring unit located in the switchboard (DRP- 3SM) and control units (DRP-3SL) connected in series to the thermal circuit storage appliance.



The mutual communication of the units takes place wirelessly on the frequency 433 MHz, which is for increased reliability two-way, quality data is transmitted several times per second connection and operating states of both units. In case of communication failure, both the units go to the defined safe state.

Furthermore, the unit communicates using WIFI (2.4GHz), with which it is possible to perform all configuration and communication with the cloud via the Internet. The units are removable antennas with a choice of size and shape for possible installations in atypical spaces or in areas with degraded signal transmission.

It is possible to connect a total of up to 3 control units to the measuring unit, which operate in cascading priority mode. The measuring unit contains a user interface where on clear web interface displays current information about the entire system and

measured overflow values. All parameter settings are also implemented via the user interface units, service settings, diagnostics and reading of status information.

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SMART A-Zrouter optimizes the operation of the photovoltaic power plant and helps with efficiency using unused energy in the building to use e.g. storage tanks DHW heaters, pool heating, etc ...).

Package contents:

- 1x Measuring unit DRP-3SM
- 1x Control unit DRP-3SL
- 1x Antenna 2dBi direct 433MHz (white)
- 1x Antenna 2dBi direct WIFI (black)
- 1x 3dBi angular antenna
- 1x (3x) Current transformer AZC-5050

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