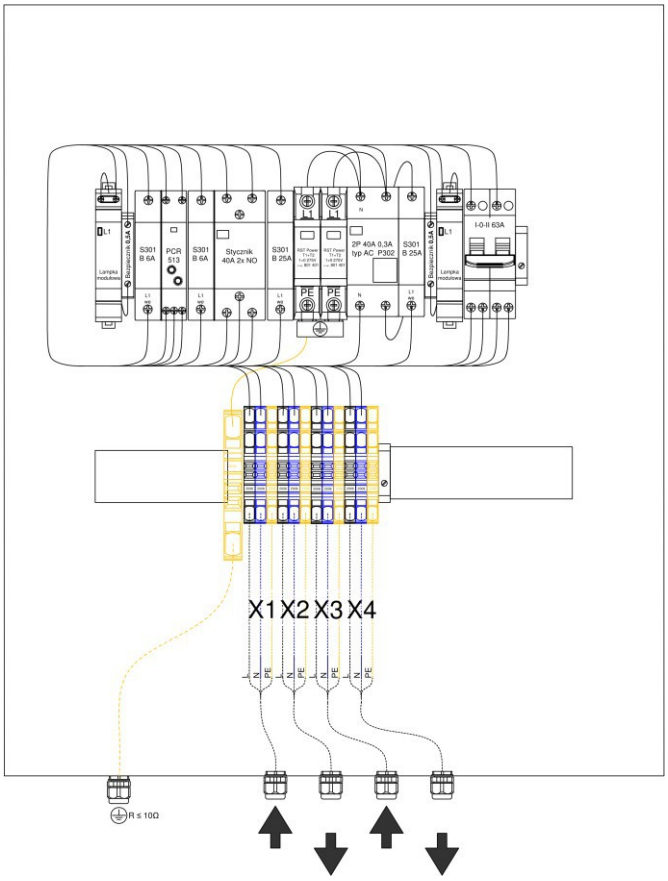
Solution Energy Storage

CONNECTION SWITCHBOARD ASSEMBLY AND OPERATING MANUAL

ARTICLE NUMBER : **OFFGRID/1xFAL/1F**



INSTALLATION AND OPERATION MANUAL FOR OVERVOLTAGE PROTECTION SYSTEM

Only electricians with the necessary knowledge and qualifications are authorized to connect and assemble the switchgear. Obligation is to comply with national and occupational safety regulations (PN-HD 60364-1:2009). Before starting the installation, check the device for any external damage or other defects. Operation of the device is allowed only under the given and described conditions and parameters contained in the manual. Loads exceeding the values given in the technical parameters may damage the connecting switchgear itself as well as the connected electrical systems. Manipulation and changes made to the device may void the warranty. The device must be connected with the power supply of the protected installation switched off. Connect the wires in accordance with the wiring diagram included in the manual.



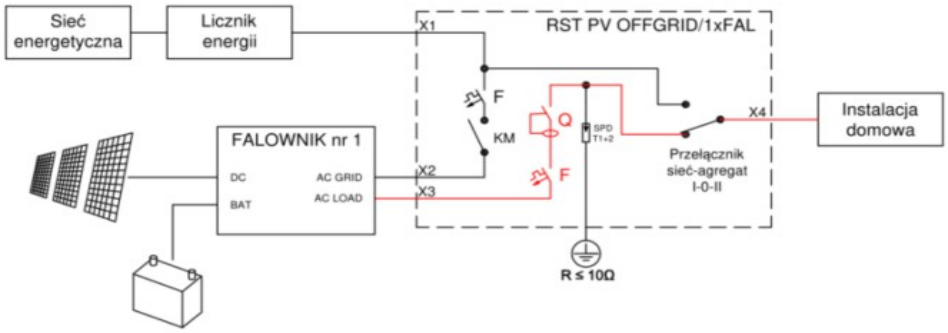
After connecting the system, check that all bolted connections are properly tightened.

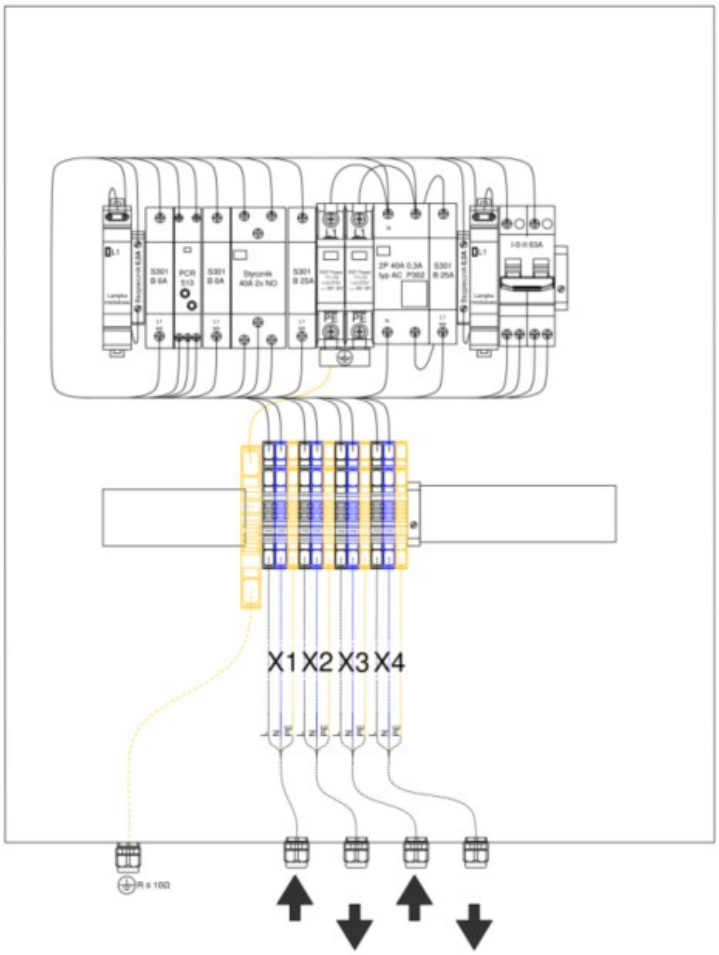
General information

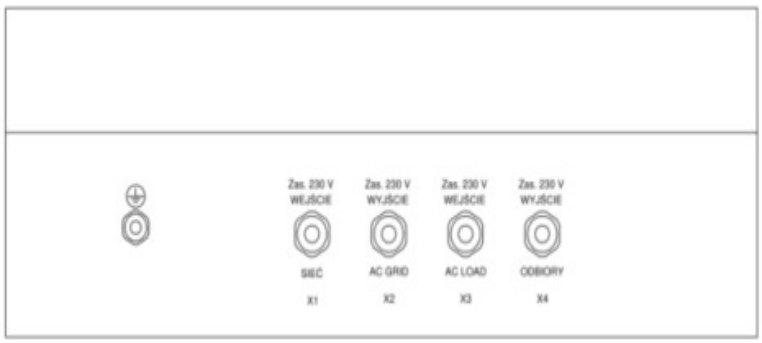
The switchgear, after being connected to the grid and the inverter, enables the supply of single-phase receivers from the energy storage or a generator made of photovoltaic modules in the event of a power grid failure. When the grid is restored, the inverter switches back to on-grid mode. During the correct operation of the power grid, critical circuits are supplied directly from it. In the absence of power from the city grid, critical loads are disconnected from the power grid and switched to emergency power from the energy storage connected to the inverter.

After the 230V power supply is restored, the critical receivers are again powered directly from the mains energy. The switchgear in emergency mode maintains the compatibility of the network system, allows connection loads up to 5 kW. The switchgear is equipped with a mains-generator switch, which allows the receivers to be connected directly to the municipal network, bypassing the inverters for the duration of the repair or in the event of their damage, for the duration of the repair.

RST PV OFFGRID/1xFAL/1F





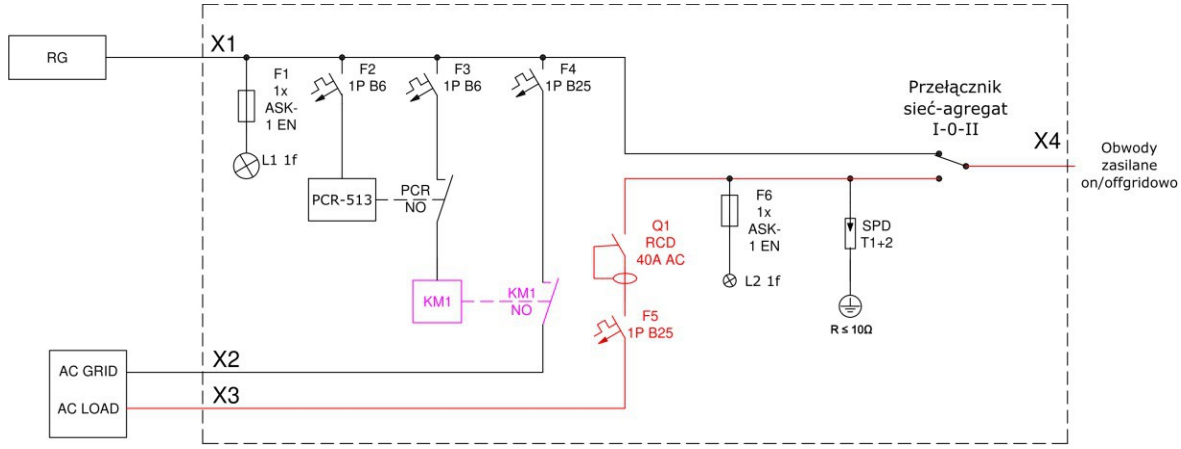


TECHNICAL PARAMETERS

Junction box
nr kat. **OFFGRID/1xFAL/1F**

Case	
Model	Legrand PLEXO 3 2x18
Dimensions (height x width x depth)	432 x 448 x 161 mm
Rated voltage	400 V AC, 1000 V DC
Stopień ochrony obudowy	IP 65
Degree of protection of the housing	II
Compliance with standards	EN 62208:2011
Connection terminals	
Mains connection X1	WAGO 2006 (3xL, N, PE)
Inverter connection (AC GRID) X2	WAGO 2006 (3xL, N, PE)
Inverter connection (AC LOAD) X3	WAGO 2006 (3xL, N, PE)
Connection of critical receivers X4	WAGO 2006 (3xL, N, PE)
Connection of the grounding conductor of the surge arrester	WAGO 2016 (PE)
Electrical parameters	
Grid type	Three-phase TN-C, TNC-S, TN-S
Working voltage	230/400 V AC
Frequency	50 Hz
Emergency power source Maximum backup power output current	Energy storage / PV generator
Maximum backup power output current	25 A
Time to switch to backup mode	~ 4 s
Time to return to grid mode	~ 4 s
Backup circuit protection Isolation from the power grid in backup power mode	Circuit breaker 1P B25 Switch RCD 2P typ AC 300mA
Isolation from the power grid in backup power mode	contactor KM1 40A NO

Schemat strukturalny



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