INSTALLATION INSTRUCTIONS

ESS 3.0

EUROPE´S LEADING BATTERY SYSTEM SUPPLIER
NOW SERVING NORTH AMERICA

BMZ
THE INNOVATION GROUP

Thank You!

Thank you for purchasing the Energy Storage System ESS 3.0

Before using the device, familiarize yourself with the contents of this manual!

Keep these instructions readily available for current and future users of the energy storage system.

WARNINGS

FIRE HAZARD!
To prevent fire, do not use the energy storage near ignition sources or flammable substances. Do not cover.
If smoke is seen, immediately turn off the system! If possible separate the energy storage unit from the inverter.

SHOCK AND SHORT CIRCUIT HAZARD!
Use only supplied connection terminals. Check the cables for defects. If damaged, they must be replaced.
Never insert anything into the energy storage unit!
Do not open the housing of the energy storage unit!
Never connect the positive pole and negative pole directly with each other or by another object!

➔ **Short Circuit!**
➔ **Danger!**

SYMBOLS

WARNING!
An error in the attitude of the below set - led instructions to electric shock, fire , explosion

Explosion can cause serious injury.

This product is applicable to EC directives (Europe Only). The product must not be disposed of with household waste, countries must be disposed of in an appropriate facility .

Do not expose the energy storage unit to rain or moisture or direct sunlight.

Battery System Manual

Use the product only in connection with the appropriate inverter as installed by a qualified technician.

- Regularly check the connection cable of the energy storage are in good condition and free of cracks.
- The machine is not laying on the cord or pulling on it.
- Ensure that cable do not come in contact with water or sharp edges and that the cables are not pinched.
- Do not clean the energy storage unit with water. Use a dry cloth instead.
- Use the energy storage only when the ambient temperature is between 32°F to 113°F (0 ° to 45 ° C) and in a well-ventilated , damp-free and dust-free environment.

Avoid Using …
- Outdoors
- in direct sunlight
- in damp locations

Initial Installation

Connecting the Energy Storage Unit

1. STEP ONE:
Connect the two 50mm^2 cables of the ESS 3.0. Connect according to the Inverter manufacturer (eg: SMA Sunny Island).
2. Red = Positive Terminal
3. BLACK = NEGATIVE

- 2 pcs . M8x20 screw use
- Use washer and be sure contact surface is fully contacting terminals
- Torque Specification: 8.85lbs (12 Nm)

2. STEP TWO:

Connect the patch cable (RJ45) to the CAN connector position on the ESS storage unit, from the Inverter (eg. SMA Sunny Island Inverter)

3. STEP THREE:
Termination connector (terminating resistors) to the socket labeled "Internal" patch .

4. STEP FOUR:

Use NH1 fuses, according to the permissible loading currents of the inverter (eg. SMA Sunny Island) and close NH isolators.

Recommended Fuses;
SI3.0M-11: 80A
SI4.4M-11: 100A
SI6.0H-11: 160A
SI8.0H-11: 200A

5. STEP FIVE:

After successful implementation of all instructions, press and release the start button (push button) for 1 second .

Attention:

The inverter (eg. SMA Sunny Island) is summoned by activation of the battery. This process takes about 30 seconds. Upon successful implementation both LEDs blink at a steady flash.

Turn On

Press push button for 1 second, then release

Switch Off

Press the push button for 10 seconds, then release.

Important: In the last 2 seconds Blin - ken both LEDs quickly indicate to the user that the battery is equal to off.

6. STEP SIX:

You can now use the inverter (eg. SMA Sunny Island) according to the manufacturer's specifications.

Technical Data

Energy Storage	BMZ ESS 3.0
Nominalspannung	55.5 V
Capacity	121.5 Ah
Nominal Energy Content	6.74 kWh
Usable Energy Content	5.0 kWh
Max. Discharge Current	300A (3sec.)
Protection	IP 21
Possible Loading Operational Range	0° to +45°C
Power Connection	2 cables, 50mm² M8
Dimensions (WxLxH)	(25"x17.8"x16.5") 638x452x420 mm
Weight	209lbs / 95 kg

Namplate ESS 3.0

LED Indicator

Parameter		LED Green			LED Red		
		ON	FAST	SLOW	ON	FAST	SLOW
F01461	Service Mode	X			X		
F01462	Fuse Error					X	
F01463	Error		X			X	
F01464	Softstart Active		X				
F01465	No CAN Communication			X			X
F01466	OK / Operation	X					

Transport, storage and placement

- Choose the location that it is not accessible by children or unauthorized users.
- Place the energy storage unit in a dry place with a temperature between 32° F to 113°F (0 ° to 45 ° C). Do not expose to direct sunlight.
- Always place the energy storage unit on a flat and dry place.
- Keep the distance between the energy storage unit and walls to 0.50" (15cm).

Maintenance

Ensure that the energy storage unit is clean and the contact points are secure and dry always before the energy storage unit is connected to the system . Clean housing parts with a clean, dry cloth.

- Excessively high temperatures within the energy storage unit are cooled by a built-in fan that is automatically activated.
- A red LED on the energy storage unit indicates the device needs to be serviced.

Disposal

Battery (energy storage unit) may not be disposed of with household waste . The energy storage unit must be disposed of at a certified recycling facility or return to your dealer.

For proper disposal and more information, please contact your local waste disposal company or retailer from whom you purchased the device.

EC Declaration of conformity (Only for Europe)

BMZ GmbH • Am Sportplatz 28-30 • 63791 Karlstein am Main • Tel: +49 (0) 6188 9956-0 hereby declares that the energy storage unit for model ESS 3.0, follow the the applicable regulations, and standards. Conformity has been confirmed by an independent test lab.
Karlstein, Germany June 9, 2015