

Congratulations on your purchase of an GREENROCK saltwater storage solution! Before installation, read and follow the instructions in this document, consult the product specification sheets, and read all product manuals!

## REQUIRED CONDITIONS AND EQUIPMENT CHECKLIST

### No Damage prior to or immediately after accepting Shipment\*

- Tip-N-Tell indicator (may be on outside of container or on product) not tripped (if available)
- Drop-N-Tell indicator (may be on outside of container or on product) not tripped (if available)
- No scraped, punctured, or broken packaging, crating, or product components
- No connectors missing or damaged
- No leaking electrolyte (clear liquid)

\*If you find damage, document it on the bill of lading before accepting the shipment. Separately document and photograph all damage and make a claim with the carrier as soon as possible. Contact your distributor immediately.

### Installation Site

- Indoors or enclosed
- Dry, clean, ordinary conditions
- Ambient temperature between -5°C and 50°C
- Battery may emit trace gases during normal operation. See Installation & Operation Manual for gassing and ventilation guidance.
- Level surface with less than fifteen (15) degrees of tilt
- Surface capable of bearing product weight
- Product out of direct sunlight

### Movement and Placement Equipment

- Safe lifting attire and equipment GREENOCK BA hoist, or appropriately sized hand truck
- Path to installation site that will not require tipping the battery more than forty-five (45) degrees

### Connection and Installation Tools

- Disconnect Tool for MC4 connector
- Multimeter



Single Stack

4 Stacks in a row

## ATTENTION:

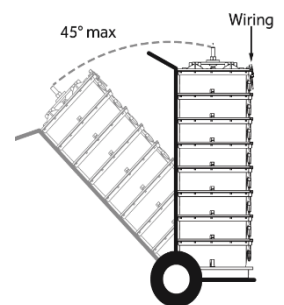
Batteries ship with low state of charge and low voltage

## INSTALLATION PROCEDURE

1. Using safe lifting attire and equipment, place battery upright at the desired installation site.

During movement and installation, the battery may be tilted up to forty-five (45) degrees for up to one hour.

If using a hand truck to transport a battery, position the battery on the hand truck so that the wiring faces out, away from the upright frame of the hand truck.



2. Check that the battery's initial voltage is sufficient for power control electronics. Greenrock batteries are shipped with a low state of charge. If, during shipment and installation, the voltage has fallen below the charging threshold of your power control electronics, charge the battery with a separate battery charger

3. Connect positive and negative MC4 connectors. Be carefully to have the correct PLUS and MINUS connection.

## NORMAL OPERATING SPECIFICATION

### Safety

- Overcurrent protection with installation-appropriate voltage rating:
  - Continuous current limit <20 A (48V) or <30 A (24V)
  - short-circuit current interrupt 140 A (48V) or 240 A (24V)
- Electrolyte: non-toxic, non-corrosive, sodium-sulphate based saltwater with a neutral pH
  - If electrolyte comes in contact with eyes or skin, thoroughly wash with water

### Charging and Discharging

- Maximum current: 20 A (48V) and 40 A (24V)
- Voltage range after initial charge: 35-60 VDC (48V); 17,5-30 VDC (24V)

### Operational Limits

- Ambient temperature: between -5°C and 50°C on a 24-hour average
- Battery only allowed in PARALLEL configuration

## MAINTENANCE

Greenrock batteries do not require maintenance. However, we recommend keeping the following records:

- Complete AC and DC single-line system diagram
- System component settings for charge voltage and current

### Logged every 24 Hours:

- **Minimum battery voltage**
- **Maximum battery voltage**
- **Maximum battery current**

## STORAGE

If your battery system will not be in use for an extended period, we recommend removing all communication and power connections to prevent unintended self-discharge and undetected ground faults. Keep any grounding in place. Products should be stored in the following conditions to avoid permanent damage:

- Between -10°C and 50°C
- Indoors or enclosed from sun and water

## RECYCLING AND DISPOSAL

AIB batteries are non-toxic and non-corrosive. Do not dump into any sewers, on the ground, or into any body of water where water runs off into open bodies of water. Dispose of according to all federal, state, and local Regulations.

## SUPPORT

If you need technical support, visit us on our website at <http://bluesky-energy.eu/contact>.

If you purchased your batteries from an authorized GREENROCK partner, please contact the partner for assistance. If you require immediate assistance AND if you purchased your products directly from BlueSky-Energy, call our support line at +43 720 01 01 88 Please have your BlueSky Energy order number ready.

**WARNING:** Battery stacks are compressed. Do not disassemble the stacks for any reason. Do not loosen the nut on top of the stacks. Injury, poor battery performance, or damage could result.

**CAUTION:** The metal parts of the battery terminals are always live. Never place foreign objects or tools in or on the unit. Arcing or fusing could result.

**CAUTION:** Battery stacks and modules are heavy and must be transported and handled with appropriate precautions to avoid injury or damage.