

## Operation manual

ESaver III  
R0095 - R0109  
15



Controller type: Mitsubishi PLC

## Inhoud

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# **1 Verkorte bedieningshandleiding**

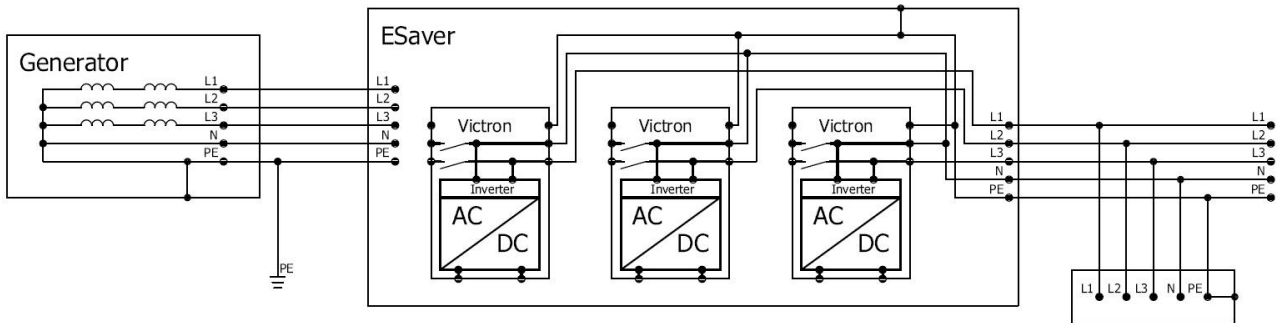
ESaver III  
R0095 - R0109  
15 kVA

## 2 Connection of the ESaver

This chapter describes how the power cables have to be connected.

### 2.1 Electrical connections

When using a genset with the ESaver it should be attempted to connect the installation according to the TN system. For more information about earthing please consult the national applicable standards and regulations. Below a schematic of a TN system is shown.



In the schematic is shown that the neutral and earth connection of the generator are directly earthed. When no earthing is available this is done by placing an earth pin.



The connection of the ESaver should be done by a certified installation company.

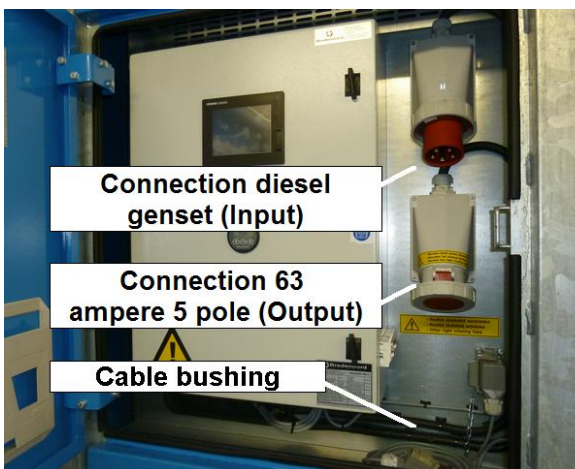


Only connect the ESaver when it's switched safely.

The ESaver provides electricity with a clockwise rotation field by means of 3 phase connection: L1, L2, L3 and N. Connect the load(s) according to EN-50110 and keep the following points in mind during connection:

- Only connect approved cables to the ESaver.
- Only attach cables via the cable input. The door should be closed during operation.

### 2.2 Connecting power cables

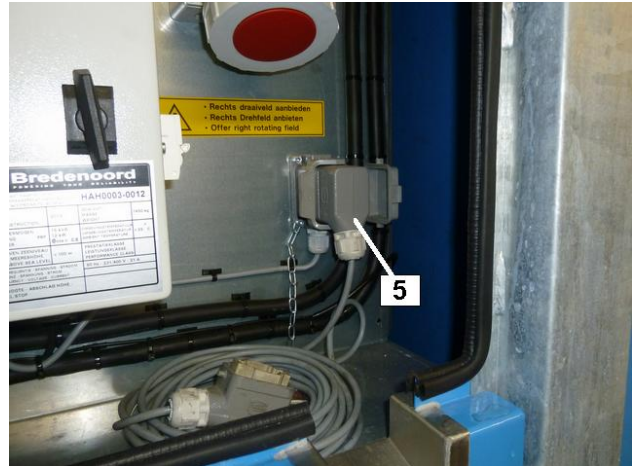
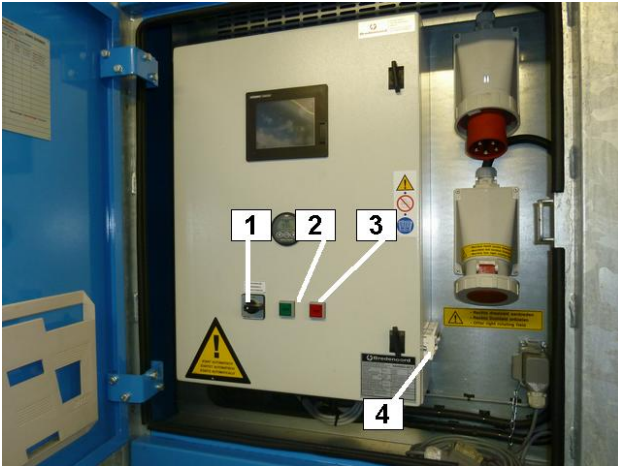


The ESaver works only with a clockwise rotation field!

## 3 Operating instructions

This chapter discusses the operating instructions of the ESaver.

### 3.1 Starting and stopping



#### Starting

- Ensure that the diesel genset can automatically start by means of the connector (5) (see operation manual diesel genset or start-stop module)
- Turn the selector switch (1) to "ON".
- Press the button "START" (2). **The ESaver starts!**
- Switch on the main switch (4)

#### Stopping


- Switch off the main switch (4)
- Press the button "STOP" (3). **The ESaver stops!**
- Turn the selector switch (1) to "OFF"

#### Alarm reset

- Turn the selector switch (1) to "OFF"
- Turn the selector switch (1) to "ON"
- Press the button "START" (2). **The ESaver starts!**
- Switch on the main switch (4)

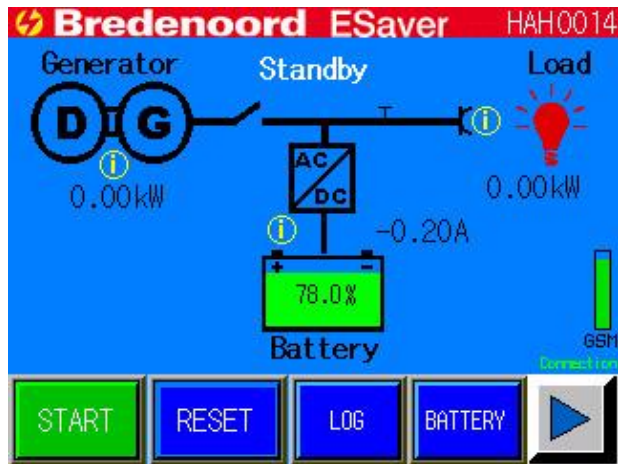
### 3.2 Main display

In this chapter the main structure will be explained with additional information about the main display.

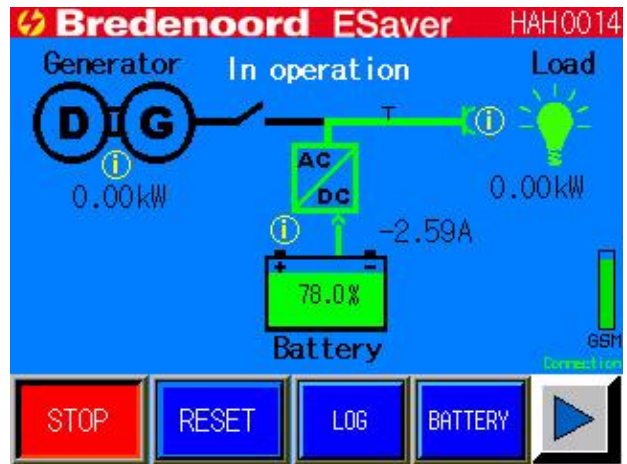
In the main display are several symbols displayed which can be selected by pressing. These symbols are provide with .

By pressing the symbol a new display wil appear with the data of this device.

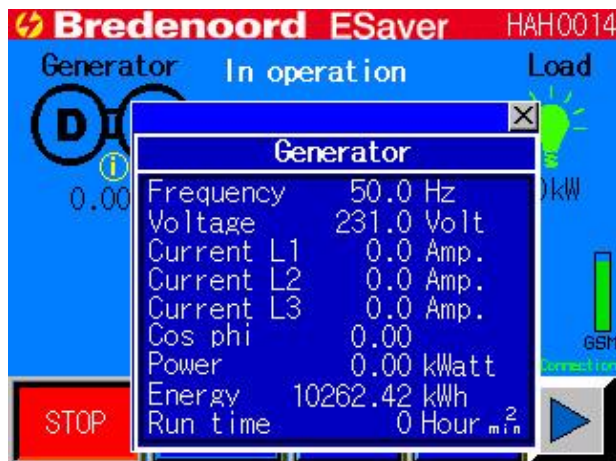
By pressing "START" in the main display the ESaver will start up.



Main display



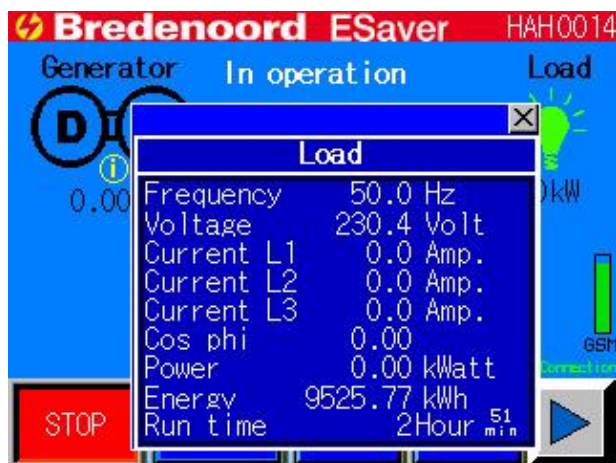
ESaver in operation



Display "Genset"



Display "Battery status"

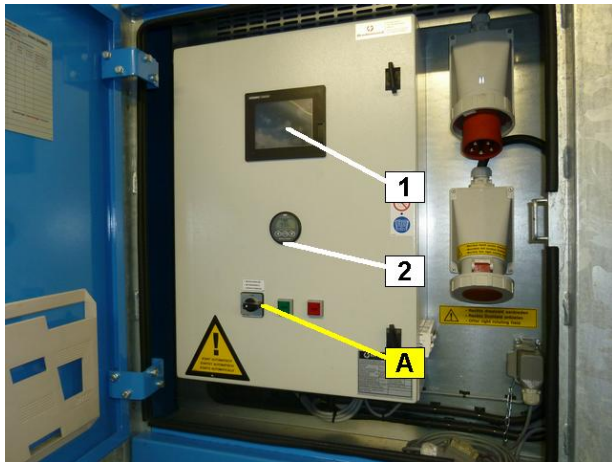


Display "Consumer"



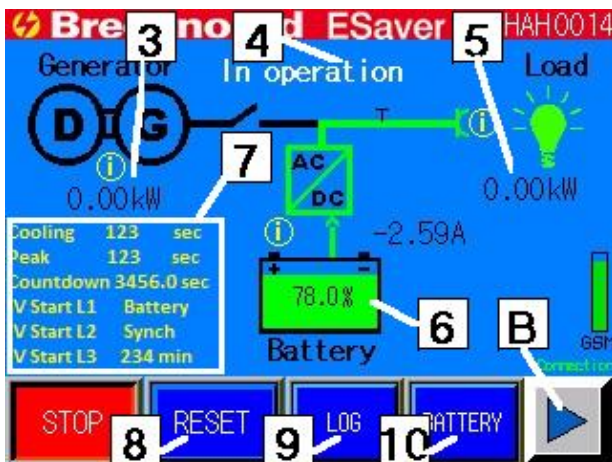
### 3.3 Reading data

- Turn the selector switch (A) to "ON".



1. Touchscreen (see below)
2. Battery monitor

Press arrow button (B), for toggling between displays.  
Press "LOG" (9) and "ACCU"(10) will open a new display.



3. Power genset
4. Status ESaver
5. Power consumer
6. Battery status
7. Important events
8. Reset error
9. Log (history list)
10. Battery (use of battery)

#### Important events

#### Important events

Only important event will be triggered and displayed.  
Below is showed which events will be displayed.

#### Timers

Cooling: Duration of the time when the genset is running in cool down mode.

Peak: Duration of the time the genset keeps running if no peak start is no longer offered.

Countdown: This time varies depending on battery status (%). Countdown will start when the power stays between certain values

Start L1/2/3: Shows on which phase the peakstart is occurred.

Battery synch: Is shown when the battery is synchronising and how long this will continue.





Log (history list)



Battery (use of battery)

With pressing button (B) the next display will appear.  
Press "Week timer" will open a new display.



9. ESaver in operation
10. Generator running hours
11. Supplied energy
12. Charge cycle battery
13. Time till next service
14. Weektimer

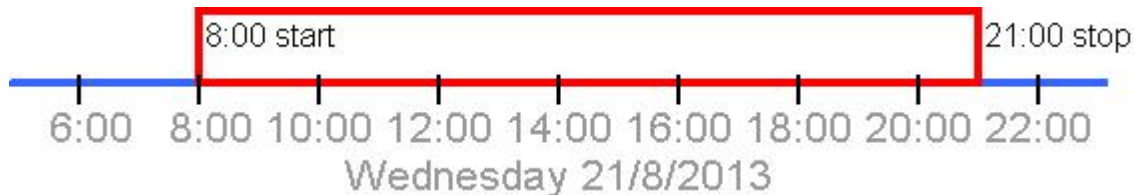
### 3.4 Timer



Timer for genset

1. Switch on/switch off timer
2. Switch on genset manually, works only when inverters and timer are switched on
3. Switch off genset manually
4. Set clock
5. Switch on point or switch off point
6. Adjust switch time (hours), press the hour indication
7. Adjust switch time (minutes), press the minute indication

Normal functioning timer:



At the switch on point (example 8:00 hour) the diesel genset starts. At the switch off point (example 21:00 hour) the diesel genset stops.

Manually starting with button 2, for example if the work once begins earlier or if the settings of the timer are modified:



The diesel genset starts manually. At the switch off point (example 21:00 hour) the diesel genset stops.

Manually stopping with button 3, for example if the work once stops earlier or if the settings of the timer are modified:

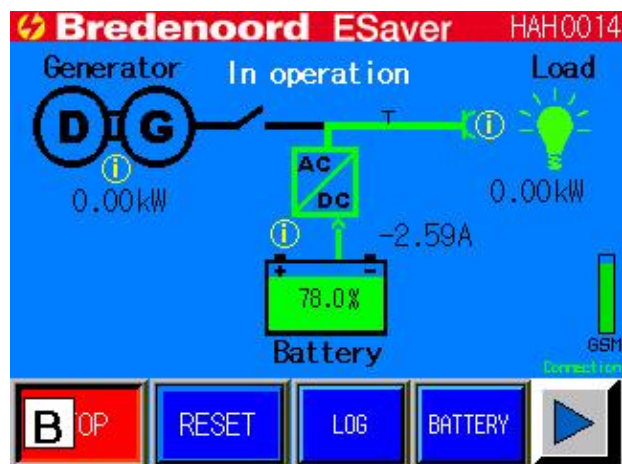


At the switch on point (example 8:00 hour) the diesel genset starts. Then the diesel genset stops manually. On the next switch on point the diesel genset starts again.

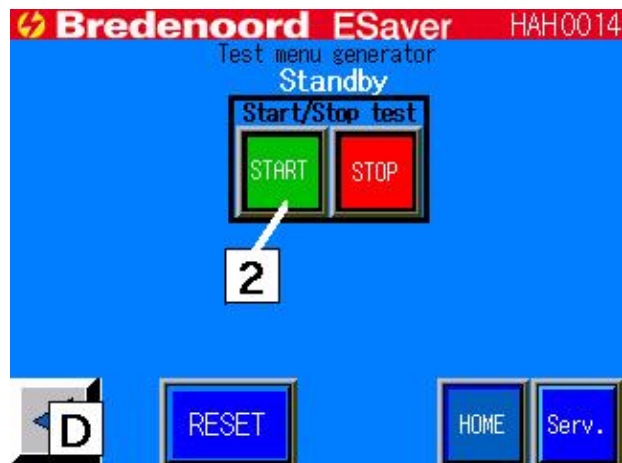
### 3.5 Testing diesel genset



- Turn the selector switch (1) to "ON".



- Start the ESaver
- Press arrow button, until picture D will appear in the display.



- Press "START" button (2).



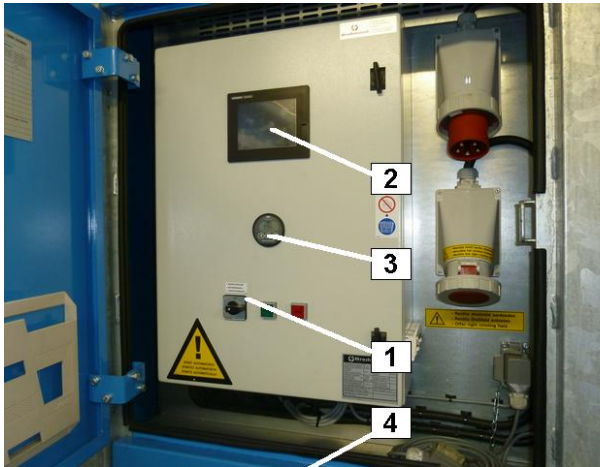
- One smiley will appear if the genset is connected correctly.
- After this the charging will be checked ("Checking charging please wait").



- When the genset works correctly a second smiley will appear.
- The remark ("Link generator OK") will appear.



## 4 Construction



Front



Back

1. Selector switch
2. Touch screen
3. Battery monitor
4. Emergency stop
5. Inverters