Victron Energy - https://www.victronenergy.com/live/

# **VRM Portal - Dashboard**

# 1.Introduction & available information

The dashboard is the main page. It shows all information on the installation at a glance.

# **1.1 Introduction video**

#### 1.2 Example screenshot for yacht installation





### **1.3 Example screenshot for ESS installation**



#### 1.4 Example screenshot for Off-grid installation



#### 1.5. Details per section

#### **1.5.1 Schematic visualisation**



The information shown adapts itself to the system installed. For systems without an inverter/charger, separate blocks of information are shown, without connected lines and 'moving ants'.

#### 1.5.2 Battery block

BMV-700	95.0 %	🕑 Quattro 48/5000/70-2x100	
55.10 V 14.20 A	Charging	56.79 V	

The purpose of this part of the dashboard is to show all available batteries, for installations having multiple batteries. For example a yacht, having two main engines (and thus two starter batteries for them), another starter battery for a generator, and two service batteries.

For each of the configured battery, the VRM Portal will show its name, the voltage, current, and state of charge.

Configuration:

- 1. Configure the battery settings on the GX Device, in the Menu  $\rightarrow$  Settings  $\rightarrow$  System Setup  $\rightarrow$  Battery Measurements
- 2. Meet all the requirements for the Real time feature, as this information is only available when in Real time mode. See Chapter 2.
- 3. Two or more batteries must be configured. If there is just one, then the information is already shown as part of the main system overview.

This is the main configuration menu:



It lists all available battery measurements. Including battery monitors, but also a simple voltage measurement by a solar charger or battery charger for example. For a three output charger, it will list all three measured voltages.

The GX Device allows configuration of each of the available battery measurements:

- 1. to hide or show it
- 2. to name it

Screenshot of detailed menu:

<	SmartBMV	08:30
Visible		Active battery monitor
Name		Service
الا. Pages		<b>≡</b> Menu

#### 1.5.3 Historical data

Depending on available information, this block will either show a bar graph for kWh production and consumption, together with a blue line showing state of charge, like so:



Or, in case that information is not available, it will show a line diagram. The parameters used in the line diagram depend on the products installed:

- Battery monitor (BMV, SmartShunt or similar): Voltage on the left axis and SOC on the right access
- Phoenix Inverter: Output power on the left axis, Battery voltage on the right axis
- Solar Charger: Output power on the left axis, Battery voltage on the right axis.

Requirements for the kWh production and consumption data are explained VRM Portal - Frequently asked questions.

Screenshot of an installation with only a Phoenix Inverter, and thus showing the line diagram:



# 2. Real time data

## 2.1 Introduction

The dashboard can show real time data, meaning that every two seconds data updates are sent straight from the installation to your browser - rather than pulled from the database at which the information is stored at the interval configured in Settings  $\rightarrow$  VRM Portal  $\rightarrow$  Interval (default 15 minutes).

The new dashboard increases the GX CPU load. Data usage is also increased. Both the CPU load and data usage are only increased while the dashboard is being observed.

Check the top of the page to see if its in real time mode. Here is a screenshot when using real time data:



### 2.2 Disabling the realtime data feature

It is possible to disable the realtime data feature in the VRM  $\rightarrow$  Select Installation Site  $\rightarrow$  Settings  $\rightarrow$  General  $\rightarrow$  Realtime updates green(on) / red(off).

Examples of when you want to disable real time data are:

- To keep data usage to a minimum, while keeping the VRM Two way communication setting enabled to be able to remotely configure & firmware update
- For systems where CPU load is already at the edge of what is possible, so rather than each time waiting for it to be automatically disabled (see below), and thus also having a short time of high CPU load on the system, disable it permanently.

#### 2.3 Requirements

- A GX Device, with Venus OS v2.60 or later
- Good internet connection
- Sufficient CPU resources (see below)
- Settings  $\rightarrow$  VRM Portal  $\rightarrow$  Two way communication must be enabled



#### 2.4 GX Device CPU Load

Transmitting the data to the VRM Dashboard causes an extra load on the CPU in the GX Device. As such, systems already operating at 100% CPU, or close to it, would be overloaded with the result that tasks are left waiting, slow response on Remote Console, slow data updates, and eventually also reboots of the GX Device.

To prevent this, the dashboard will automatically suspend itself in case the CPU load is too high. In which case a warning is shown on the lower right on your screen:



From: https://www.victronenergy.com/live/ - Victron Energy Permanent link: https://www.victronenergy.com/live/vrm\_portal:dashboard?rev=1627598828 Last update: 2021-07-30 00:47