VRM Portal - Frequently asked questions

In systems with a BMV, the VE.Bus state of charge is hidden. Why?

If a BMV is in the system, the VE.Bus State of Charge (SOC) is not stored into the VRM Database.

When there is a BMV in the system, and a Multi or Quattro, there are two state of charges being calculated for the same battery. Since the algorithms differ (see next FAQ entry for more information) they will hardly ever show the same percentage, and showing both causes confusion and questions.

What is the difference between the BMV SOC, and the VE.Bus SOC?

SOC stands for State of Charge. The BMV SOC is the state of charge measured by the BMV Battery Monitor. It calculates this value based on measurements taken by the shunt. And, assuming the shunt is installed in the correct place in the system, it takes into account all the loads and chargers.

The SOC taken from VE.Bus is calculated by our Multis and Quattros. To calculate the SOC, they use only the internally measured charge and discharge currents. Because of this you can only use it in a system where you have only AC loads, and no other (solar) chargers. The battery capacity can be configured with VEConfigure.

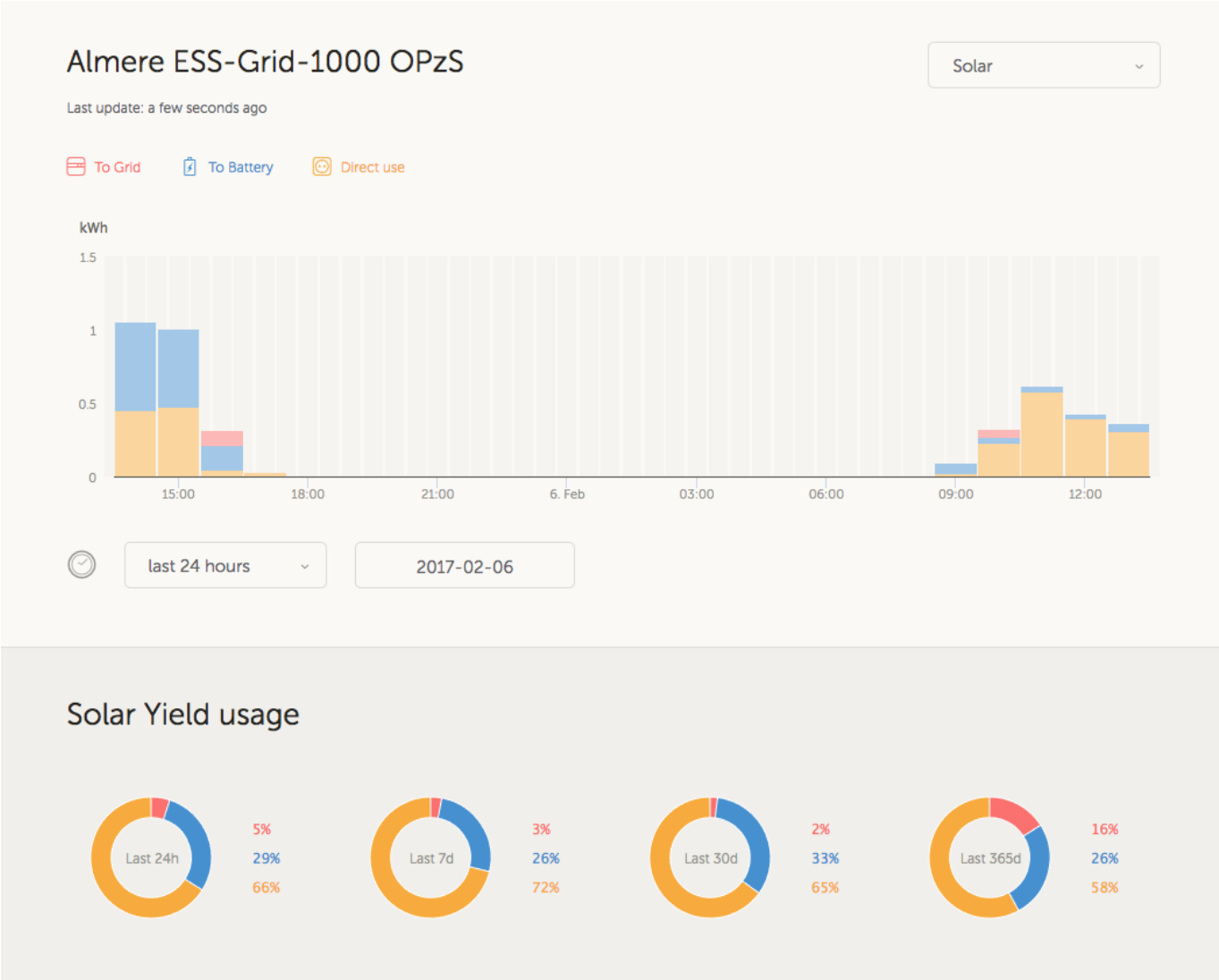
BMV SOC vs VE.Bus SOC algorithm The BMV has the advantage in its calculations that it sees all DC currents: so this includes MPPT solar charger currents, DC loads (typical in marine and automotive applications, for example alternators, lights and pumps), or other DC chargers. The Multi and Quattro have the advantage that it knows when the bulk state is finished, and can then sync the VE.Bus state of charge to 80%. Instead of (as the BMV does) having to wait until the battery is really full (sync parameters are met), and only then will it sync to 100%.

See also do_i_need_a_bmv_to_see_proper_battery_state_of_charge_or_not

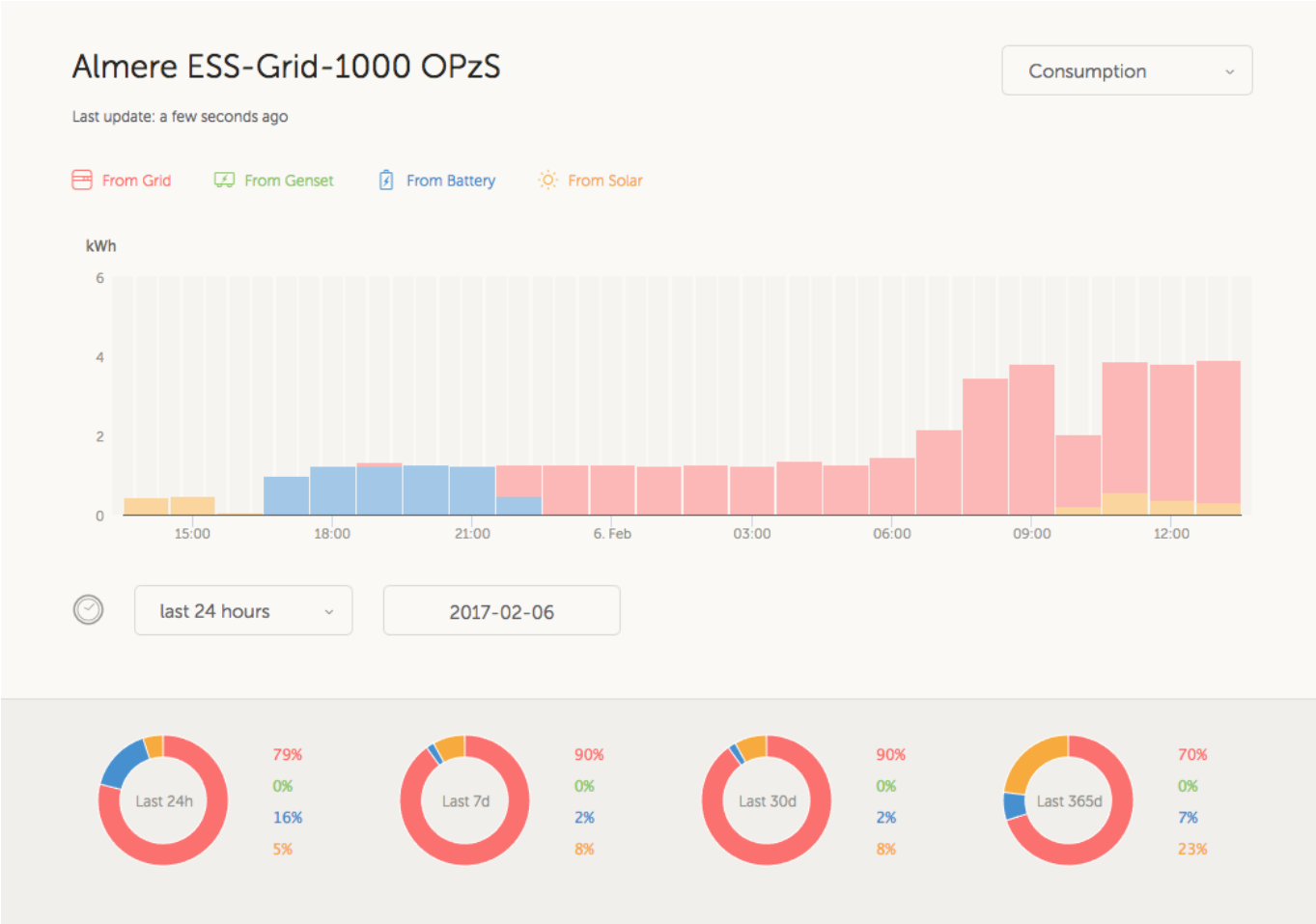
What are the requirements for the Solar yield and Consumption tab?

These are the Solar yield and the Consumption tab on the VRM Portal:

Solar:



Consumption:



These graphs work on information calculated by the Color Control GX, based on energy counter values read from connected devices.

General requirements:

- Color Control GX with latest version
- Multi or Quattro with a 26 or 27 hardware: the 7 digit firmware number needs to start with 26 or 27. If it starts with 19 or 20, the product has old hardware. To get the consumption and solar yield tabs working for these products, the product needs to be replaced or get an control board upgrade.
- Multi or Quattro firmware needs to be recent as well:
  - 1xx firmware (virtual switch), needs to be xxxx159 or newer
  - 2xx firmware (assistants gen1), needs to be xxxx209 or newer
  - 3xx firmware (assistants gen2), needs to be xxxx306 or newer
  - 4xx firmware: all versions will work
  - More information: VE.Bus firmware versions explained

Extra requirements for systems with AC Coupled PV (ie a grid-tie inverter on the output), for example ESS:

- PV Inverter power and energy needs to be measured. For example a direct Fronius connection, or with our AC Current Sensor or wireless AC Sensors
- There's an issue with hub-4 systems where grid power and PV power are measured using a single AC sensor (grid on phase 1 and PV power on phase 2). In this case the solar to grid value is incorrect. We are working on a solution of this issue.
- When using the AC Current Sensor, make sure to use the latest version of the Assistant, as

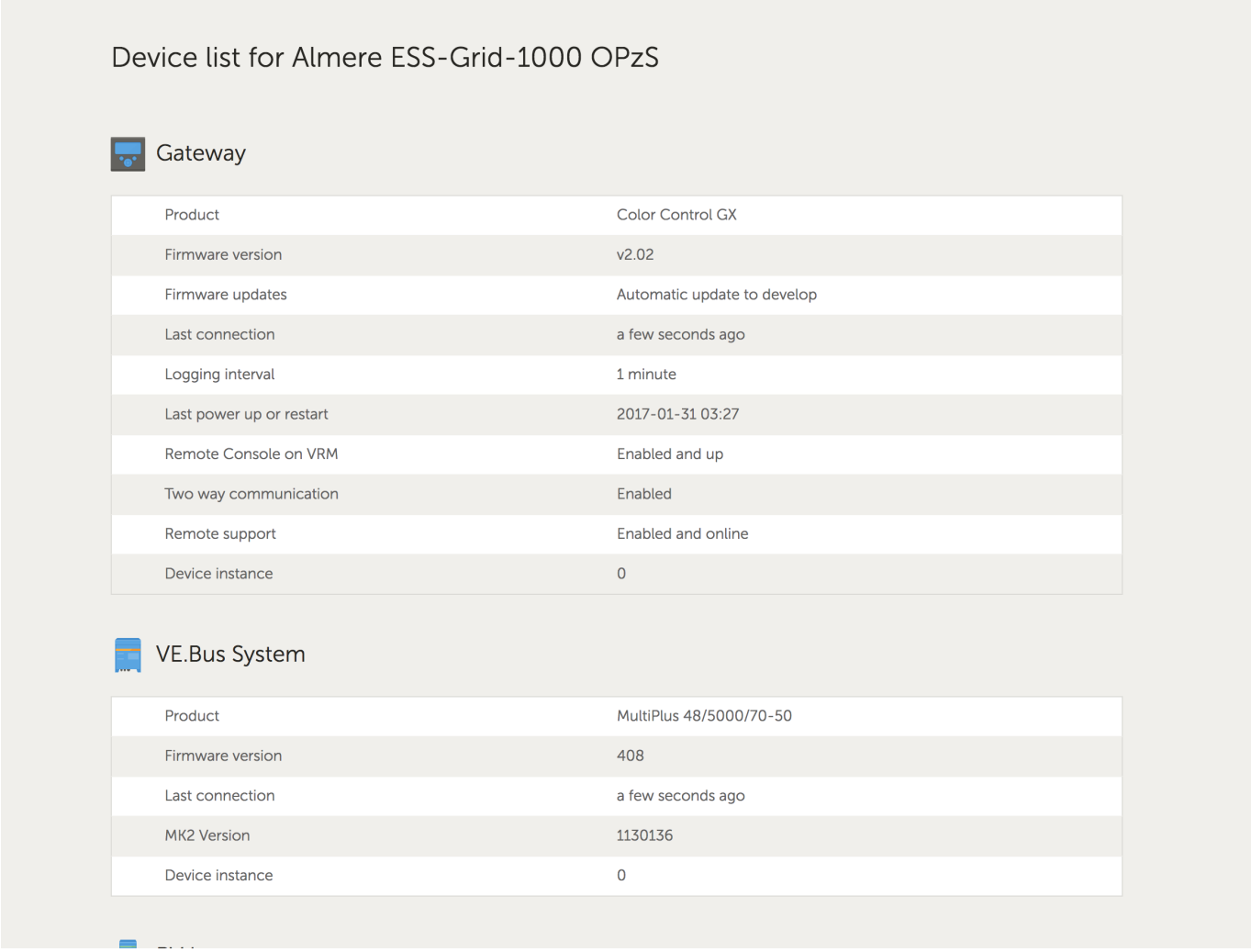
released in October 2014. more info

Other notes:

- DC consumption or charging, for example by an alternator or other charger that is not reporting to the CCGX, is not yet taken into account in the calculations.
- A system with multiple mppts, even a mix of VE.Can and VE.Direct, is supported: the algorithm will totalize all the counters
- Multiple AC current sensors measuring multiple PV inverters is supported as well.
- Other brands (not Victron) Solar Chargers will not work: the CCGX needs to read the kWh data from the solar charger.
- The VGR, VGR2 and VER do not work: only the CCGX provides the necessary kWh data for these graphs.
- Combining MPPT Solar Chargers and PV Inverters in a system works.

How does the device list work? Old products are still showing

This is the device list on the VRM Portal:



Device list for Almere ESS-Grid-1000 OPzS

Gateway

Product	Color Control GX
Firmware version	v2.02
Firmware updates	Automatic update to develop
Last connection	a few seconds ago
Logging interval	1 minute
Last power up or restart	2017-01-31 03:27
Remote Console on VRM	Enabled and up
Two way communication	Enabled
Remote support	Enabled and online
Device instance	0

VE.Bus System

Product	MultiPlus 48/5000/70-50
Firmware version	408
Last connection	a few seconds ago
MK2 Version	1130136
Device instance	0

It shows all products, their firmware version and some other additional information. After disconnecting a product from the Color Control GX or the Victron Global Remote, it is necessary to

power cycle it (the CCGX or VGR). This will make the VRM Portal to empty the list and re-populate it based on the new information.

How does the screensaver work? How is the displayed state determined?

The screensaver is disabled by default but can be configured in your profile settings to automatically show after a period of inactivity. You can also open the screensaver directly by pressing the “s” key twice.

The screensaver displays which source of energy your installation is currently running on. This is determined by looking at which source of energy (the sources being solar, generator, battery and grid) is delivering the largest amount of energy to consumers (locally connected devices using the energy). Then, if no consumers are using any power, it looks at which source provides the largest amount of energy to the battery. Then, if no battery is connected or it is not being charged, it looks at which source is delivering the most energy back to the grid. If at this point the source is still not determined, apparently no energy is being produced or used anywhere, and the state defaults to 'on grid'.

I want to analyze the data in a spreadsheet, how do I do this?

Open the Advanced tab, choose a date range, and then use the Download CSV or Download XLS link at the top right.

Please note: Safari is not downloading the files properly right now, please try Chrome or Firefox

How can I remove an installation from my account?

Go to the tab Settings –> General and scroll to the bottom of that page, then click the 'Remove' button. This will unlink the installation from your account.

Why are some values shown red?

In case the data is too old, which means older than would have been expected from the configured logging interval, the value will be shown red. Use the System overview page to check if there are products that are not connected anymore. One typical example where this might happen is:

The system has been connected to a three phase system, and now it is connected to a single phase system. But the data for L2 and L3 is still being shown in a red color. Reboot the gateway (Color Control, Global Remote or Ethernet Remote) to reset the data.

For how long is the data being stored?

The data shown in the advanced tab is being stored for at least 6 months. The data used to show the solar yield and the consumption tab is stored 5 years minimum.

How can I zoom out any of the graphs?

The graphs can be zoomed out to their original zoom level by clicking the 'Reset zoom' button in the graph.

Why do I get such a weird high value for AC Input when a PV inverter is feeding back to the grid through the Multi?

Since VE.Bus firmware version xxxx205, the Multis and Quattros report the direction of the AC input current. Earlier VE.Bus versions reported only the absolute value: you could not see if the power was being fed back to the mains, or taken from the mains.

VGRs, VGR2s and VERs interpret this value incorrectly. They show around 650 Amps instead of -5 Amps.

If you really want to see the right data, replace the VGR/VGR2/VER with a Color Control GX.

What is the column logtime Offset in the XLS/CSV download for?

Use it to see the quality of the Internet connection.

The values relate to the backlog feature. Usually the column is either empty, or you see series of rows with a decreasing logtime offset. Once zero, the columns are empty again. These series mean that there was a problem with the Internet connection. And the value shown is the number of seconds for which that particular row of data had been backlogged.

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