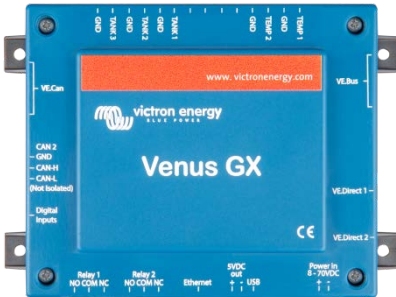


# Venus GX

Firmware version v2.04

[www.victronenergy.com](http://www.victronenergy.com)



Venus GX



Venus GX with connectors



Venus GX front angle

## Venus GX

The Venus GX provides intuitive control and monitoring for all Victron power systems. The list of Victron products that can be connected is endless: Inverters, Multis, Quattros, MPPT solar chargers, BMV battery monitors, Lynx Ion + Shunt and more.

## VRM Online Portal

All readings are forwarded to our free remote monitoring website: the VRM Online Portal. To get an impression, try the demo on <https://vrn.victronenergy.com>. See also the screenshots below.

## Remote Console on VRM

The way to access the device for setting up, as well as monitoring, is via Remote Console. Either via VRM, via the built-in WiFi Access Point, or on the local LAN/WiFi network.

## Automatic genset start/stop

A highly customizable start/stop system. Use state of charge, voltage, load and other parameters. Define a special set of rules for quiet times, and optionally a monthly test run.

## The heart of ESS – Energy Storage System

The Venus GX is the Energy Manager in an ESS system. More information in the ESS manual: <https://www.victronenergy.com/live/ess:design-installation-manual>

## Data logging

When connected to the internet, all data is sent to the VRM Portal. When there is no internet connection available, the Venus GX will store the data internally, up to 48 hours. By inserting a micro SD-card or USB stick, more data can be stored. These files can then be uploaded to the VRM Portal, or offline converted with the VictronConnect app, for analysis.

## Supported products

- Multis and Quattros, including split-phase and three-phase systems. Monitoring and control (on/off and current limiter). Changing configuration is possible (only remotely via the internet, not without an internet connection).
- BlueSolar MPPT Solar Chargers with a VE.Direct port.
- BlueSolar MPPT 150/70 and the MPPT 150/85 with VE.Can port. When multiple BlueSolar MPPTs with VE.Can are used in parallel, the all information is combined as one. See also our blog-post about [synchronizing multiple MPPT 150/70 solar chargers](#).
- BMV-700 family can be connected directly to the VE.Direct ports on the Venus GX. Use the VE.Direct Cable for this.
- BMV-600 family can be connected to the VE.Direct ports on the Venus GX. Requires an accessory cable.
- Lynx Ion + Shunt
- Lynx Ion BMS
- Lynx Shunt VE.Can
- Skylla-i battery chargers
- NMEA2000 tank sensors
- A USB GPS can be connected to the USB port. The data is sent to the VRM Portal for tracking purposes. The map on VRM will show the latest position.
- Fronius PV Inverters

When more than two VE.Direct products must be connected, USB can be used.

## Internet connection

The Venus GX can be connected to internet with an Ethernet cable and via Wi-Fi. The Venus GX has no internal cellular modem: there is no slot for a sim-card. Use an off-the-shelf GPRS or 3G router instead. See the [blog post about 3G routers](#).

## Tank level inputs

The tank level inputs are resistive: connect them to a resistive tank sender. Such tank senders are not supplied by Victron. The tank level ports can each be configured to work with either European tank senders (0 - 180 Ohm), or US (240 - 30 Ohm).

## Other highlights

- The Venus GX can automatically update itself from the internet, when there is a new software version available.
- Multiple languages: English, Czech, German, Spanish, French, Italian, Dutch, Russian, Swedish, Turkish, Chinese, Arabic.
- Use the Venus GX as a Modbus-TCP gateway to all connected Victron products. See our [Modbus-TCP FAQ](#) for more information.
- Powered by the Venus OS – embedded linux.

<https://github.com/victronenergy/venus/wiki/sales-pitch>

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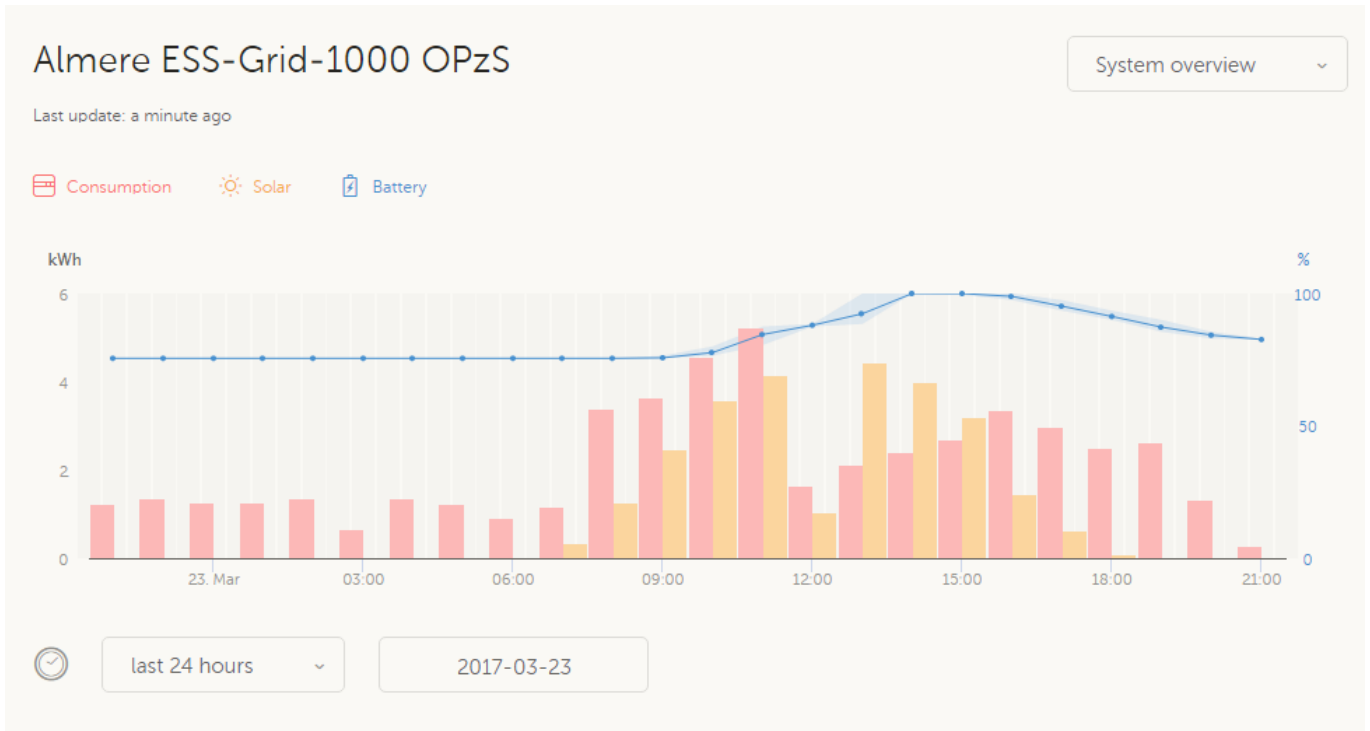
| Venus GX                     |  |        |       |
|------------------------------|--|--------|-------|
| Power supply voltage range   | 8 – 70V DC   |        |       |
| <b>Current Draw</b>          | 12V  | 24V    | 48V   |
| Switched off                 | 0 mA   | 0 mA   | 0 mA  |
| Switched on                  | 210 mA   | 110 mA | 60 mA |
| Communication ports          |  |        |       |
| VE.Direct                    | 2 separate VE.Direct ports – isolated  |        |       |
| VE.Can                       | 2 paralleled RJ45 sockets – isolated   |        |       |
| CAN                          | 2 <sup>nd</sup> CAN interface – non isolated                                 |        |       |
| VE.Bus                       | 2 paralleled RJ45 sockets – isolated   |        |       |
| USB                          | 2 USB Host ports – not isolated  |        |       |
| Ethernet                     | 10/100/1000MB RJ45 socket – isolated except shield                           |        |       |
| WiFi Access Point            | Use to connect to Remote Console   |        |       |
| WiFi Client                  | Connect the Venus GX to an existing WiFi network                             |        |       |
| IO                           |  |        |       |
| Potential free contact       | NO/COM/NC – 6 A 250 VAC/30 VDC   |        |       |
| Tank level inputs            | 3 x Configurable for European (0 - 180 Ohm) or US (240 - 30 Ohm)             |        |       |
| Temperature level inputs     | 2 x Requires ASS000001000.   |        |       |
| 3rd party interfacing        |  |        |       |
| Modbus-TCP                   | Use Modbus-TCP to monitor and control all products connected to the Venus GX |        |       |
| JSON                         | Use the VRM JSON API to retrieve data from the <a href="#">VRM Portal</a>    |        |       |
| Other                        |  |        |       |
| Outer dimensions (h x w x d) | 45 x 143 x 96  |        |       |
| Operating temperature range  | -20 to +50°C   |        |       |
| Standards                    |  |        |       |
| Safety                       | EN 60950   |        |       |
| EMC                          | EN 61000-6-3, EN 55014-1, EN 61000-6-2, EN 61000-6-1, EN 55014-2             |        |       |
| Automotive                   | In progress  |        |       |

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## VRM Portal - Dashboard



## VRM Portal - Remote Console

### Almere ESS-Grid-1000 OPzS

Last update: a few seconds ago

System overview

Consumption Solar Battery

kWh

| Device List             |             | 21:18 |
|-------------------------|-------------|-------|
| Fronius Symo 8.2-3-M    | 0W          | >     |
| Grid meter              | 216W        | >     |
| MultiPlus 48/5000/70-50 | Bulk        | >     |
| PV Inverter on input 1  | 0W          | >     |
| Notifications           |             | >     |
| Settings                |             | >     |
| <b>Pages</b>            | <b>Menu</b> |       |

Almere ESS-Grid-1000  
OPzS  
Remote Console

Realtime data