

Firmware version v2.04

www.victronenergy.co.nz



#### Color Control GX

The Color Control (CCGX) 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 Porta**

Besides monitoring and controlling products locally on the CCGX itself, all readings are also forwarded to our free remote monitoring website: the VRM Online Portal. To get an impression, try the demo on <a href="https://vrm.victronenergy.com">https://vrm.victronenergy.com</a>. See also the screenshots below.

#### **Remote Console on VRM**

Monitor, control and configure the CCGX remotely, over the internet. Just like standing in front of the device, everything can also be done remotely. The same functionality is also available on the local network, Remote Console on LAN.

#### 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 CCGX 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 CCGX 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 CCGX. Use the VE.Direct Cable for this.
- BMV-600 family can be connected to the VE.Direct ports on the CCGX. Requires an accessory
- Lynx Ion + Shunt
- Lynx Shunt VE.Can
- Skylla-i battery chargers
- NMEA2000 tank sensors
- A USB GPS can be connected to the USB port. Location and speed will be visible on the display, and 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 CCGX can be connected to internet with an Ethernet cable and via Wi-Fi. To connect via Wi-Fi, a Wi-Fi USB accessory is required. The CCGX has no internal cellular modem: there is no slot for a simcard. Use an off-the-shelf GPRS or 3G router instead. See the <a href="blog post about 3G routers">blog post about 3G routers</a>.

## Other highlights

- The CCGX 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 CCGX 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









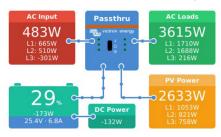


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| Color Control GX             |   |        |        |
|------------------------------|---|--------|--------|
| Power supply voltage range   | 8 – 70V DC  |        |        |
| Current draw                 | 12V DC  | 24V DC | 48V DC |
| Display off                  | 140mA   | 80mA   | 40mA   |
| Display at minimum intensity | 160mA   | 90mA   | 45mA   |
| Display at maximum intensity | 245mA   | 125mA  | 65mA   |
| Potential free contact       | 3A / 30V DC / 250V AC (Normally open)   |        |        |
|                              | Communication ports   |        |        |
| VE.Direct                    | 2 separate VE.Direct ports – isolated   |        |        |
| VE.Can                       | 2 paralleled RJ45 sockets – isolated  |        |        |
| VE.Bus                       | 2 paralleled RJ45 sockets – isolated  |        |        |
| USB                          | 2 USB Host ports – not isolated   |        |        |
| Ethernet                     | 10/100/1000MB RJ45 socket – isolated except shield                                      |        |        |
|                              | 3rd party interfacing   |        |        |
| Modbus-TCP                   | Use Modbus-TCP to monitor and control all products<br>connected to the Color Control GX |        |        |
| JSON                         | Use the VRM JSON API to retrieve data from the VRM Portal                               |        |        |
|                              | Other   |        |        |
| Outer dimensions (h x w x d) | 130 x 120 x 28mm  |        |        |
| Operating temperature range  | -20 to +50°C  |        |        |
|                              | Standards   |        |        |
| Safety                       | EN 60950-1:2005+A1:2009+A2:2013   |        |        |
| EMC                          | EN 61000-6-3, EN 55014-1, EN 61000-6-2, EN 61000-6-1, EN 55014-2                        |        |        |
| Automotive                   | E4-10R-053535   |        |        |

## Overview - Multi with PV Inverter on output



## Mobile & boat overview



## Genset control page



## Main menu

| Device List             | <b>Q</b> 17:02 |
|-------------------------|----------------|
| Lynx Ion                | >              |
| Lynx Shunt 1000A VE.Can | >              |
| PV Inverter on AC Out   | >              |
| Quattro 24/3000/70-2x50 | >              |
| PV Inverter on output   | >              |
| Notifications           | >              |
| <u>ᆈ</u> Pages          | <b>≡</b> Menu  |

## **Alarm notifications**

| <           | Notifications   | <u></u> ∆ 23:36            |
|-------------|---|----------------------------|
|             | MultiPlus Compact 24/2000<br>Warning<br>Inverter overload | /50-30<br>2014-10-22 22:54 |
| $\triangle$ | MultiPlus Compact 24/2000<br>Warning<br>Inverter overload | /50-30<br>2014-10-22 19:26 |
| $\triangle$ | MultiPlus Compact 24/2000<br>Warning<br>Inverter overload | /50-30<br>2014-10-22 19:25 |
| 4           | <u>l</u> Pages  | <b>≣</b> Menu              |

## Tiles overview

| 83%<br>discharging<br>1214W<br>48.8V -24.9A | ESS<br>Bulk                     | 21:11<br>no alarms |
|---|---------------------------------|--------------------|
| 129W<br>L1: -4W<br>L2: 129W<br>L3: 4W       | 1311W L1: 41W L2: 1226W L3: 43W | PV INVERTER<br>OW  |



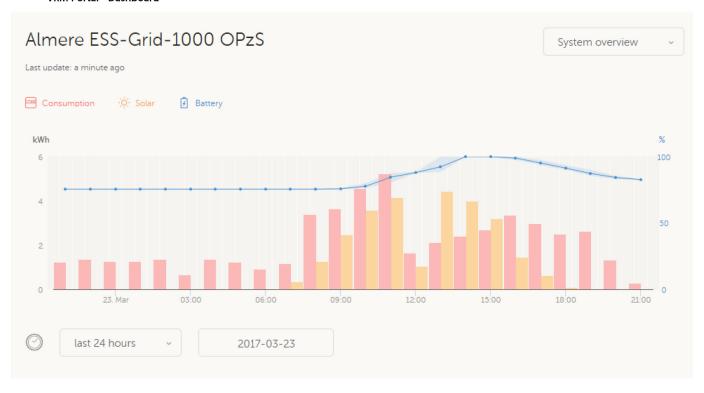




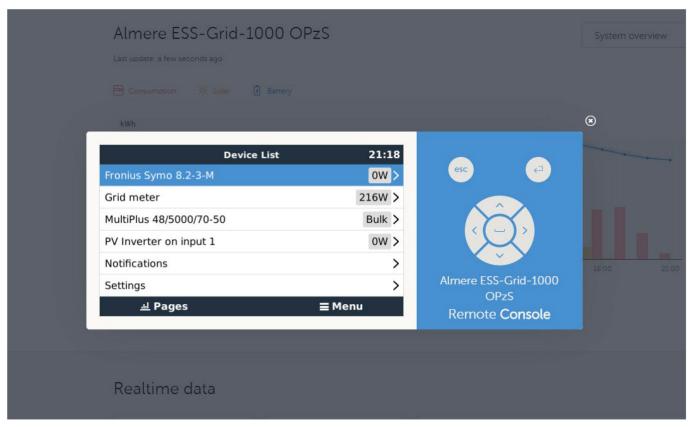
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## VRM Portal - Dashboard



#### VRM Portal - Remote Console









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