Victron & Sunwoda

1. Product & System compatibility

1.1 A GX device is required, eg Cerbo GX, etc

It is essential to use the BMS-Can (500 kbit/s) connection type of a GX device with these batteries for communication of charge and discharge limits, error codes and state of charge.

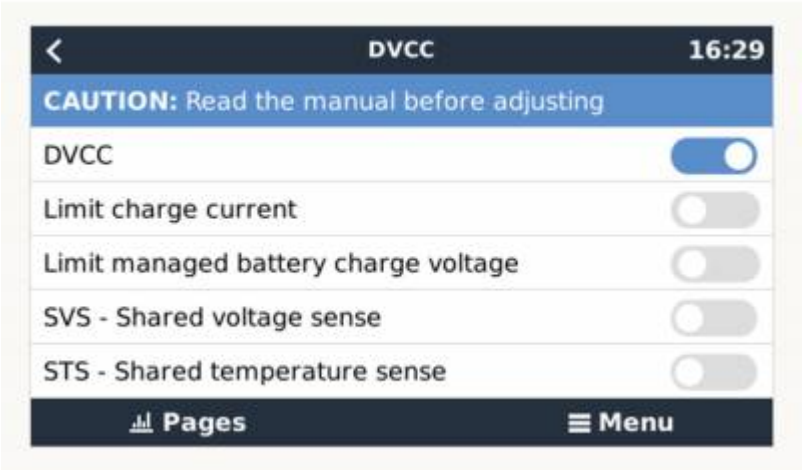
It is possible to use either the BMS-Can or VE.Can ports with this battery. Depending which one you use will require additional configuration on the batteries side, please see the documentation linked below for instructions.

The minimum supported GX firmware version is v3.60. It is recommended to use the latest firmware version on new installations and when trouble shooting issues.

The minimum supported Sunwoda firmware version is V1.11.

Connecting a Sunwoda battery to the GX device will automatically enable DVCC, and disable SVS and STS.

The Sunwoda battery automatically controls the target voltage on the Victron system (CVL). When actual battery voltage exceeds 54.5V, the CVL will begin to decrease. Sunwoda battery cells will balance themselves between 2900mV~3600mV.



1.2 CAN-Bus wiring between the battery and GX Device

Use the *VE.Can to CAN-bus BMS type A Cable*, part number ASS030710018.

Plug the side which is labeled Battery BMS into the Battery BMS. Plug the side labeled Victron VE.Can into the GX device.

Then plug a VE.Can terminator in the other VE.Can socket on the GX device. Two VE.Can terminators are included with the package of the GX device as an accessory. The battery does not have a built-in

CAN terminator, so you must connect one of the VE.Can terminators to the last battery.

More information about the cable can be found in its manual.

Without properly connecting this cable and terminators, the battery will not reliably show up on the display of the GX device.

It is important to ensure this connection and display of the battery on the GX device display before attempting firmware updates or settings changes on other devices if they depend on the power supply from the battery. DO NOT attempt to operate the battery cells normally without connection to the BMS.

1.3 All 48V Multis, MultiPlus, Quattros and RS models are compatible

The minimum supported firmware version for VE.Bus models is 469. Minimum supported firmware for RS models is 1.16. Updating to the latest firmware is recommended for new installations, and troubleshooting issues.

These VE.Bus inverter/charger units must be connected to the GX device via the VE.Bus connection port.

In grid connected systems, advanced control functions are configurable in the ESS settings on the GX device.

In off-grid systems, the control functions of the Battery Management System (BMS) are built into the latest version of the GX device.

1.4 Solar Charger compatibility

All 48V BlueSolar and SmartSolar MPPT Chargers are compatible.

Some of our Solar Chargers feature a VE.Direct communication port, some feature a VE.Can communication port, and some feature both. Both of these types of communication ports can be used to connect the Solar charger to the GX Device. Such connection is mandatory, because it is used to regulate charge currents and voltages.

2. Minimum battery sizing

For reliable operation there are minimum numbers of batteries required for different Victron inverters. Please contact your battery supplier for these specifications.

3. Further system integration documentation

This Sunwoda guide provides manual configuration settings for Victron products. Under normal operation target charging voltage is automatically set by the BMS via the DVCC system, when the

battery and Victron products are correctly connected to a GX device.

victron_multiplus_and_mppts_setting_with_sunwoda_battery.pdf

Further details about installation and configuration is available from your battery manufacturer.

4. Support & FAQ

What are the maximum cell & battery voltages before protection activates?

The battery over voltage protection triggers when the battery cell voltage is 3.6V or higher.

What happens when the battery is overcharged?

The charging MOSfets of the battery are disconnected, stopping charging. The fault indicator light of the battery displays red. When the voltage drops, the protection will be automatically cleared and charging will resume.

Does the battery autorecover when it has been completely discharged? Does it need manual intervention (e.g switch or breaker?)

The battery can automatically recover from a complete discharge shutdown by recharging. For example on Low voltage the battery will automatically shut down, and then a Victron MPPT providing voltage to the battery terminals will reactivate the battery and battery can continue charging.

Support for this battery should first come from your battery supplier.

Support from Victron is limited our online Victron Community page.