Victron & Leoch

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.

Use a Victron Type B VE.CAN to BMS-Can cable to connect the GX device to the battery. The VE.Can labelled end of the cable should be connected to the GX device, even if using a BMS-Can labeled port on a GX device. The BMS-Can labeled end of the cable should be connected to the battery.

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 v3.50. It is recommended to use the latest firmware version on new installations and when trouble shooting issues.

The minimum supported Leoch BMS firmware version is v2.4

Confirm that DVCC is enabled after connecting a Leoch battery to the GX device, and disable SVS and STS.

1.2 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.

1.3 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.

Inverter	Minimum Configuration for Single Phase			Minimum Configuration for Three Phase		
Battery Model: LEOCH LR51.2-100	On grid	On Grid with Backup	Off Grid	On Grid	On Grid with Backup	Off Grid
MultiPlus 48/500/6	1	1	1	1	1	1
MultiPlus 48/800/9	1	1	1	1	1	1
MultiPlus 48/1200/13	1	1	1	1	1	1
MultiPlus 48/1600/20	1	1	1	2	2	2
MultiPlus 48/2000/25	1	1	1	2	2	2
MultiPlus 48/2000/25-50 120V*	1	1	1	2	2	2
Multiplus 48/3000/35	1	1	1	3	3	3
Multiplus 48/5000/70	2	2	2	4	4	4
Multiplus II (GX) 48/3000/35-32	1	1	1	3	3	3
Multiplus II (GX) 48/5000/70-50	2	2	2	6	6	6
Multiplus II 120V 48/3000/35-50	1	1	1	3	3	3
Multiplus II 48/8000/110-100	3	3	3	8	8	8
Multiplus II 48/10000/140-100	4	4	4	10	10	10
MultiPlus-II 48/15000/200-100/100	6	6	6	15	15	15
Quattro 48/3000/35-50/50 120V*	1	1	1	3	3	3
Quattro 48/5000/70-100/100	2	2	2	6	6	6
Quattro-II 48/5000/70	2	2	2	6	6	6
Quattro 48/5000/70-100/100 120V*	2	2	2	6	6	6
Quattro 48/8000/110-100/100	3	3	3	8	8	8
Quattro 48/10000/140-100/100	4	4	4	10	10	10
Quattro 48/10000/140- 100/100 120V*	4	4	4	10	10	10
Quattro 48/15000/200-100/100	6	6	6	15	15	15
Easysolar 48/3000/35-50 MPPT150/70	1	1	1	3	3	3
Easysolar 48/5000/70-100 MPPT150/100	2	2	2	6	6	6
Easysolar II 48/3000/35-32 MPPT250/70 GX	1	1	1	3	3	3
Easysolar II 48/5000/70-50 MPPT250/100 GX	2	2	2	6	6	6
Multi RS Solar 48/6000	2	2	2	6	6	6
Inverter RS (& Solar) 48/6000.	2	2	2	6	6	6

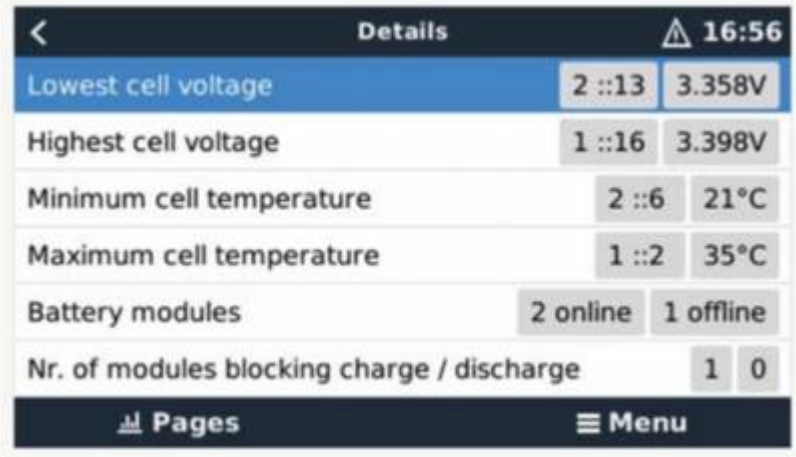
3. System integration documentation

Leoch Battery with Victron Inverter Instructions

If additional details about installation and configuration is required please contact your battery supplier.

3.1 GX Information

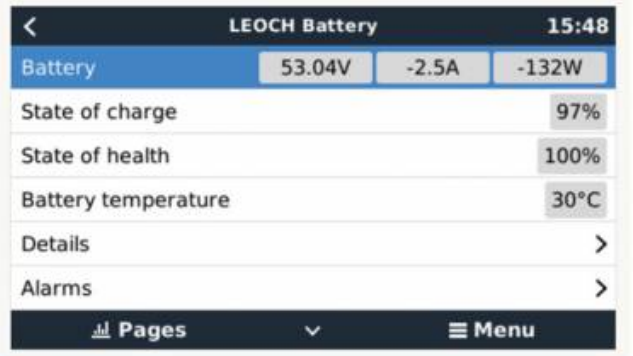
The Leoch BMS provides Minimum and maximum cell voltage and temperature information to the GX device.

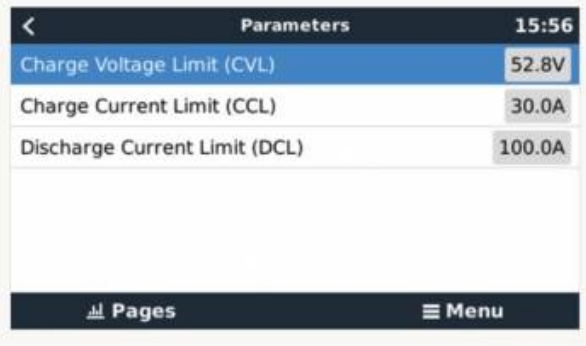


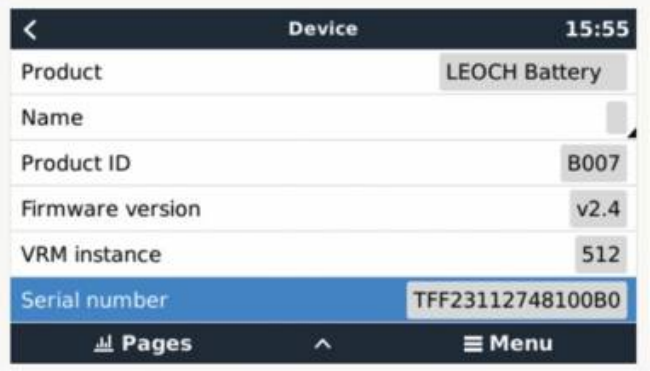
The prefix to the minimum and maximum values is an identifier.

- Lowest Cell Voltage: “2::13”,”3.358V” that means the address 2 battery, cell 13 is the Min cell Voltage, and it is 3.358V.
- Highest Cell Voltage: “1::16”,”3.398V” that means the address 1 battery, cell 16 is the Max cell Voltage, and it is 3.398V.
- Min Cell temperature: “2::6”,”21°C” that means the address 2 battery, cell 6 is the Min cell temperature, and it is 21°C.
- Max Cell temperature: “1::2”,”35°C” that means the address 1 battery, cell 2 is the Max cell temperature, and it is 35°C.

Example GX device displays







4. Support

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

Support from Victron is limited our online Victron Community page.