Victron & BSLBATT Lithium batteries

Wisdom Industrial Power Co. Ltd produces BSLBATT LiFePO4 batteries.

1 Product & System compatibility

The integration with Victron and BSLBATT batteries has been tested, complies with Victron's BMS-Can specification, and is supported by both companies.

1.1 Offgrid, Backup and Energy Storage Systems (ESS)

Victron + BSLBATT can be used for the following system types:

- Energy Storage Systems - Self Consumption (ESS - Start page)
- Grid Backup
- Off-grid

Special note for Off-Grid systems

For Off-grid systems, its strongly recommend to make sure there is a minimum of DC-Coupled PV (= MPPT Solar Charger) in the system. Ie. not only AC-Coupled PV. Also, minimum battery configuration, and factor 1.0 are always important to adhere to, and even more so in case of Off-grid systems. Both BSL and Victron will be reluctant or even refusing to give support to systems that are not sized according to the minimum specified configurations.

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

It is essential to use the BMS-Can (or CAN-bus) connection of a GX device with the BSLBATT batteries for the keep-alive signal, communication of charge and discharge limits, error codes and state of charge. The CAN-bus speed should be set to 500kbit/s.

The minimum supported firmware version for the GX device is v2.52. It is recommended to use the latest firmware version on new installations and when trouble shooting issues.

1.3 All 48V Multis, MultiPlusses, MultiGrids and Quattros are compatible

The minimum supported firmware version is 469. Updating to the latest firmware is recommended for new installations, and troubleshooting issues.

These 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 BSLBATT Battery Management System (BMS) are built into the latest version of the GX device using DVCC.

1.4 Solar Charger compatibility

All 48V BlueSolar and SmartSolar VE.Direct 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.

When planning to use the VE.Can communications port to connect the Solar Charger(s), make sure to select a GX Device that has sufficient CAN-Bus ports. The Color Control GX has only one such port, its VE.Can port, and is therefor not suitable. All other GX Devices can be used, since they have two ports. One can then be used to connect the BSL battery, and the other to connect the Solar Charger.

(*) with exception of the models “BlueSolar MPPT 150/70 CAN-bus” and “BlueSolar MPPT 150/85 CAN-bus” which are end-of-life since 2019. Legacy systems, historically installed with this configuration using the allow to charge contacts may be possible, speak to your dealer for more information.

It should be noted that one should always connect the battery before connecting the solar input to any MPPT.

Battery compatibility

The following batteries are supported:

BSLBATT type
B-LFP48-100E
B-LFP48-120E
B-LFP48-200PW
B-LFP48-160E

2. Minimum Battery Sizing

The following information is provided by BSL, it is reproduced here for your convenience and should always be confirmed with the latest BSL manuals and specifications.

It should also be noted that these are the minimum requirements for the BSL battery range and that each unit can be paralleled many times over. Please consult the relevant manual on how many units can be placed in parallel.

The table below shows the minimum number of battery modules required for the specified inverter/charger configuration:

Battery Modules Required - 5.1kWh/100Ah

Phases	Single Phase	Three Phase
Inverter/Charger		
Multiplus & Multiplus II & MP-II GX 48/3000/35	1	3
Multiplus & Multiplus II & MP-II GX 48/5000/70	1	3
Inverter RS & Multi RS 48/6000	2	-
Quattro 48/5000/70-100/100	1	3
Quattro 48/8000/110-100/100	2	5
Quattro 48/10000/140- 100/100	2	6
Quattro 48/15000/200- 100/100	3	9
EasySolar & EasySolar-II 48/3000/35-50 MPPT	1	3
EasySolar 48/5000/70-100 MPPT	1	3

Battery Modules Required - 6.4kWh/125Ah

Phases	Single Phase	Three Phase
Inverter/Charger		
Multiplus & Multiplus II & MP-II GX 48/3000/35	1	3
Multiplus & Multiplus II & MP-II GX 48/5000/70	1	3
Inverter RS & Multi RS 48/6000	2	-
Quattro 48/5000/70-100/100	1	3
Quattro 48/8000/110-100/100	2	5
Quattro 48/10000/140- 100/100	2	6
Quattro 48/15000/200- 100/100	3	9
EasySolar & EasySolar-II 48/3000/35-50 MPPT	1	3
EasySolar 48/5000/70-100 MPPT	1	3

Battery Modules Required - 8.2kWh/160Ah

Phases	Single Phase	Three Phase
Inverter/Charger		
Multiplus & Multiplus II & MP-II GX 48/3000/35	1	2
Multiplus & Multiplus II & MP-II GX 48/5000/70	1	2
Inverter RS & Multi RS 48/6000	1	-
Quattro 48/5000/70-100/100	1	2
Quattro 48/8000/110-100/100	1	3
Quattro 48/10000/140- 100/100	2	4
Quattro 48/15000/200- 100/100	2	7
EasySolar & EasySolar-II 48/3000/35-50 MPPT	1	2
EasySolar 48/5000/70-100 MPPT	1	2

Battery Modules Required - 10.2kWh/200Ah

Phases	Single Phase	Three Phase
Inverter/Charger		
Multiplus & Multiplus II & MP-II GX 48/3000/35	1	3
Multiplus & Multiplus II & MP-II GX 48/5000/70	1	3

Inverter RS & Multi RS 48/6000	2	-
Quattro 48/5000/70-100/100	1	3
Quattro 48/8000/110-100/100	2	5
Quattro 48/10000/140- 100/100	2	6
Quattro 48/15000/200- 100/100	3	9
EasySolar & EasySolar-II 48/3000/35-50 MPPT	1	3
EasySolar 48/5000/70-100 MPPT	1	3

Configuration settings

Integration instructions for Victron and BSLBATT is described in this manual -

bsl_victron_manual.pdf

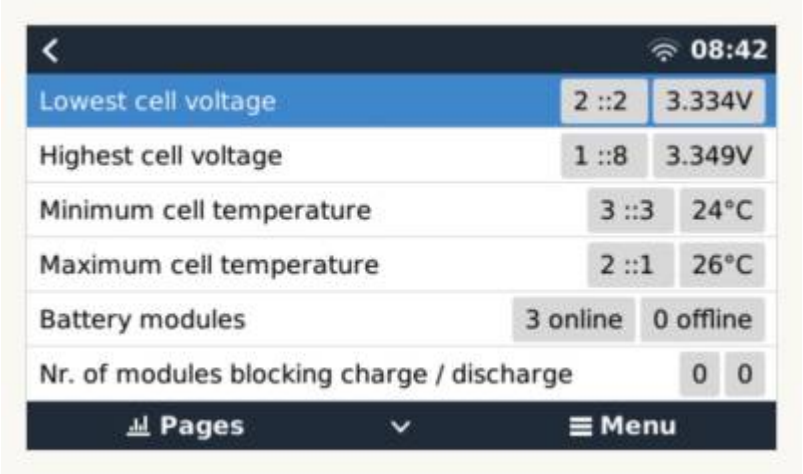
Specific manuals for various models of battery:

- 5.1kWh battery-
  bsl_5_1_manual_v1.pdf
- 6.4kWh battery-
  bsl_6_4_manual_v1.pdf
- 8.2kWh battery-
  bsl_8_2_manual_v1.pdf
- 10.2kWh battery-
  bsl_power_wall_manual_v1.pdf

Here is a series of screenshots showing the result:




Device
08:42
Connected
Yes
Connection
CAN-bus
Product
BSLBATT battery
Product ID
B021
Firmware version
v1.0
VRM instance
512
Pages
Menu


08:42
Lowest cell voltage
2 ::2
3.334V
Highest cell voltage
1 ::8
3.349V
Minimum cell temperature
3 ::3
24°C
Maximum cell temperature
2 ::1
26°C
Battery modules
3 online
0 offline
Nr. of modules blocking charge / discharge
0
0
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Installation image courtesy of 'Get Off Grid' South Africa.

Further Information

For information about where to buy or find suitably qualified installers, visit the Where to Buy Page.

Further community discussion about installing and using BSLBATT and Victron can found at Victron Community, use the topic label 'BSLBATT'.

From:
https://www.victronenergy.com/live/ - **Victron Energy**

Permanent link:
https://www.victronenergy.com/live/battery_compatibility:bsl?rev=1648469639

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