

Battery Management Systems for Lithium NG Batteries

Overview

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SmallIBMS NG

Feature highlights common to all models:

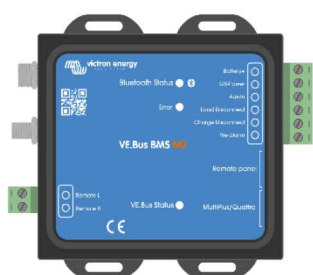
- Designed specifically for use with Victron Lithium NG batteries (12,8 V, 25,6 V, 51,2 V)
- Direct communication with the battery via M8 circular connector cables
- Cell protection: disconnects loads or charge sources via "load disconnect" and "charge disconnect" terminals in case of overvoltage, undervoltage, or abnormal temperature.
- Battery bank sizing: Up to 50 batteries in 12 V or 24 V systems (max. 192 kWh and 384 kWh respectively). Up to 25 batteries in 48 V systems (max. 128 kWh).

System Voltages:

- All models support 12, 24, and 48 V systems.

System connection:

- SmallIBMS NG and VE.Bus BMS NG: all loads and chargers must be directly connected to the battery. The BMS disconnects them via "load" and "charge disconnect" outputs in case of an alarm.
- Lynx Smart BMS NG: includes a 500 A or 1000 A safety contactor that disconnects the full system from the battery in case of an alarm. Can also act as the system's main on/off switch.



VE.Bus BMS NG

Alternator:

- Lynx Smart BMS NG includes ATC mode – no additional alternator protection required.

Pre-alarm options:

- Available on all models.

Remote on/off options:

- All models feature a remote on/off terminal.
- Can also be switched on/off via Bluetooth and VictronConnect.

Bluetooth and the VictronConnect app

- All models support Bluetooth and can be monitored, operated, and configured via the [VictronConnect app](#).
- Instant Readout is supported – key battery data is shown without needing to pair.



**Lynx Smart BMS NG
500 A**

Battery monitor

- Lithium NG batteries have integrated shunts and send SoC, voltage, cell voltage, temperature, and balancer status to the BMS. No external battery monitor is required.

Communication options:

- VE Bus BMS NG can directly control VE.Bus inverters or inverter/chargers in case of a battery cell undervoltage, overvoltage or temperature alarm.
- VE.Bus BMS NG and Lynx Smart BMS NG support DVCC and can control compatible inverter/chargers and solar chargers via GX device without using the disconnect terminals.
- Lynx Smart BMS NG supports monitoring of up to four Lynx Distributor modules.

Optional accessories:

- VictronConnect app (free download).
- Pair of M8 circular connector 3-pole cables, to extend the battery BMS cables.
- VE.Direct non inverting remote on/off cable.
- Inverting remote on/off cable.
- Non inverting remote on/off cable.

System design recommendations:

- **SmallIBMS NG** for 12, 24 or 48 V systems without inverter/chargers.
- **VE.Bus BMS NG** for 12, 24 or 48 V systems with inverter/chargers and a GX device
- **Lynx Smart BMS NG** for 12, 24 or 48 V systems with digital integration and with the need to have a safety relay to disconnect DC loads and/or inverters or inverter/chargers, like is the case in yachts or recreational vehicles.
- Available in two different versions: 500 A and 1000 A (both with M10 busbar).



**Lynx Smart BMS NG
1000 A**

Comparison overview:

- The below overview is a comparison and a brief summary of the BMS features. For full technical specifications, see the individual BMS datasheets.

Features	smallBMS NG	VE.Bus BMS NG	Lynx Smart BMS NG 500 A or 1000 A
System voltage	12, 24 or 48 V	12, 24 or 48 V	12, 24 or 48 V
System connection	No	No	500 A or 1000 A
Alternator port	No	No	Yes (Alternator ATC mode)
Battery monitor	Yes (via battery)	Yes (via battery)	Yes
Bluetooth	Yes	Yes	Yes
Data communication	No	VE.Bus communication with inverter/charger(s) and a GX device	VE.Can communication with a GX device NMEA 2000
Control via GX device (DVCC)	No	Yes	Yes
Allowed to discharge terminal(s)	High/free floating 1 A	High/free floating 1 A	Relay 0,5 A
Allowed to charge terminal(s)	High/free floating 10 mA	High/free floating 10 mA	Relay 0,5 A
Pre-alarm terminal(s)	Free floating/high 1 A	Free floating/high 1 A	Programmable relay 2 A
Remote on/off terminal	Yes	Yes	Yes
Auxiliary output	No	Yes, 1 A	Yes, 1,1 A
Auxiliary input	No	Yes, 1 A	No
Possible to update firmware	No	No	Yes
Weight (kg)	0,1	0,12	1,9 (500 A) or 2,7 (1000 A)
Dimensions (mm)	106 x 42 x 23	24 x 95 x 106	190 x 180 x 80 (500 A) or 230 x 180 x 100 (1000 A)
Protection	IP20	IP20	IP22
Remarks	-	-	Is part of the Lynx Distribution System
Datasheet	smallBMS NG	VE.Bus BMS NG	Lynx Smart BMS NG



Lithium NG Battery
12,8 V, 25,6 V & 51,2 V



M8 circular connector 3
pole cable



VE.Direct non inverting
remote on/off cable



Inverting remote on-off
cable



Non inverting remote
on-off cable