

LITHIUM-ION HE AND LYNX ION BMS

Ultra-high energy density, with 185Wh/kg thanks to Lithium Nickel Manganese Cobalt Oxide (NMC) technology.



Batería Litio HE, Victron Energy



Lynx Ion BMW, Victron Energy

Ultra-high energy density

185Wh/kg thanks to Lithium Nickel Manganese Cobalt Oxide (NMC) technology

Fan cooled

For high charge and discharge currents (up to 2C for short periods)

Parallel and series connection

Up to 64 batteries can be parallel connected.
For 48V systems two batteries can be connected in series, and up to 32 strings of two batteries can be parallel connected.

Galvanically isolated CAN-Bus communication

Protocol: VECAN/NMEA2000

Lynx-ion BMS: 400A or 1000A

The Lynx-ion BMS reduces wiring and installation time to a minimum: it combines four fused battery connections, four fused DC load

connections, a safety contactor and a current shunt with a BMS in one compact enclosure.

Monitoring: The Color control GX or Venus GX

Monitors the complete system.
Is the gateway for remote monitoring on the VRM online portal.
Adds an amazing amount of useful functionality to system (such as a very sophisticated generator start-stop program
See the Color Control GX and Venus GX datasheet for more information.

BATTERY SPECIFICATIONS

Lithium HE battery	24V / 100 Ah	24V / 200 Ah
Technology	Lithium-Ion NMC	Lithium-Ion NMC
Cell configuration	7S32P	7S64P
Nominal voltage	25,2 V	25,2 V
Nominal capacity	100 Ah	200 Ah
Nominal energy	2,5 kWh	5,0 Wkh
Cycle life @80% DoD (0,3C)	2000	2000
Energy/weight ratio (incl. BMS and enclosure)	159 Wh/Kg	175 Wh/Kg
Weight (incl. BMS and enclosure)	15,7 Kg	28,6 Kg
Discharge		
Discharge cut-off voltage	21 V	21 V
Recommended discharge current	30 A (0,3 C)	60 A (0,3 C)
Maximum discharge current (10 minutes)	150 A (1,5 C)	300 A (1,5 C)
Fuses	150 A, fuse inside	300 A, fuse inside
Charge		
Max. charge voltage	29,4 V	29,4 V
Recommended charge voltage	28 V	28 V
Maximum charge current	100 A (1 C)	200 A (1 C)
Recommended charge current	30 A (0,3 C)	60 A (0,3 C)
Configuration		
Series configuration	Yes, up to 2	
Parallel configuration	Yes, up to 96	
Temperature		
Operating temp. charge	0 - 45 °C	
Operating temp.	-20 to 55 °C	

discharge

Storage temp. -20 to 45 °C

Mechanical

Power connections M8, stud, M8 stud,
Max. 15 Max. 15
Nm Nm

Protection class IP20 IP20

Cooling Air, active Air, active
(1 x fan (1 x fan
inside) inside)

Dimensions (l x w x h) 362 x 193 362 x 192
x 214 mm x 355 mm

Safety

Battery Management System (BMS) Integrated slave BMS

Balancing Passive

Compatible BMS master controller Lynx Ion BMS

Communication with Lynx Ion BMS CAN bus

Standards

EMC Emission EN-IEC-61000-6-3

EMC immunity EN-IEC-61000-6-1

Low voltage directive EN 60335-1

LYNX ION BMS SPECIFICATIONS

Lynx Ion BMS 400 A 1000 A

Maximum number of batteries in series 2 (=48 Vdc)

Maximum number of batteries in parallel 96 (48V: 48 strings of two batteries)

Supply voltage range 18 to 58 Vdc

Power consumption, standby mode 73 mW @26,2V and 138 mW @52,4V

Power consumption, active mode 8,7 W

Main safety contactor 400 A 1000 A

Communication port VE.Can (NMEA2000, RJ45 connection, galvanically isolated)

IO

Auxiliary output 13,5 V / 1 A, short circuit protected

Allow to charge (switched voltage)	13,5 V / 1 A, short circuit protected
Allow to discharge (switched voltage)	13,5 V / 1 A, short circuit protected
Allow to charge (relay output)	1 A @60 Vdc, potential free
Allow to discharge (relay output)	1 A @60 Vdc, potential free
Programmable contact (relay output)	1 A @60 Vdc, potential free
External status signal	13,5 V / 140 mA

Enclosure

Material	ABS
Weight	4,6 Kg 5,7 Kg
Dimensions (l x w x h)	225 x 426 x 117 mm

Environmental

Operating temperature range	-20 to 50 ° C
Humidity	Max. 95 % (non condensing)
Protection class	IP22

Standards

EMC Emission	EN-IEC-61000-6-3
EMC Immunity	EN-IEC-61000-6-1
Low voltage directive	EN 60335-1