BMV bezel square

BMV shunt 500A/50mV
With quick connect pcb

BMV 602S Black

VE.Net Battery Controller

Precision monitoring

The essential function of a battery monitor is to calculate ampere-hours consumed and the state of charge of a battery. Ampere-hours consumed is calculated by integrating the current flowing in or out of the battery. In case of a constant current, this integration is equivalent to current multiplied by time. A discharge current of 10A during 2 hours, for example, amounts to 20Ah consumed. All our battery monitors are based on a powerful microprocessor, programmed with the algorithms needed for precision monitoring.

Standard information and alarms

- Battery voltage (V).
- Battery charge/discharge current (A).
- Ampere-hours consumed (Ah).
- State of charge (%).
- Time to go at the current rate of discharge.
- Visual and audible alarm: over- and under voltage, and/or battery discharged.
- Programmable alarm or generator start relay.

BMV 600S: low cost ultra high resolution monitor

- Highest resolution: 10mA (0,01A) with 500A shunt.
- Can be used with 50, 60 or 100mV shunts, current rating from 100A to 1000A
- Lowest current consumption: 4mA @12V and 3mA @ 24V.
- Easiest to wire: the BMV 600S comes with shunt, 10 meter RJ 12 UTP cable and 2 meter battery cable with fuse; no other components needed.
- Easiest to install: separate front bezel for square or round appearance; ring for rear mounting and screws for front mounting.
- Broadest voltage range: 9.5 – 95 VDC without prescaler needed.
- Communication port (Isolated RS232 interface is needed to connect to a computer)

BMV 602S: two batteries

In addition to all the features of the BMV600S, the BMV602S can measure the voltage of a second battery. A version with a black front bezel (BMV 602S Black) is also available.

BMV 600HS: 70 to 350VDC voltage range

No prescaler needed. Note: suitable for systems with grounded minus only (battery monitor is not isolated from shunt).

Optional Isolated RS232 communication interface and software

(for all BMV models) Displays all information on a computer and loads charge/discharge data in an Excel file for graphical display. The BMV models feature a very simple protocol that can be used for integration into other systems.

VE.Net Battery Controller: any number of batteries

- One VE.Net panel or Blue Power panel will connect to any number of battery controllers.
- Comes with 500A/50mV shunt and can be programmed for 50, 60 or 100mV shunts, current rating from 100A to 10.000A.
- With use, abuse and data memory.
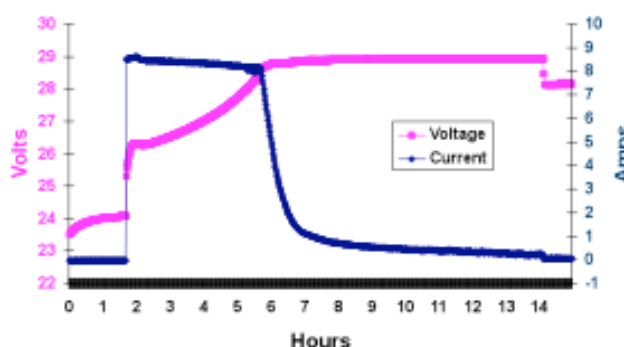- Temperature sensor and connection kit included.

High voltage VE.Net Battery Controller: 70 to 350VDC

No prescaler needed. Note: RJ45 connectors are galvanically isolated from Controller and shunt.

Example of a battery charge curve recorded with a BMV 602 and VEBat software

Battery monitor	BMV 600S	BMV 602S & BMV 602S BLACK	BMV 600HS	VE. Net Battery Controller	VE. Net High Voltage Battery Controller
Power supply voltage range	9.5 - 90 VDC	9.5 - 90 VDC	70 – 350 VDC	7 - 75 VDC	70 - 350 VDC[1]
Current draw, back light off	< 4 mA	< 4 mA	< 4 mA	< 5 mA	< 4 mA
Input voltage range (VDC)	9.5 - 95 VDC	9.5 - 95 VDC	70 – 350 VDC	0 - 75 VDC	0 – 350 VDC
Battery capacity (Ah)	20 - 9999 Ah			20 - 60000 Ah	
Operating temperature range	-20 +50°C (0 - 120°F)				
Measures voltage of second battery	No	Yes	Yes	No	
Communication port	Yes	Yes	Yes	Yes (VE.Net)	
Potential free contacts	60V/1A (N/O)				
RESOLUTION (with a 500 A shunt)					
Current	± 0,01 A			± 0,1 A	
Voltage	± 0,01 V				
Amp hours	± 0,1 Ah				
State of charge (0 – 100 %)	± 0,1 %				
Time to go	± 1 min				
Temperature (0 - 50°C or 30 - 120°F)	n. a.			± 1°C (± 1°F)	
Accuracy of current measurement	± 0,3 %				
Accuracy of voltage measurement	± 0,4 %				
INSTALLATION & DIMENSIONS					
Installation	Flush mount			DIN rail	
Front	63 mm diameter			22 X 75 mm (0.9 x 2.9 inch)	
Front bezel	69 x 69 mm (2.7 x 2.7 inch)			n. a.	
Body diameter	52mm (2.0 inch)			n. a.	
Body depth	31mm (1.2 inch)			105 mm (4,1 inch)	
ACCESSORIES					
Shunt (included)	500 A / 50 mV[2]			500 A / 50 mV[3]	
Cables (included)	10 meter 6 core UTP with RJ12 connectors, and cable with fuse for '+' connection			Supplied with 1 m cables	
Temperature sensor	n. a.			Supplied with 3 m cable	
Computer interface	optional			n.a.	

1) 7 – 75 VDC needed for VE.Net network power supply

2) HV version with shunt in plastic enclosure

3) HV version with shunt + Controller in plastic enclosure

Victron Global Remote
The Global Remote is a modem which sends alarms, warnings and system status reports to cellular phones via text messages (SMS). It can also log data from Victron Battery Monitors, MultiPlus units, Quattro's and Inverters to a website through a GPRS connection. Access to this website is free of charge.

Victron Global Remote to BMV 60xS Connection Kit
Cable kit required to connect the BMV and the Victon Global Remote. BMV 60xS Data Link included.

Blue Power panel
The VE.Net Blue Power Panel is the panel that connects to the VE.Net Battery Controller. The panel can show the information of multiple batteries on one display for simple and efficient monitoring of your battery systems. For our other VE.Net products please refer to our VE.Net datasheet.

1000A/50mV shunt
For ease of use with BMV series: quick connect pcb of standard 500A/50mV shunt can be mounted on this shunt.

2000A/50mV shunt
For ease of use with BMV series: quick connect pcb of standard 500A/50mV shunt can be mounted on this shunt.

BMV-602 Data Link with software
For all BMV's

victron energy
B L U E P O W E R