



The SmartBatteryProtect must be programmed for Li-ion mode-C and 12 Volt either through programming on the device itself or with a Bluetooth enabled smartphone or tablet. Connect the Load & Charge disconnect outputs of the VE.Bus BMS to the Remote H terminal of SBP 1 & 2.

The VE.Bus BMS is enlarged visible in this drawing. The BMS GND is not connected to prevent ground loops. Ground comes through the VE.Bus UTP cable.

There are several configuration options possible. Read the Orion-Tr manual carefully and choose the one fitting your installation.

KEEP POSITIVE BATTERY CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH!

KEEP NEGATIVE BATTERY CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH!

2 x Lithium 12.8V-200Ah Smart LiFePO4

IMPORTANT INFORMATION!
When operating in inverter mode, the Neutral output of an inverter/charger must be connected to ground to guarantee proper functioning of a GFCI or RCD device. In case of a split phase supply the Neutral also must be grounded.

The primary Case ground connection from an inverter charger like a Multi or a Quattro, must be connected to the Central Negative Busbar of the DC system. Size of this cable must be identical to connected DC negative.

IMPORTANT INFORMATION!
Recommended AC Out-1 cable/breaker size MultiPlus-II
With Power assist the MultiPlus-II can add 3kW to the output load when needed. Together with the adjustable 50A input this all adds up to the max gain of 5.5kW. An Earth leakage device with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

IMPORTANT INFORMATION!
Recommended AC Out-2 cable/breaker size MultiPlus-II
AC Out-2 only is available when power is present on AC IN. During battery operation it will be disconnected. AC Out-2 supports up to 50A. An Earth leakage device with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

IMPORTANT INFORMATION!
Recommended DC cable/fuse size MultiPlus-II
0-8 m cable length: 4 x 60SQmm, 5-10 m Power assist length: 4 x 70SQmm. When used in closed conduits, cable size should double. Cable length stands for the distance between the battery and the MultiPlus-II connections. Recommendations are without other loads in the system and these also should be taken into account for proper main battery, main fuse & main switch cables!!! Fuse size should be 400A.

IMPORTANT INFORMATION!
Recommended AC IN cable/breaker size MultiPlus-II
AC IN must be protected by a circuit breaker rated at 50A max or less. This depends heavily on the size of the connected power source. The input current must be adjusted to fit the size of the connected power source. The breaker and cable size for AC IN should be adjusted accordingly.

WARNING
120 VOLT AC IS EXTREMELY HAZARDOUS !!!
DO NOT TOUCH ANY LIVE WIRED PARTS OF THE INSTALLATION !!!
WHEN IN DOUBT, ALWAYS CONSULT YOUR VICTRON DEALER !!!

- < 120V No Break loads
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- < 120V Switched loads
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THE BMW SHUNT CAN BE UPGRADED FROM STANDARD 500A TO 1000A. THE BMW SHUNT IS MOUNTED DIRECT ONTO BOTH BUSBARS.

Drawing BJE-317A