

Recommended AC Out cable/breaker size MultiPlus
 With Power assist the MultiPlus can add 1 kW to the output load when needed. Together with the adjustable 16A input this all adds up to the max sum of input and output current of 16+4.3=20.3A. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended DC cable/fuse size MultiPlus
 0-5 m cable length: 35Sqmm
 Cable length stands for the total distance between the battery connections plus and minus and the MultiPlus 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! INTERNAL Fuse size should be 200A.

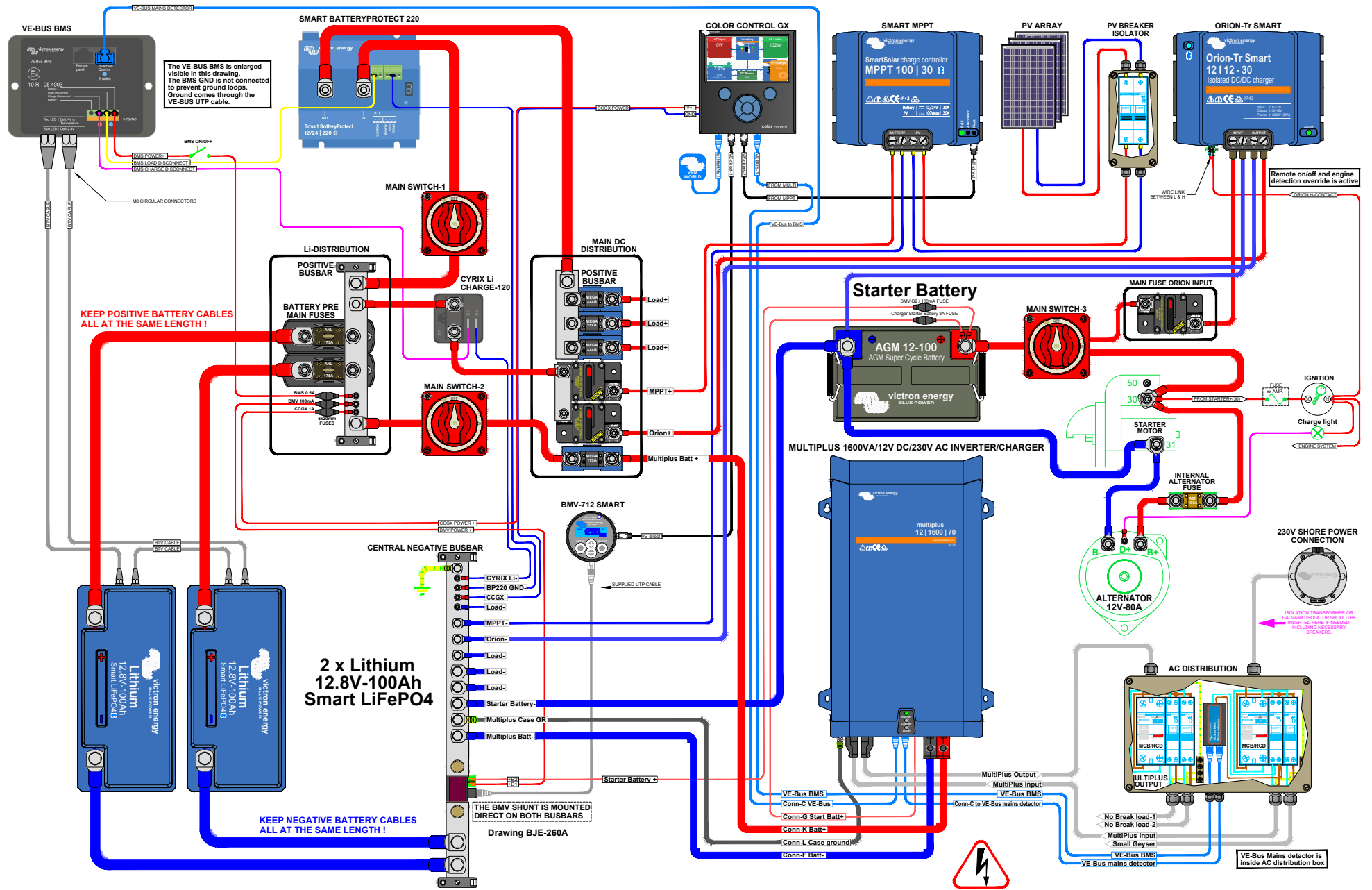
Recommended AC In cable/breaker size MultiPlus
 AC IN must be protected by a circuit breaker rated at 16A max or less. This depends heavily on the size of the connected power source. The input current must be adjusted to fit the size of the connected power source. The breaker and cable size for AC IN should be adjusted accordingly.

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



ISOLATION TRANSFORMER OR GALVANIC ISOLATOR SHOULD BE INSERTED HERE IF NEEDED INCLUDING NECESSARY BREAKERS

Drawing BJE-259A



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.

KEEP POSITIVE BATTERY CABLES ALL AT THE SAME LENGTH!

KEEP NEGATIVE BATTERY CABLES ALL AT THE SAME LENGTH!

2 x Lithium 12.8V-100Ah Smart LiFePO4

THE BMS SHUNT IS MOUNTED DIRECT ON BOTH BUSBARS
Drawing BJE-260A

Remote on/off and engine detection override is active

ISOLATION TRANSFORMER OR GALVANE ISOLATOR SHOULD BE INSTALLED HERE IF REQUIRED, INCLUDING NECESSARY BREAKERS.

VE-Bus Mains detector is inside AC distribution box

Recommended AC Out cable/breaker size MultiPlus
With Power assist the MultiPlus can add 1.3 kW to the output load when needed. Together with the adjustable 16A input this all adds up to the max sum of input and output current of 16+5.6=21.6A. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

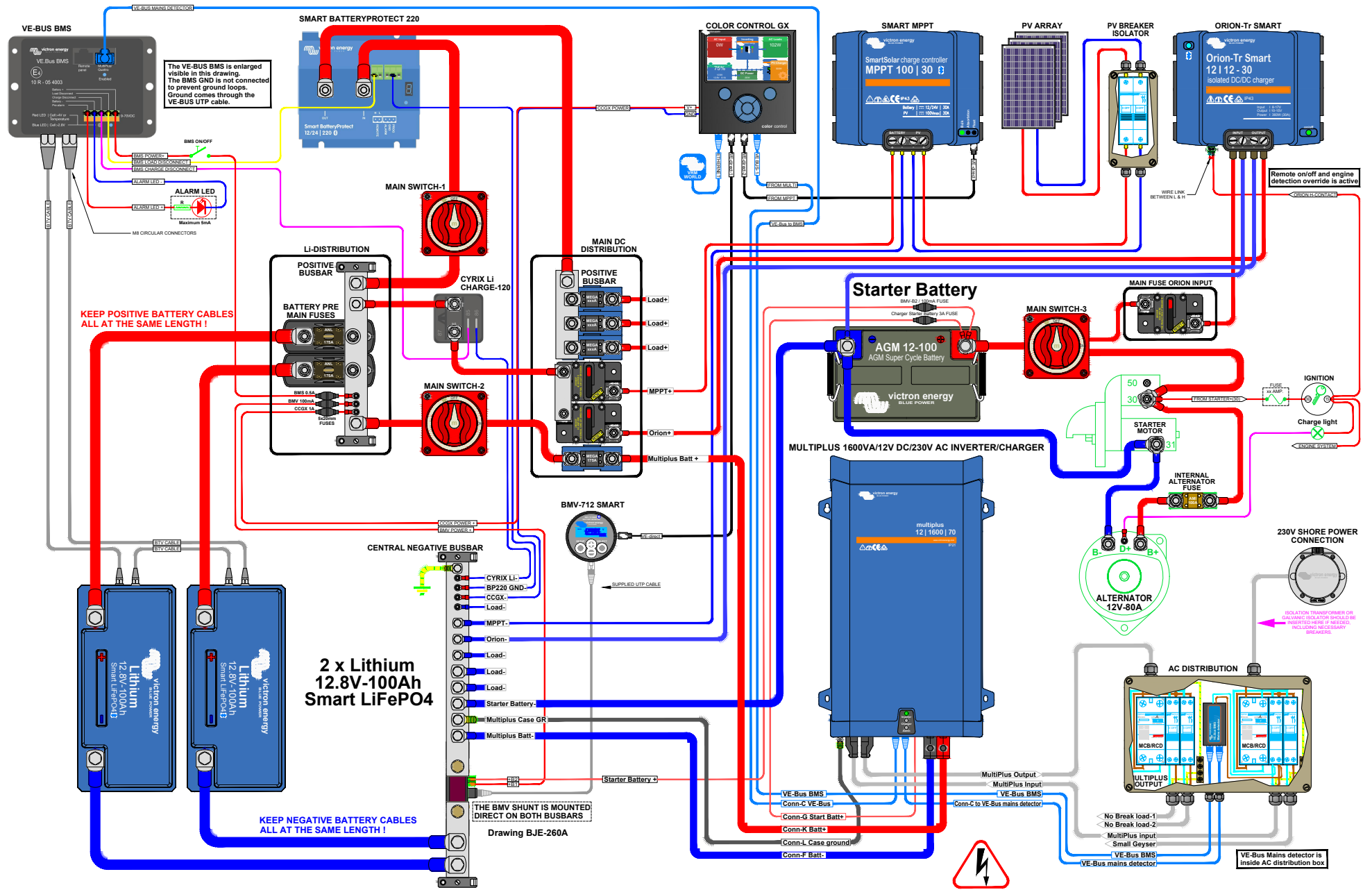
Recommended DC cable/fuse size MultiPlus
0-5 m cable length; 80SQmm
Cable length stands for the total distance between the battery connections plus and minus and the MultiPlus connections! Recommendations are without other loads in the system and these also should be taken into account for proper main battery, main fuse & main switch cables!
INTERNAL Fuse size should be 200A.

Recommended AC In cable/breaker size MultiPlus
AC IN must be protected by a circuit breaker rated at 16A 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
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- ◀ No Break load-1
- ◀ No Break load-2
- ◀ MultiPlus input
- ◀ Small Geyser
- ◀ VE-Bus BMS
- ◀ VE-Bus mains detector



KEEP POSITIVE BATTERY CABLES ALL AT THE SAME LENGTH!

KEEP NEGATIVE BATTERY CABLES ALL AT THE SAME LENGTH!

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.

2 x Lithium 12.8V-100Ah Smart LiFePO4

THE BMV SHUNT IS MOUNTED DIRECT ON BOTH BUSBARS

Recommended AC Out cable/breaker size MultiPlus
 With Power assist the MultiPlus can add 1.3 kW to the output load when needed. Together with the adjustable 16A input this all adds up to the max sum of input and output current of 16+6.9=21.6A. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended DC cable/fuse size MultiPlus
 0-5 m cable length; 80SQmm Cable length stands for the total distance between the battery connections plus and minus and the MultiPlus 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! INTERNAL Fuse size should be 200A.

Recommended AC In cable/breaker size MultiPlus
 AC IN must be protected by a circuit breaker rated at 16A 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
 230 VOLT IS EXTREMELY HAZARDOUS DO NOT TOUCH ANY LIVE WIRED PARTS OF THE INSTALLATION! WHEN IN DOUBT, ALWAYS CONSULT YOUR VICTRON DEALER!

VE-Bus Mains detector is inside AC distribution box

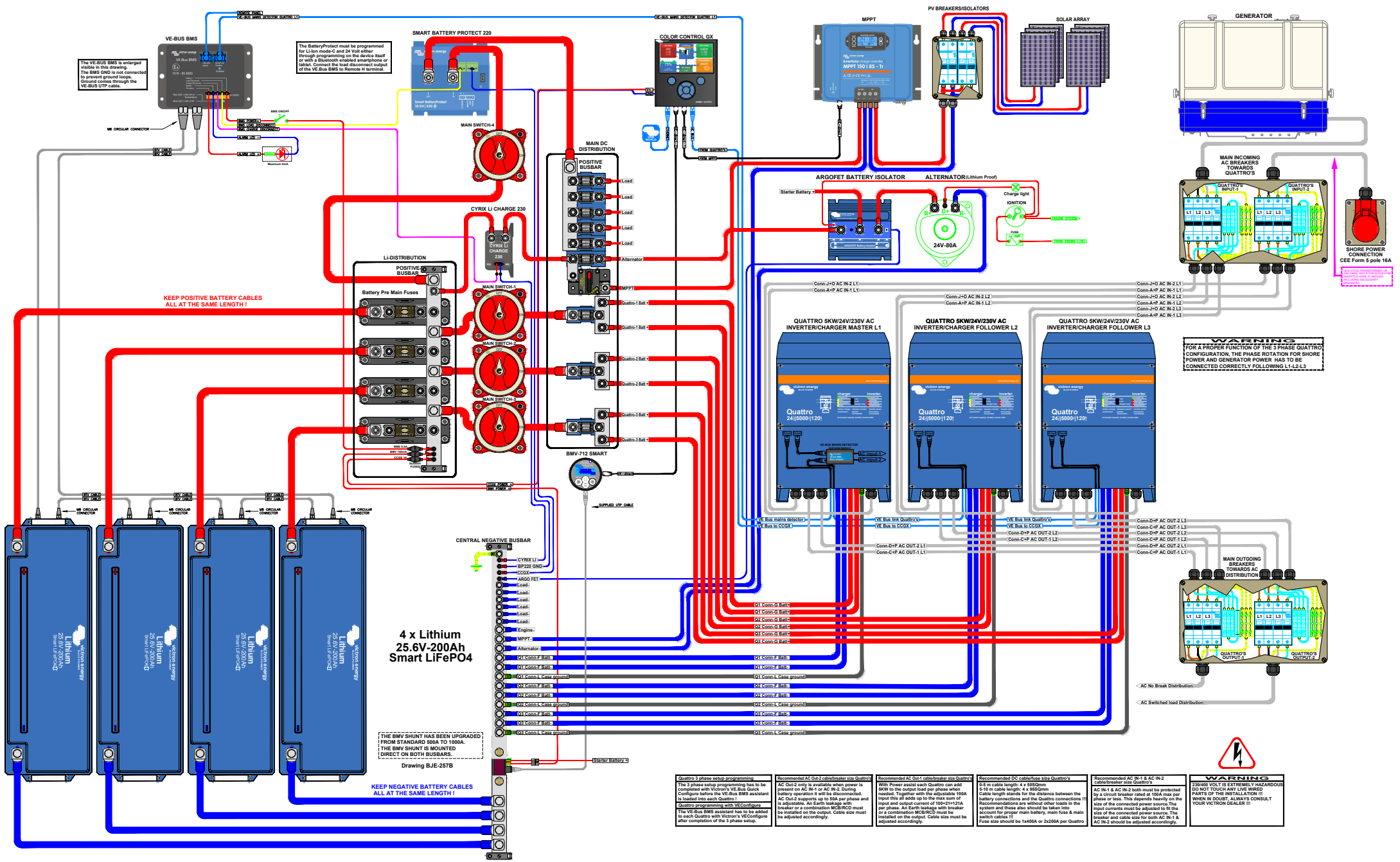
ISOLATION TRANSFORMER OR GALVANIC ISOLATOR SHOULD BE INSTALLED HERE IF REQUIRED, INCLUDING NECESSARY BREAKERS.

Remote on/off and engine detection override is active

No Break load-1
 No Break load-2
 MultiPlus input
 Small Geyser
 VE-Bus BMS
 VE-Bus mains detector



Drawing BJE-260A



The VE-BUS BMS is highlighted in this drawing. The BMS GND is not connected to prevent ground loops. Ground comes through the VE-BUS UTP cable.

The BatteryProtect must be programmed for LiIon mode C and 24 Volt either through programming on the device itself or with a Bluetooth enabled smartphone or tablet. Connect the load disconnect output of the VE-Bus BMS to Remote H terminal.

KEEP POSITIVE BATTERY CABLES ALL AT THE SAME LENGTH!

4 x Lithium 25.6V-200Ah Smart LiFePO4

THE BMV SHUNT HAS BEEN UPGRADED FROM STANDARD 500A TO 1000A. THE BMV SHUNT IS MOUNTED DIRECT ON BOTH BUSBARS.

KEEP NEGATIVE BATTERY CABLES ALL AT THE SAME LENGTH!

- CENTRAL NEGATIVE BUSBAR
- CYRUX Li
 - BP238 GND
 - CCG
 - ARD0 FET
 - Load
 - Load
 - Load
 - Load
 - Engine
 - MPPT
 - Alternator
 - Q1 Comm 1 Bus
 - Q1 Comm 2 Bus
 - Q1 Comm 3 Bus
 - Q1 Comm 4 Bus
 - Q1 Comm 4-case ground
 - Q2 Comm 1 Bus
 - Q2 Comm 2 Bus
 - Q2 Comm 3 Bus
 - Q2 Comm 4 Bus
 - Q2 Comm 4-case ground
 - Q3 Comm 1 Bus
 - Q3 Comm 2 Bus
 - Q3 Comm 3 Bus
 - Q3 Comm 4 Bus
 - Q3 Comm 4-case ground

Quattro 3 phase setup programming:
The 3 phase setup programming has to be completed with Victor's VE-Bus Quick Configure before the VE-Bus BMS assistant is loaded into each Quattro 1.

Quattro programming with VE Configure:
The VE-Bus BMS assistant has to be added to each Quattro with Victor's VE Configure after completion of the 3 phase setup.

Recommended AC Out-2 cable/breaker size Quattro's:
AC Out-2 only is available when power is present on AC IN-1 or AC IN-2. During battery operation it will be disconnected. AC Out-2 supports up to 50A per phase and is adjustable. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended AC Out-1 cable/breaker size Quattro's:
W/B Power assist each Quattro can assist 80W to the output load per phase when input and output current of 10A is required. Input this all adds up to the max sum of input and output current of 10A x 3 = 30A per phase. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended DC cable/breaker size Quattro's:
6.8 m cable length: 4 x 95Gmm
5-10 m cable length: 4 x 185Gmm
Cable length stands for the distance between the battery connections and the Quattro connections. Recommendations are without other loads in the system and these also should be taken into account for proper main battery main fuse & main breaker and cable size for AC IN-1 & AC IN-2. Fuse size should be 1x400A or 2x200A per Quattro.

Recommended AC IN-1 & AC IN-2 cable/breaker size Quattro's:
AC IN-1 & AC IN-2 both must be protected by a 100A circuit breaker rated at 100A max per phase or less. Recommendations are without other loads in the system and these also should be taken into account for proper main battery main fuse & main breaker and cable size for AC IN-1 & AC IN-2. AC IN-2 should be adjusted accordingly.

WARNING:
230-240VOLT IS EXTREMELY HAZARDOUS. DO NOT TOUCH ANY LIVE WIRING PARTS OF THE INSTALLATION !!! WHEN IN DOUBT, ALWAYS CONSULT YOUR VICTOR DEALER !!!

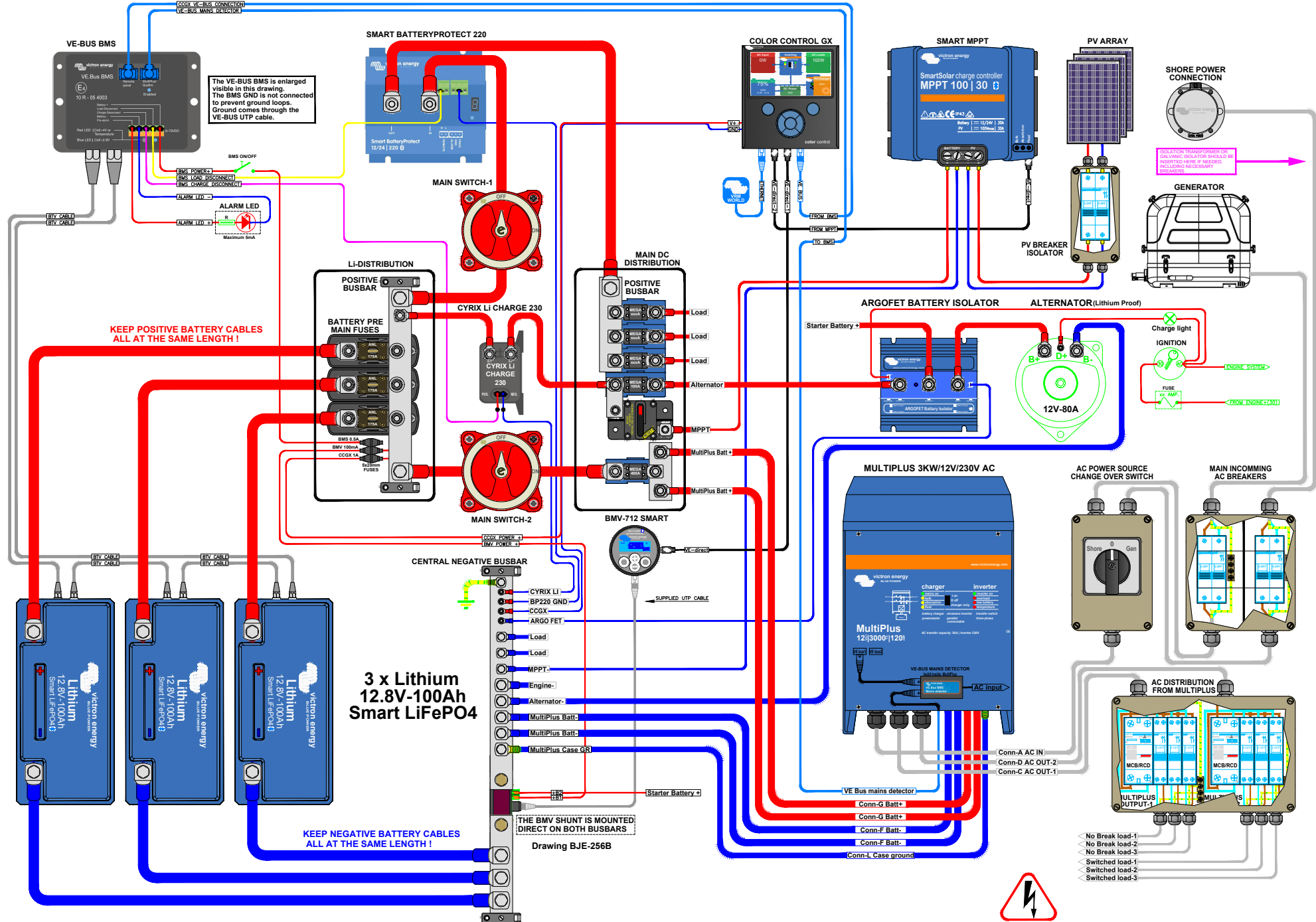
FOR A PROPER FUNCTION OF THE 3 PHASE QUATTRO CONFIGURATION, THE PHASE ROTATION FOR SHORE POWER AND GENERATOR POWER HAS TO BE CONNECTED CORRECTLY FOLLOWING L1-L2-L3.

- Com-J10 AC IN-2 L1
- Com-AP AC IN-1 L1
- Com-J10 AC IN-2 L2
- Com-AP AC IN-1 L2
- Com-J10 AC IN-2 L3
- Com-AP AC IN-1 L3

- Com-D1P AC OUT-2 L1
- Com-C1P AC OUT-1 L1
- Com-D1P AC OUT-2 L2
- Com-C1P AC OUT-1 L2
- Com-D1P AC OUT-2 L3
- Com-C1P AC OUT-1 L3
- Com-D1P AC OUT-2 L1
- Com-C1P AC OUT-1 L1

- AC No Break Distribution
- AC Switched load Distribution





KEEP POSITIVE BATTERY CABLES ALL AT THE SAME LENGTH!

KEEP NEGATIVE BATTERY CABLES ALL AT THE SAME LENGTH!

3 x Lithium 12.8V-100Ah Smart LiFePO4

Drawing BJE-256B

Smart BatteryProtect programming
The BatteryProtect must be programmed for Li-Ion mode and 24 Volt either through programming on the device itself or with a Bluetooth enabled smartphone or tablet. Connect the load disconnect output of the VE-Bus BMS to Remote H terminal.

Recommended AC Out-2 cable/breaker size MultiPlus
AC Out-2 only is available when power is present on AC IN-1. During battery operation it will be disconnected. AC Out-2 supports up to 16A and is adjustable. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended AC Out-1 cable/breaker size MultiPlus
With Power assist the MultiPlus can add 3KW to the output load when needed. Together with the adjustable 50A input this all adds up to the max sum of input and output current of 50+13=63A. An Earth leakage with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

Recommended DC cable/fuse size MultiPlus
0-5 m cable length: 4 x 50Sqm
5-10 m cable length: 4 x 70Sqm
Cable length stands for the distance between the battery and the MultiPlus 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 1 x 400A or 2 x 200A

Recommended AC IN cable/breaker size MultiPlus
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 currents 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
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Looking for dependable solar and portable power? Rely on Victron Energy for quality and long-lasting products.