

# Automotive system booklet

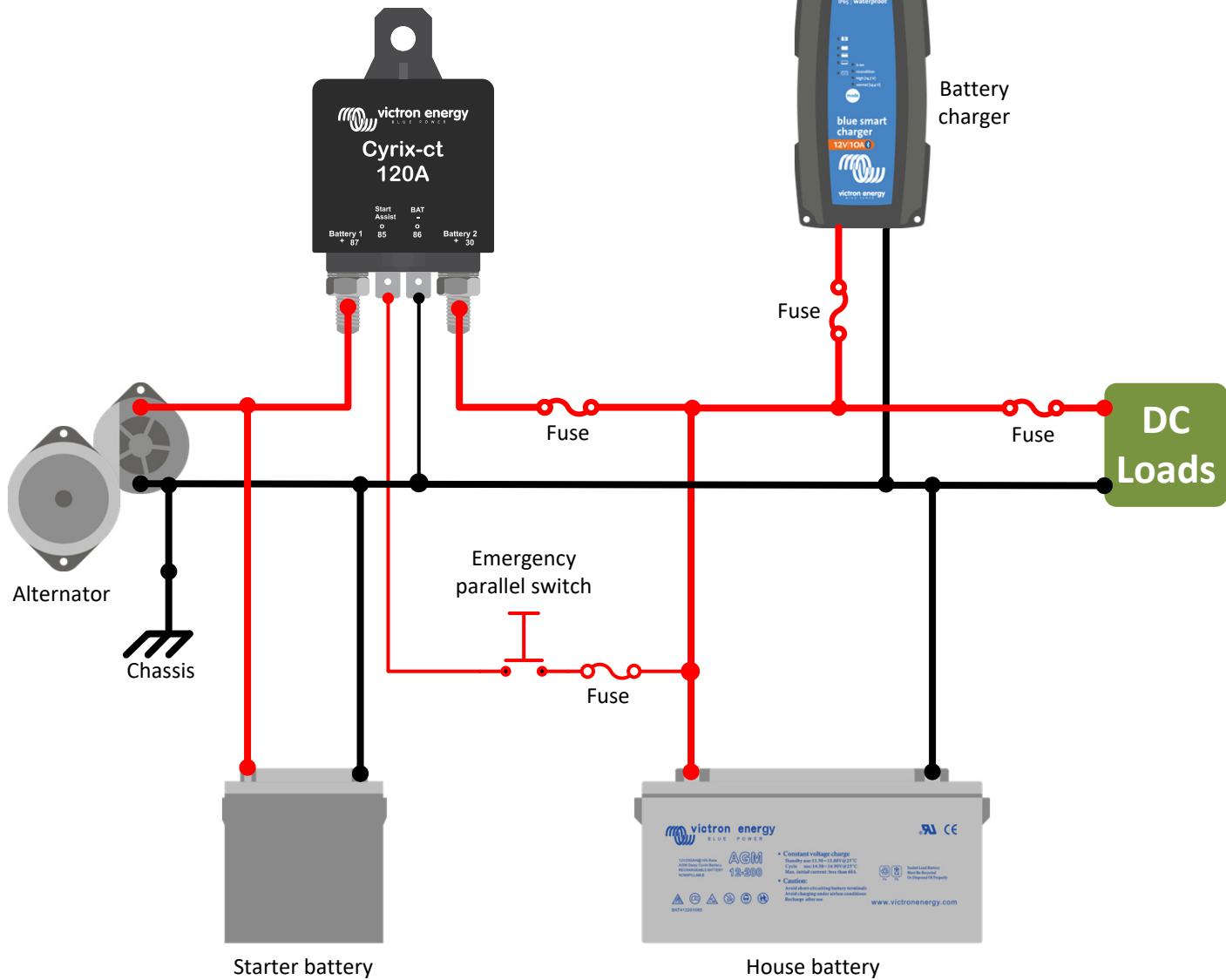
A variety of automotive electrical systems - Rev 03



# Automotive system

Dual battery system with intelligent voltage sensitive relay

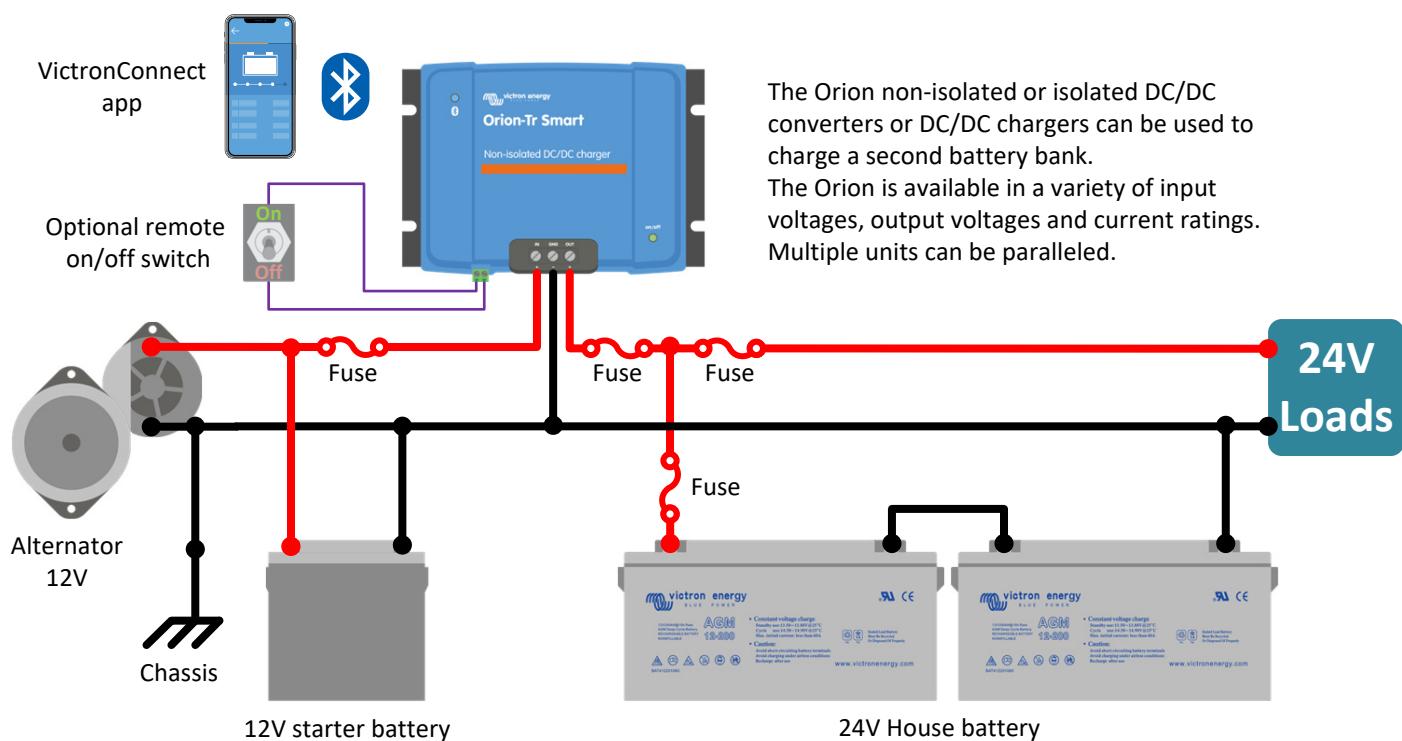
The Cyrix-ct intelligent battery combiner connects the starter battery to the house battery when the starter battery or the house battery is being charged from the alternator or the battery charger. Available in 120A, 230A and 400A versions.



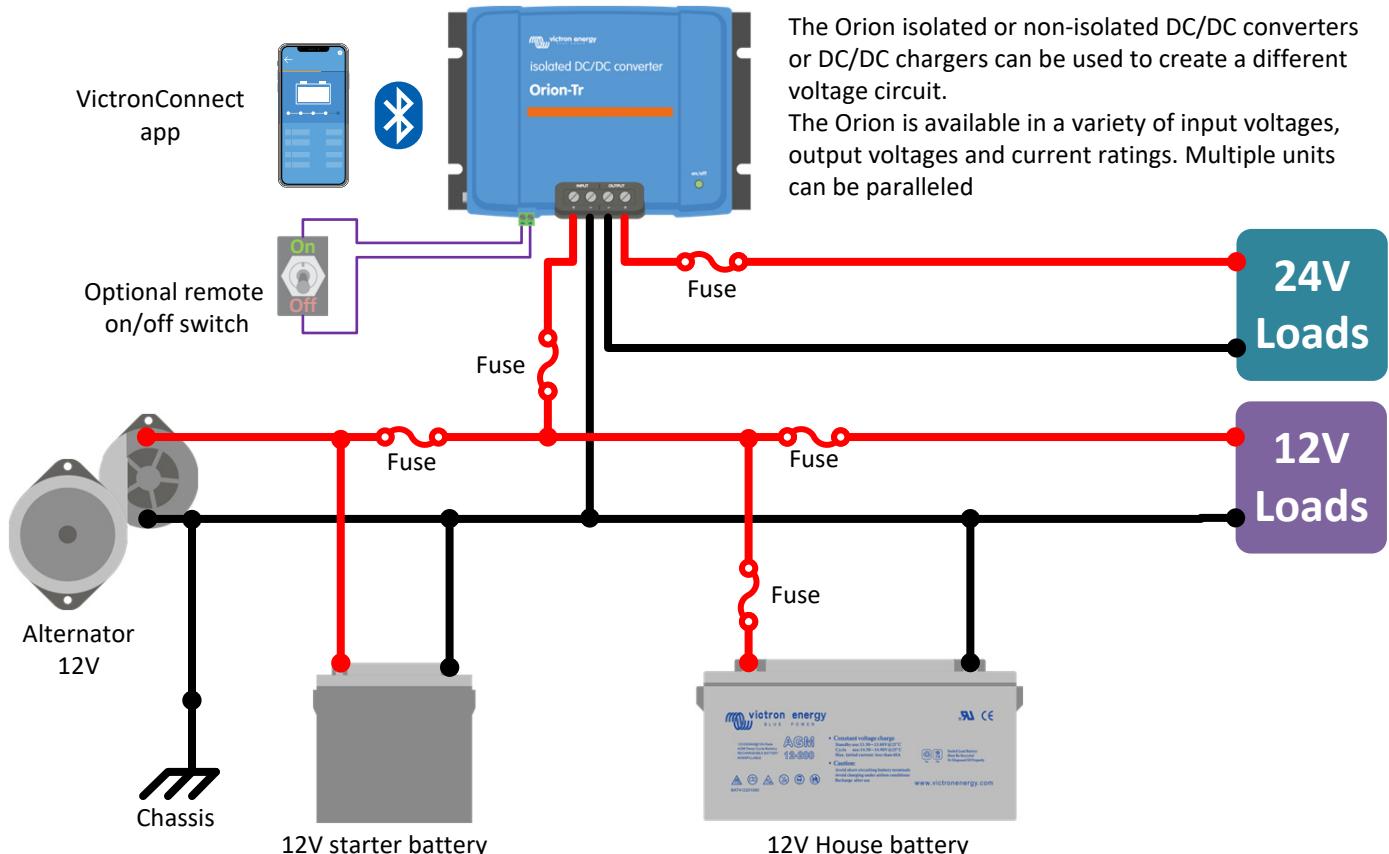
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# Automotive system

Dual battery systems with DC to DC charging and/or voltage conversion



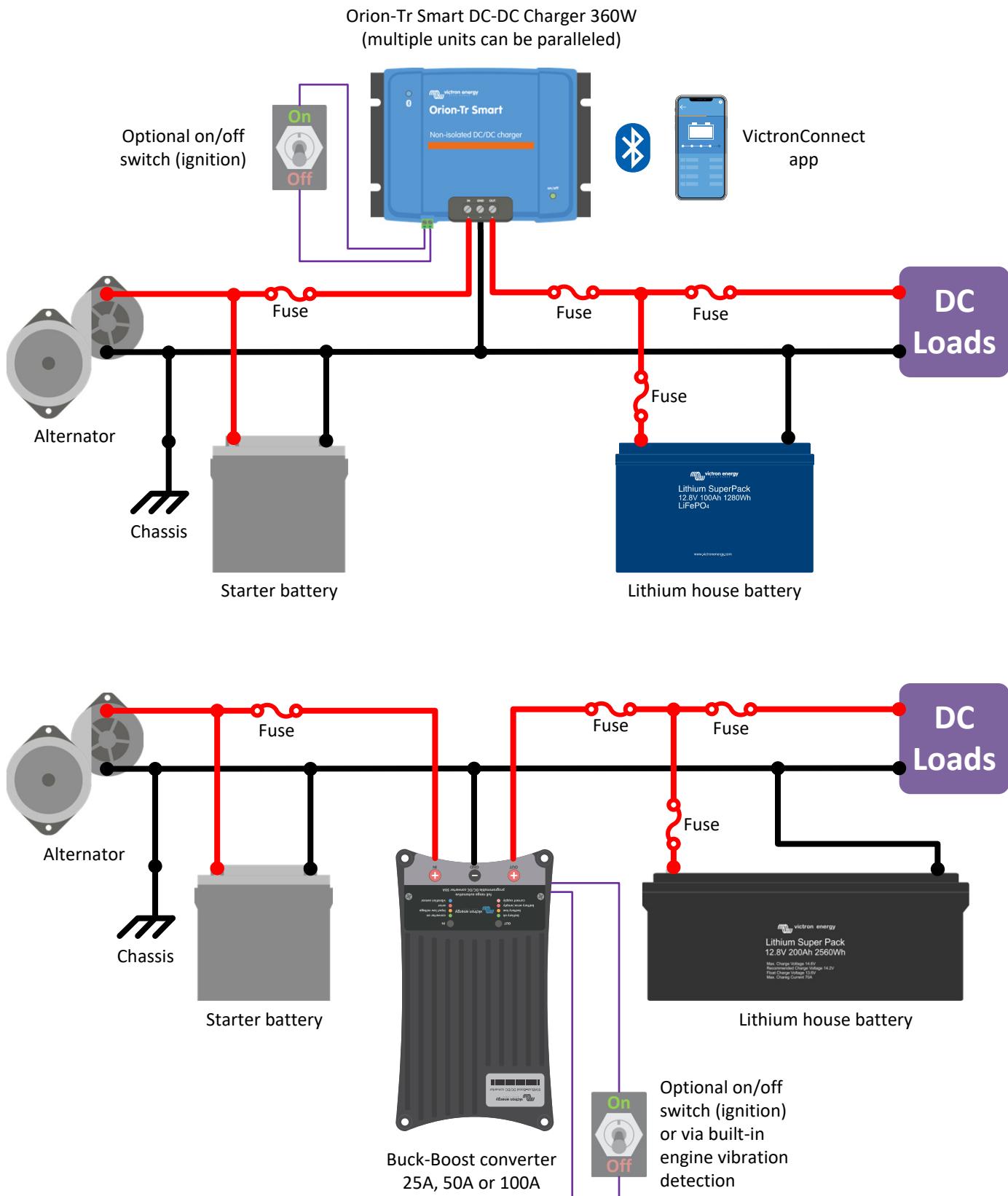
The Orion non-isolated or isolated DC/DC converters or DC/DC chargers can be used to charge a second battery bank. The Orion is available in a variety of input voltages, output voltages and current ratings. Multiple units can be paralleled.



The Orion isolated or non-isolated DC/DC converters or DC/DC chargers can be used to create a different voltage circuit. The Orion is available in a variety of input voltages, output voltages and current ratings. Multiple units can be paralleled

# Automotive system

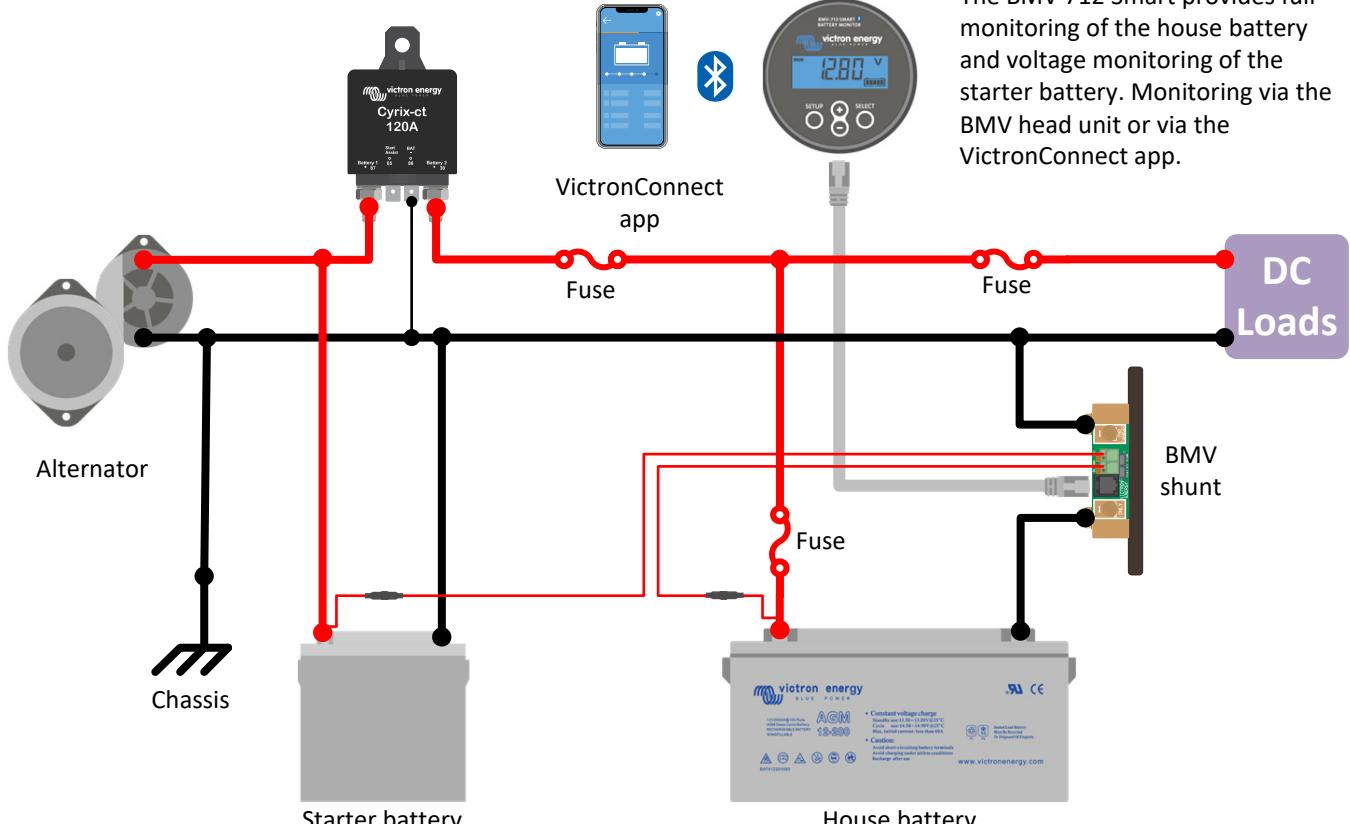
Dual battery systems with a lithium house battery



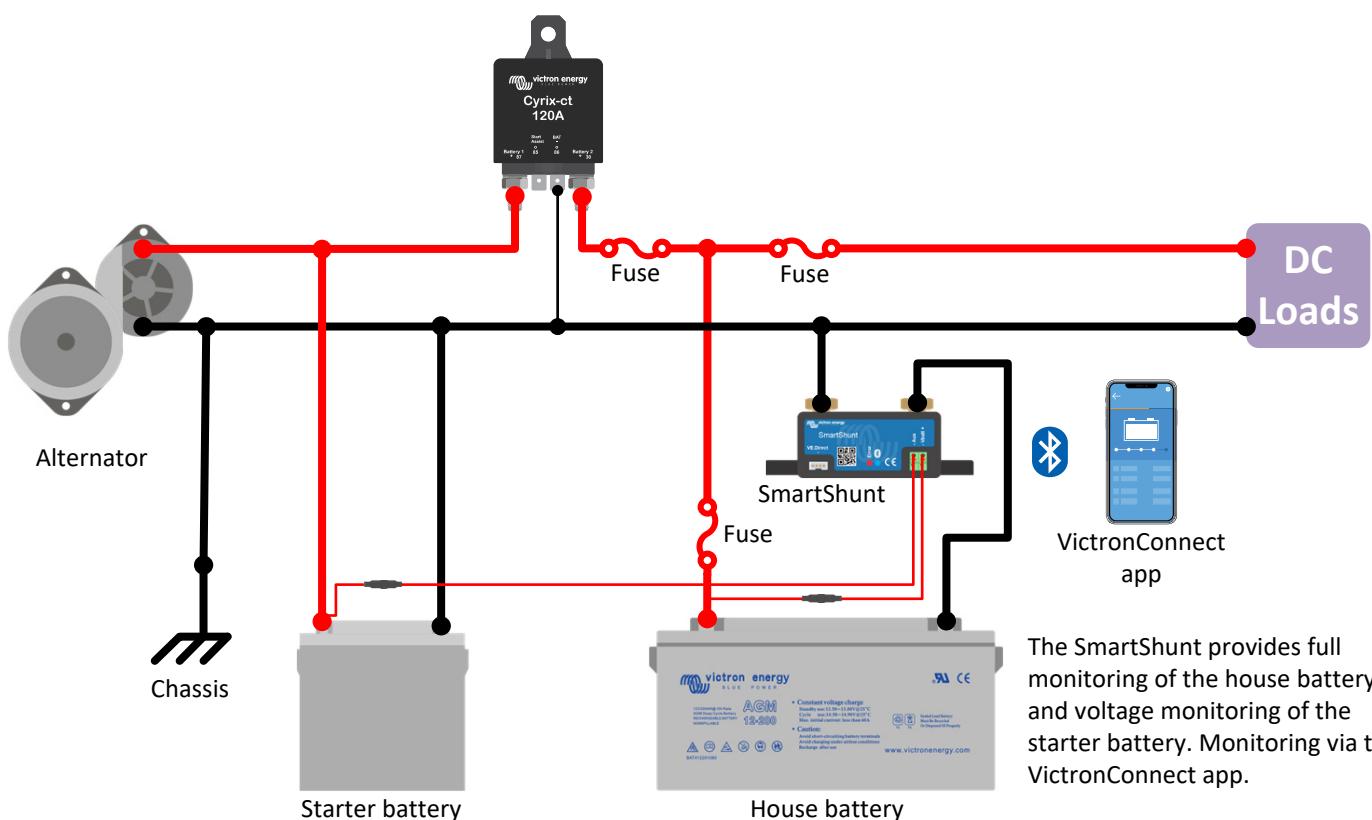
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# Automotive system

## Battery monitoring



The BMV 712 Smart provides full monitoring of the house battery and voltage monitoring of the starter battery. Monitoring via the BMV head unit or via the VictronConnect app.



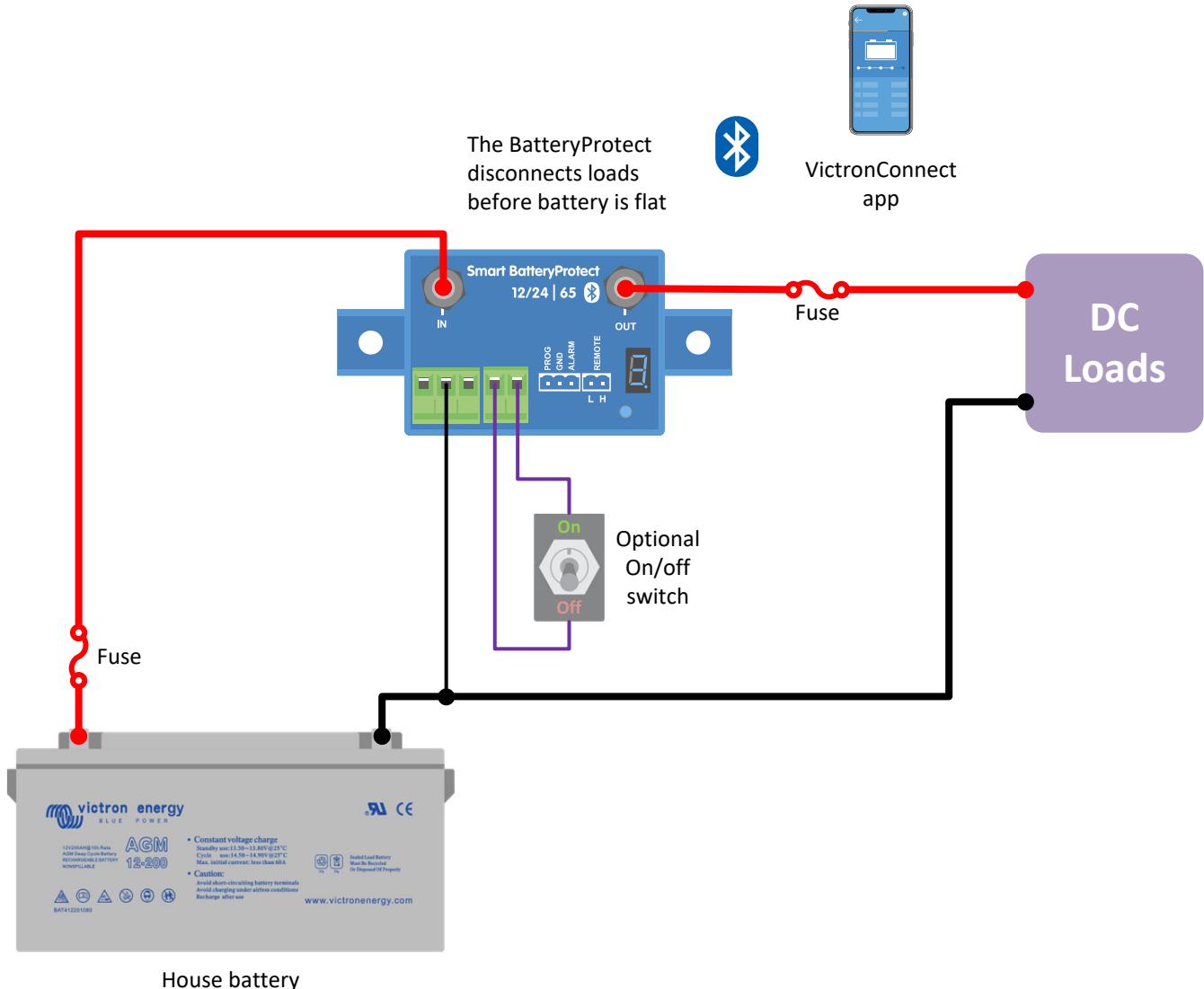
The SmartShunt provides full monitoring of the house battery and voltage monitoring of the starter battery. Monitoring via the VictronConnect app.



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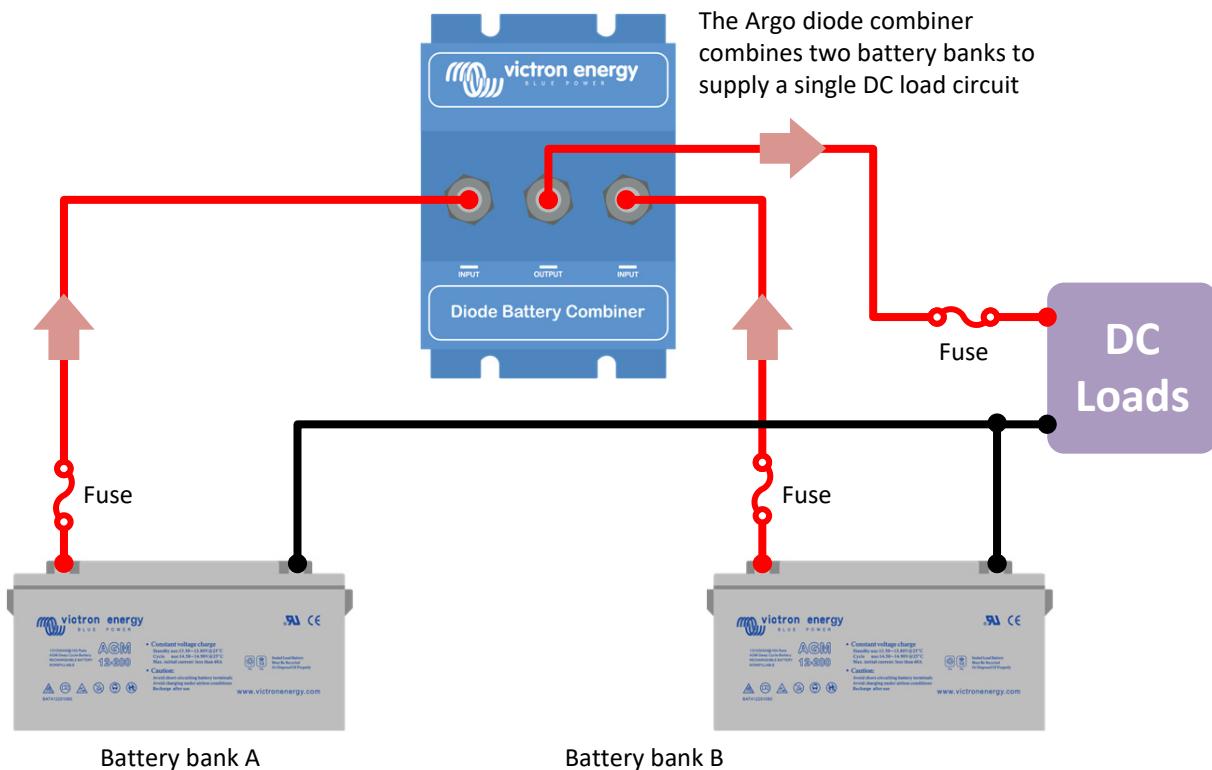
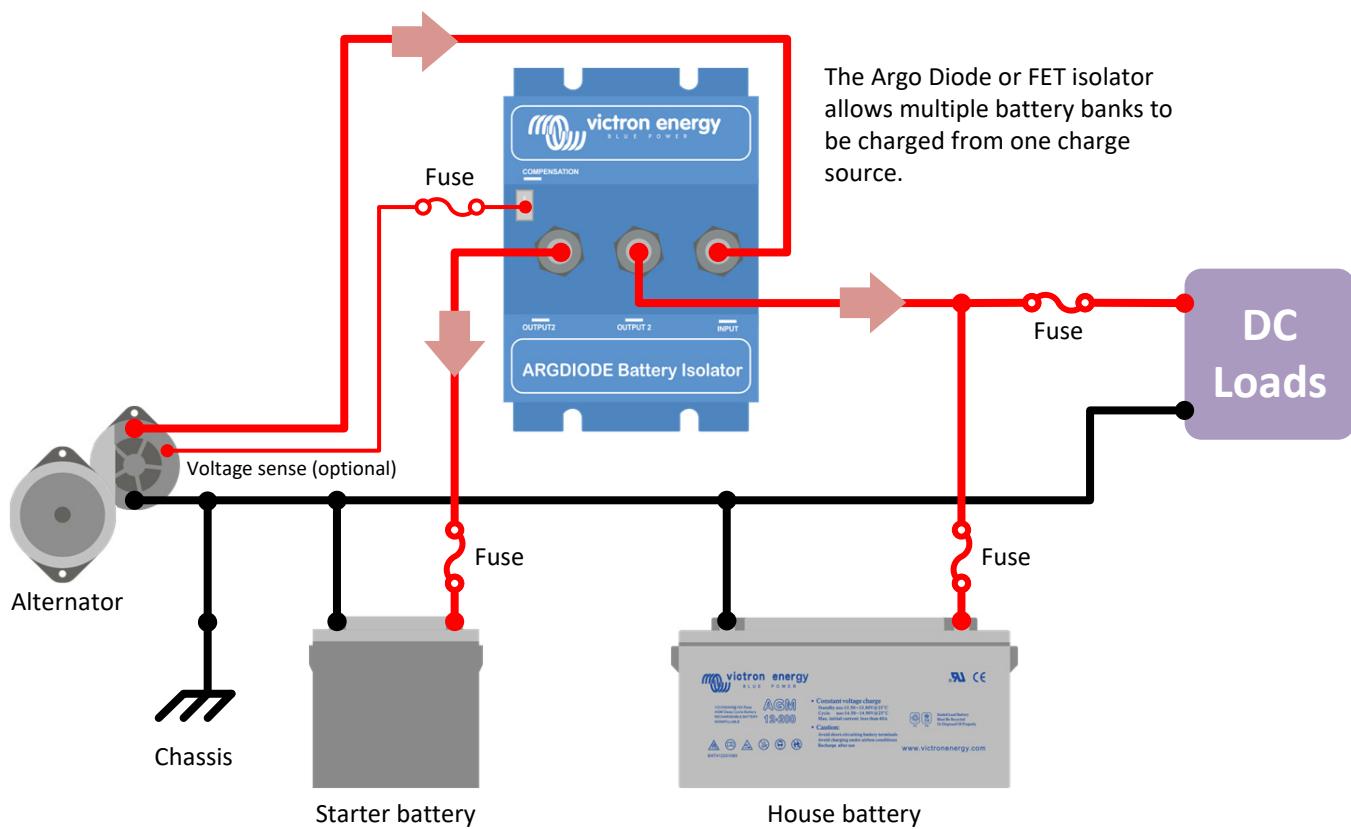
# Automotive system

BatteryProtect for 12, 24 or 48V systems



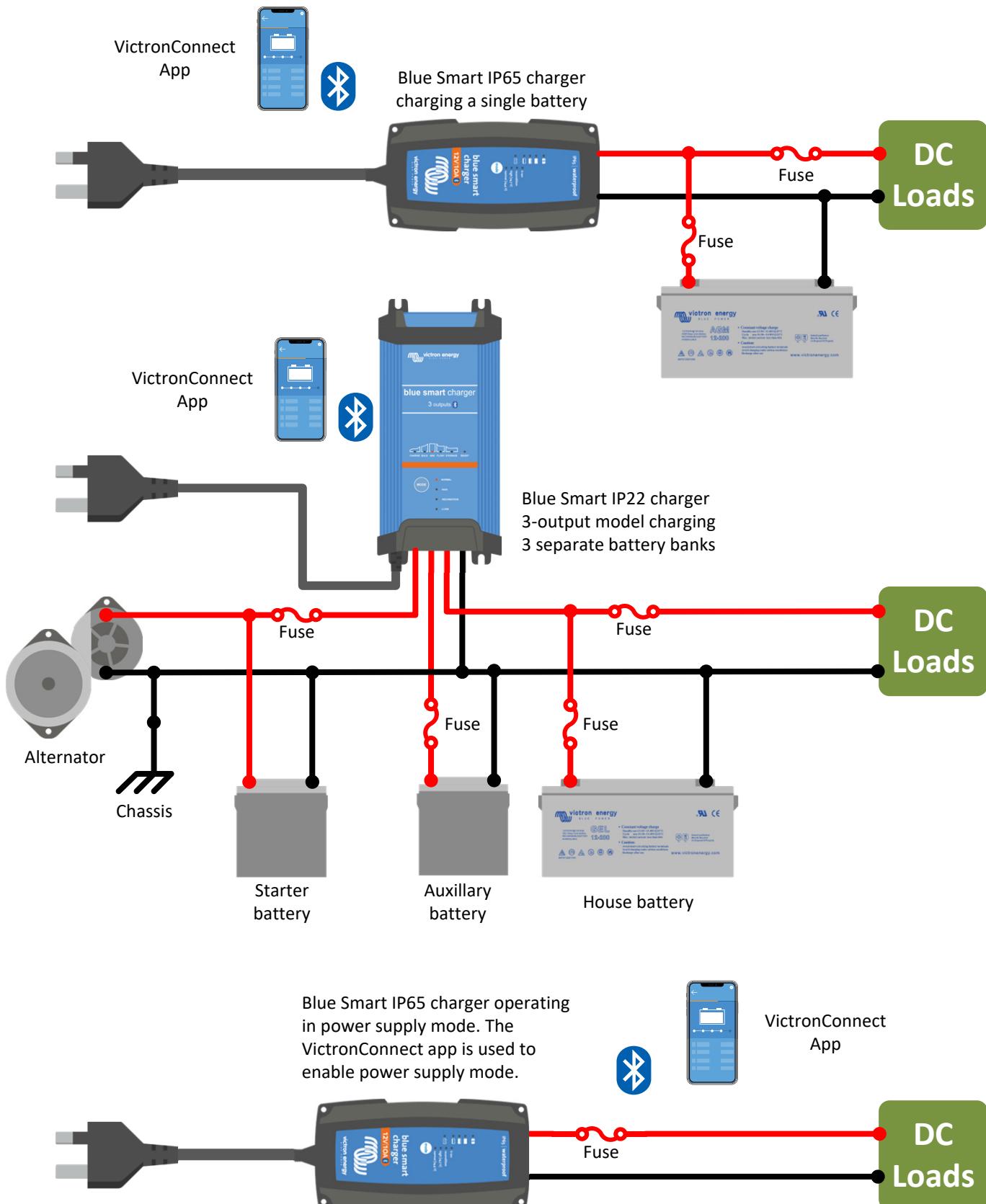
# Automotive system

## Battery isolators and battery combiners



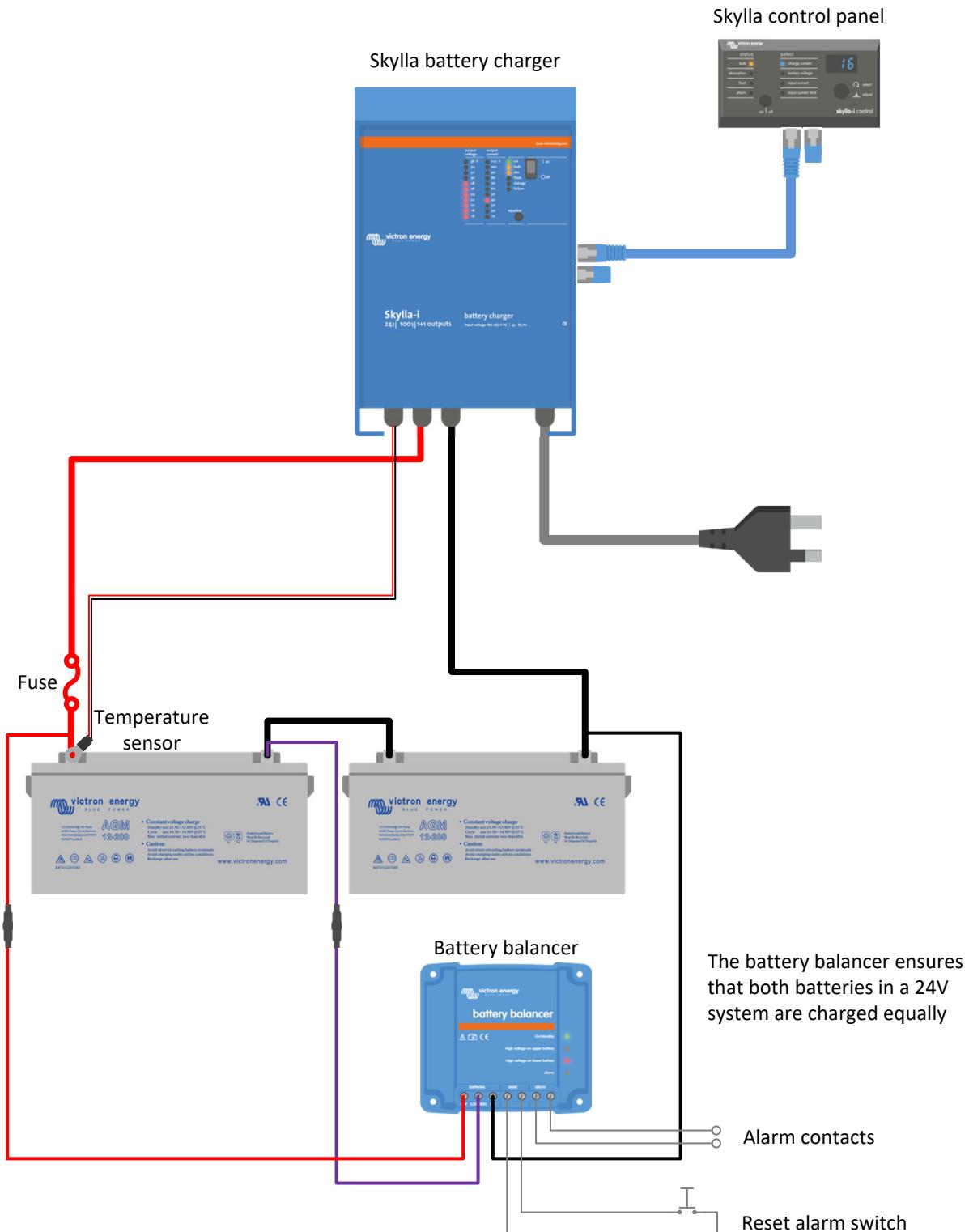
# Automotive system

Battery charging or DC power supply



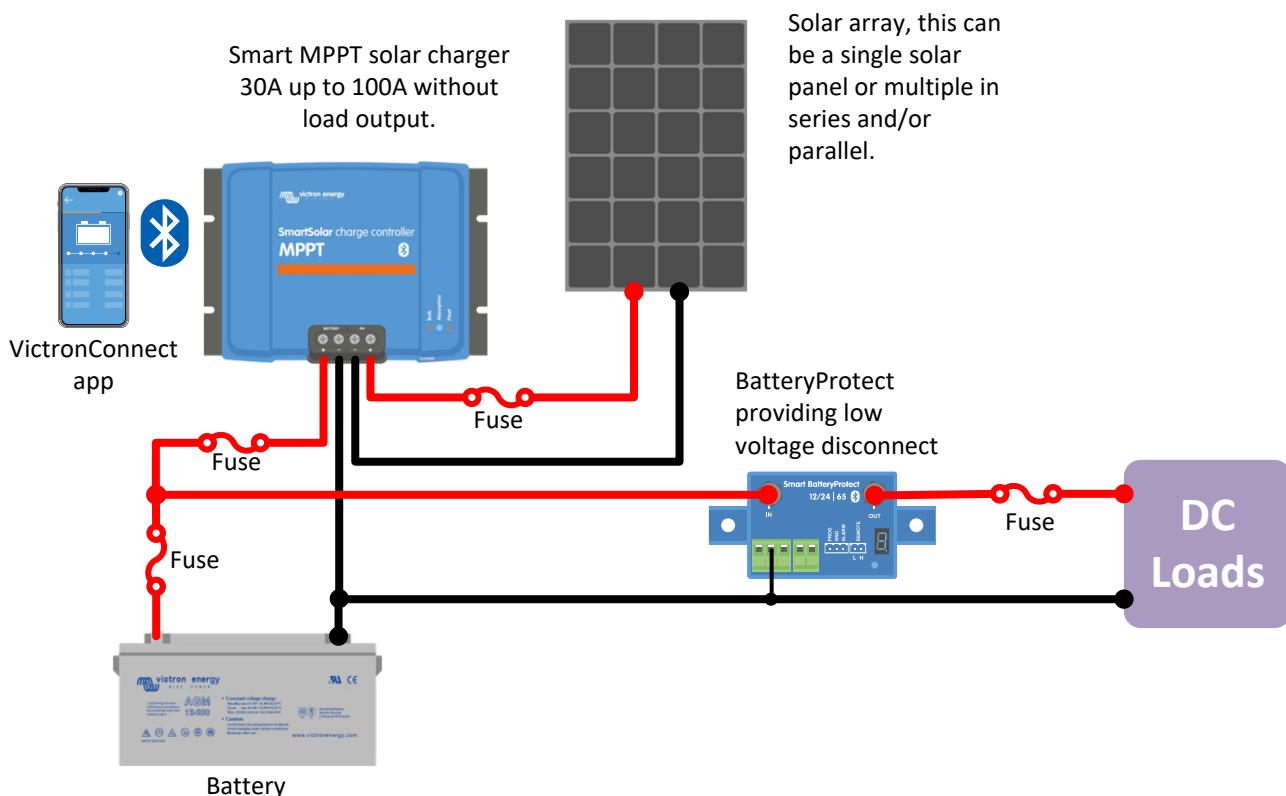
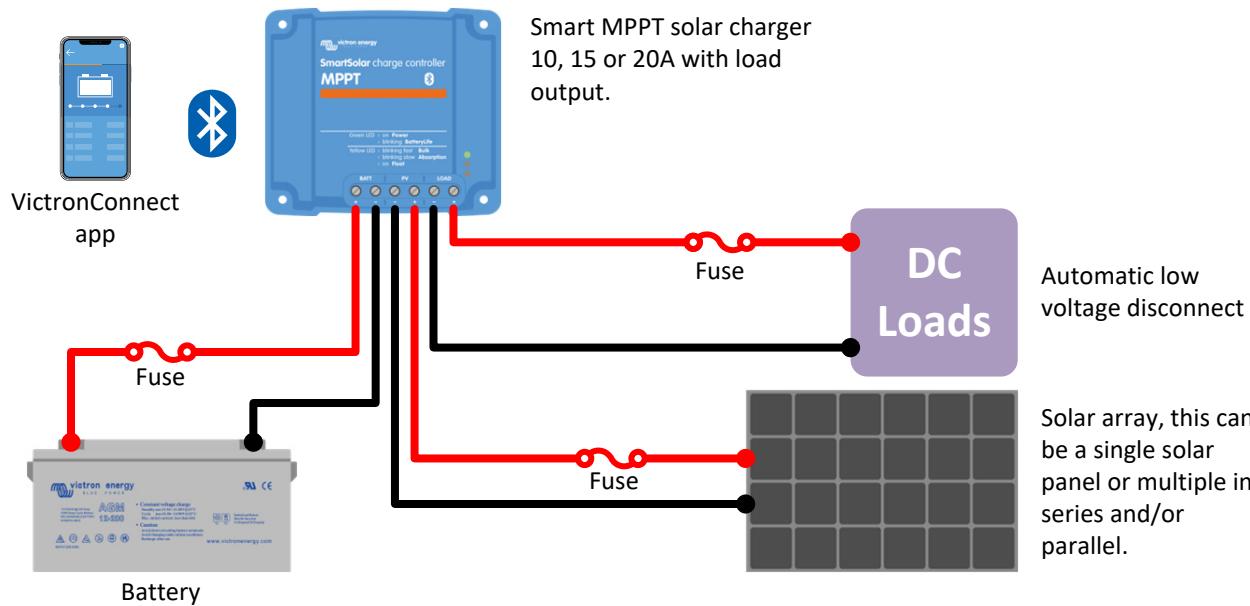
# Automotive system

Battery balancer to ensure both batteries in a 24V system are charged equally



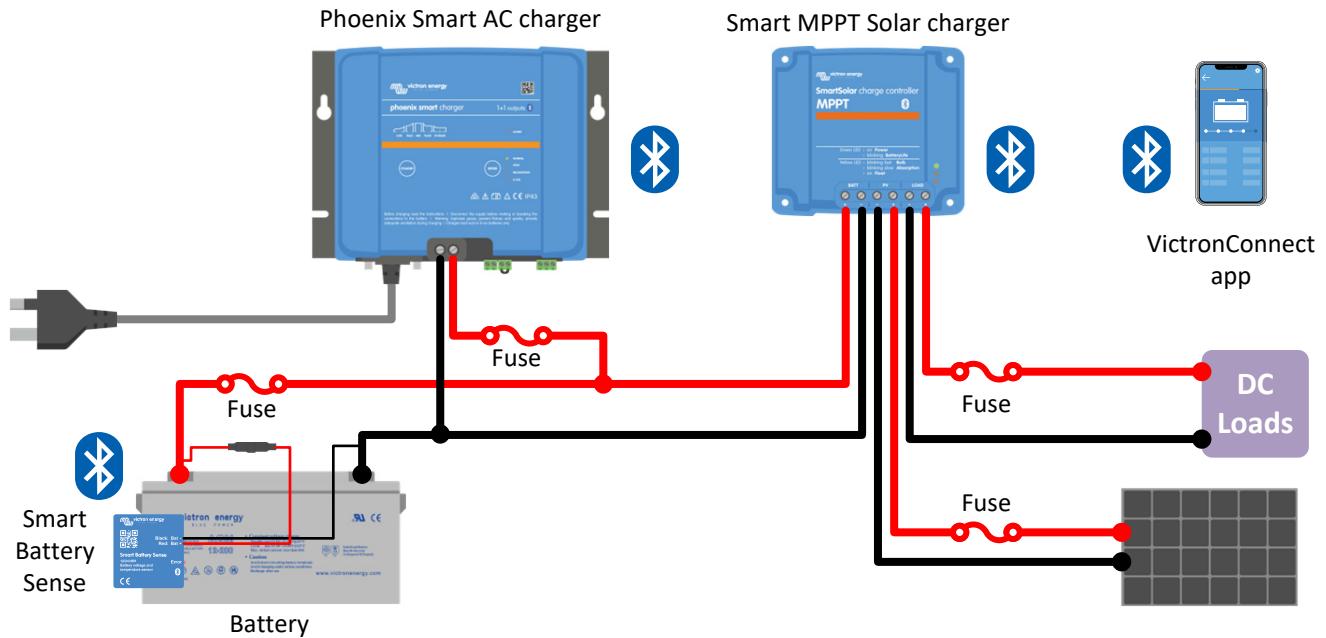
# Automotive system

## Solar charging

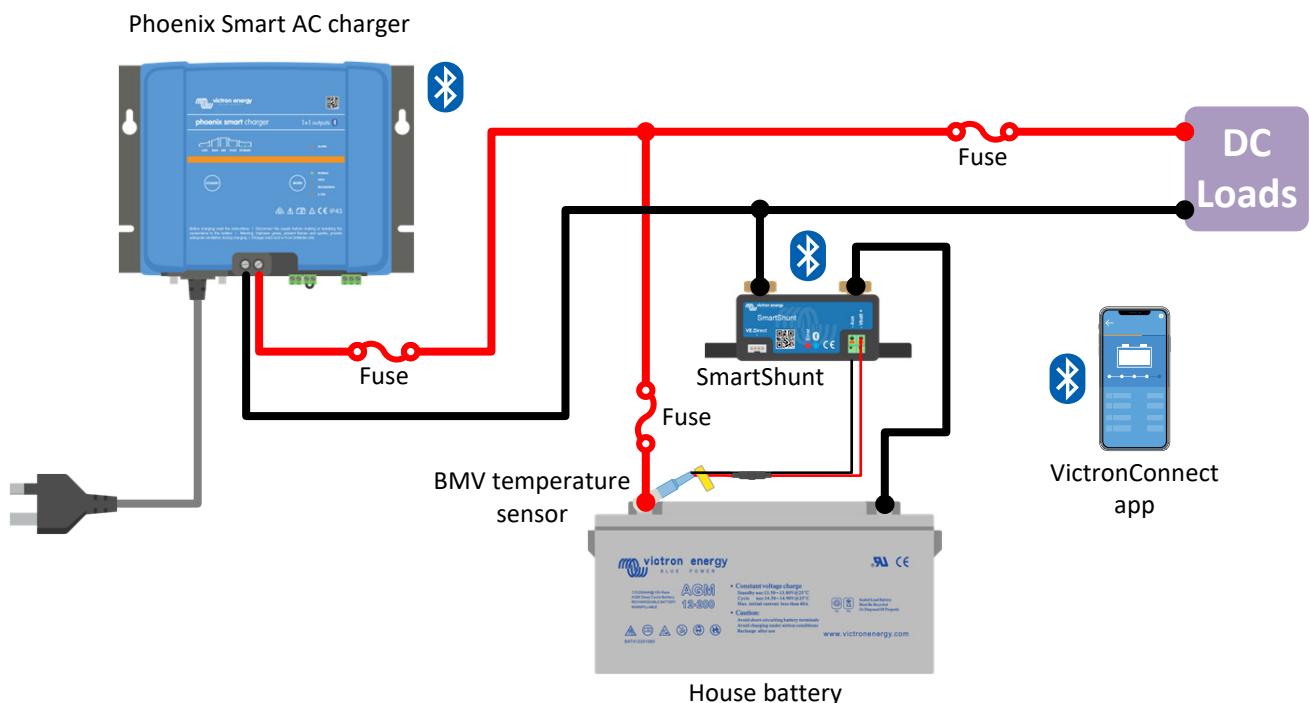


# Automotive system

VE.Smart network shares battery voltage, current and temperature data



The Smart Battery Sense measures voltage and temperature and sends it to the solar charger and the Phoenix charger. The MPPT uses it for temperature and voltage compensated charging. The VE.Smart network communicates via Bluetooth and is set up via the VictronConnect app.

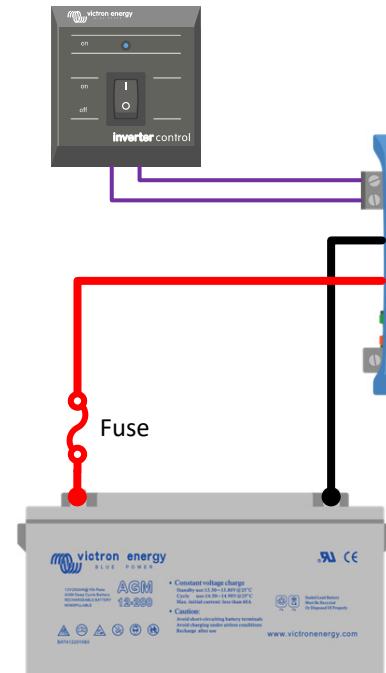


Similar to the above system, but now the SmartShunt together with the BMV temperature sensor is sending battery voltage and battery temperature information to the VE.Smart network.

# Automotive system

## Inverter systems

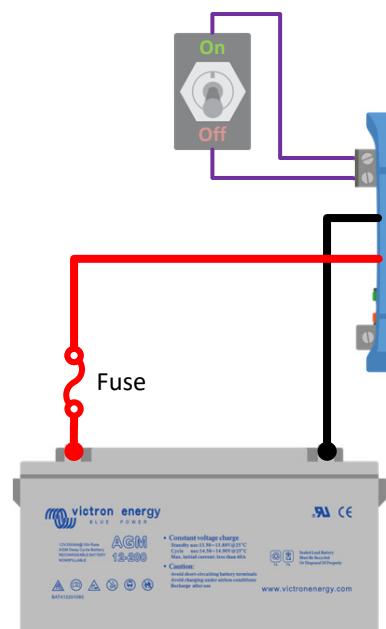
Inverter control panel



Inverter ranging in size from 250VA  
up to 15kVA

Battery

Remote on/off  
switch



Battery

Bluetooth dongle to enable a  
Bluetooth connection to the  
VictronConnect app



VictronConnect  
app



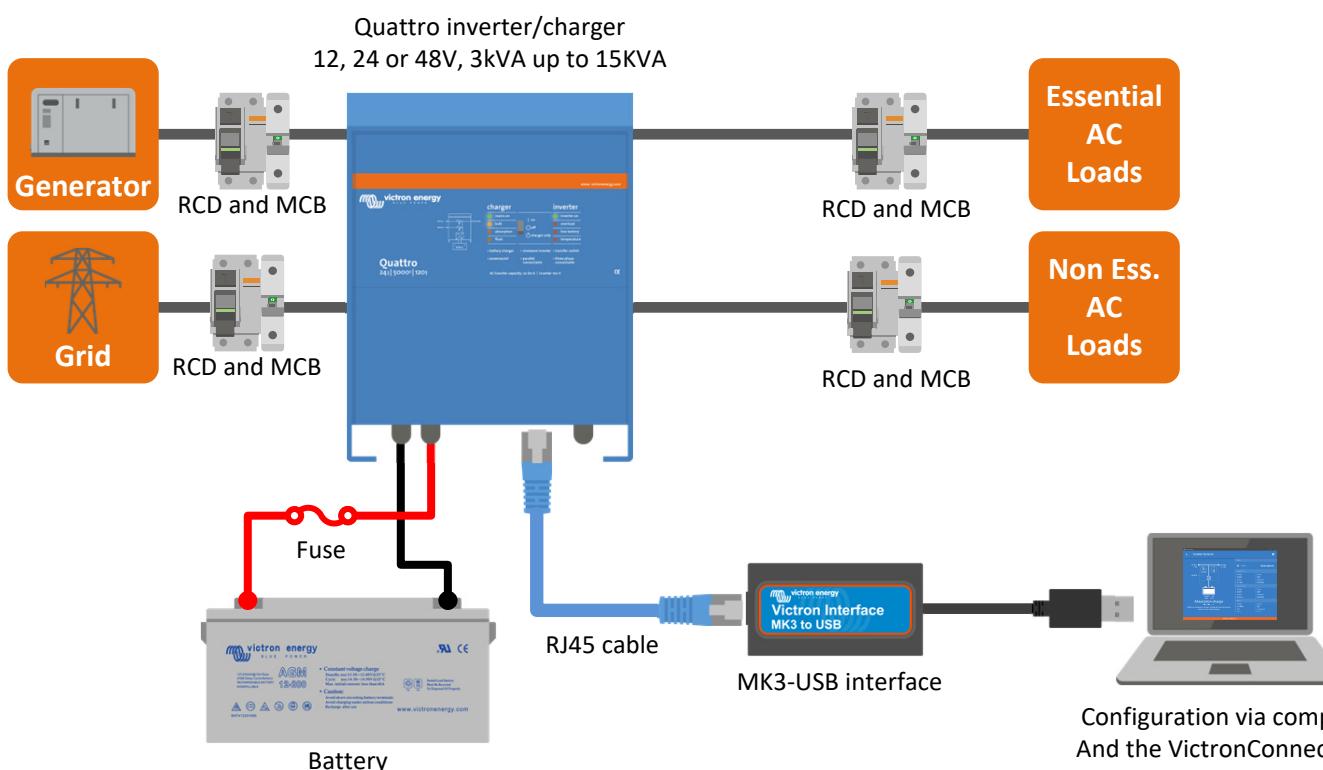
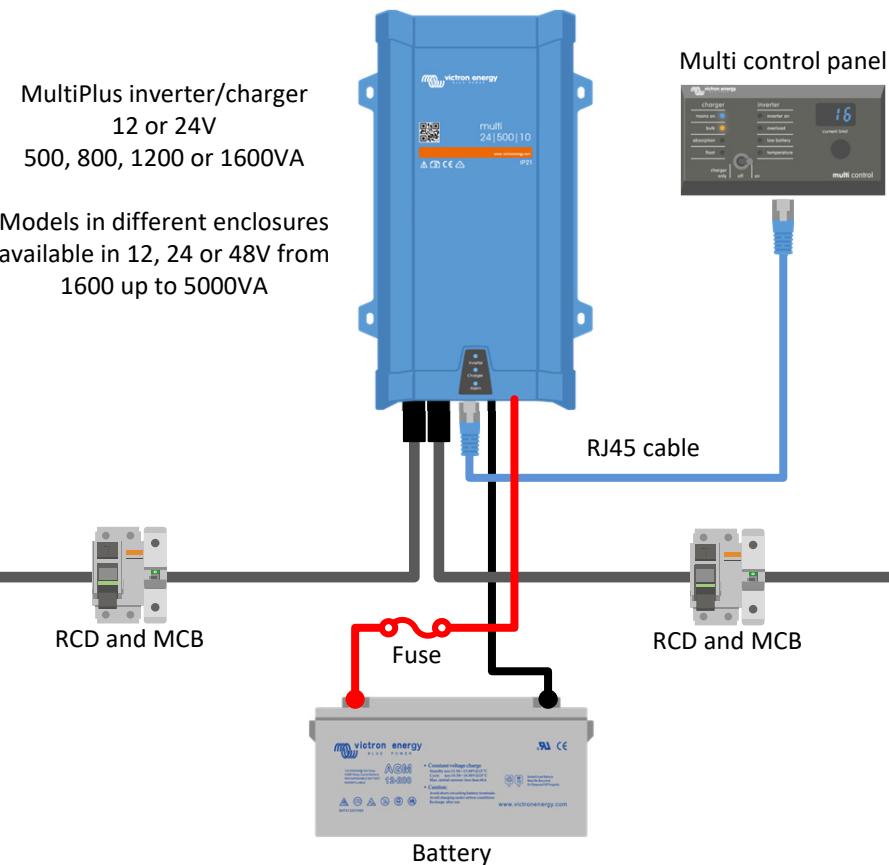
AC  
Loads



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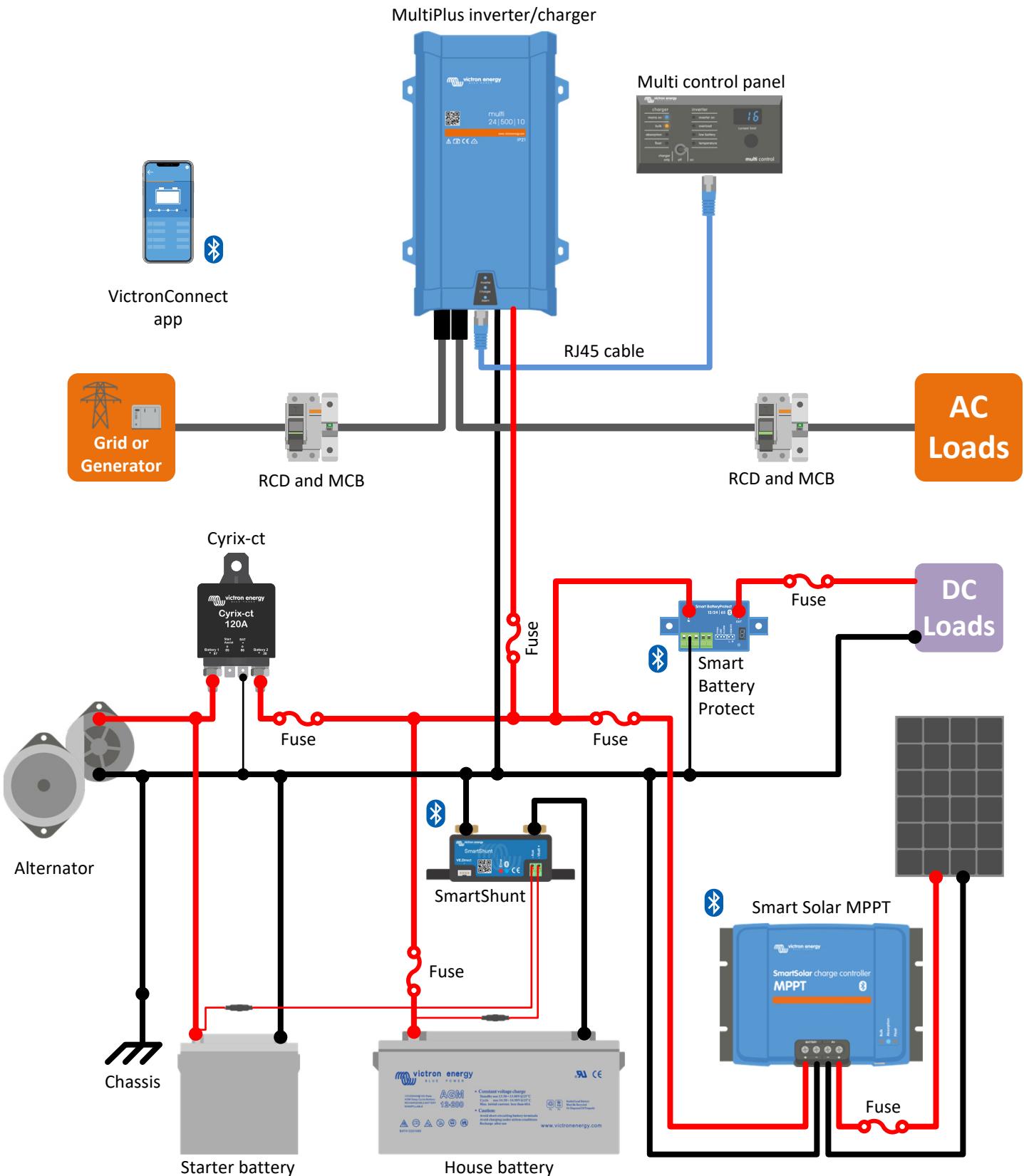
# Automotive system

## Inverter/charger systems



# Automotive system

Basic system with traditional batteries



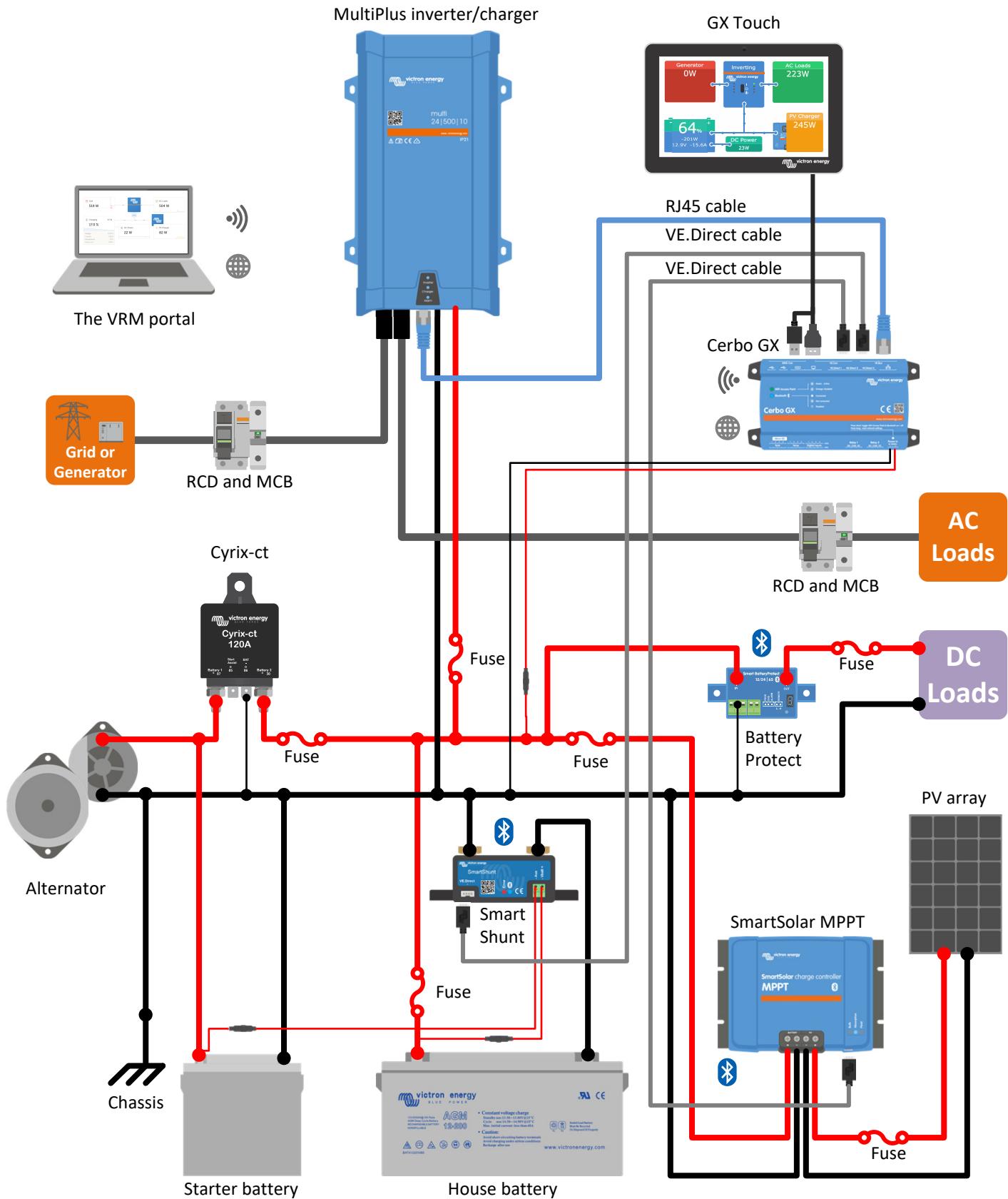
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# Automotive system

Monitoring with a Cerbo GX.

System control and readout is via a GX touch display and/or the VRM portal.

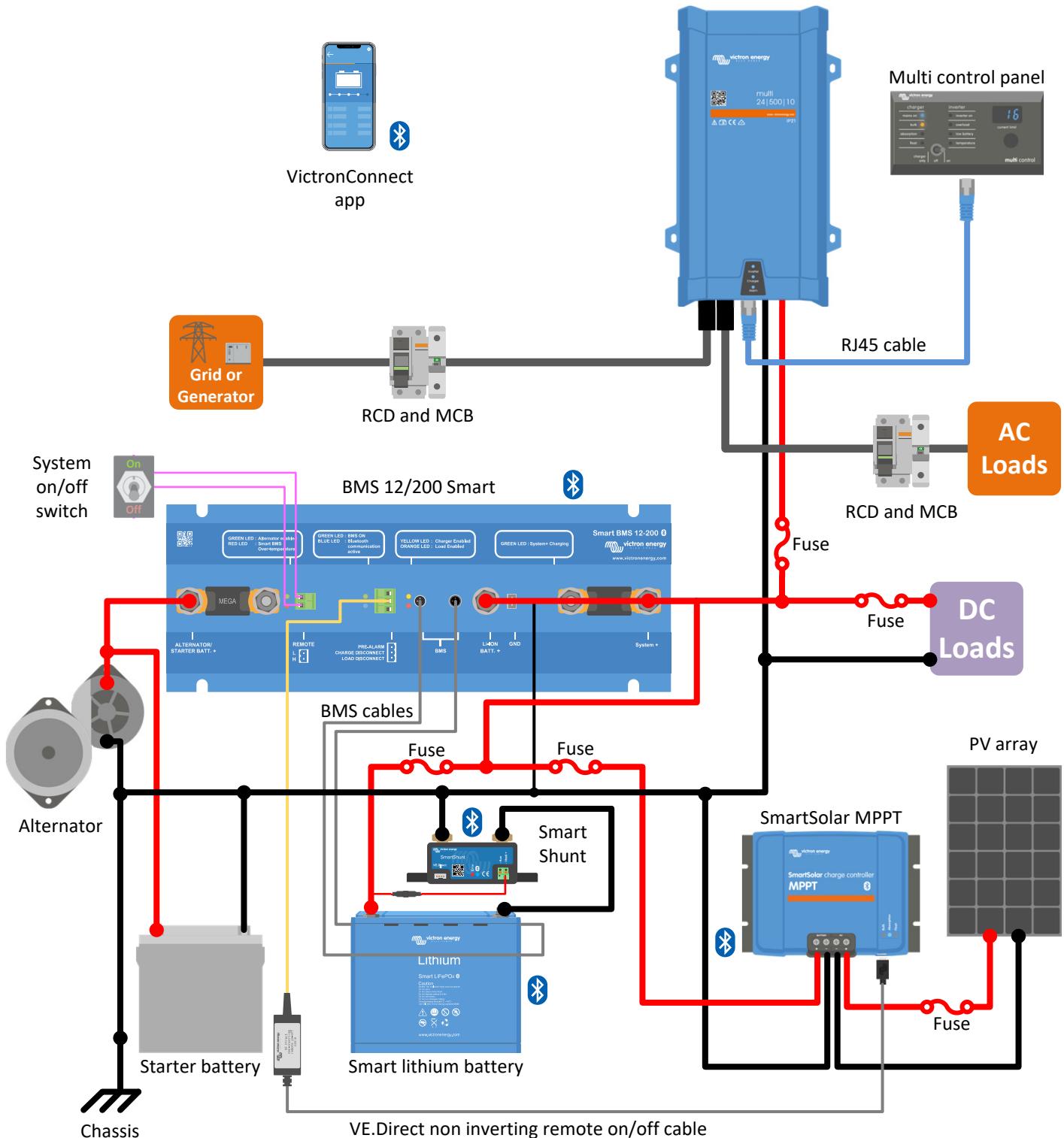


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# Automotive system

Basic lithium system

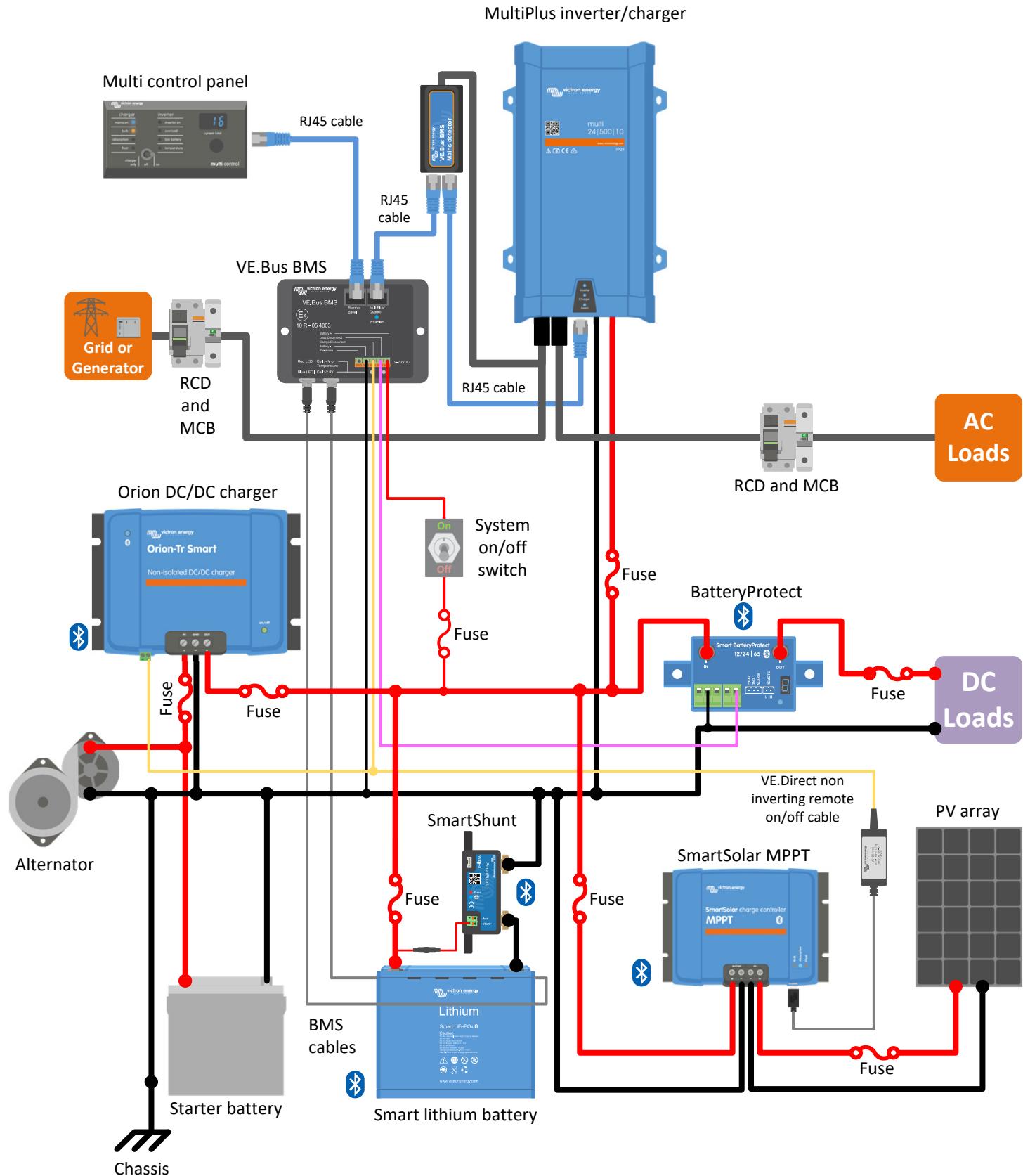
MultiPlus inverter/charger 12V  
500, 800, 1200 or 1600VA



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# Automotive system

Advanced lithium system



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**Battery chargers  
Inverters  
Inverter/chargers  
Battery protection  
Voltage sensitive relays  
Solar chargers  
AGM batteries  
Lithium batteries  
DC/DC converters and chargers  
Battery monitors  
System monitoring  
Fuses and fuse holders  
Busbars  
Battery Switch**

For more information see:  
[www.victronenergy.com.au](http://www.victronenergy.com.au)