



IMPORTANT INFORMATION!
Solar array configuration setup info-1
The Multi RS Solar contains multiple PV input connectors. However these are internally connected to one single Maximum Power Point Tracker. It is recommended that the connected strings are made with the same number and type of panels. The max operational input current for the MPPT is 15A.

IMPORTANT INFORMATION!
Solar array configuration setup info-2
When the RS MPPT switches to float stage it reduces the battery charge current by increasing the PV Power Point voltage. The maximum open circuit voltage of the PV array must be less than 9 times the minimum battery voltage when at float. For example, when a battery has a float voltage of 54.4 volts as with the batteries used in this drawing, the maximum open circuit voltage of the connected array cannot exceed 492 volts. When the array voltage exceeds this parameter the system will give a "Over-charge Protection" error and shuts down. To correct this, simply reduce the PV voltage by removing a panel from the array string.

IMPORTANT INFORMATION!
Solar array configuration setup info-3
The Multi RS Solar has a built in AC PV inverter detection system. When feedback is detected of AC PV power on the AC-Output side, frequency shift will automatically be enabled. While no further configuration is required, it is important that the AC PV inverter is configured correctly to respond to a rising frequency adjustment by reducing its output. Be aware of the 1:1 rule of any AC PV inverter size to the Multi RS size, and minimum battery string voltage. More information about these limitations are available in the Victron AC Coupling manual, and this document is required reading if using any AC PV inverter. More info is available in the Multi RS manual and on the website.

The smallBMS is enlarged visible

These BMS M8 circular connectors are enlarged visible

4 x Lithium 25.6V-200Ah Smart LiFePO4

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

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

IMPORTANT INFORMATION!
Recommended AC Out cable/breaker size Multi RS
With power assist the Multi RS Solar can just 8kVA to the output load when needed. Together with the adjustable 32A input this 21.6kVA up to the max. size of input and output current of 32*28=896A. 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 cable/breaker size Multi RS
AC Out-2 only is available when power is present on AC In and AC Out-2 supports up to 32A similar to the maximum connected AC In power source as they are internally connected. 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/breaker size Multi RS Solar
2.5 m cable length: 35S0mm, 2.5 m cable length: 1700mm. When used in isolated conductors, cable size should double. Cable length stands for the distance between the batteries and the Multi RS 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 125-150A.

IMPORTANT INFORMATION!
Recommended AC In cable/breaker size Multi RS Solar
AC In must be protected by a circuit breaker rated at 32A 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.

I/O Number	Connection	Description
1	AC In	AC Input
2	AC Out	AC Output
3	AC Out 2	AC Output 2
4	AC Out 3	AC Output 3
5	AC Out 4	AC Output 4
6	AC Out 5	AC Output 5
7	AC Out 6	AC Output 6
8	AC Out 7	AC Output 7
9	AC Out 8	AC Output 8
10	AC Out 9	AC Output 9
11	AC Out 10	AC Output 10
12	AC Out 11	AC Output 11

location: Bottom left hand side

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