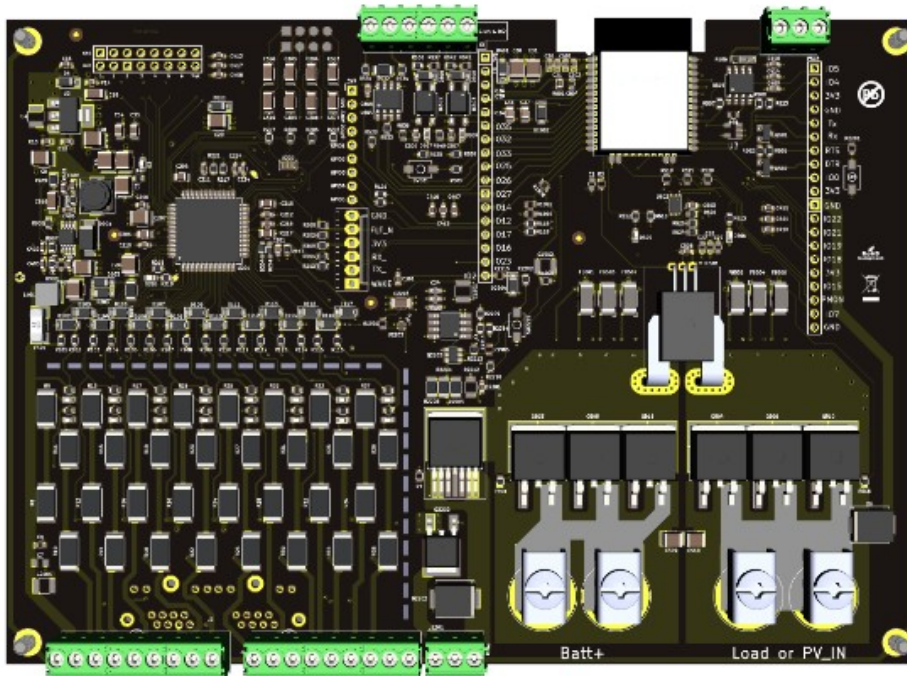


SONAL Renewable energy solutions

Moonitor16s

35A – 45A – 65A – 100A – 120A

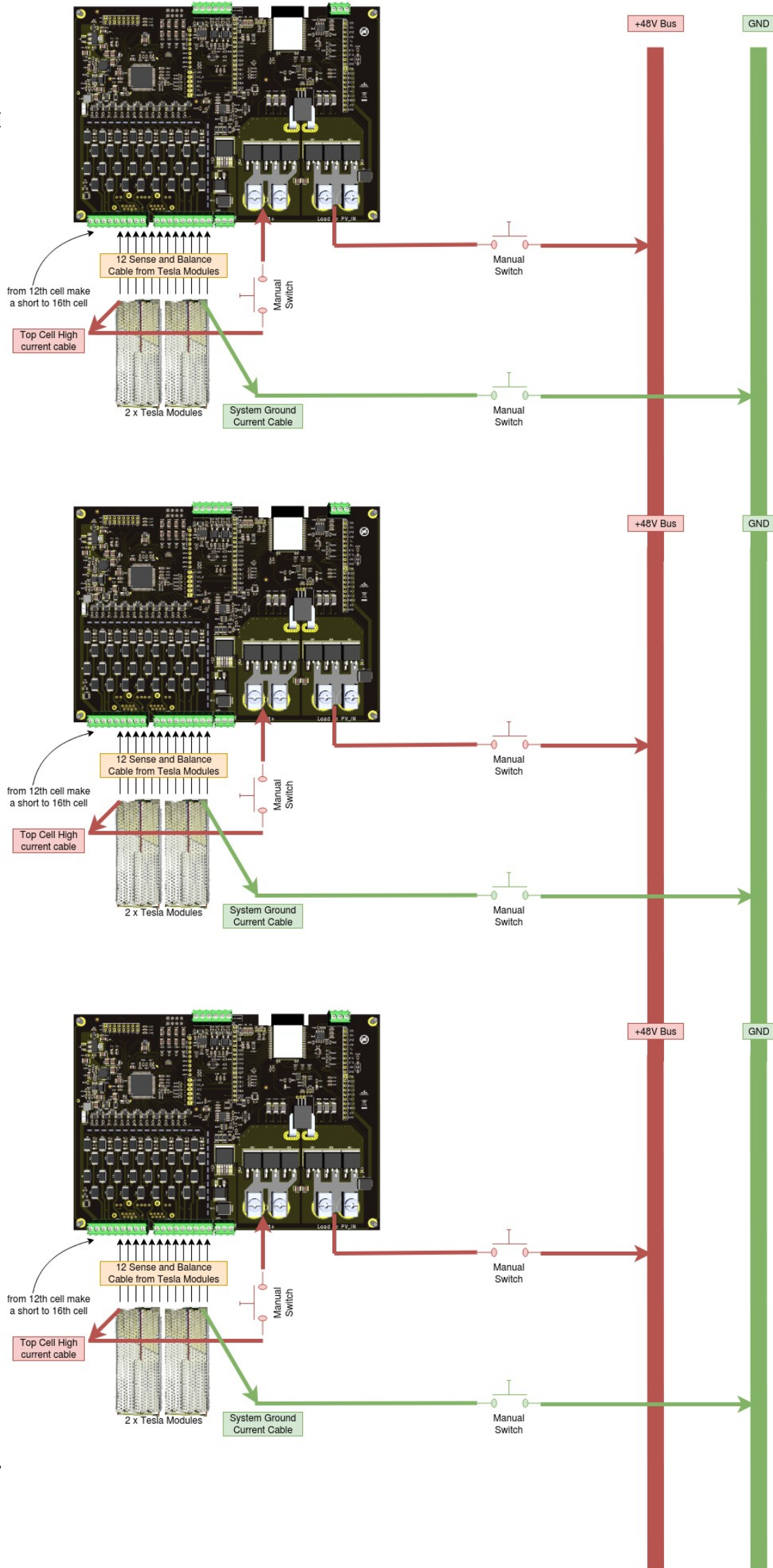
Multiple boards in parallel Connection Schema



Customer Story: CANDE

SONA

Boards

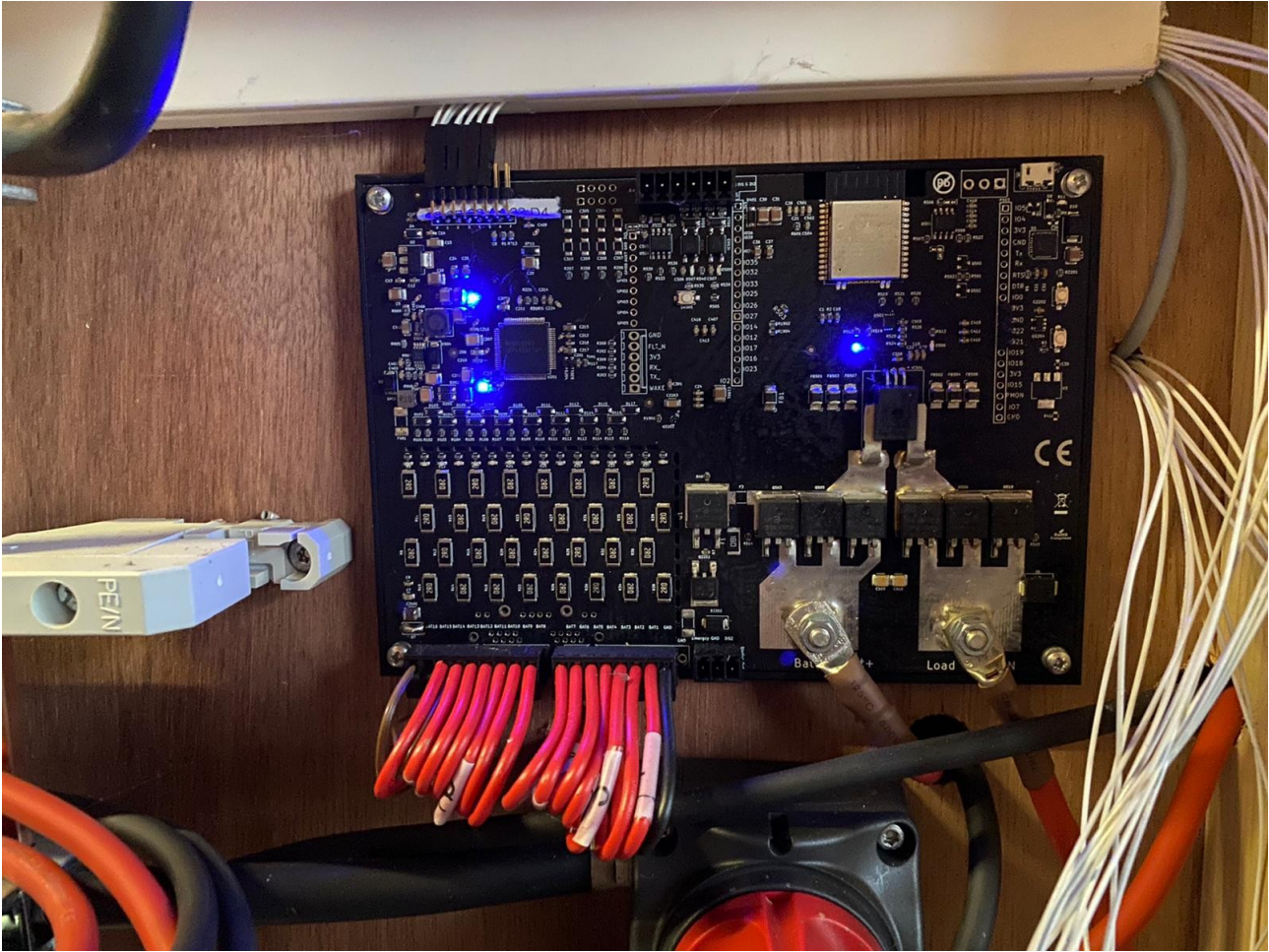


Rev. A.

Direct link for purchasing: <https://www.sarperonal.com/product/6s-16s-solar-plc-li-ion-battery-protection-system/>



This image is a dashboard from 3 x Moonitor16s system. I will explain with some pictures how this system is connected together.

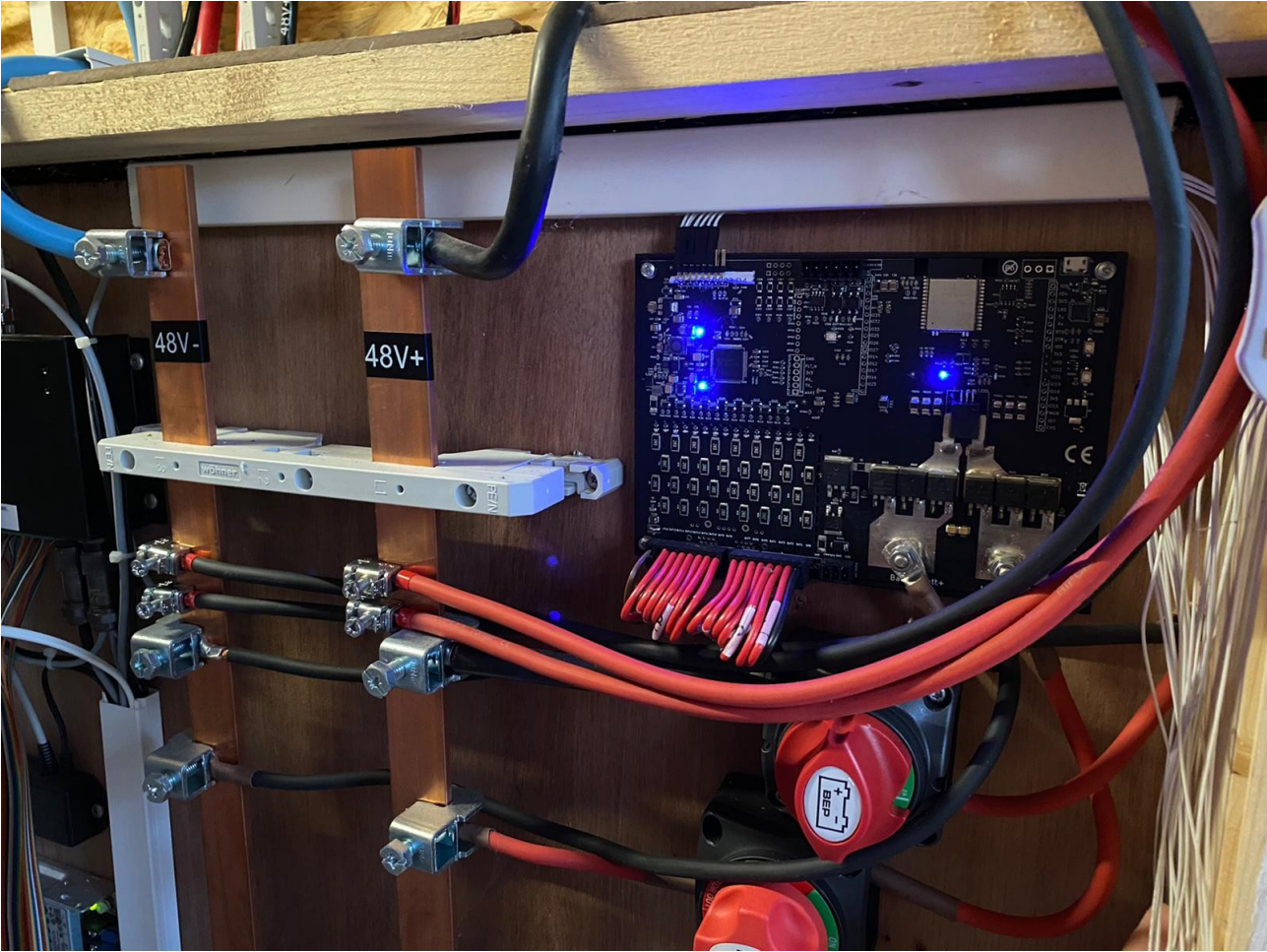


This picture is a proper connection of a single Moonitor16s board.

Be sure the lugs are properly tightened to the board with the m4 nuts! Check the temperature for the beginning, There shouldn't be any temperature rise on the mosfet side. If there is a temperature rise, check the nuts if they are making the proper connections for high current.



Use Manual DC switch for both positive and negative side of each system.





Use Blade manual breakers before inverters



Use inflammable materials in between each battery system.

Breakdown of the safety features. It is a layered security model.

1. Physically switches per battery bank for both positive and negative side
2. Moonitor bms is sitting between the battery and the load
3. All connections are terminated on the copper bus-bar designed for 300 amp continuous. Bus-bar solid copper 5x20mm
4. Each battery bank and Moonitor BMS has thermistors connected and spread across.
5. Battery shelves are isolated by steel plates. We have 4 battery shelves each is protected against flame over
6. Contractor connected to the bms
7. On the negative side we have 300amp fuse (short circuit protection layer 1)
9. Each inverter has its own knife fuse so they can be isolated mechanically which is on the positive side.

Then in the batteries we use cell level fuses - board level fuses (10amp) per board making a battery.

And sometimes per battery pack a smaller fuse is used like 50 or 100amp but that I find overkill.

All components are A-grade

Moonitor is polled by a service which converts the jSon and puts it into a database. This database is exposed to grafana in the cloud. There we create a dashboard showing all parameters for each bms