

1.99 kW solar with 1.5 kW to the Tesla M3 and 0.5 kW to my pool pumps



The combiner box at the top for two separate sets of solar panels with 3 kW rating has fuses, DC breakers, and lightning surge protection. Although there is 3 kW solar, the green MPP LV2424 inverter maxes out at 2 kW. Low cost solar panels from San Tan solar <https://santansolar.com/> allow the over capacity of solar to produce up to 35% daily max summer capacity factor with 18 kWh energy. This is good for ~60 miles Tesla M3 miles and is equivalent to not having to burn 2 gallons of gasoline in a gasoline powered car. The inverter is bi directional power flow into a special 120 VAC outlet at 17 amps max continuous with self isolation if there is a power outage separating the unit from backfeed into the grid upon service restoration and double series breaker protected. The 24 VDC battery is 1 kWh Li Mn that is in float service for long life. At all times the objective of this system is safety and displacement of home and EV energy. I turn it on and off manually each day and when away.



The ground mounted panels can be manually rotated to track the sun.