

To keep inverter from having a “High DC Ripple” alarm and then shutdown, the battery cannot get to a self-reported 100% soc.

When it does, it disconnects itself, mostly (see below), from loads and will not reconnect until the MPPT stops providing current to the inverter for loads. When the MPPT does not provide power (sundown) and when the current demand is high, the battery reconnects reliably, then the cycle repeats the next day until/if 100% is reached.

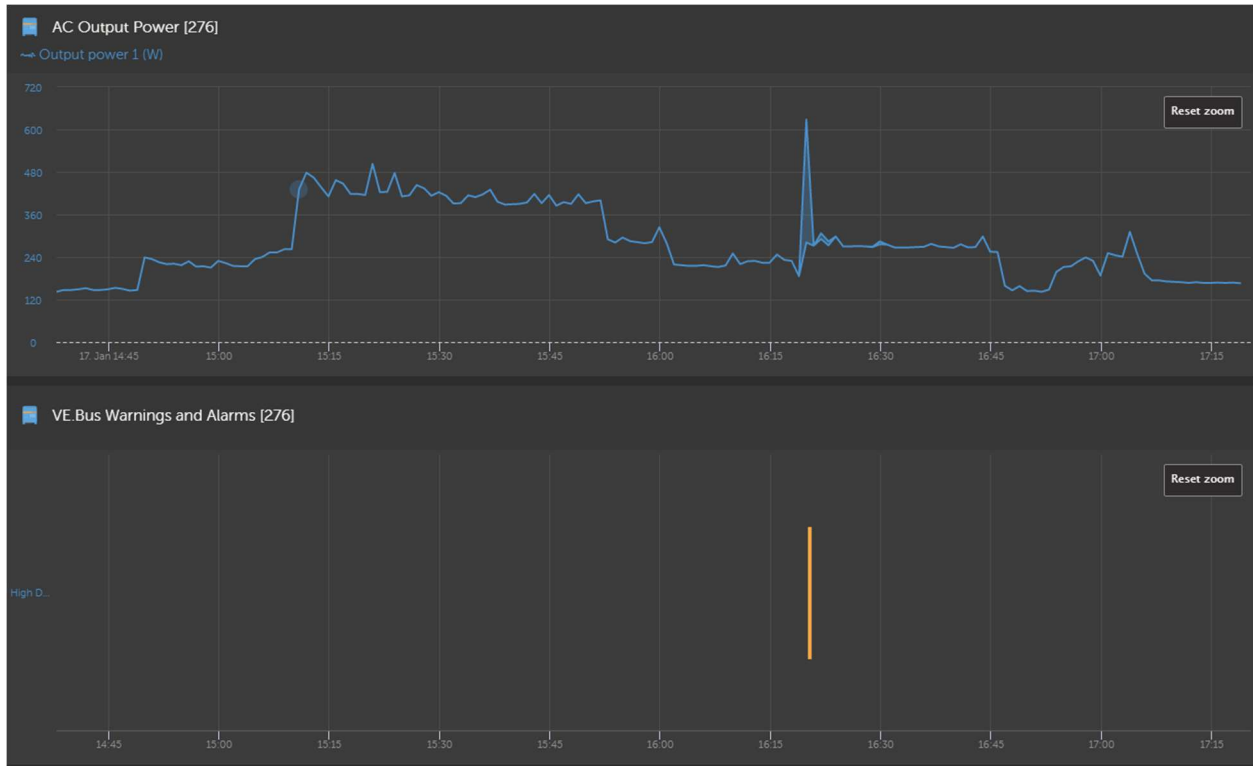
The battery does provide low current, sometimes, to the inverter though before the MPPT stops, but not continuously, or at a high amount of current.

Here is one of those times before sundown when it did provide some sporadic current. Note the alarm at 16:20 when there was a high load demand and yet the battery did not kick in for it. (same time scale for all plots below)



Also note the reported V difference between the battery and the measured battery terminal V below.





The battery reported a 98-99% SOC during this time interval after having been at 100%.

Here is a day when a big load before sunset (~17:00) caused the battery to reconnect reliably. The battery reported 94% soc right before this load.



Current

- Batt shunt [277] - Current (A)
- Trophy [512] - Current (A)

