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We have a DC load with continuous consumption of 70 W to be supplied with a off-grid PV (1080W)+Battery system. We have recently bought a Victron set including a multi 48/500 inverter/charger.

We have a MultiPlus 24/5000 (VA) /120-100 connected to two Victron 24/200 AH LiPo. And sizing size the generator is a balance. In our case the "charger" side of the Multi can only deliver 100 A at 24 volts. So regardless of the size of the generator that is the maximum - in our case 4.5 kVA generator has some 1,000 watts in excess which we use on "pass-through" to heat water at the same time as well as microwave, etc.

The recommended charge rate by Victron for our batteries is $\leq 100 \text{ A} / \text{battery} = 200 \text{ Amps}$ continuous charge. Going higher than the recommended will have an impact on the battery life (negatively). Correct cable sizing etc.

Your 2 x 48 v LiPo I would imagine could handle anywhere up to around 200 Amp (each) but to get a generator to deliver that you will also need a charger than can delivery. Furthermore the capacity of the generator (continuous output power) is less than the nominated maximum and you will need some "excess" (head room) in order to avoid getting distortion to the waveform which the MultiPlus might then reject.

As your charger is actually 6 Amps, WKirby points out you will be spending a lot of time on fuel to get 48 V 100 AH up to 95% from say, 50%. See recommendations on SoC for long term life of Lithium (i.e. do not fully charge regularly and perhaps use between 90 - 50% SoC - your research required here).

Hi Michael.Thank you for the expanded explanation.FYI, here is a link to the product page for the 500VA MultiPlus. Although it is still quite possible that they mean 5000VA, we can only go with what they have written and there is a valid 500VA product.

I doubt you'll find any "industrial" AC generator that'll run effectively at that low of a draw (if it is indeed 500VA). That kind of draw is more appropriate for one of those Honda "suitcase" generators. The smallest they make is a 1000W. It sips fuel, can have an "extended run" fuel cap added, that allows the main tank to draw from an aux tank. It's not auto/remote start, it's pull start, but that's about as much generator as you should run for that kind of demand.

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Web: <https://www.sumthingtasty.co.za/contact-us/>

Email: energystorage2000@gmail.com

WhatsApp: 8613816583346

