

3-phase Genset What about unbalanced loads

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I've read a lot through guides and this forum, but am still not sure about unbalanced loads at the generator. Our power metering shows a base load of about 0.3-0.5kW per phase, highest imbalance we've seen so far was a difference of about 3kW between phases. Therefore my following question:

To which limit will Quattros compensate a single-phase unbalanced load? Up to their 70A max. battery charge current in worst case of an empty battery? Would that mean $2 \times 70\text{A}$, so about 6.5kW, could be transferred via DC-side to one phase of load balancing? Only for a short amount of time, of course, as the Quattros are only rated for 4kW continuous power.

Actually, it's a 24kVA generator with $\text{pf}=0.8$. But as the site is located at 3000 meters above sea level, we only get ~80% of the rated power. It therefore should be something around 15kW. If I get you right unbalanced load only is an issue if one phase exceeds 1/3 of the rated nominal power. So we're fine as long as we set the AC input current limit accordingly. In our case 20A should always be safe, right?

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

Email: energystorage2000@gmail.com



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WhatsApp: 8613816583346

