

Prosine Inverter Charger Question Answered

Written by Ed Sherman

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Rick writes in with a really good question about his batteries and Prosine 2.0 Inverter charger. I'm going to share this one because I'll bet many of you have similar questions/concerns.



Prosine 2.0 Inverter charger is shown in the center-upper unit with yellow trim.

Ed--"I have a Xantrex prosine 2000 watt inverter/charger. I have been using the inverter but am just getting to hooking up the charger. I recently purchased new agm batteries, 2 grp 31 for eng start and bowthruster and 2 8D for house batteries and inverting. Each 8D is rated at 225 amp hr. My current charger is only capable of an initial 40 amp charge, ramping down as it goes. running an 8K generator requires many hours to fully recharge the 8D's. With the Xantrex charger I believe is capable of throwing out 100 amps to the batteries. The batteries are west marine (DEKA). Can the AGM's handle that rate of charge? I have been told they will but dont want to over charge them if this is not correct. I may or may not connect the grp 31's to this charger, mainly I need the faster charge for the house batteries as to not run the generator for such long periods." Rick

First, let me answer Rink's question about the ability of his new AGM type batteries to accept a high rate of charge. Yes they can! One thing we have learned over the last ten or so years is that AGM batteries, of all the battery chemistries we typically find in marine applications have the highest "acceptance rate". We have learned over time that these batteries can take a really fast charge compared to their traditional flooded or gel cell cousins without any cause for concern.

Its important for everyone to understand that by connecting any battery to a high output charger is really not an issue. The battery is self limiting for the most part when it comes to current. In other words, a given battery is only going to accept X charge rate based on such factors as it's own internal resistance and chemical make-up. An AGM type battery has an acceptance rate somewhere on the order of 35-40% of it's amp-hour capacity rating. This compare to as little as

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25% for a traditional wet cell tech battery. What this all means is that you can have a 200 amp rated charger connected to a small battery but it just doesn't matter, the battery is only going to accept the charge at it's personal acceptance rate, and indeed it will vary from one battery to another.

So, no worries on that count. Your Prosine will do just fine with this selection of batteries. Follow the detailed instructions that came with the Prosine because it has a very sophisticated multi-phase re-charge capability that is completely programmable to meet the specific requirements of your batteries.