

The technical committee has received several questions about removing or adding parts during the race and on the allowed maximum voltage. Next to that there have been questions about the design of the solar panels for the Top class boats. We would like to take this opportunity to explain the interpretation the technical committee will use in assessing your designs.

According to the technical regulations it is allowed to change propellers at any time. It is further allowed to bring special provisions for the moment you have to cross the dams in the route during the fourth stage (Klûnen). On the other hand it is forbidden to modify the boats after they have been approved during the technical inspection. Furthermore the technical committee recognizes that the stages of the race may differ from each other such that applying a design that is somewhat tailored to the stage at hand may be wishful. Doing so might stimulate innovation in the designs.

Therefore the technical committee has felt the need for giving more guidelines for interpreting the technical regulations in this respect. The following additional guidelines apply:

1. Adding removable parts to your design is allowed
2. These additional parts have to meet all necessary requirements with respect to safety
3. The removable parts must either be installed or carried in the boat during the complete race.
4. During step 3 of the design process it must be clearly indicated that you want to apply this and this has to be approved
5. The boat will have to pass the technical inspection both with and without the removable parts installed
6. Marking parts as removable parts after having passed step 3 in the design process is not allowed
7. Certain parts will not be allowed to be classified as removable parts. They include at least:
 - parts necessary for achieving the required stability, for example floats
 - solar panels
8. The technical committee may amend these guidelines when this proves to be necessary

With respect to the maximum voltage the regulations state that the maximum voltage is 52 V. The regulations make an exception for the open circuit voltage of the solar panels. With respect to the batteries the maximum allowed nominal voltage is 48 V. The technical committee will be very strict with respect to the maximum voltage of 52 V. This means that you will have to make your design such that nowhere in the system this maximum voltage will be exceeded. This holds for all components in your electrical system (batteries, maximum power point trackers, charge controllers, motor controllers, motors, etc.)

The allowed maximum power output of the solar panels in the Top class boats is limited to 1750 Wp. Those of you who acquire pre-assembled solar panels can make use of the data sheets of the manufacturer to prove that you will not exceed this power level. The technical regulations refer to the applicable standard for determining this. For those of you who decide to assemble your panel yourself the



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situation is somewhat different. In this case you will have to prove that your complete solar panel does not deliver more than 1750 Wp. You may base your calculation on solar cell data. For this you must show what the output of the individual cells is under the so-called STC conditions. Next to that you must show how you convert the cell data to the output of the solar panel.