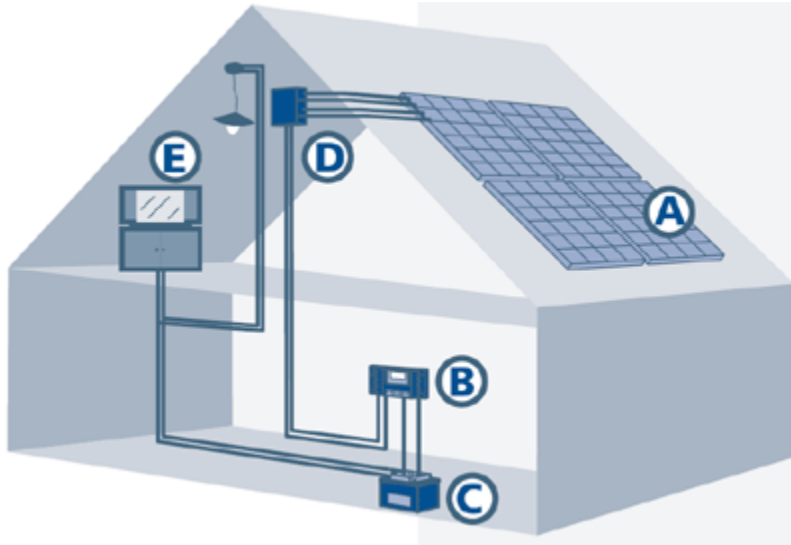


Solar home systems with Steca solar charge controllers



- Legend:
- A. Generator
 - B. Solar Charge Controller
 - C. Battery
 - D. Generator connection box
 - E. Current Consumer (12 V-)

A solar home system consists of a Steca solar charge controller, one or more solar modules, a battery and the connected loads. The solar charge controller is connected directly to the battery using as short a cable as possible, and fixed to the wall near to the battery, so that it can be effectively cooled by the passing air flow. In principle, the battery is always connected to the charge controller first. Then the solar module field is connected to the solar module input of the charge controller. Only direct current loads are used in solar home systems. They are connected directly to the load output of the charge controller. This means the Steca solar charge controllers always show the exact charge status of the battery, and thus ensure optimal battery maintenance in all situations. Various Steca energy-saving lights, Steca solar cooling units, DC-to-DC converters and other appliances can be used. The Steca solar charge controllers control the energy flow of the entire system. They make sure that the solar module charges the battery quickly and effectively, but they also protect the battery against overcharging. If the loads discharge the battery, the charge controller, thanks to its precision in calculating the charge status, switches off the load at exactly the right moment, thus protecting the battery from the dangers of deep discharge.

Furthermore, Steca charge controllers are equipped with an intelligent battery monitoring system. The most effective charging method is selected according to the requirements of the batteries. The charge controller is the central controlling component in solar home systems, since it affects all the functions of the system. For this reason, it is important to choose a reliable and efficient charge controller.

