

Figure 19.5 Partial-shunting controller for high-voltage systems

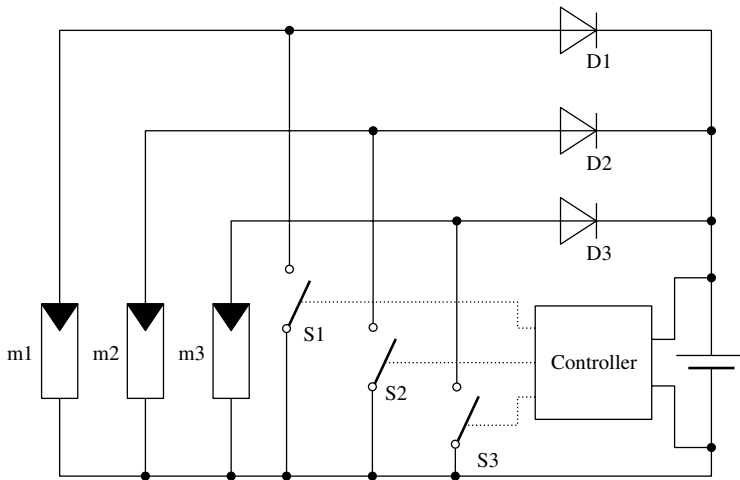


Figure 19.6 Sub-array switching controller for high-power systems

In consequence, the remaining generator voltage is too low to further charge the battery. The advantage of partial shunting is the reduced voltage stress for the switch in high-voltage systems. On the other hand, a tap and additional wiring are needed.

In high-power systems, sub-array switching according to Figure 19.6 is used for charge control. The PV generator is set up as a number of sub-arrays (strings), and each of these strings is connected to the battery via its own control element (e.g. blocking diode and switch).