

PV Fact Sheet

05 | Open a fuse holder in a connected combiner box

This fact sheet focuses on photovoltaic installations in solar parks worldwide. One essential part of such an installation is the PV combiner box. These boxes are used to combine several strings and to protect against overvoltage and feature many more functions.

Can I open a fuse holder when the current is flowing?

A fuse holder is a type of fuse accessory that is required to integrate fuses that cannot be dropped directly into conductive paths due to their shape and size. The function of a fuse holder is to integrate fuses safely in electrical circuits, ensure a robust current path (voltage does not creep to other components) and provide a method to replace fuses once they manage overcurrent events as intended. In a combiner box is easy to identify where the fuse holders are:



Image 1. Example of a Weidmüller fuse holder

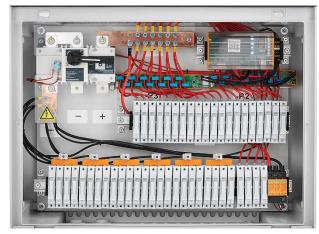


Image 2. Inside view of a Weidmüller DC combiner box

When a combiner box has a power supply and is connected to the network It is not possible to open any fuse holder. Doing this would create an electrical arc which could damage the combiner box and the person handling it. It is important to highlight that the fuse holder does not have any electric arc dissipation function, this function is fulfilled by the switch-disconnector, which disconnects the combiner box from the network making its manipulation possible.