

PV Fact Sheet

07 | Types of mounting of a DC 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.

How a DC combiner box can be mounted?

The DC combiner box can be mounted in different ways; however, it is important to keep in mind some recommendations when installing it:

- The DC combiner box need to be installed the closest possible to the strings.
- The location must be protected from the weather and direct sunlight.
- The location must be easily accessible for installation work and later maintenance work.
- The installation site must not be near easily flammable materials, gases, or vapours.
- The combiner box and specially the feeder conductors must be installed in such a way that damage cannot be caused by rodents.
- The tolerable inclination of the combiner box for its installation is between 15° to 90°.

To protect the combiner box against direct sunlight and rain, Weidmüller strongly it shall be installed under the photovoltaic modules or a protective canopy or sunshade. This is the most common installation of a combiner box, and it can be mounted directly to the structure of the solar panels or on a pedestal.

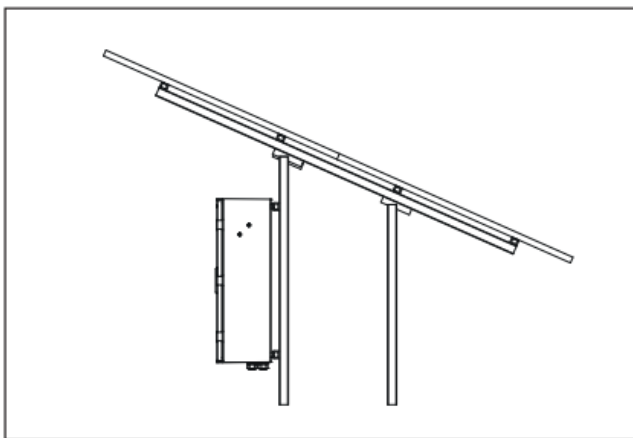


Image 1. Example installation under PV modules

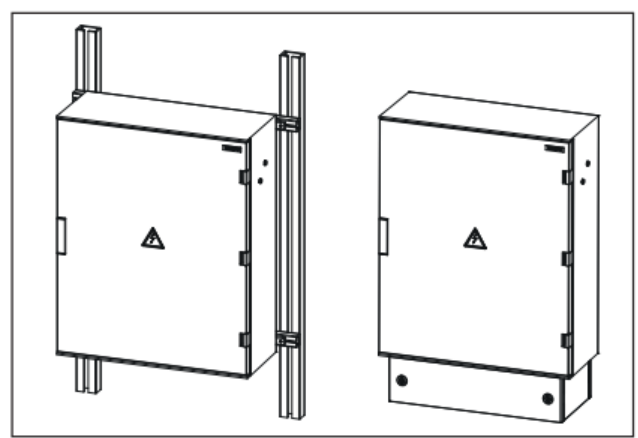


Image 2. Fixing the enclosure to a structure or on a pedestal

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In Weidmüller there is some accessories option that can be provided with the combiner box, those accessories are:

- Metal sun canopy: This accessory protects the combiner box against sunlight, and it will help against rain, however it won't protect it completely against rain.

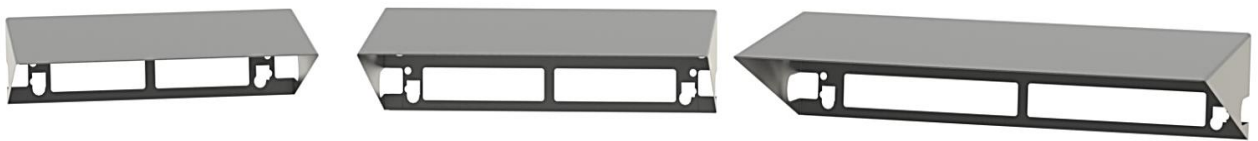


Image 3. Example of the metal sun canopy available

- PV Fixation kit: This accessory is pack that includes all the elements necessary to mount the combiner box on a pedestal or structure. Normally the combiner box already includes a basic fixation kit, the difference is that this one improves the grip and safety of the installation.

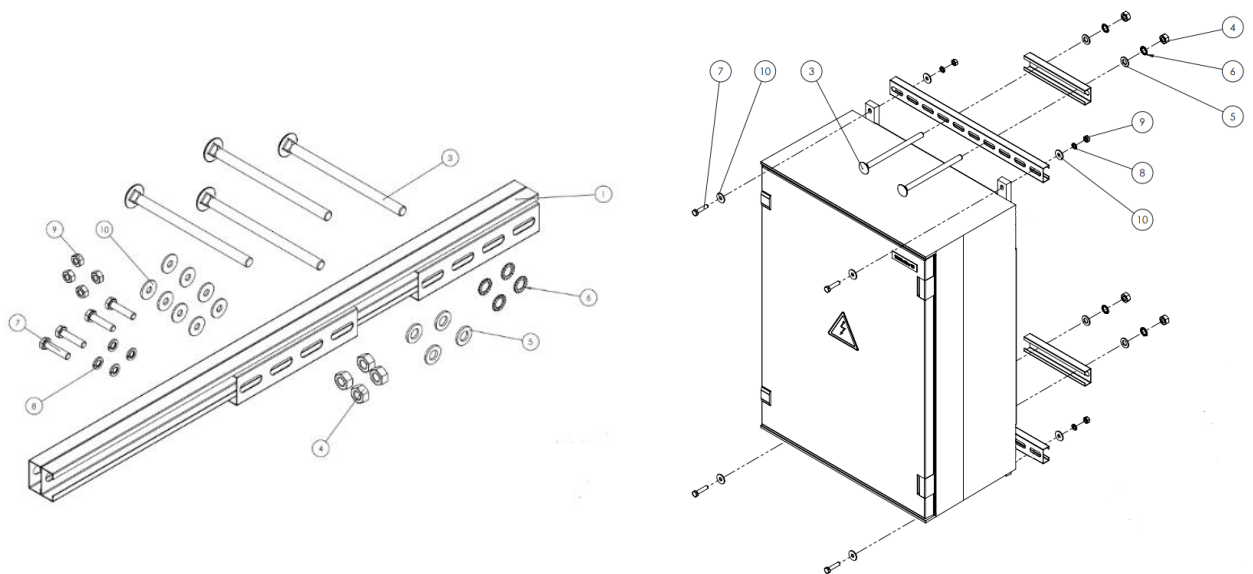


Image 4. Example of the PV fixation kit

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- PV Kit pedestal: Is a kit that provides all the components that are for a pedestal, so the combiner box can be installed on it (fixation kit not included).

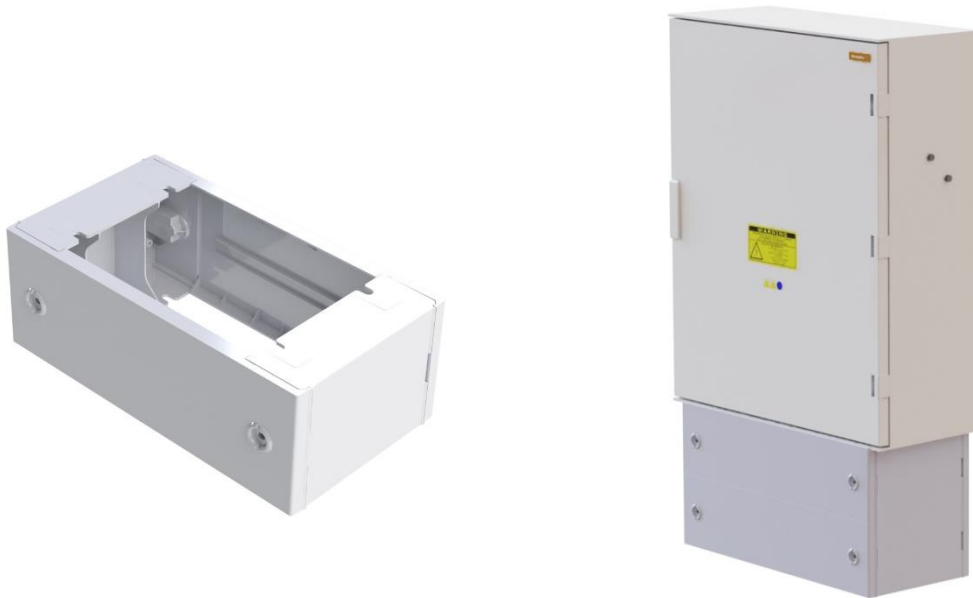


Image 5. Example of the PV kit pedestal

For more information about the accessories available please consult your designated salesperson. Please keep in mind that the accessories can only be purchased while ordering the combiner box.