

Solar systems by Schweizer:

Information sheet – lightning current carrying capacity with the flat roof system MSP-FR

Lightning current carrying capacity

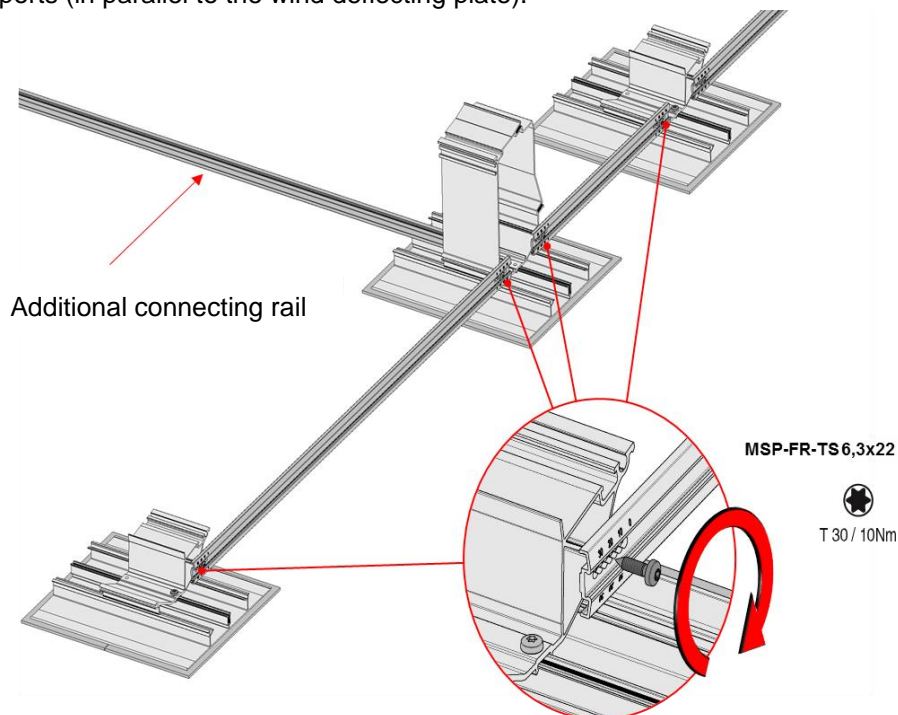
The MSP-FR-EW and MSP-FR-S photovoltaic flat roof systems can be used, in accordance with the criteria of DIN EN 62305-3, as part of the down conductor of a lightning protection system. When the following supplementary mounting conditions are observed, these mounting systems meet the requirements of test class H with 100 kA, based on DIN EN 62561-1 (according to test report no. 1863_FRM, DEHN Test Center).

Mounting conditions

To ensure lightning current carrying capacity, all connecting rails must be fastened with special screws:

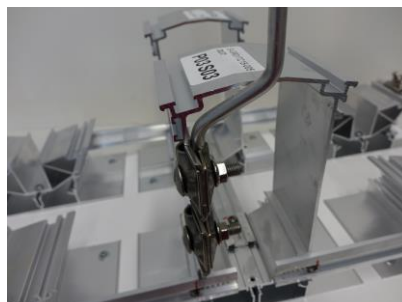
- Article no. 21348, MSP-FR-TS 6,3 x 22
- Tightening torque 10 Nm
- Folding clamps with enlarged connection surface (Dehn Se, Art. No. S07 911, torque 25 Nm, or equivalent product)
- Extension with MSP-FR-S:

In the case of the MSP-FR-S mounting system, connecting rails likewise need to be mounted between the high supports (in parallel to the wind deflecting plate).



Please note:

Lightning spikes and down conductors do not form part of the assortment of Ernst Schweizer AG. They can be attached directly to the supports, either by a professional firm or in accordance with the specifications of a lightning protection planner.

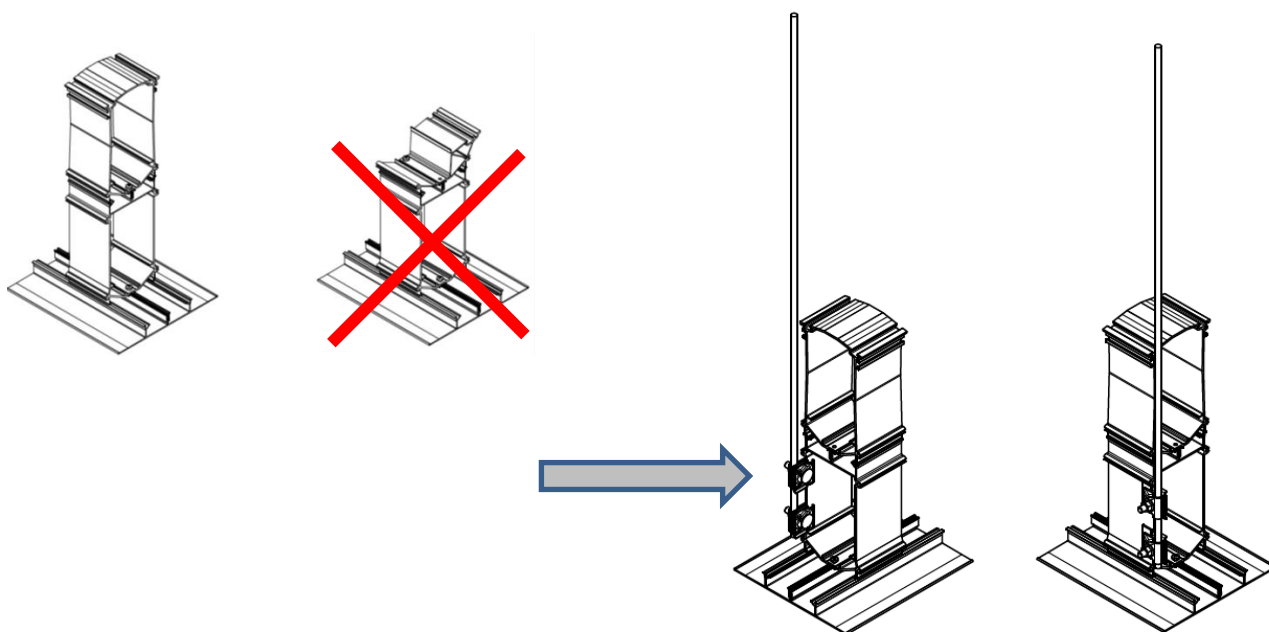


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Note: green roof system

With the MSP-FR-G (green roof variant), the interception rods and arresters must be mounted on the lower adapter support of the higher ridge support - see drawing.



Lightning rods

Number and spatial position on the PV system according to the customer's lightning protection concept.

Our tests were based on an air-termination rod with a diameter of 10mm.

These rods have a nominal length of 1 m, which results in a distance from the support to the tip of approx. 500 to 600 mm.

The height ultimately also depends on the design of the lightning protection system.

If a longer rod is designed, then it should be ensured that the installation is sufficiently mechanically strong enough to withstand the loads on site.

The selected diameter, length and wind load all play a role.

These details must be clarified individually with the lightning protection expert / representative.