Mounting systems for solar technology

RECOMMENDATION
S-DOME 2.0 SYSTEM
LIGHTNING PROTECTION RECOMMENDATIONS

GB
RECOMMENDATIONS
FOR LIGHTNING PROTECTION CONNECTION ELEMENTS FOR THE S-DOME 2.0 SYSTEM

The S-Dome 2.0 System can be used as a conducting component of a lightning protection system according to the criteria of DIN EN 62305-3. These tests were carried out with parts from Dehn & Söhne. During the tests, the components listed below were used in addition to those of the S-Dome 2.0 system. The items listed in italics can be obtained directly from the manufacturer Dehn & Söhne and are to be installed together with the S-Dome 2.0 system as follows.

**K2 Allen bolt with serrated under head**
M8x30 DIN EN ISO 4762
Material: stainless steel A2, WS 6 mm

**M K2 Slot nut with clip**
Material: stainless steel, PA

**K2 Underlay plate**
Material: aluminium

**Lightning Rod**
Material: aluminium

**Round Wire**
Material: aluminium

**Earthing Clamp**
Material: stainless steel

**Terminal Clamp**
Material: stainless steel
INTEGRATION IN EXISTING LIGHTNING PROTECTION SYSTEMS:

1. INSTALLING LIGHTNING CURRENT-BEARING CONNECTIONS

Within the module arrays the rails must be connected with the K2 slot nut, underlay plate, earthing clamp and round wire as follows:

- Insert the K2 slot nut in the rail, turn clockwise 90 degrees.
- Then fasten the underlay plate with the earthing clamp and round wire with an Allen bolt with serrated under head.

Please note that each module array can be interconnected to form a mesh structure on the roof.

No additional components in the module row direction are necessary as the lightning current carrying capability and connection is via the windbreaker.

Tightening torque: 16 Nm

Required items: K2 slot nut, underlay plate, earthing clamp, round wire, Allen bolt with serrated under head M8x30

2. INSTALLING THE LIGHTNING ROD

Position, quantity and length of the lightning rods can be determined according the tried and tested German ‘rolling sphere method’.

The lightning rods are mounted at the top of the Dome D1000 component.

After fixing the terminal clamp and lighting rod, turn the rod by 90 degrees and adjust.

Tightening torque: 25 Nm

Required items: Terminal clamp, lightning rod
INTEGRATION IN EXISTING LIGHTNING PROTECTION SYSTEMS:

LIGHTNING PROTECTION AND EARTHING SYSTEM INSTALLATION

The integration of a PV system into the earthing system of the building has to be done according to the specific norms and standards.

Insert the K2 slot nut in the rail, turn clockwise 90 degrees. Then fasten the underlay plate with the earthing clamp and round wire with an Allen bolt with serrated under head.

Tightening Torque: 16 Nm

Required items: K2 slot nut, underlay plate, earthing clamp, round wire, Allen bolt with serrated under head M8x30

K2 Systems GmbH expressly points out that the use of the listed components is only a recommendation. Alternatively, lightning protection components from other manufacturers may also be used. Please follow all instructions given by the module and inverter manufacturers. Effective operation of existing lightning protection systems must not be compromised in any way by a photovoltaic installation. Ensure that the lightning protection concept is approved by a lightning protection planning office or a lightning protection specialist. Please refer to the relevant standards for planning requirements.
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