

# DP-DTVBN CONSTRUCTION ASSEMBLY INSTRUCTIONS



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Ballasted steel structure for a flat roof.

Mounting of PV panels in a vertical arrangement (vertically).



## 1. Necessary tools for assembling the structure

- Allen spanner (ampoule spanner) size 6
- Cordless screwdriver with speed and torque control
- Hexagon socket wrench, hexagon size 6 for screwdriver head
- Combination spanners in sizes 13, 15, 17 mm
- Ratchet spanner with sockets in sizes 13, 15, 17 mm
- Extension piece 100-120mm for socket spanners
- Rubber mallet
- Torque spanner, range 10-45 Nm

## 2. General information:

- Structures can be used in wind and snow zones in accordance with the following standard: **EN 1991-1-3** and **EN 1991-1-4**.
- **Before assembling the structure, please read the installation instructions for the photovoltaic panels**
- Ballast values and locations to be determined individually by the authorized constructor
- Tighten **SAM8x...E** screws and **NRM8F** nuts to a torque of 12-14 Nm
- When tightening the **SGKFM8x20** and **SGKFM10x20PV** screw, hold the head of the screw in such a position that the underlay is blocked on the walls of the hole in which the screw is installed, and then, using a screwdriver, tighten the screw slowly until it is blocked in the hole. At the final stage, tighten the screw with the screwdriver successively with a torque of: M8 - 22 Nm; M10 - 42 Nm.



### 3. Summary of components of the DP-DTVBN construction

No.	Product	Name of product	Designation in construction
1	Channel	CC55H50/...MC	Main profile
2	Channel	CC50H35/...MC	Structure assembly profile
3	Channel	CMP41H41/...MC	Panel support profile
4	Channel connector	LC41H41MC	Connecting channels CMP41H41/...MC
5	Side holder	BUF...	Panel mounting holder
6	Middle holder	PUF	Middle panel holder
7	Grounding washer	PUP	Panel grounding
8	Screw	SAM8x...E	Holder fixing screw
9	Rhomboid nut	NRM8F	Nut
10	Ballast base	PBK50MC	Ballast base
		PBKD50MC	Ballast base for increased ballast capacity (optional )
11	Vibration-insulating rubber	SBV250x350	Separation between the elements of the substructure and roof sheathing
12	Mushroom head screw	SGKFM...	Screw + flange nut
13	Channel base with vibration insulating rubber	PC100C	Prevents pressing of the steel profiles endings against the roof sheathing
14	Protective cap	NOWPAL40x40SR	Protects the ends of steel profiles
15	Spring washer	PS8E	Spring washer

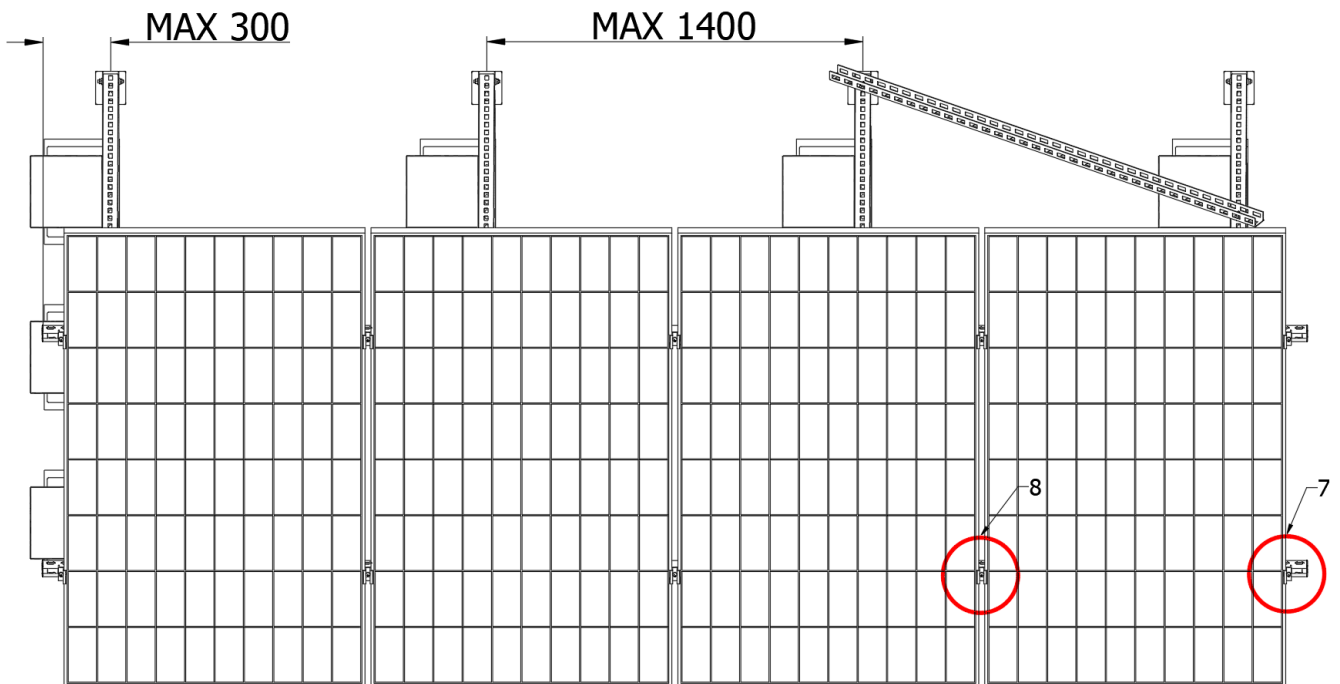
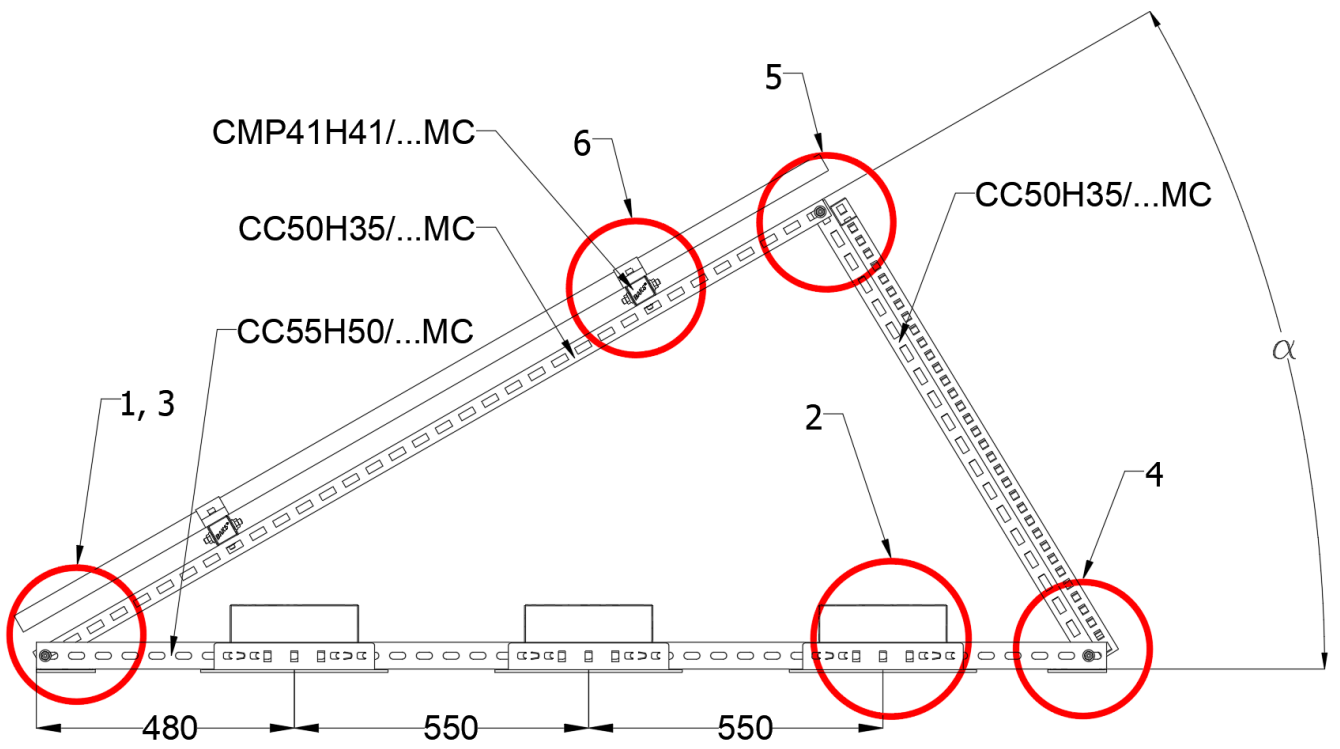
### 4. Assembly of DP-DTVBN structure

Grounding washers of the PUP type should be placed at the mounting points of the PUF middle holders.

Where there are an even number of modules in a single row of construction, grounding washers are fitted every second pair of modules.

In the case of an odd number of modules, grounding washers must additionally be added under the extreme PUF holders to ensure that the last module is also grounded.

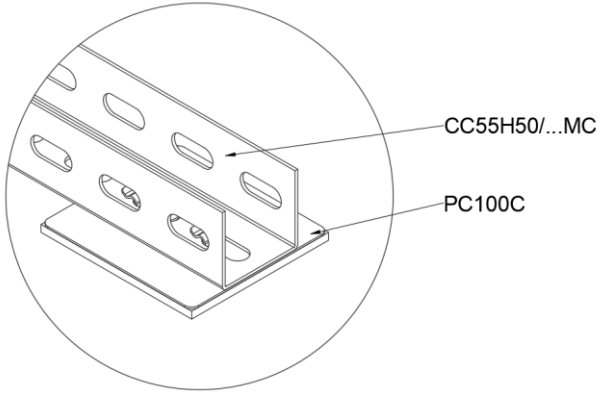




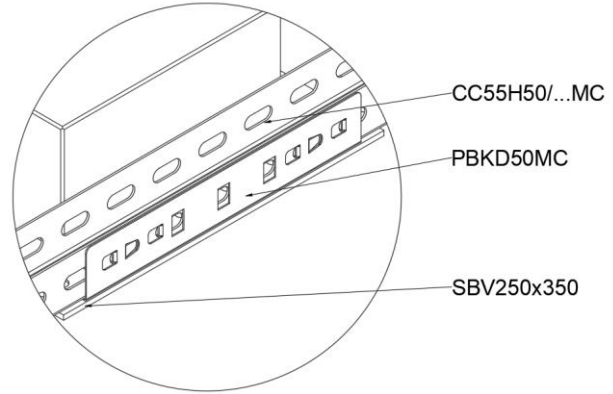
**Structures can be maximally used in a combination of zones 1W3Ś.**



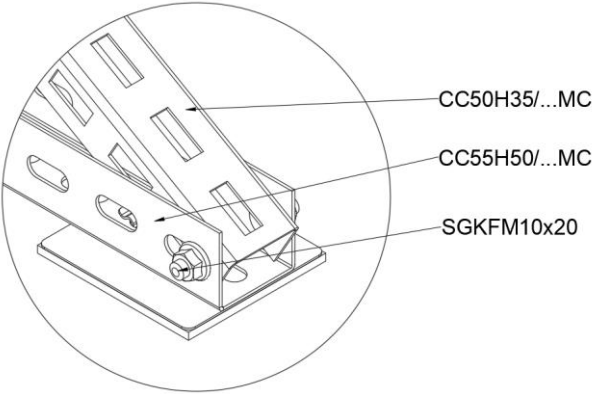
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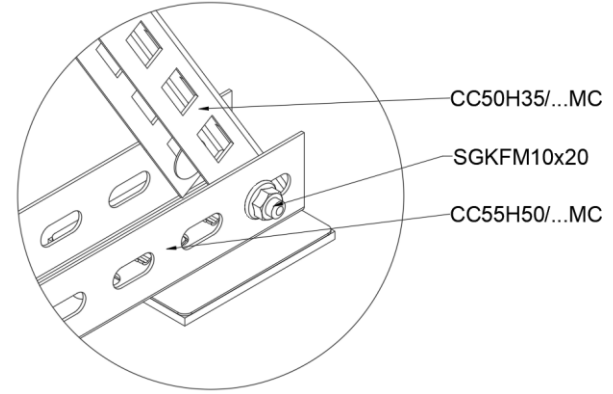
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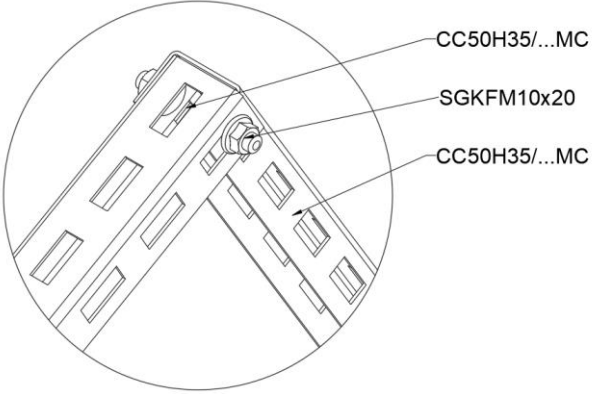
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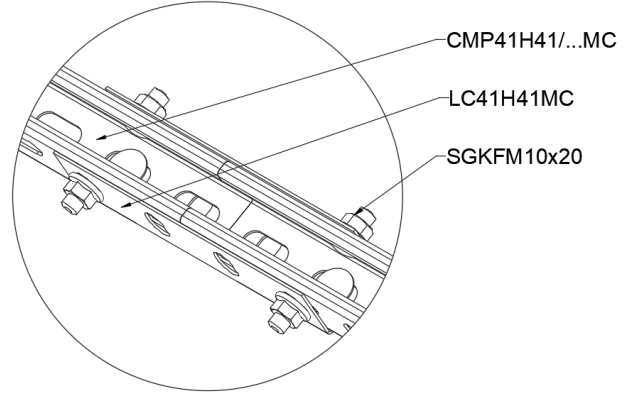
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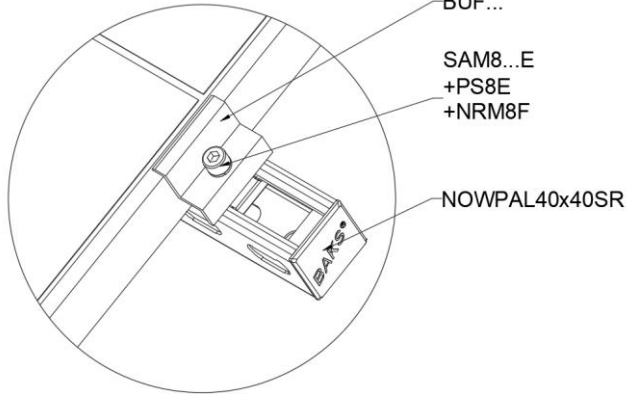
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