

DP-DTHKSN CONSTRUCTION ASSEMBLY INSTRUCTIONS



Manufacturer: BAKS – Kazimierz Sielski

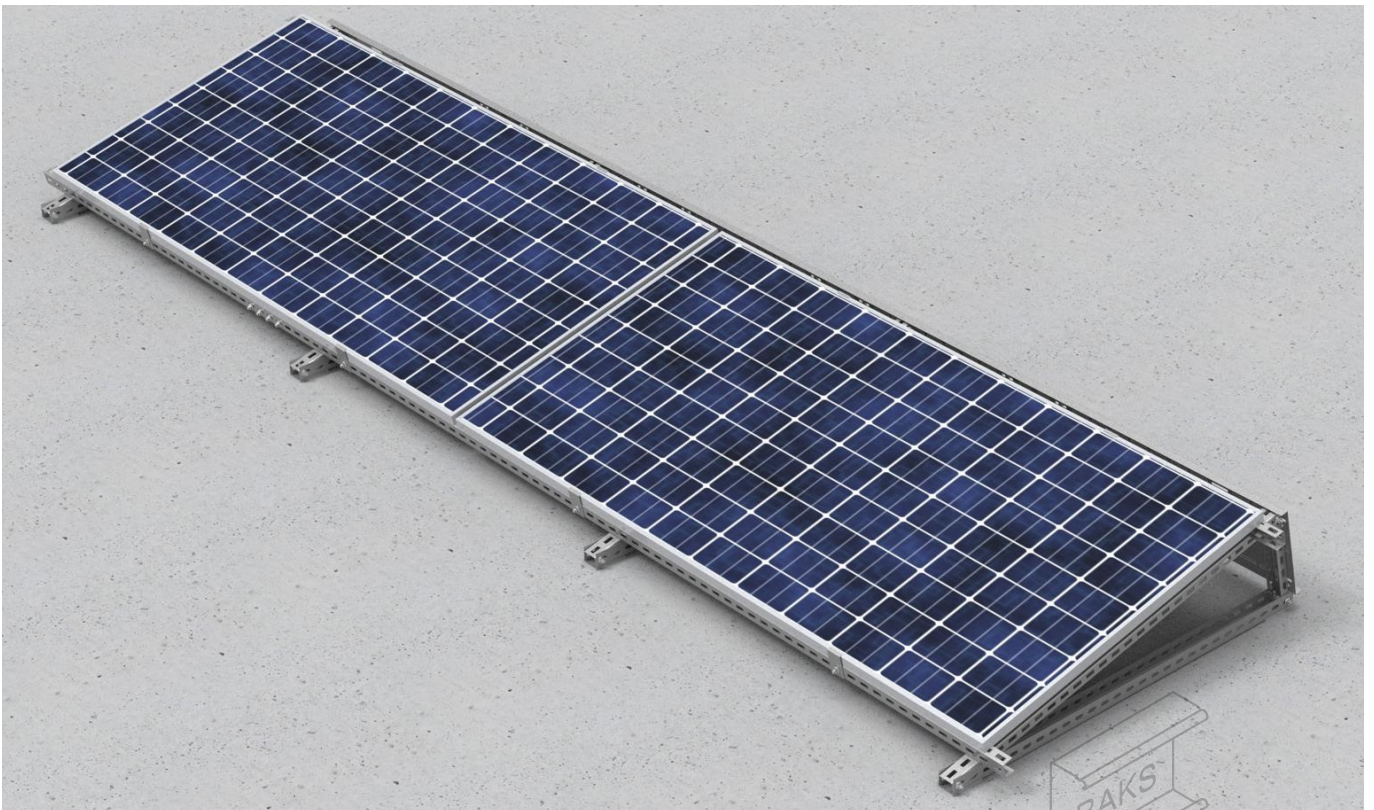
ul. Jagodne 5

05-480 Karczew

Poland

Steel structure for flat-roof in the SMA40 rail-mounted version.

Mounting of PV panels in a horizontal arrangement (horizontally).



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 standards: **EN 1991-1-3** and **EN 1991-1-4**.
- **Before assembling the structure, please read the installation instructions for the photovoltaic panels.**
- **Minimum trapezoidal sheet thickness not less than 0.5 mm**
- **SMA40 rails should be tightened with a minimum of 4 self-drilling screws SMDP6.0x25E**
- **Minimum trapezoidal sheet thickness not less than 0.5 mm**
- Tighten **SAM8x...E** screws and **NKZM8E** 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.
- Tighten **SRM10x...F** screws to a torque of 20 Nm

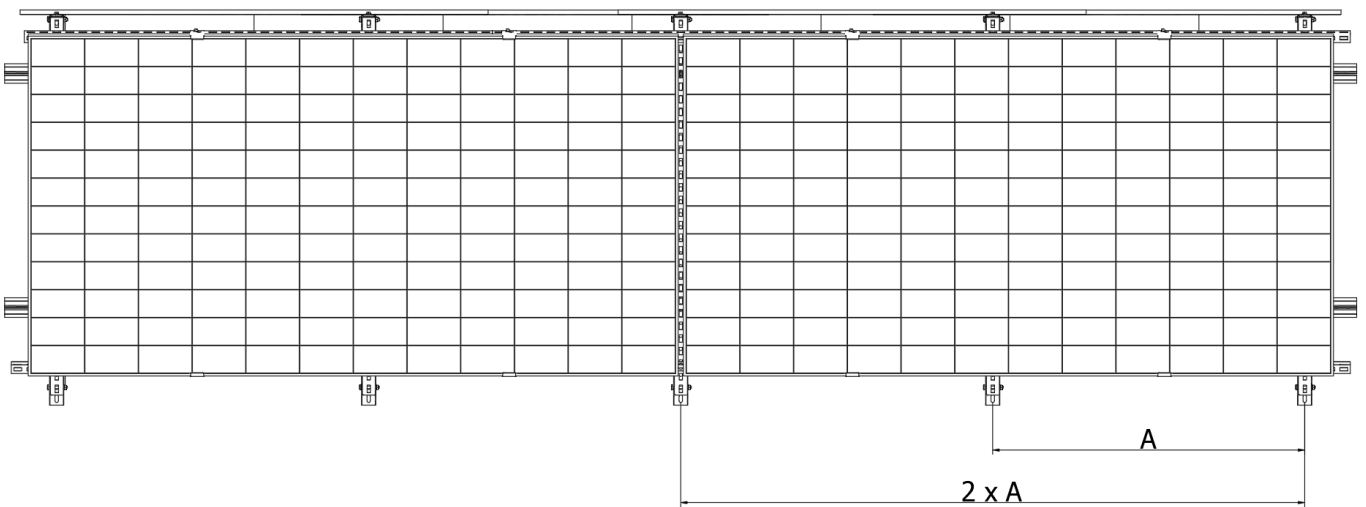
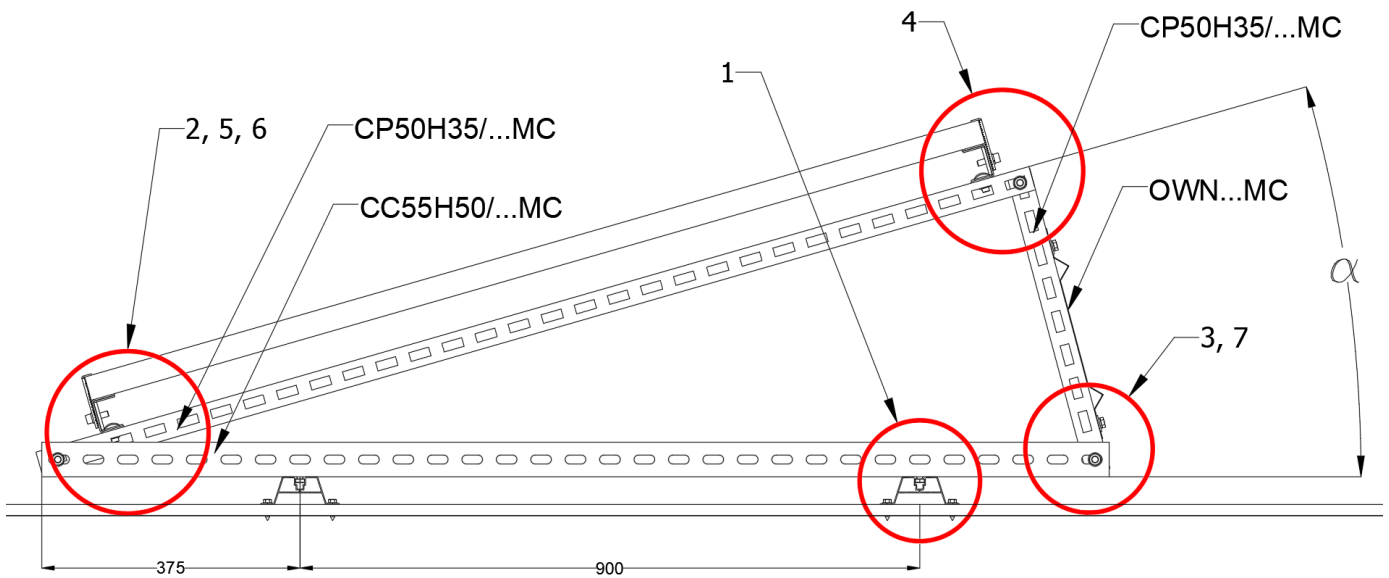


3. Summary of components of the DP-DTHKSN construction

No.	Product	Name of product	Designation in construction
1	Channel	CC55H50/...MC	Main profile
2	Channel	CP50H35/...MC	Structure assembly profile
3	Channel	CC50H35/...MC	Panel support profile
4	Channel connector	LCCW50H35MC	Connecting channels CC50H35/...MC
5	Hexagonal head screw	SMM10x70F	Screw connecting the supporting channels of the structure
6	Washer	PP10F	Washer
7	Side holder	BUFMC	Panel mounting holder
8	Screw	SAM8x25E	Mounting screw for holders and wind shields
9	Rhomboid nut	NRKM8PV	Nut
10	Wind shield	OWN...MC	Wind shield
11	Hexagonal head screw	SMM8x16E	Connecting wind shields
12	Spring washer	PS8E	Spring washer
13	Enlarged washer	PW8E	Enlarged washer
14	Mushroom head screw	SGKFM10x20	Screw + flange nut
15	Base	SMA40	Aluminium base
16	Self-drilling screw	SMDP6,0x25E	Anchoring the SMA40 base to the roof
17	Screw	SSZ8x30E	Screw fixing SMA40



4. Assembly of DP-DTHKSN structure



Combination of wind "W" and snow "S" * zones	Maximum distance of subsequent "A" frames
1W-1S; 1W-2S; 1W-3S	2,0 m
1W-4S	1,8 m
2W-2S; 2W-3S	1,4 m
3W-1S	1,6 m
3W-3S	1,3 m
3W-5S	1,1 m
Other combinations of zones	Selected individually after consultation

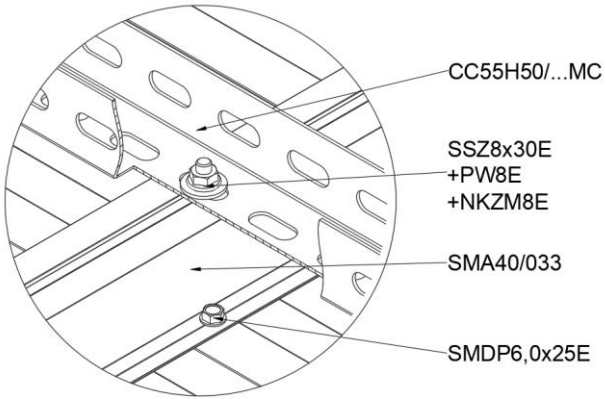
Table 1 Installation distance of subsequent frames of the photovoltaic structure depending on the combination of wind and snow zones

*1 wind zone below 300m asl; 3 wind zone below 500m asl;

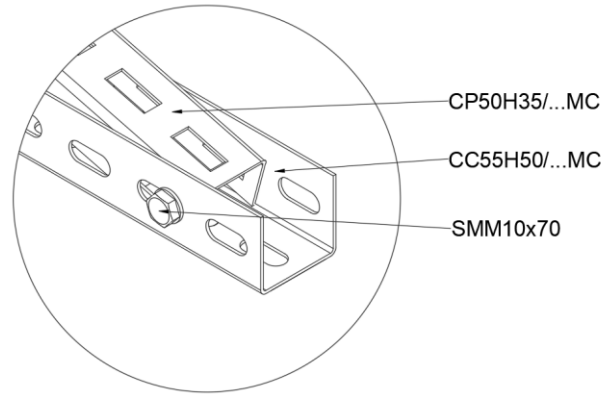
1 and 3 snow zone below 300m asl; 5 snow zone below 500m asl.



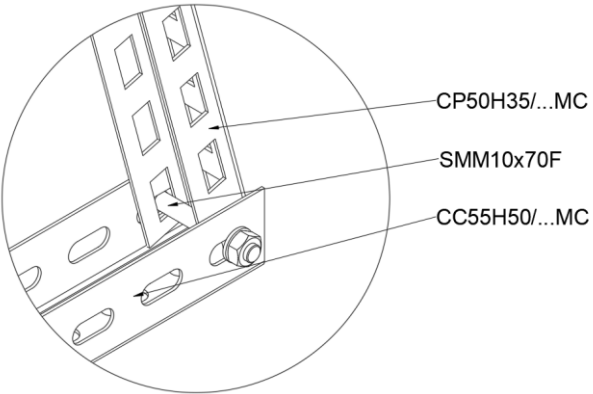
1



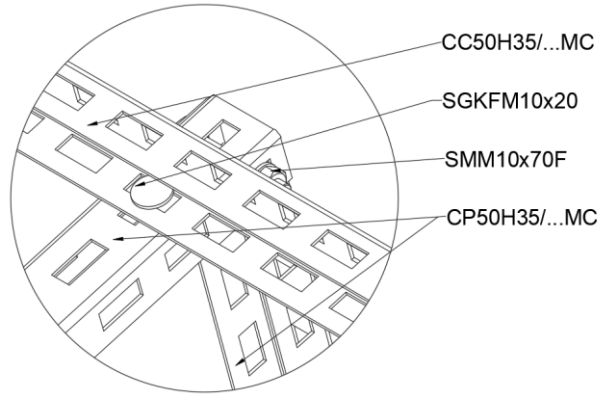
2



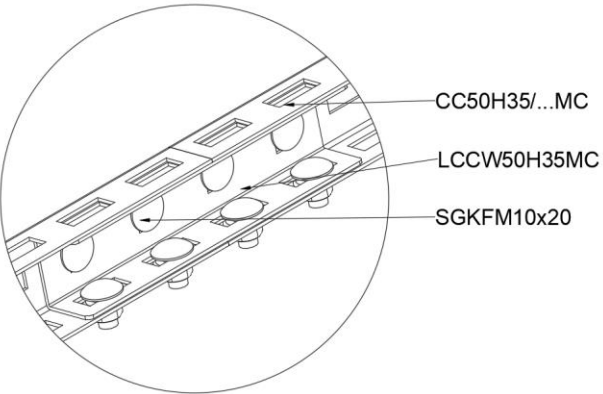
3



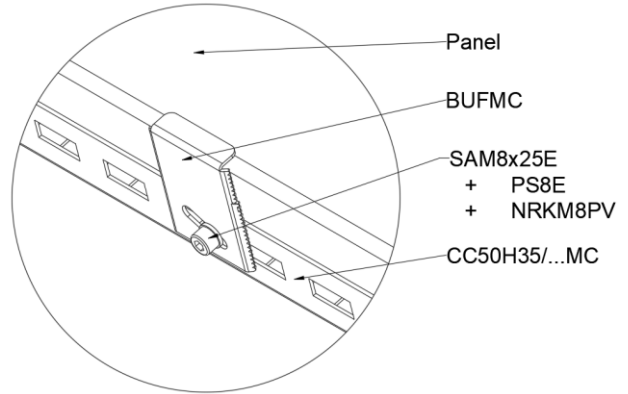
4



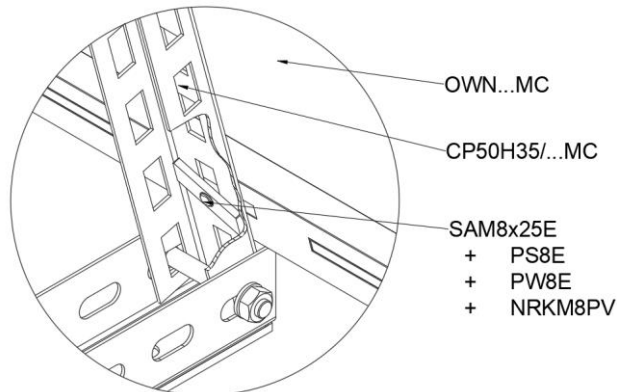
5



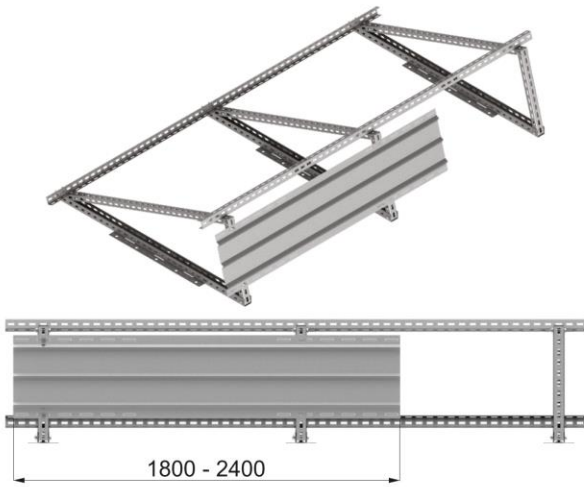
6



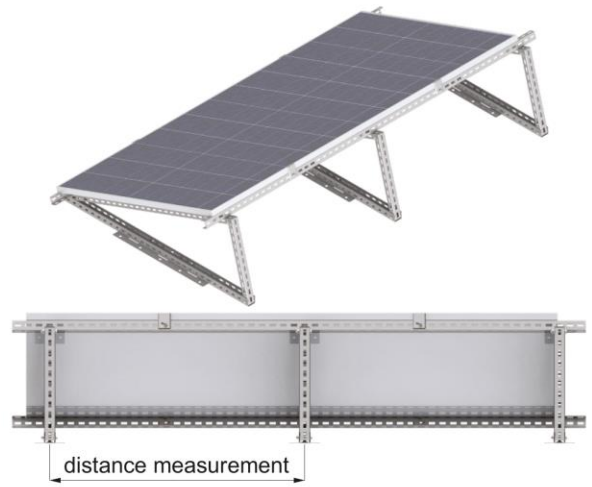
7



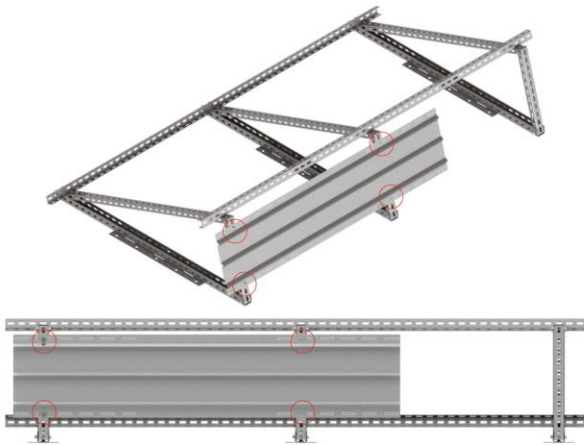
Installation instructions for wind shields in constructions DP - DTH...N



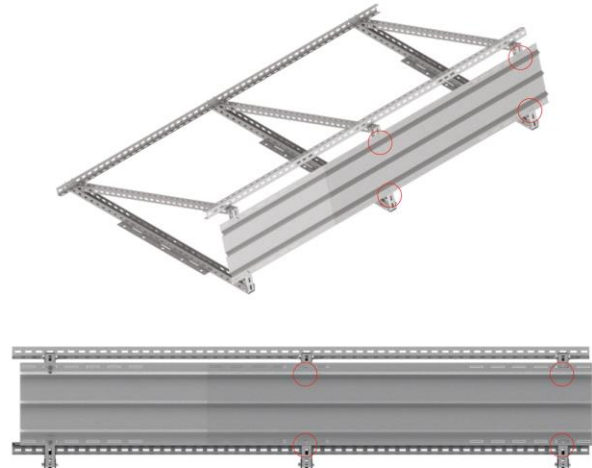
1. The length of the shields is selected on the basis of: distance between axes of triangular structures + 60 mm



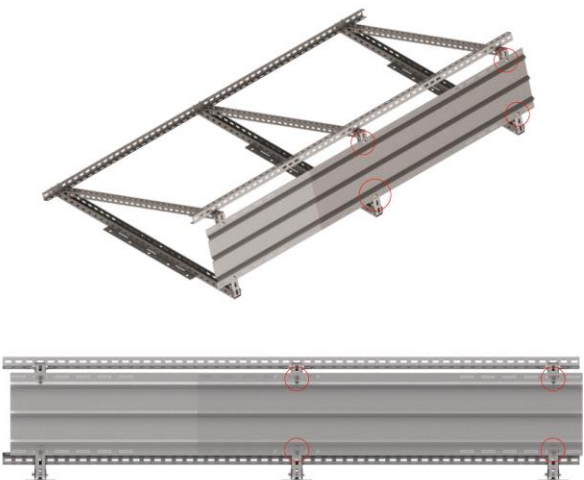
2. Measure the distance between the axes of the triangular structures.



3. Use a flat-bladed screwdriver to break out the holes in the housing aligned with the axes at point 2 and tighten with the M8 screws with diamond nuts.



4. Add the next shield and break out the overlapping holes in the covers with the holes in the channel sections



5. The neighbouring covers are tightened using shared M8 screws with diamond nuts

