NÁVOD NA MONTÁŽ KONŠTRUKCIE DP-DNHWE

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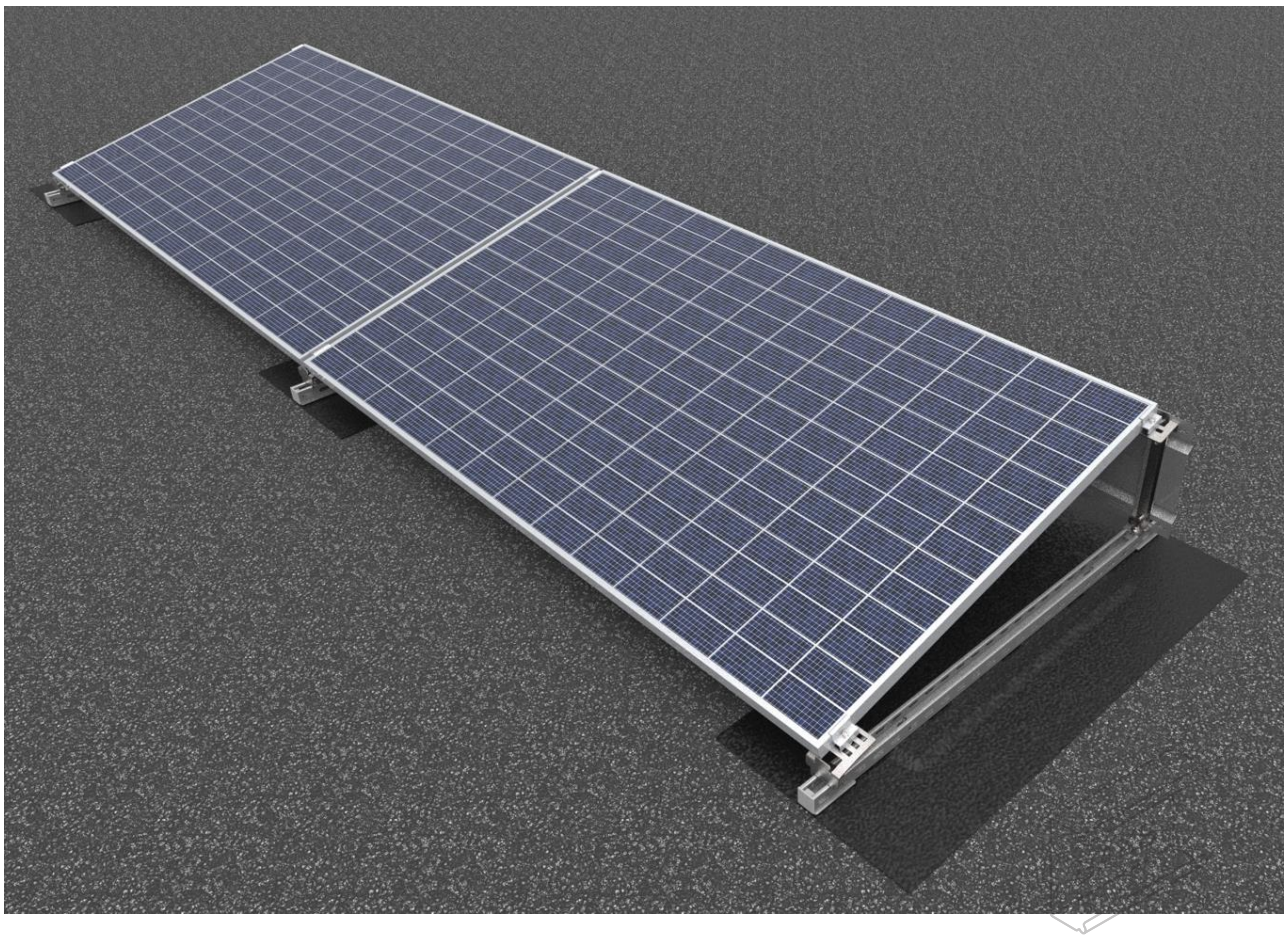
ul. Jagodne 5

05-480 Karczew

Poľsko

Oceľová konštrukcia na plochú strechu v lepenej verzii.

Montáž FV panelov vo vodorovnom usporiadaní (na ležato).



1. Potrebné náradie na montáž konštrukcie

• Imbusový kľúč veľkosti 6
• Aku skrutkovač s reguláciou otáčok a krútiaceho momentu
• Imbusový bit veľkosti 6 do skrutkovača
• Očkovo-vidlicové kľúče 13, 15, 17 mm
• Račňa s nástrčnými kľúčmi 13, 15, 17 mm
• Predĺženie 100–120 mm pre nástrčné kľúče
• Gumené kladivo
• Momentový kľúč, rozsah 10–45 Nm

2. Všeobecné informácie:

• Konštrukciu možno použiť vo veterných a snehových oblastiach podľa noriem STN EN 1991-1-3 a STN EN 1991-1-4
• Pred montážou konštrukcie si prečítajte návod na montáž fotovoltických panelov.
• Skrutky SAM8x...E a matice NKZM8E uťahujte momentom 12–14 Nm.
• Pri uťahovaní skrutiek SGKFM8x20 a SGKFM10x20PV držte hlavu skrutky tak, aby sa podložka zaprela o steny otvoru, potom skrutku pomaly doťahujte skrutkovačom, kým sa v otvore nezablokuje. Nakoniec ju dotiahnite momentom: M8 – 22 Nm; M10 – 42 Nm
• Skrutky SRM10x...F uťahujte momentom 20 Nm



3. Zoznam prvkov konštrukcie DP-DNHWE

No.	Výrobok	Názov výrobku	Účel v konštrukcii
1	Nosný C-profil	CMP41H41/…MC	Nosný profil
2	Spodný držiak	UPDMC	Podpera panela
3	Horný držiak	UPG…MC	Podpera panela
4	Krajný držiak	BUF…	Krajná svorka panelov
5	Stredný držiak	PUF	Stredná svorka panelov
6	Skrutka	SAM8x…E	Skrutka svorky
7	Matica s límcom	NKZM8E	Nut
8	Veterná clona	OWN…MC	Veterná clona
9	Skrutka so šesťhrannou hlavou	SSZ8x12E	Upevnenie veternej clony
10	Pružná podložka	PS8E	Upevnenie svoriek a veternej clony
11	Skrutka so šesťhrannou hlavou	SMM8x16F	Spojenie veterných clon
12	Veľkoplošná podložka	PW8E	Upevnenie veternej clony
13	Skrutka s guľatou hlavou	SGKFM…	Skrutka + matica s límcom
14	Oceľová montážna doska	SPM2	Lepená doska
15	Skrutka s rombovou maticou	SRM10x30F	Upevnenie držiakov UPG a UPDC
16	Podložka profilu s antivibračnou gumou	PC50P	Zabraňuje tlaku koncov oceľových profilov na strešný plášť
17	Uzemňovacia podložka	PUP	Uzemnenie panelov
18	Ochranná krytka	NOWPAL40x40SR	Chráni konce oceľových profilov

4. Montáž konštrukcie DP-DNHWE

Rozmery A a B (rozmer B = dĺžka modulu + 20 mm) závisia od veľkosti montovaných modulov. Určia sa skúšobným osadením modulu na namontované držiaky UPG...MC a UPDMC

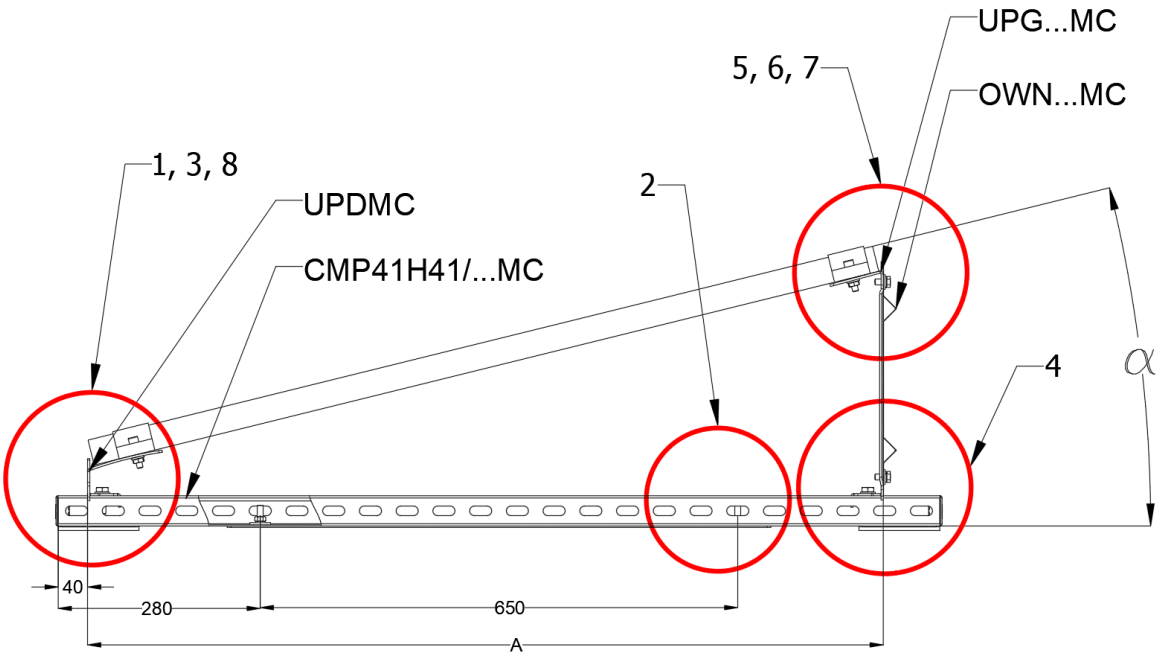
Najväčší modul, ktorý možno správne namontovať na konštrukciu DP-DNHWE, má rozmery: dĺžka 2100 mm × šírka 1150 mm (overte u výrobcu modulov)

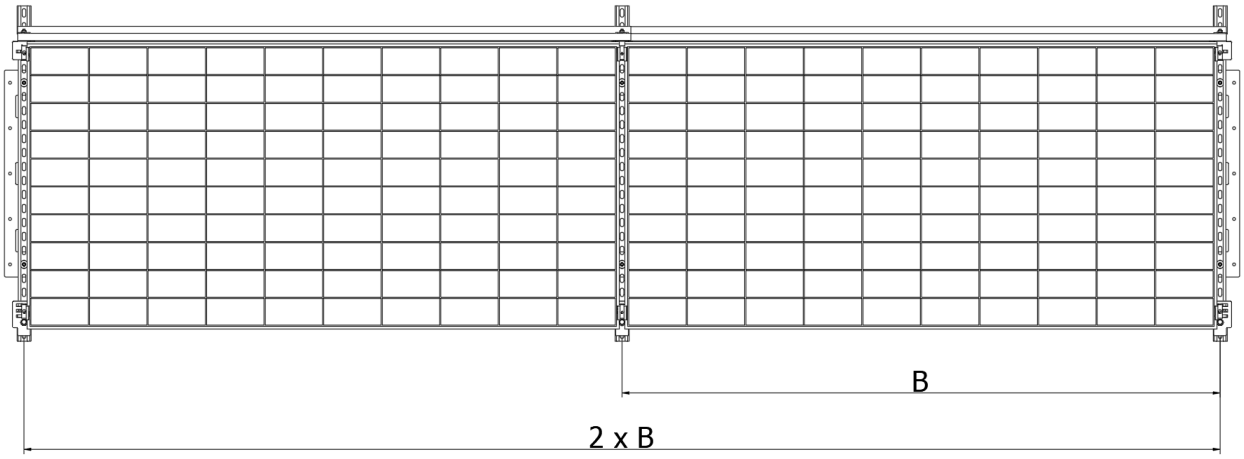
Uzemňovacie podložky typu PUP sa vkladajú do miest montáže stredných svoriek svoriek PUFK.

Pri párnom počte modulov v jednom rade sa uzemňovacie podložky montujú ku každej druhej dvojici modulov.

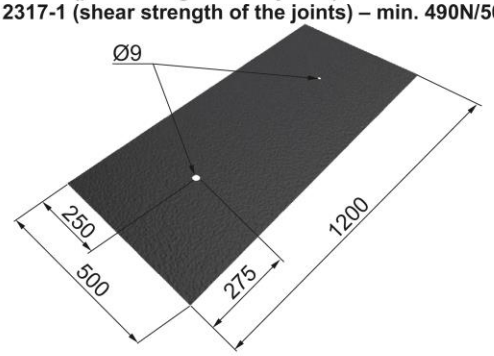
Pri nepárnom počte modulov treba pridať uzemňovacie podložky aj pod krajné svorky PUF, aby bol uzemnený aj posledný modul.



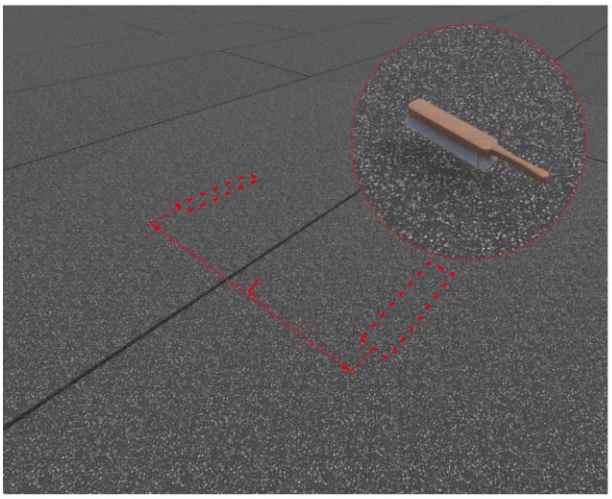

UPG...MC
5, 6, 7
OWN...MC
1, 3, 8
2
UPDMC
CMP41H41/...MC
4
α
40
280
650
A


B
2 x B

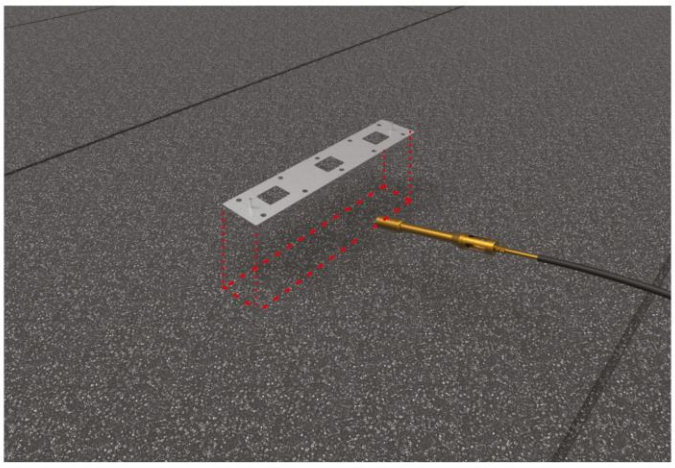
Assembly instructions for SPM2 Steel Fixing Plate to roofing felt
Note:
Requirements of the roofing felt to be used:
1) EN 12310-1 (tear strength) – min. 145N
2) EN 12311-1 (tensile strength) – min. 290N/50 mm
3) EN 12316-1 (peel strength of the joints) – min. 120N/50 mm
4) EN 12317-1 (shear strength of the joints) – min. 490N/50 mm



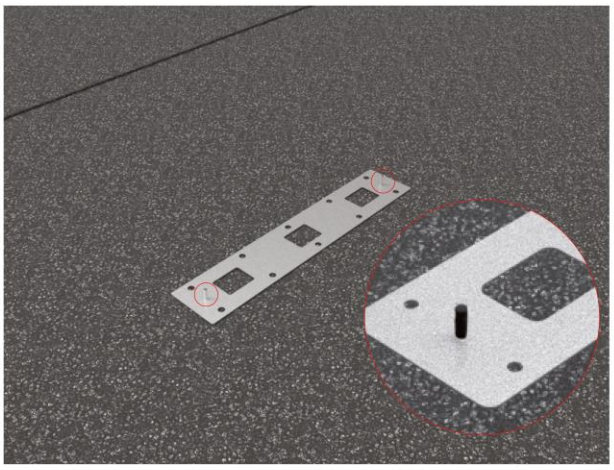
1. Before starting to install the SPM2 plates, cut out a fragment of roofing felt with minimum dimensions of 500 x 1200 mm, then cut out holes with a diameter of Ø9 mm in the locations of screws



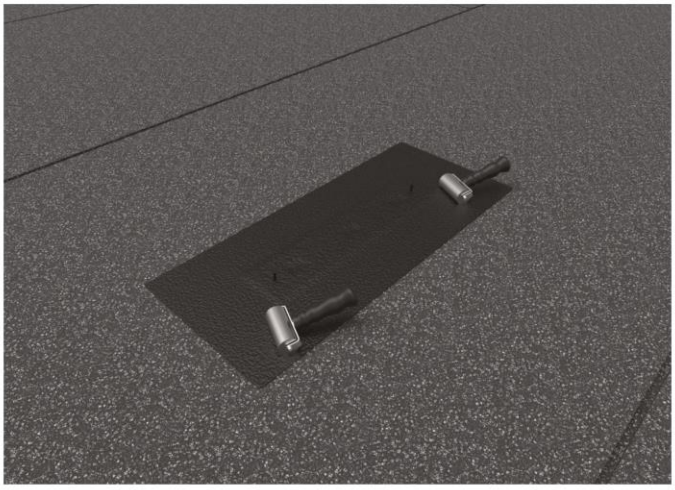
2. Measure the distance between the SPM2 plates, mark the points and then use a wire brush to clean the 500 x 1200 mm area of the roofing felt on the roof



3. On the designated area heat the surface in the size of a plate or slightly larger

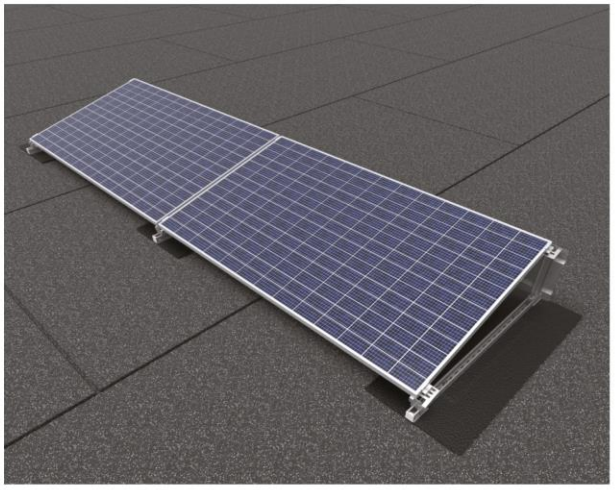


4. SPM2 plate should be placed on heated areas, pressed against prepared surface, protruding threads should be secured with NOP50 protection cap



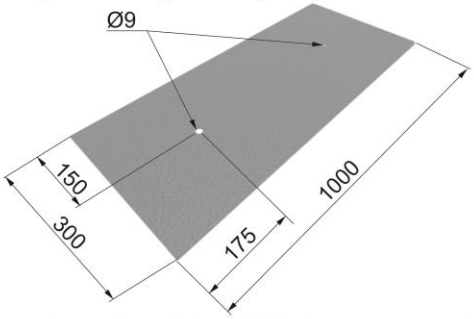
5. Warm up the prepared roofing felt, cover the plate with it and then press it with a roofing roller in the locations of the holes

6. Warm up the side of the roofing felt and the surface and at the same time press the roofing felt with a roofing roller, repeat the operation for each side until the plate is fully fixed to the roof surface

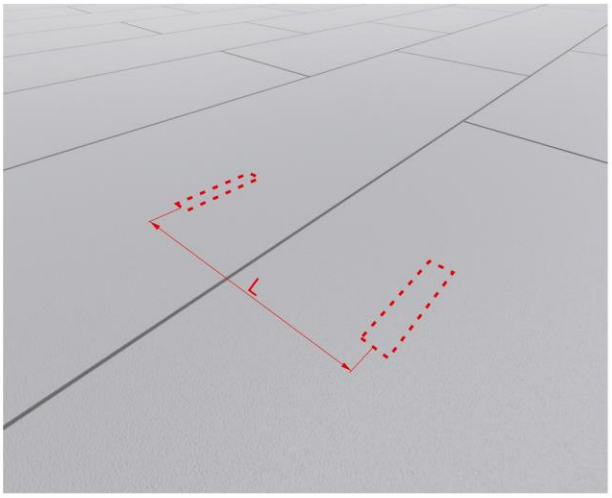


7. Correctly installed structure using SPM2 plate and DP-DNHWE mounting system

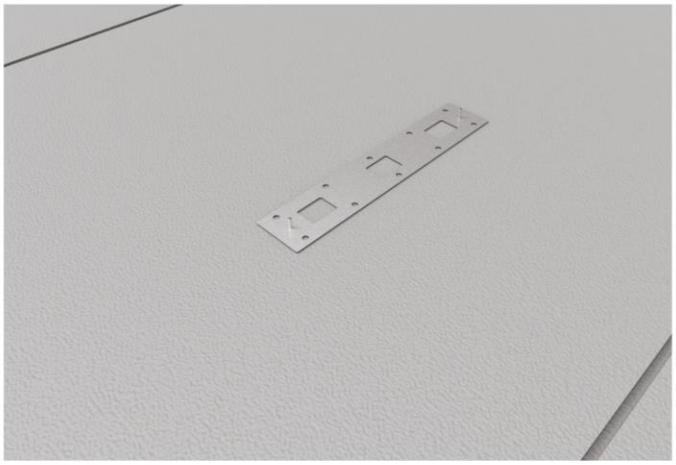
Assembly instructions for SPM2 Steel Fixing Plate to membrane
Note:
Requirements of the membrane to be used: PVC, ECB, EPO min 1.2 mm thick:
1) EN 12310-2 (tear strength) – min. 105N
2) EN 12311-2 (tensile strength) – min. 505N/50 mm
3) EN 12316-2 (peel strength of the joints) – min. 145N/50 mm
4) EN 12317-2 (shear strength of the joints) – min. 445N/50 mm



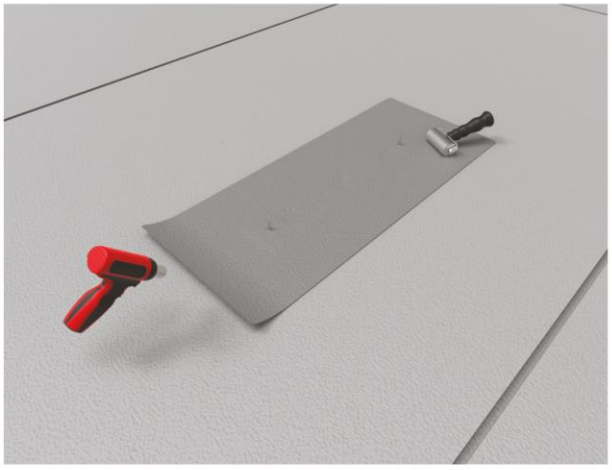
1. Before starting to install the SPM2 plates, cut out a fragment of membrane with minimum dimensions of 300 x 1000 mm, then cut out holes with a diameter of Ø9 mm in the locations of screws, finally round the corners of the membrane.



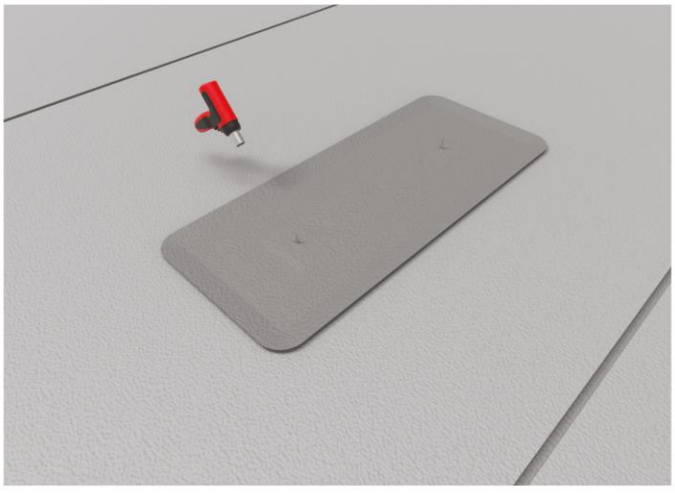
2. Measure the distance between the SPM2 plates, then mark the points.



3. Place the SPM2 plate on the designated place

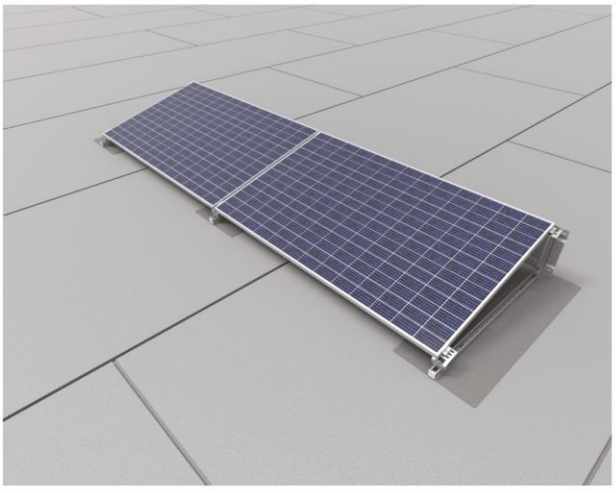


4. Cover the SPM2 plate with the prepared membrane and start the installation with a manual welding machine. Initially weld an hole of 60 x 80 mm, after proper heating press the membrane with a roofing roller. Repeat for the remaining holes.



5. Once the holes are welded, weld all sides around the SPM2 plate.

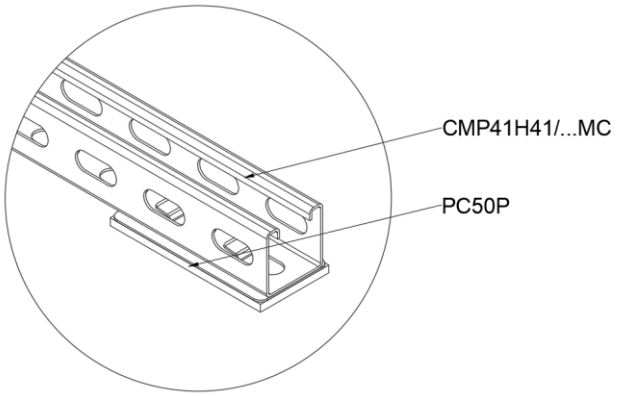
6. The SPM2 plate glued to the membrane is a basis for a structure for PV Installations.



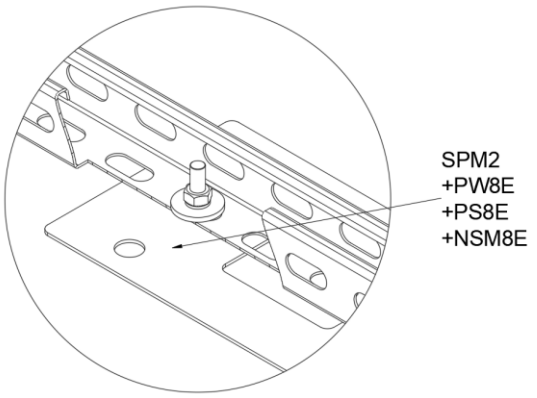
7. Correctly installed structure using SPM2 plate and DP-DNHWE mounting system



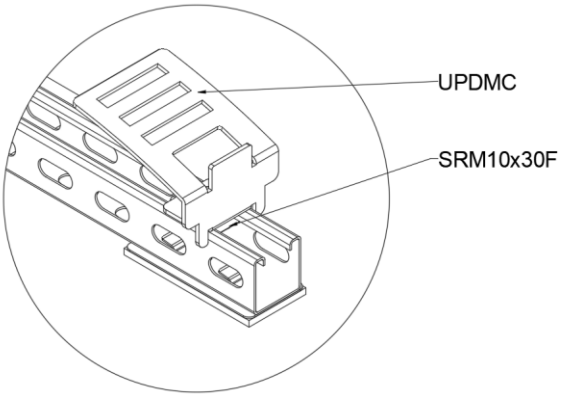
1


CMP41H41/...MC
PC50P

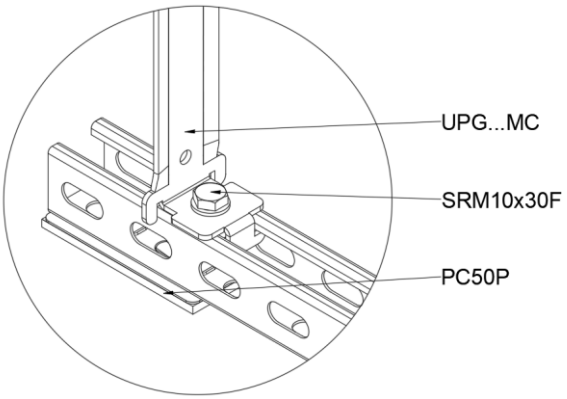
2


SPM2
+PW8E
+PS8E
+NSM8E

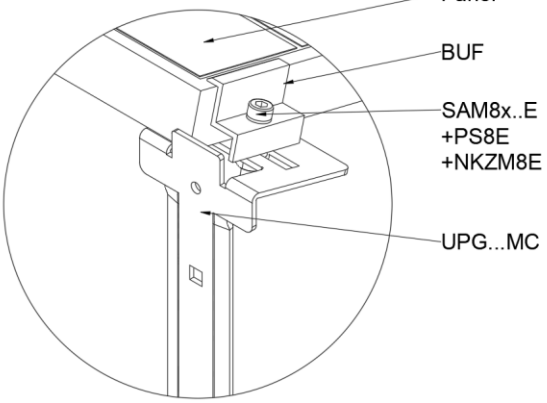
3


UPDMC
SRM10x30F

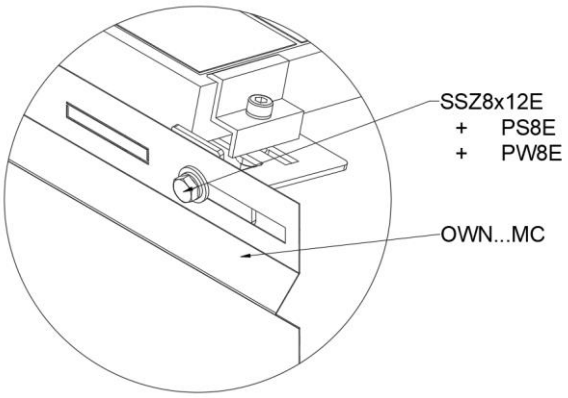
4


UPG...MC
SRM10x30F
PC50P

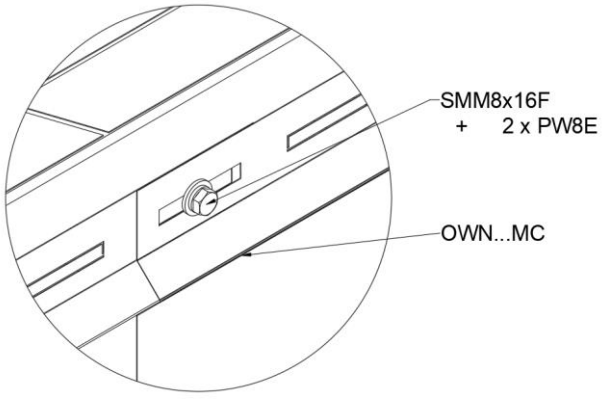
5


Panel
BUF
SAM8x..E
+PS8E
+NKZM8E
UPG...MC

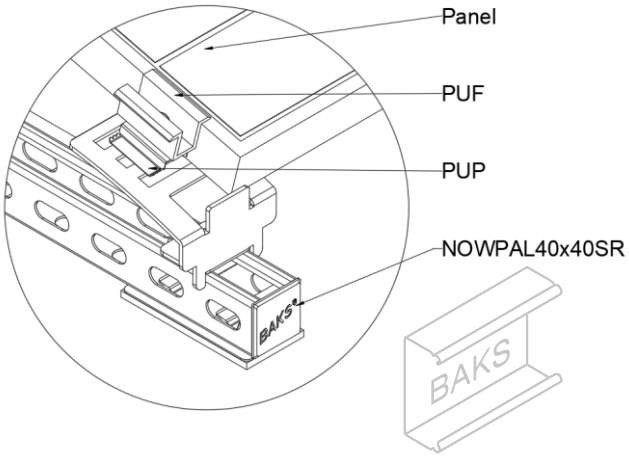
6


SSZ8x12E
+ PS8E
+ PW8E
OWN...MC

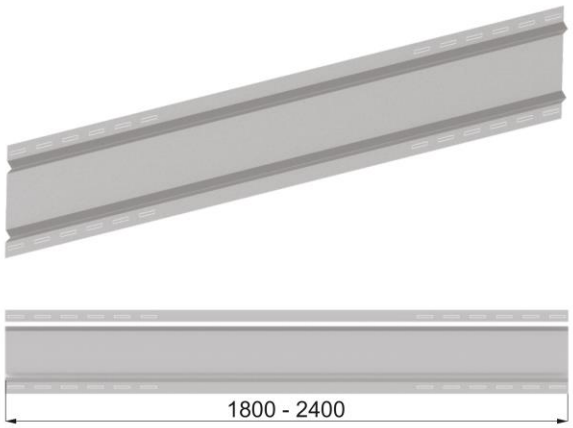
7


SMM8x16F
+ 2 x PW8E
OWN...MC

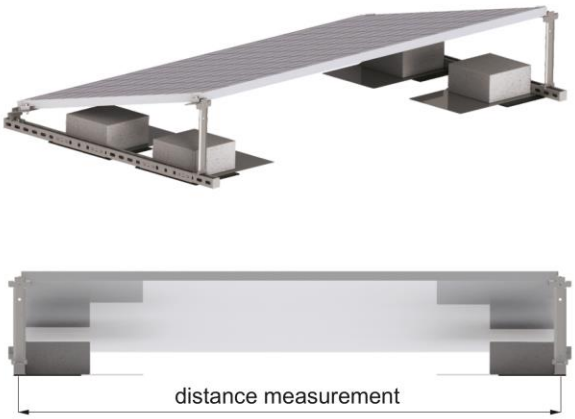
8


Panel
PUF
PUP
NOWPAL40x40SR
BAKS

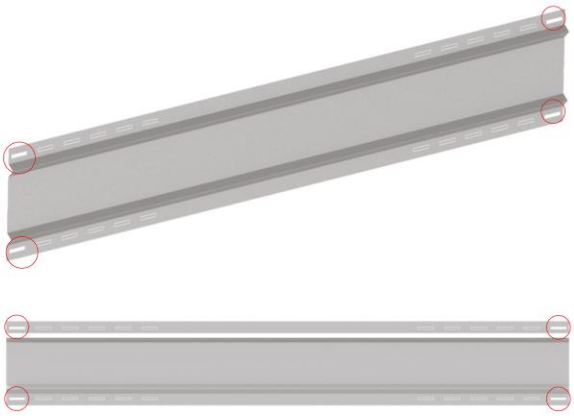
Installation instructions for wind shields in constructions DP - DNH...N



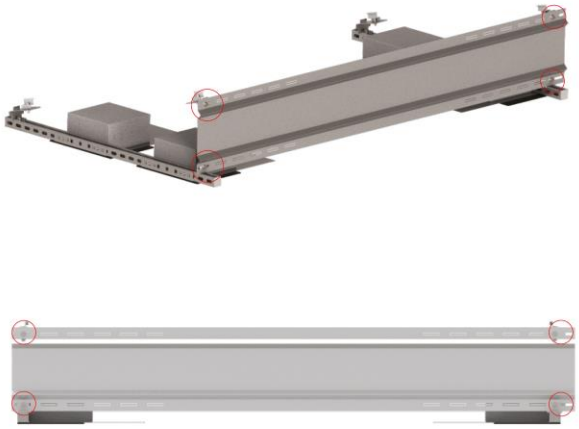
1. The length of the shields is selected based on: panel length + 60 mm



2. Measure the distance between the axes of the UPG...MC holders to which the panel is mounted.



3. Use a flat-bladed screwdriver to break out of the holes in the shield that overlap with the holes of the UPG...MC holders from point 2.



4. Attach the shield to the UPG...MC holders and tighten it with M8 screws into the threaded holes of the holders.



5. Mounted shield.



6. When assembling a sequence of panels, neighbouring shields are to be tightened with shared M8 screws, repeating steps 3,4.

BAKS