

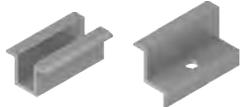
Mounting structures for the installation of photovoltaic panels on sloping roofs



Structure systems for sloping roofs for different types of roof plating:

- metal tiles sheets or corrugated metal sheets, System: **DS-V1N, DS-H1N**
- sheets metal seam plates, System: **DS-V2N, DS-H2N**
- bituminous tiles, System: **DS-V3N, DS-H3N**
- ceramic tiles, System: **DS-V4N, DS-H4N**
- scale-shaped tiles, System: **DS-V5N, DS-H5N**
- trapezoidal metal sheets, System: **DS-V6aN, DS-H6aN, DS-V6bN, DS-H6bN, DS-V6cN, DS-H6cN**

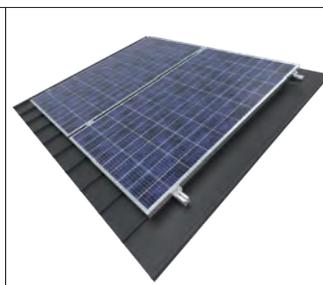
Examples of system components:

 <p>Aluminum Profile PAL40H40</p>	 <p>Aluminum Mounting Rail SMA40/033</p>	 <p>Aluminum Mounting Rail SM400</p>	 <p>Middle and Side Holders PUF and BUF...</p>
 <p>Adjustable Roof Fixing DUR40E</p>	 <p>Roof Fixing DUF60E</p>	 <p>Roof Fixing DUF75E</p>	 <p>Holder for Seam sheets Roofing UBZRE...</p>

Advantages of the structures for mounting photovoltaic panels on sloping roofs

- variable adjustment and longitudinal profile perforation allows for trouble-free and quick installation of the structure even in case of unevenness on the roof
- specially profiled holders provide a stable and strong connection to the roof structure or plating
- all structure elements made of stainless steel are subjected to abrasive treatment, which guarantees an aesthetic appearance
- the structure elements are ready for use after taking them out of the packaging and do not require additional completion
- products made in Poland

Systems:

 <p>DS-V1N</p>	 <p>DS-V2N</p>	 <p>DS-V3N</p>	 <p>DS-V4N</p>
 <p>DS-V5N</p>	 <p>DS-V6aN</p>	 <p>DS-V6bN</p>	



Mounting structure for the installation of photovoltaic panels
 on sloping roofs covered with metal tiles sheets or corrugated metal sheets
System: DS-V1N



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with metal tiles sheets or corrugated metal sheets

Technical description:

Materials of the support system:

A- Aluminium

E- Stainless steel

F- Steel in zinc flake coating

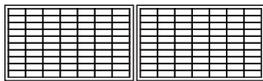
Structure tested for strength.

Installation of double-threaded screws for roof rafters.

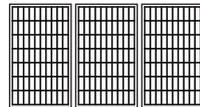
Recommended spacing between screws 0,8 - 1 m.

Arrangement of the modules:

· horizontal - H



· vertical - V



Advantages:

- wide range of height adjustment of aluminium profiles in relation to the roof thanks to the long, threaded part of the screw
- additional adjustment of the aluminium profiles thanks to the longitudinal hole in the AD...E adapter
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section
- double-threaded screws fitted with rubber to ensure basic sealing of the hole in the roof tiles

Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A

Labels in the drawing: BUF... / PUF, SAM8x...E, NKWSM8A, PAL40H40/..., LPAN40, SSZ10x20E + NKZM10E, AD11E, SWDM10x250E, Rafter.

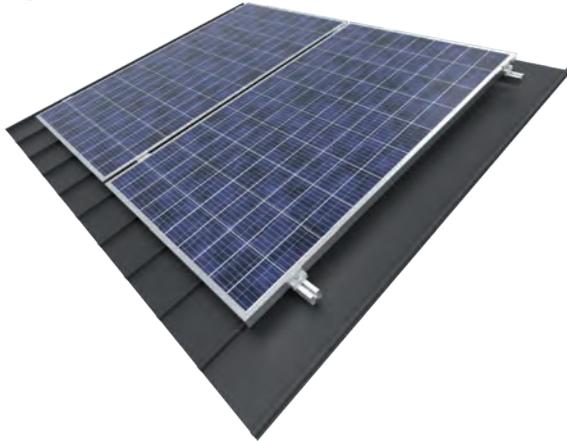
Component list for (DS-H1N) and (DS-V1N)

CODE	4 panels (~1700/1000 mm) (DS-H1N)	4 panels (~1700/1000 mm) (DS-V1N)
	pcs	pcs
PAL40H40/2,2	2	4
PAL40H40/3,3	3	-
LPAN40	8	4
SWDM10x250E	18	12
AD11E	18	12
SSZ10x20E	18	12
NKZM10E	18	12
BUF...	4	4
PUF	6	6
SAM8x...E	10	10
NKWSM8A	10	10

Detailed information on the products can be found on pages 47-75



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with sheets metal seam plates
System: DS-V2N



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with sheets metal seam plates.

Technical description:

Materials of the support system:

A- Aluminium

E- Stainless steel

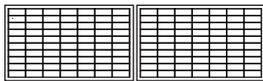
F- Steel in zinc flake coating

Structure tested for strength.

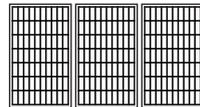
The holders should be mounted to the first three seams, counted from the edge of each row of panels and then every second seam.

Arrangement of the modules:

· horizontal - H



· vertical - V



Advantages:

- installation of the structure to the seam without interfering with the structure of the roof plating
- quick installation of the holders without the need to locate the rafters
- different versions of holders for sheets metal to ensure stable installation with most sheets metal seam plates systems
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section

Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A

Labels in the drawing: BUF... / PUF, SAM8x...E, NKWSM8A, PAL40H40/..., LPAN40, SSZ10x20E + NKZM10E, UBZR..., Rafter.

Component list for (DS-H2N) and (DS-V2N)

CODE	4 panels (~1700/1000 mm) (DS-H2N)	4 panels (~1700/1000 mm) (DS-V2N)
	pcs	pcs
PAL40H40/2,2	2	4
PAL40H40/3,3	3	-
LPAN40	8	4
UBZR...	16	12
SSZ10x20E	16	12
NKZM10E	16	12
BUF...	4	4
PUF	6	6
SAM8x...E	10	10
NKWSM8A	10	10

Detailed information on the products can be found on pages 47-75



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with bituminous tiles
System: DS-V3N



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with bituminous tiles.

Technical description:

Materials of the support system:

A- Aluminium

E- Stainless steel

F- Steel in zinc flake coating

Structure tested for strength.

Installation of screws for roof rafters.

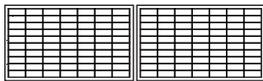
Recommended spacing between holders 0.8 - 1 m.

Advantages:

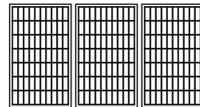
- the shape of the holders ensures high stability of the structure
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section

Arrangement of the modules:

· horizontal - H



· vertical - V



Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met

Detail A

Component list for (DS-H3N) and (DS-V3N)

CODE	4 panels (~1700/1000 mm) (DS-H3N)	4 panels (~1700/1000 mm) (DS-V3N)
	pcs	pcs
PAL40H40/2,2	2	4
PAL40H40/3,3	3	0
LPAN40	8	4
DUF60E	18	12
DDW6x60E	36	24
SSZ10x20E	18	12
NKZM10E	18	12
BUF...	4	4
PUF	6	6
SAM8x...E	10	10
NKWSM8A	10	10

Detailed information on the products can be found on pages 47-75



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with ceramic tiles
System: DS-V4N



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with bituminous tiles.

Technical description:

Materials of the support system:

A- Aluminium

E- Stainless steel

F- Steel in zinc flake coating

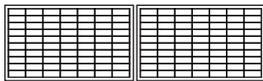
Structure tested for strength.

Installation of holders with screws for roof rafters.

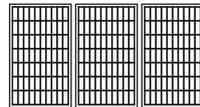
Recommended spacing between holders 0.8 - 1 m.

Arrangement of the modules:

· horizontal - H



· vertical - V



Advantages:

- wide adjustment range of the holders thanks to longitudinal holes in each of the 3 elements of the holder
- dense holes in the part directly adjacent to the roof truss ensure that the holder can be adjusted and correctly positioned in relation to the tiles so that the hook is in the middle of the tiles mounted below
- elongated middle arm of the holder allows the hooks to be mounted on the majority of ceramic and concrete roof tiles available on the market
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section

Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A

Labels in the drawing: SAM8x...E, NKWSM8A, PAL40H40..., LPAN40, SSZ10x20E + NKZM10E, DUR40E, SGKM10x20E (w kpl. z DUR40E), BUF... / PUF, DDW8x100, Rafter, A.

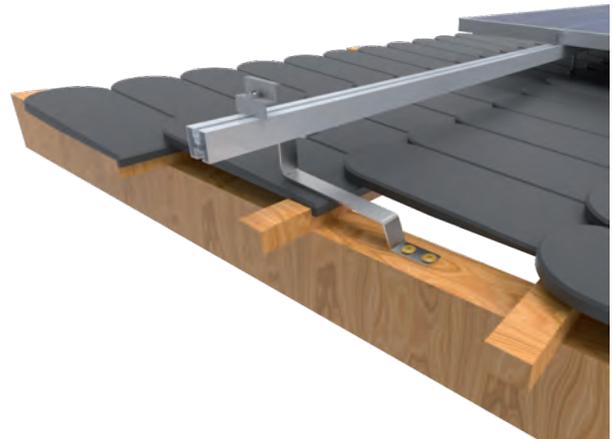
Component list for (DS-H4N) and (DS-V4N)

CODE	4 panels (~1700/1000 mm) DS-H4N	4 panels (~1700/1000 mm) DS-V4N
	pcs	pcs
PAL40H40/2,2	2	4
PAL40H40/3,3	3	-
LPAN40	8	4
DUR40E	18	12
DDW8x100	36	24
SSZ10x20E	18	12
NKZM10E	18	12
BUF...	4	4
PUF	6	6
SAM8x...E	10	10
NKWSM8A	10	10

Detailed information on the products can be found on pages 47-75



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with scale-shaped tiles
System: DS-V5N



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with scale-shaped tiles.

Technical description:

Materials of the support system:

A- Aluminium

E- Stainless steel

F- Steel in zinc flake coating

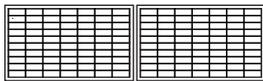
Structure tested for strength.

Installation of holders with screws for roof rafters.

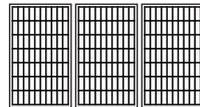
Recommended spacing between holders 0.8 - 1 m.

Arrangement of the modules:

· horizontal - H



· vertical - V



Advantages:

- elongated arm of the holder allows the hooks to be mounted on the majority of ceramic and concrete roof tiles available on the market
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section.

Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A

Labels in the drawing: BUF... / PUF, SAM8x...E, NKWSM8A, PAL40H40/..., LPAN40, SSZ10x20E, NKZM10E, DUF75E, Rafter, DDW8x100, DUF75E.

Component list for (DS-H5N) and (DS-V5N)

CODE	4 panels (~1700/1000 mm) (DS-H5N)	4 panels (~1700/1000 mm) (DS-V5N)
	pcs	pcs
PAL40H40/2,2	2	4
PAL40H40/3,3	3	-
LPAN40	8	4
DUF75E	18	12
DDW8x100	36	24
SSZ10x20E	18	12
NKZM10E	18	12
BUF...	4	4
PUF	6	6
SAM8x...E	10	10
NKWSM8A	10	10

Detailed information on the products can be found on pages 47-75



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with trapezoidal metal sheets - high rail
System: DS-V6aN



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with trapezoidal metal sheets.

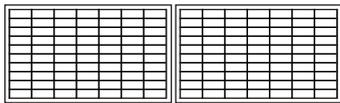
Technical description:

Materials of the support system:

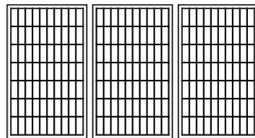
- A- Aluminium
 - E- Stainless steel
 - F- Steel in zinc flake coating
- Structure tested for strength.

Arrangement of the modules:

· horizontal - H



· vertical - V



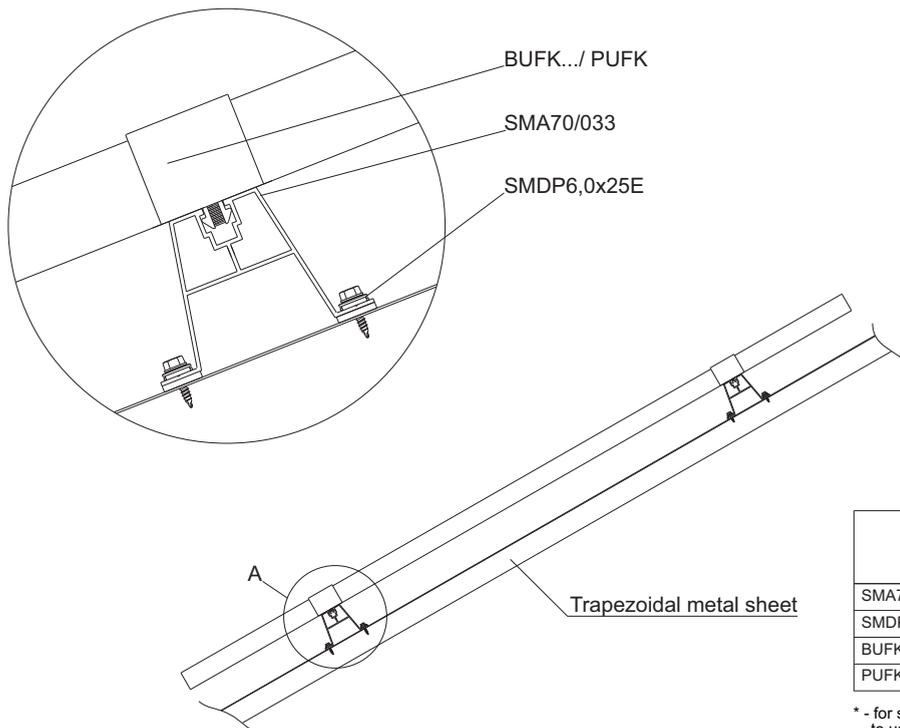
Advantages:

- quick installation of the structure using threaded screws directly to the trapezoidal metal sheets without the need to locate the rafters
- very economical design with a small number of components
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section

Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A



Component list for (DS-H6aN) and (DS-V6aN)

CODE	4 panels (~1700/1000 mm) (DS-H6aN)	4 panels (~1700/1000 mm) (DS-V6aN)
	pcs	pcs
SMA70/033**	10	10
SMDP6,0x25E*	40	40
BUFK...	4	4
PUFK	6	6

* - for sheets thickness less than **0,7 mm** it is recommended to use aluminium rivets **NITZP5,2x17,5A**
 ** - a **40 mm** mounting rail **SMA40/033** is also available



Mounting structure for the installation of photovoltaic panels on sloping roofs covered with trapezoidal metal sheets - low rail
System: DS-V6bN



Structure description

Complete support system for any number of PV panels in a vertical arrangement on a sloping roof covered with trapezoidal metal sheets

Technical description:

Materials of the support system:

- A- Aluminium
 - E- Stainless steel
 - F- Steel in zinc flake coating
- Structure tested for strength.

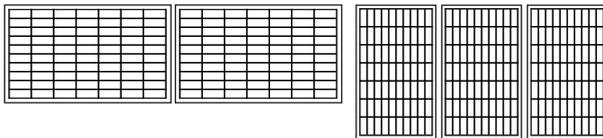
Advantages:

- quick installation of the structure using threaded screws directly to the trapezoidal metal sheets without the need to locate the rafters
- very economical design with a small number of components
- the elements are made of stainless steel and aluminium, which guarantees very high corrosion resistance
- high stability of the structure thanks to the aluminium profile with a specially profiled section

Arrangement of the modules:

• horizontal - H

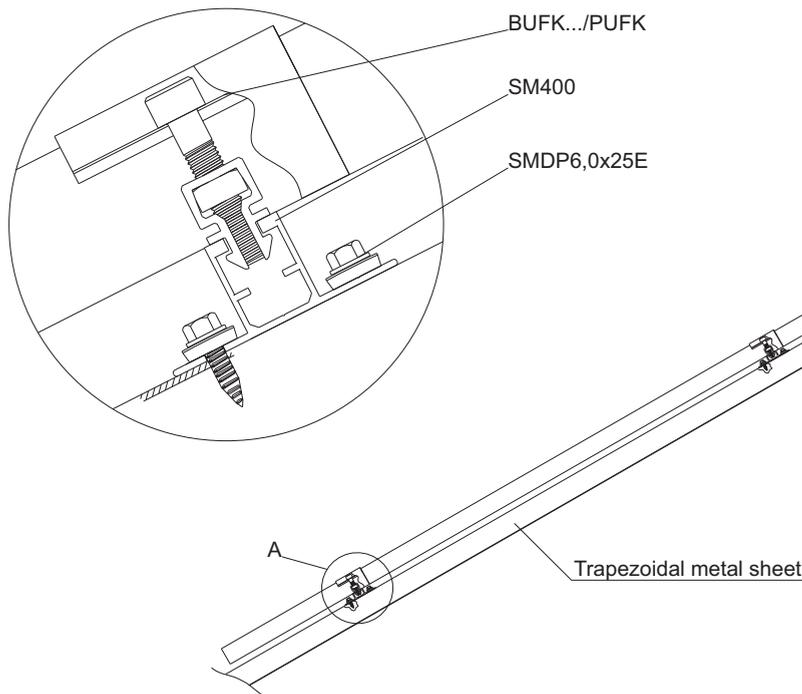
• vertical - V



Warranty

BAKS provides a 10 year warranty period for the components included in the support structure only if all conditions of the manufacturer's warranty are met.

Detail A



Component list for (DS-H6bN) and (DS-V6bN)

CODE	4 panels (~1700/1000 mm) (DS-H6bN)	4 panels (~1700/1000 mm) (DS-V6bN)
	pcs	pcs
SM400	10	10
BUFK...	4	4
PUFK	6	6
SMDP6,0x25E*	40	40
* ALTERNATIVELY		
NITZP5,2x17,5A	40	40

* - for sheets thickness less than 0,7 mm it is recommended to use aluminium rivets NITZP5,2x17,5A
 - mounting rails SM400 are not equipped with EPDM rubber... For installation EPDMW2x40 rubber is recommended.