

Flat roof structures (FR)

08

## Welded structure

FR-W-PS-S/V/LAZ/MAX-LONG1950

### TYPE

Projected (PS)

### MODULE DIRECTION

South (S)

### MODULE LAYOUT

Vertical (V)

### INSTALLATION

Long side (LAZ)

### MAX PV MODULE LENGTH

1950



SEE ONLINE →



### DESCRIPTION

- A multi-part construction made of Magnelis™ sheet metal, designed for flat roofs without the need for additional ballast.
- Created with the involvement of a specialist in membrane roof installation.
- Its unique shape is designed to significantly reduce installation time and maximize the force required to tear out the base.
- Non-invasive installation using welding technology with a so-called leister (for PVC) or a gas burner (for bitumen).
- The high durability of the welded system is confirmed by specialized laboratory tests.
- For proper installation, only one welded base is required per support.
- Optionally – a hybrid system that allows for welding the base and simultaneously loading the wind deflector with ballast (in roof zones particularly exposed to wind suction).
- In the case of installing PV modules in a horizontal layout, an additional element is the ZET profiles with slot holes, to which the modules are mounted using clamps and M8 hex socket screws.

At the customer's request, each installation using a structure is calculated by our Technical Department in terms of its load for a given roof, the method of installation and the number of bases that must be welded to the membrane.

Installation requires a wind deflector, which limits the effect of wind on the structure and ensures its rigidity.

## Flat roof structures (FR)



## CHARACTERISTICS

## FR-W-PS-S/V/LAZ/MAX-LONG1950

Roof type	Flat roof (FR)
Method of mounting the structure on the roof	Welded (W)
Type of construction	Projected (PS)
Module orientation	South (S)
Module layout	Vertical (V)
How to install a PV module <sup>1</sup>	Long side (LAZ)
Application/substrate on which it is mounted	PVC membrane/bituminous membrane
Method of assembly	The base of the structure is welded to the roof surface
Does the structure require additional ballast?	No
Is it possible to apply the hybrid solution (weld + ballast)?	Yes - possibility of additional ballasting of the wind tower
Approximate weight of the structure per 1m <sup>2</sup> of installation without additional ballast (kg/m <sup>2</sup> ) <sup>2</sup>	~16,5
Purlin length (mm)	X
Wind brace length (mm)	X
Maximum PV module length (mm) <sup>3</sup>	X
How to install the clamps	Clamps mounted to the triangle - key system
Method of distribution	Custom construction made to order with a lead time of up to 4 weeks for modules with lengths as specified in the product sheet sent for quotation.

<sup>1</sup> the proposed installation method for a given type of module may differ from the installation method provided by the PV module manufacturer, whose recommendations and recommendations determine the proper installation.

<sup>2</sup> weight calculated for a system of three modules in one row with the maximum dimensions for a given type of structure

<sup>3</sup> the given maximum size of the module and the proposed method of its installation may differ from the installation method provided by the PV module manufacturer, whose recommendations and recommendations determine the proper installation

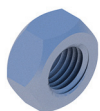
## Flat roof structures (FR)

### LIST OF PARTS - BASE OF CONSTRUCTION



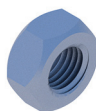
Welded base  
for support

**RBTSOLAR-KD-PZ**



Hexagonal nut  
M10 IE

**NM10Z**



Hexagonal nut  
M8 IE

**NM8Z**



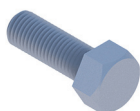
Washer M10 300HV  
ISO7093-1 IE

**PSZM10Z**



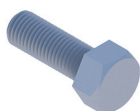
Washer M8 300HV  
ISO7093-1 IE

**PPM8Z**



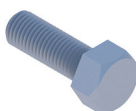
Screw  
M8X97 IE

**SM8X97Z**



Hexagonal screw  
M8X25 IE

**SM8X25Z**



Hexagonal screw  
M10X20 IE

**SM10X20Z**



Purlin for support  
L=X

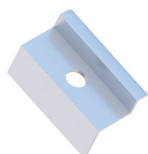
**RBTSOLAR-KD-PL-X**

### LIST OF PARTS - OTHER INSTALLATION ELEMENTS



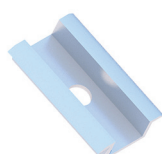
Sheet metal screw  
OC 5.5X25 EPDM

**BLW55X25EPDMZ**



End clamp  
30/32/35/40  
Nature/Black

**KLK50/30(32/35/40)ALN**  
**KLK50/30(32/35/40)ALCZ**



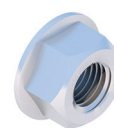
Middle clamp  
50 universal  
Nature/Black

**KLRS50ALN**  
**KLRS50ALCZ**



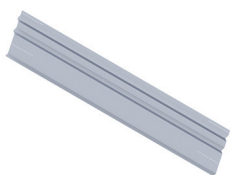
Allen screw  
M8X35 DIN912 A2

**SIM8X35A2**



Flange nut  
serrated  
M8 DIN6923 A2

**NKM8A2**



Windchest  
South support  
L=X

**RBTSOLAR-KD-W-X**