

SUN BALLAST



Supporting solar innovation

Patented systems - Made in Italy

PRODUCT CATALOG

Ideal **support**
for **Photovoltaic modules**
on a flat roof



Three good reasons to choose Sun Ballast®:

Reduces installation time by up to 70%

Sun Ballast structures perform both the support function and anchoring ballasts of the photovoltaic modules. No holes in the cover and nothing to assemble, therefore cost per kW cut.

Wide range of inclinations

More than 40 models of ballasts in the catalog with inclinations ranging from 0° to 35°. Products always available and delivered in a few days in Italy and in the rest of Europe.

Free technical assistance

Sun Ballast Technical Department offers free of charge: the technical drawing of the photovoltaic system, the bill of materials, wind calculation and system stability checks.

Product description	03 - 08
Sun Ballast technical sheets	09 - 60
5° Connect system	11 - 12
5° Sail-shaped connect system	13 - 14
10° Connect system	15 - 16
10° Vertical connect system	17 - 18
15° Connect system	19 - 20
20° Connect system	21 - 22
30° Connect system	23 - 24
Ballast 0°.K	25 - 26
Ballast 3°.K	27 - 28
Ballast 5°	29 - 30
Ballast 5°.2	31 - 32
Ballast 5°.3	33 - 34
Ballast 5°.4	35 - 36
Ballast 5°.5	37 - 38
Ballast 5°.6	39 - 40
Ballast 10°. V	41 - 42
Ballast10°.L	43 - 44
Ballast 11°.K	45 - 46
Ballast 11°.2	47 - 48
Ballast 11°.3	49 - 50
Ballast 15°	51 - 52
Ballast 20°	53 - 54
Ballast 30°.1	55 - 56
Ballast 35°	57 - 58
Accessories	59 - 64
Sheaths	60
Cablowind	60 - 62
Clamps	63
Additional weights 30 Kg	64
Ballast accessories	64
Fields of Application	65
Technical assistance	66
Distributors	67 - 68
Safety Indications	69
Technical Requirements Declaration	70
Product Warranty	71 - 72



THE IDEAL SOLUTION FOR FLAT SURFACES



PRODUCT DESCRIPTION



Basic srl, is a leading Italian company in the production of structures and accessories for photovoltaic systems. Since 2012 it has offered a valid alternative to traditional systems on the market, presenting an innovative product: Sun Ballast, the support structure for photovoltaic modules on a flat roof.

The products of the Sun Ballast range are born from years of direct experience of the same creators, who, clashing with the real

problems of installation and assistance, were pushed to search for solutions new, placing itself as a prerogative to create a system capable of combining safety and practicality, to the purpose of facilitating and harmonizing Designers, Installers and Maintenance Technicians.

Basic SRL supplies its products to small and large companies in Italy and throughout Europe with very short delivery times and low costs.



Sun Ballast, Innovative, efficient and modular, is the ideal support for photovoltaic panels on flat roofs, clay, asphalt and pavements with a maximum slope of 5°. It can be easily adapted to panels of any size and type.

With the appearance of a wedge, Sun Ballast is structured as a single piece, not only as a support but also as a ballast for the panel.

Sun Ballast is structured not only to be the ideal support solution for photovoltaic panels, but also to act as ballast for the panel.

The system does not provide for the use of aluminum profiles or other accessories that involve a preassembly phase, its simplicity is the main feature from which the numerous technical and economic advantages of Sun Ballast derive.

With Sun Ballast, laying and installation times are reduced by up to 70% compared to traditional solutions on the market.

It is a modular system both in terms of inclinations and weight, thanks to the wide range of existing Sun Ballast models: 0°.K, 3°.K, 5°, 5°.2, 5°.3, 5°.4, 5°.5, 5°.6, 10°.L, 10°.V, 11°.K, 11°.2, 11°.3, 15°, 20°, 30°.1, 35°, models that allow you to lay the modules in the various possible combinations: horizontal, vertical or east-west for example.

The weight modulation is done thanks to the possibility of doubling the weights by coupling them or by inserting additional weights, this gives the big advantage of going to insert the weights only in the most suitable areas without unnecessarily loading the roof and in order to satisfy the verification of resistance to wind actions.

Basic srl is able to offer a free consultancy service in the preventive evaluation phase, to help its customers and / or designers to orient themselves towards a considered choice, making available and comparing their own technical skills on the subject.

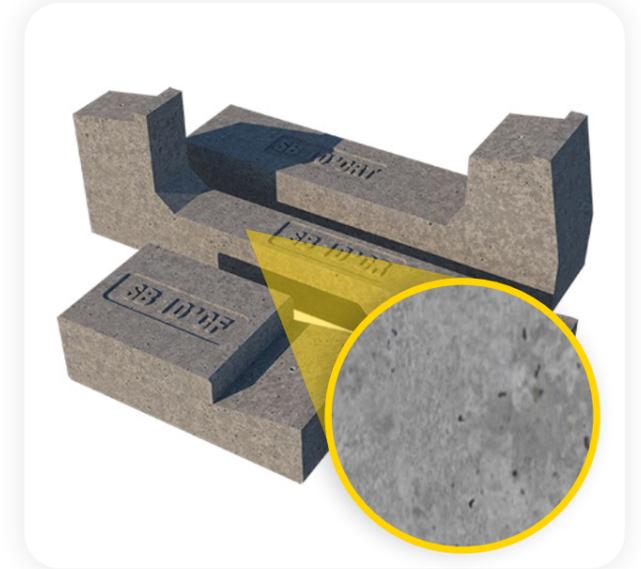
PRODUCT DESCRIPTION



Resistant materials

The main material of Sun Ballast is concrete. With this type of material it is possible to obtain a durable product thanks to low wear over time and also has the ability to withstand even the most intense perturbations and different climatic conditions.

In addition to the structure, the assembly of Sun Ballast is also simple and immediate, it can be easily placed at the base of the solar panel without the need for additional elements or holes in the roof that could damage the surface or affect its waterproofing.



Low costs

The installation costs of photovoltaic panels are generally high also due to the presence of various accessories and junction elements. Sun Ballast, thanks to the minimal structure and the materials of which it is constituted, does not involve the use of additional accessories for assembly, which, in many cases, has a higher cost than that of the support product itself. With Sun Ballast it will no longer be necessary to change the mounting platform of the panels or add elements but it will be enough to adapt the modular characteristics of Sun Ballast to the type of panel.

A success in line with the times

The success of the Sun Ballast is evident and the sales figures confirm it. The reasons for these excellent performances? Reliability, safety and efficiency, but these are just some of the reasons that push installers and retailers from all over Europe to buy this product. In fact, another feature that distinguishes Sun Ballast is that the company also takes care of applying small precautions to make assembly easier and more effective, a factor that makes the product with a low environmental impact.



TECHNICAL SHEETS



5° CONNECT SYSTEM

Art. 23005.CF/.CR/.CRT



Inclination Angle 5°

Module positioning Horizontal

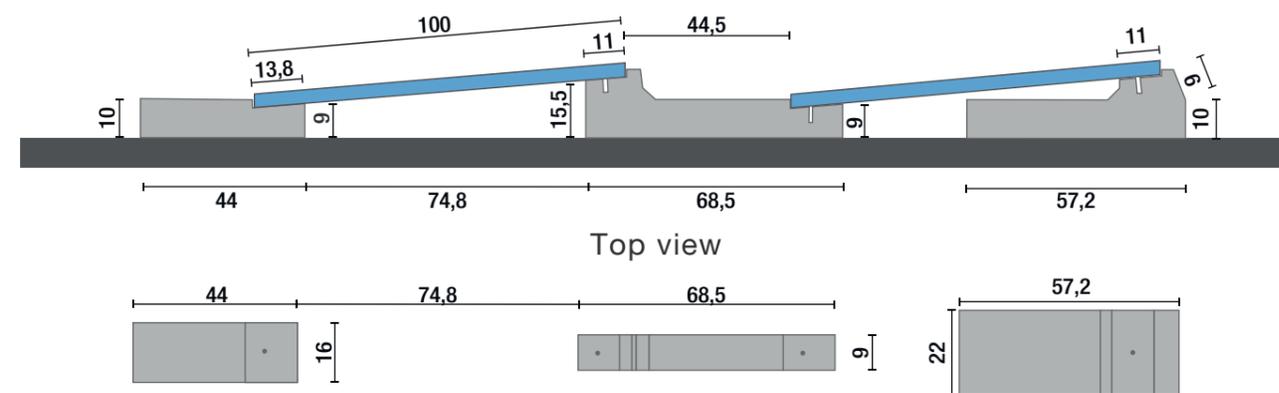
Front Ballast Art. 23005.CF			
Ballast weight	19 kg	Pallet dimensions	70 cm x 98 cm h = 85 cm
Quantity for pallet	32 pieces	Pallet weight	608 kg
Central Ballast Art. 23005.CR			
Ballast weight	16 kg	Pallet dimensions	88 cm x 65 cm h = 70 cm
Quantity for pallet	36 pieces	Pallet weight	576 kg
Terminal Ballast Art. 23005.CRT			
Ballast weight	35 kg	Pallet dimensions	90 cm x 98 cm h = 41 cm
Quantity for pallet	16 pieces	Pallet weight	560 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view

Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

5° SAIL-SHAPED CONNECT SYSTEM

Art. 23005.CF/.CRC/.CRR/.CRTT



Inclination Angle 5°

Module positioning Horizontal

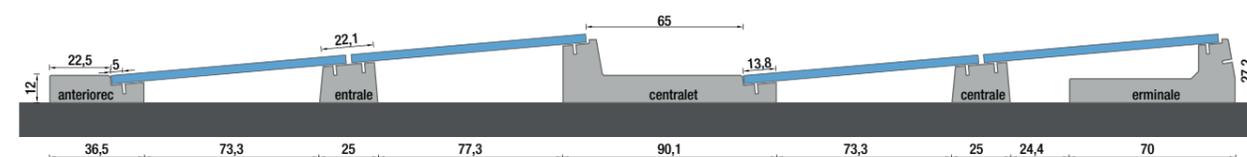
Front Ballast Art. 23005.CF			
Ballast weight	19 kg	Pallet dimensions	70 cm x 98 cm h = 85 cm
Quantity for pallet	32 pieces	Pallet weight	608 kg
Central Ballast Art. 23005.CRC			
Ballast weight	20 kg	Pallet dimensions	70 cm x 98 cm h = 60 cm
Quantity for pallet	24 pieces	Pallet weight	480 kg
Central Ballast Art. 23005.CRR			
Ballast weight	28 kg	Pallet dimensions	90 cm x 98cm h = 49 cm
Quantity for pallet	18 pieces	Pallet weight	504 kg
Terminal Ballast Art. 23005.CRTT			
Ballast weight	33 kg	Pallet dimensions	70 cm x 98 cm h = 90 cm
Quantity for pallet	24 pieces	Pallet weight	792 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view

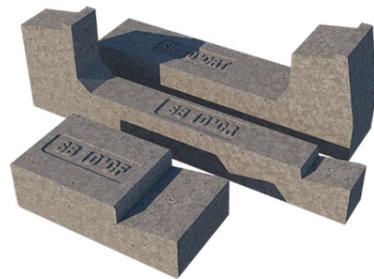


Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

10° CONNECT SYSTEM

Art. 23010.CF/.CR/.CRT



Inclination Angle 10°

Module positioning Horizontal

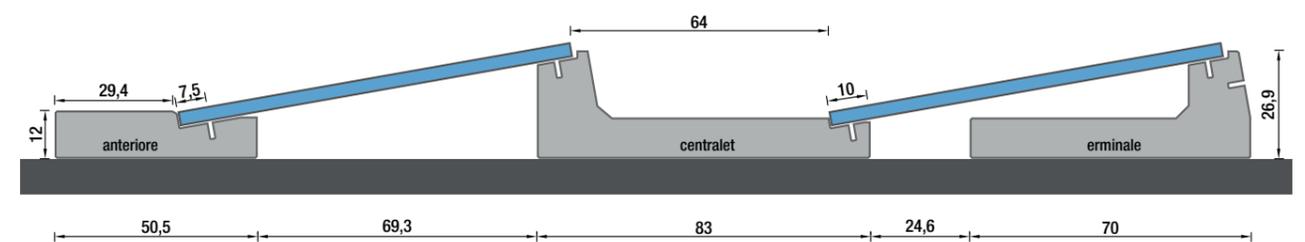
Front Ballast Art. 23010.CF			
Ballast weight	20 kg	Pallet dimensions	90 cm x 98 cm h= 36 cm
Quantity for pallet	24 pieces	Pallet weight	480 kg
Central Ballast Art. 23010.CR			
Ballast weight	22 kg	Pallet dimensions	120 cm x 70 cm h= 46 cm
Quantity for pallet	24 pieces	Pallet weight	528 kg
Terminal Ballast Art. 23010.CRT			
Ballast weight	33 kg	Pallet dimensions	120 cm x 70 cm h= 46 cm
Quantity for pallet	14 pieces	Pallet weight	462 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view

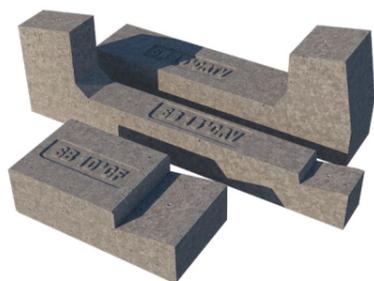


Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

10° CONNECT SYSTEM

Art. 23010.CF/.CRV/.CRTV



Inclination Angle 10°

Module positioning Vertical

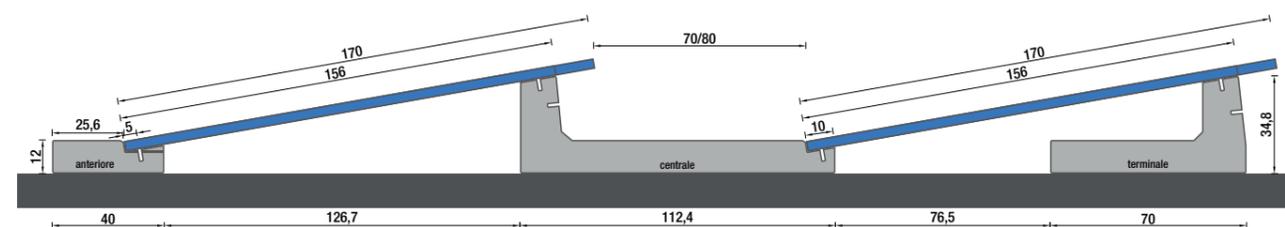
Front Ballast Art. 23010.CF			
Ballast weight	20 kg	Pallet dimensions	90 cm x 98 cm h= 36 cm
Quantity for pallet	24 pieces	Pallet weight	480 kg
Central Ballast Art. 23010.CRV			
Ballast weight	38 kg	Pallet dimensions	84 cm x 98cm h= 60 cm
Quantity for pallet	16 pieces	Pallet weight	608 kg
Terminal Ballast Art. 23010.CRTV			
Ballast weight	33 kg	Pallet dimensions	70 cm x 98 cm h= 60 cm
Quantity for pallet	16 pieces	Pallet weight	528 kg

SYSTEM DETAILS

VERTICAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view



Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

15° CONNECT SYSTEM

Art. 23015.CF/.CR/.CRT



Inclination Angle 15°

Module positioning Horizontal

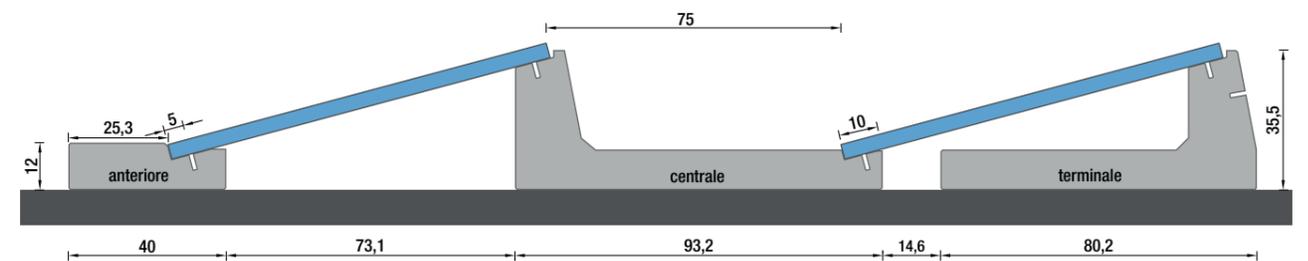
Front Ballast Art. 23015.CF			
Ballast weight	19 kg	Pallet dimensions	70 cm x 98 cm h= 59 cm
Quantity for pallet	32 pieces	Pallet weight	608 kg
Central Ballast Art. 23015.CR			
Ballast weight	29 kg	Pallet dimensions	90 cm x 120 cm h= 61 cm
Quantity for pallet	20 pieces	Pallet weight	580 kg
Terminal Ballast Art. 23015.CRT			
Ballast weight	29 kg	Pallet dimensions	60 cm x 110 cm h= 57 cm
Quantity for pallet	14 pieces	Pallet weight	406 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view

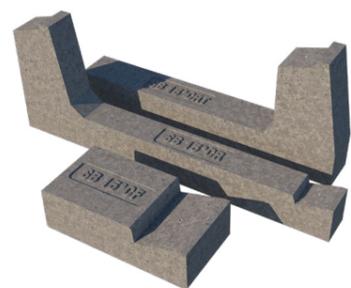


Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

20° CONNECT SYSTEM

Art. 23020.CF/.CR/.CRT



Inclination Angle 20°

Module positioning Horizontal

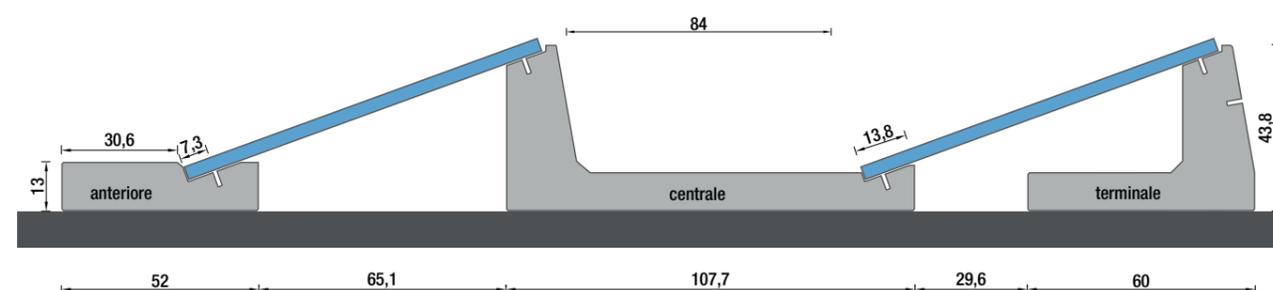
Front Ballast Art. 23020.CF			
Ballast weight	22 kg	Pallet dimensions	70 cm x 98 cm h = 51 cm
Quantity for pallet	30 pieces	Pallet weight	660 kg
Central Ballast Art. 23020.CR			
Ballast weight	33 kg	Pallet dimensions	90 cm x 86 cm h = 68 cm
Quantity for pallet	18 pieces	Pallet weight	594 kg
Terminal Ballast Art. 23020.CRT			
Ballast weight	35 kg	Pallet dimensions	70 cm x 98 cm h = 69 cm
Quantity for pallet	16 pieces	Pallet weight	560 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Top view

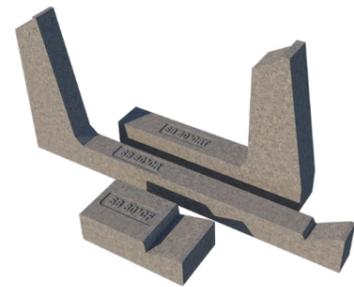


Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

30° CONNECT SYSTEM

Art. 23030.CF/.CR/.CRT



Inclination Angle 30°

Module positioning Horizontal

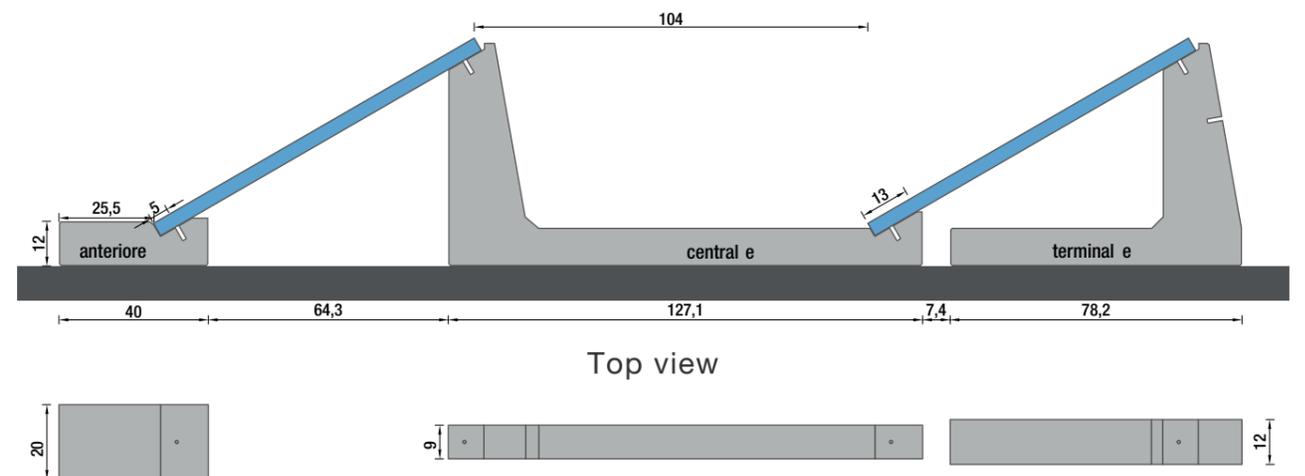
Front Ballast Art. 23030.CF			
Ballast weight	30 kg	Pallet dimensions	80 cm x 60 cm h = 75 cm
Quantity for pallet	30 pieces	Pallet weight	900 kg
Central Ballast Art. 23030.CR			
Ballast weight	45 kg	Pallet dimensions	125 cm x 69 cm h = 68 cm
Quantity for pallet	12 pieces	Pallet weight	540 kg
Terminal Ballast Art. 23030.CRT			
Ballast weight	45 kg	Pallet dimensions	75 cm x 65 cm h = 86 cm
Quantity for pallet	12 pieces	Pallet weight	540 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Fixed distance between rows of modules



Info

- The dimensions shown in the figure are all expressed in centimeters.
- Minimum recommended configuration: 5 rows of 5 panels.
- For short side panel dimensions greater than 1m it is advisable to consult our technical department.
- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- For any information visit the website www.sunballast.com

BALLAST 0°.K

Art. 23000.K



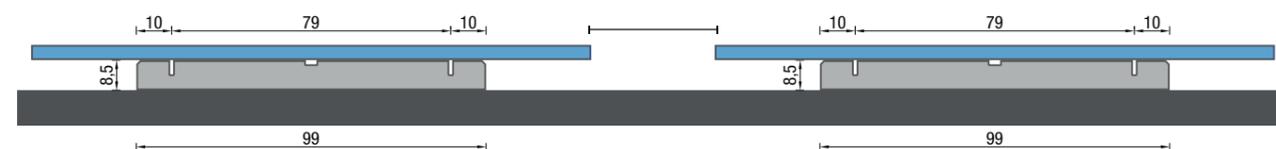
Inclination Angle	0°	Quantity for pallet	18 pieces
Ballast weight	30 kg	Pallet dimensions	90 cm x 98 cm h = 35 cm
Module positioning	Horizontal / Vertical	Pallet weight	540 kg

SYSTEM DETAILS

VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 0 cm



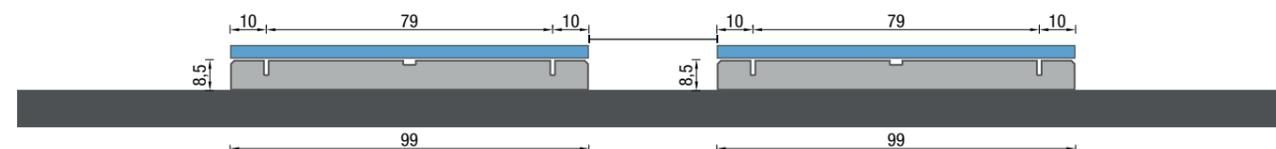
Top view



HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 0 cm

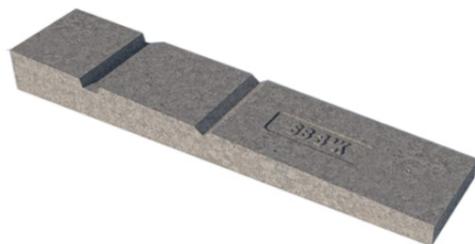


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 3°.K

Art. 23003.K



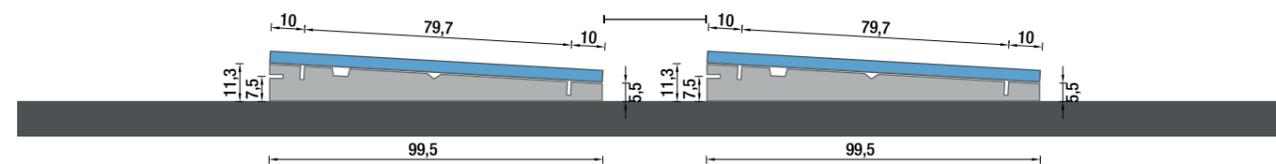
Inclination Angle	3°	Quantity for pallet	12 pieces
Ballast weight	41 kg	Pallet dimensions	88 cm x 65 cm h = 45 cm
Module positioning	Horizontal / Vertical	Pallet weight	492 kg

SYSTEM DETAILS

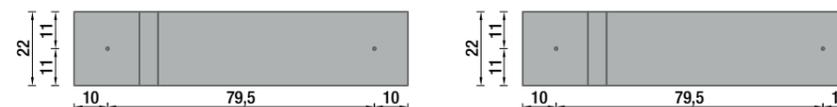
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 15 cm



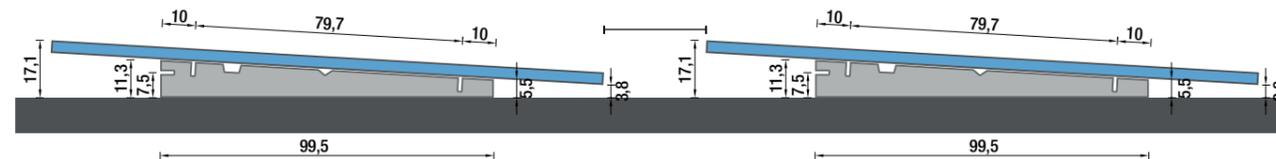
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 15 cm

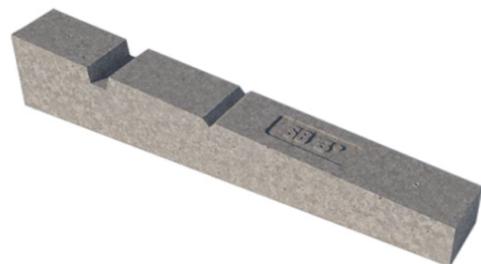


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°

Art. 23005



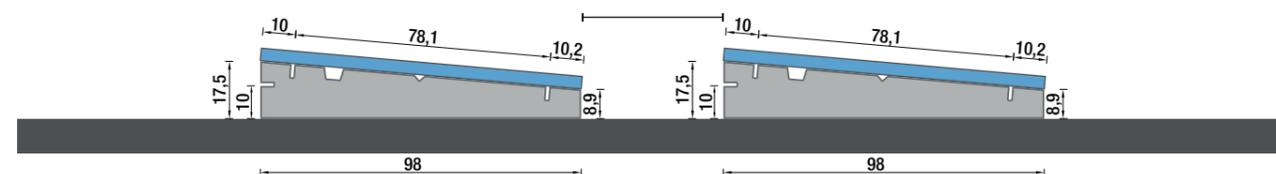
Inclination Angle	5°	Quantity for pallet	14 pieces
Ballast weight	39 kg	Pallet dimensions	90 cm x 98 cm h = 38 cm
Module positioning	Horizontal / Vertical	Pallet weight	546 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



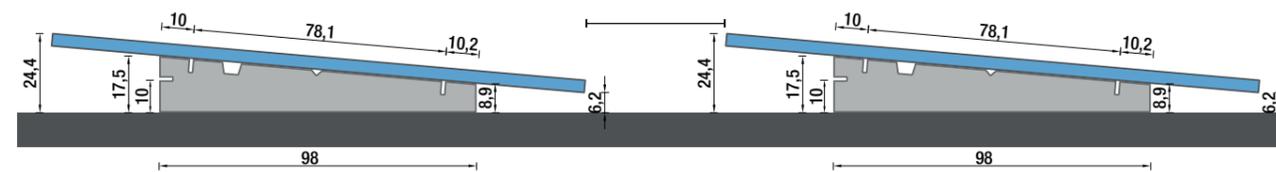
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°.2

Art. 23005.2



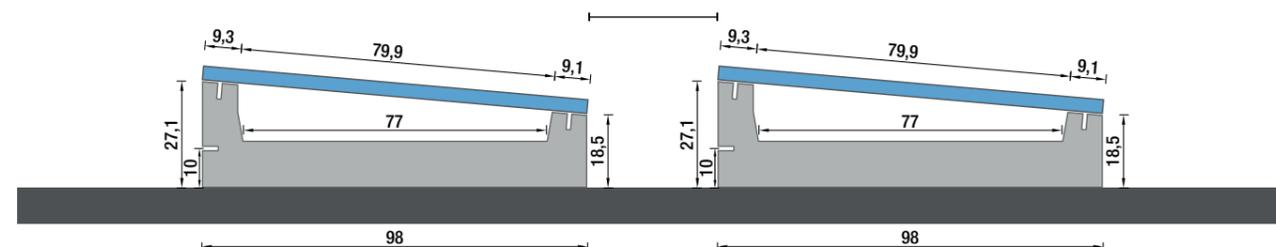
Inclination Angle	5°	Quantity for pallet	14 pieces
Ballast weight	41 kg	Pallet dimensions	100 cm x 98 cm h = 56 cm
Module positioning	Horizontal / Vertical	Pallet weight	574 kg

SYSTEM DETAILS

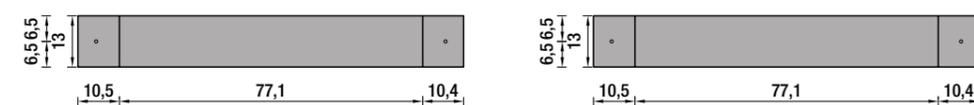
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



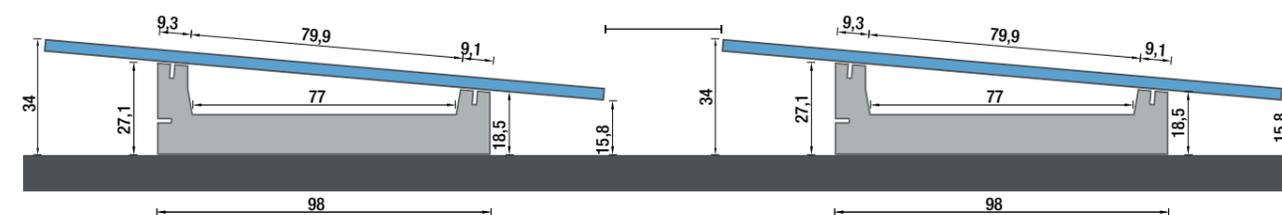
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°.3

Art. 23005.3



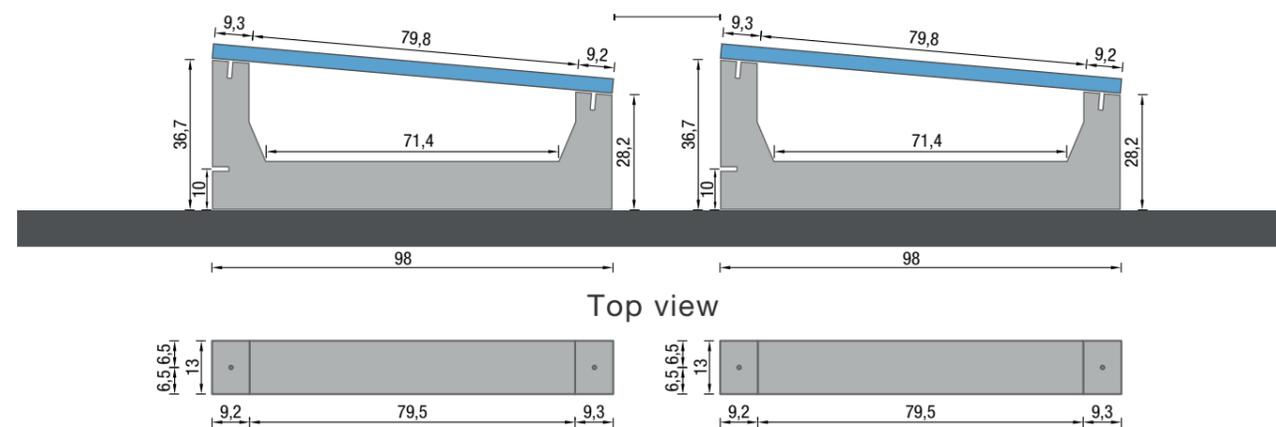
Inclination Angle	5°	Quantity for pallet	12 pieces
Ballast weight	49 kg	Pallet dimensions	84 cm x 98 cm h = 75 cm
Module positioning	Horizontal / Vertical	Pallet weight	588 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

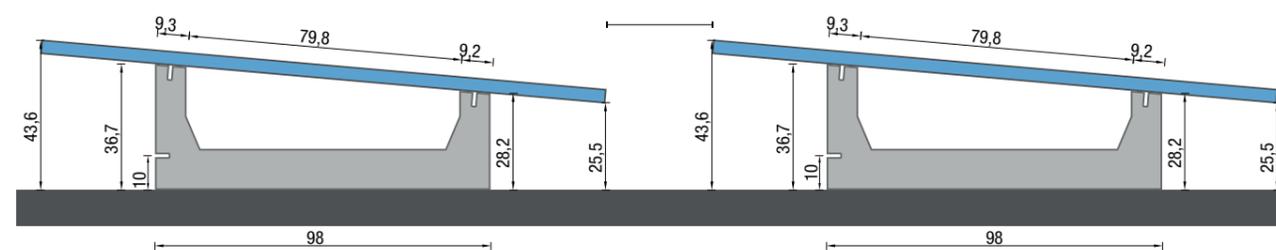
Minimum distance recommended between module rows 60 cm



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm

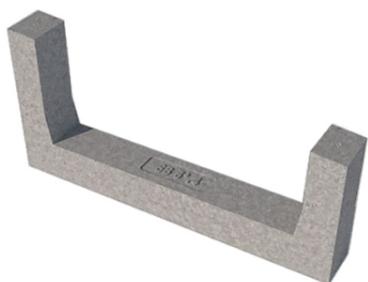


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°.4

Art. 23005.4



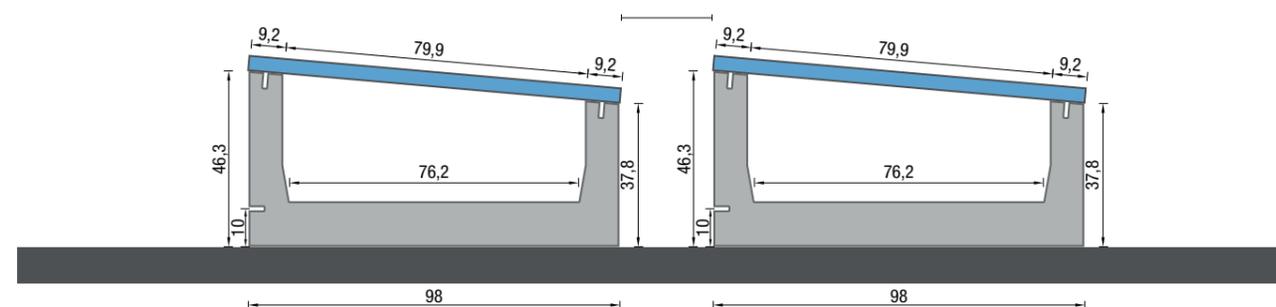
Inclination Angle	5°	Quantity for pallet	10 pieces
Ballast weight	53 kg	Pallet dimensions	70 cm x 98 cm h = 98 cm
Module positioning	Horizontal / Vertical	Pallet weight	530 kg

SYSTEM DETAILS

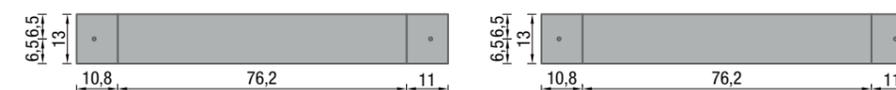
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



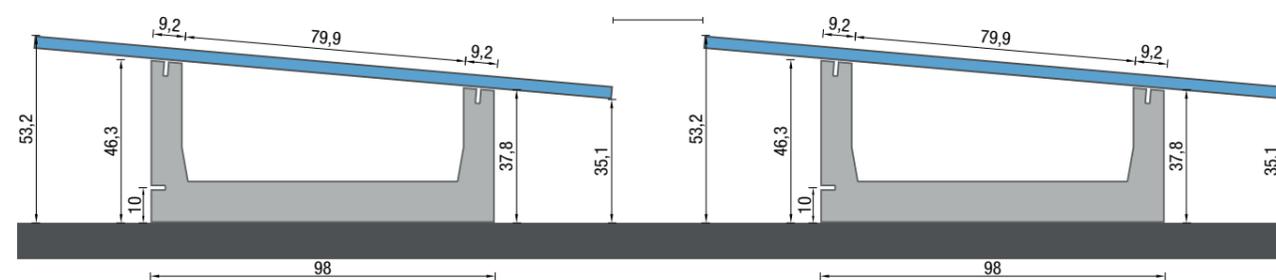
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm

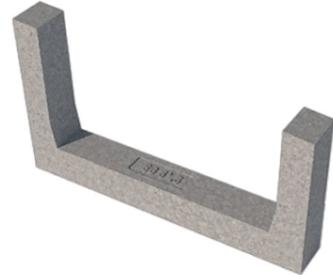


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°.5

Art. 23005.5

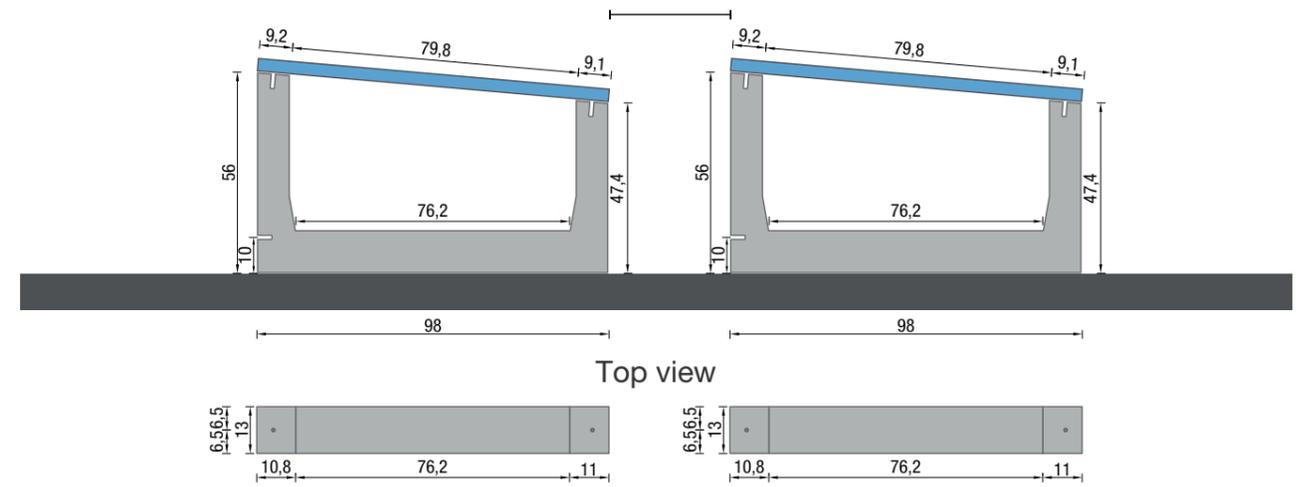


SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

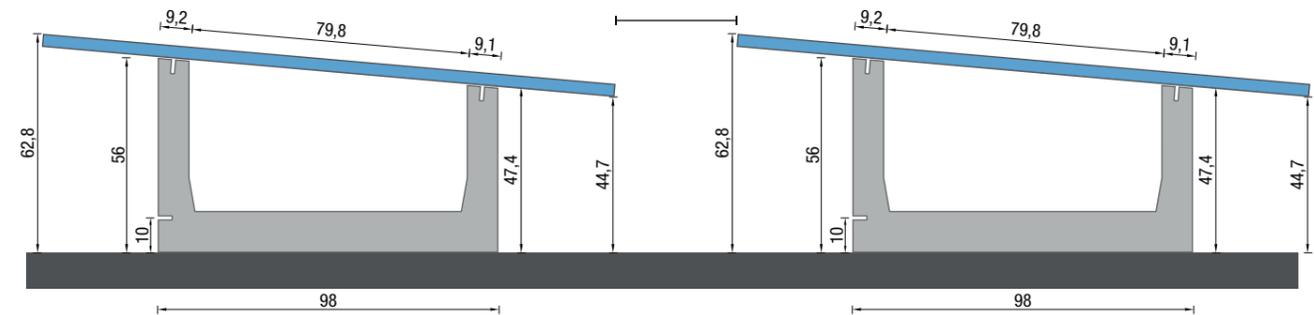
Minimum distance recommended between module rows 60 cm



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm



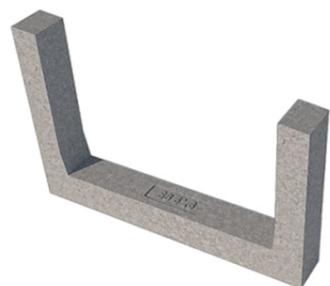
Inclination Angle	5°	Quantity for pallet	10 pieces
Ballast weight	59 kg	Pallet dimensions	110 cm x 60 cm h = 74 cm
Module positioning	Horizontal / Vertical	Pallet weight	590 kg

Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 5°.6

Art. 23005.6



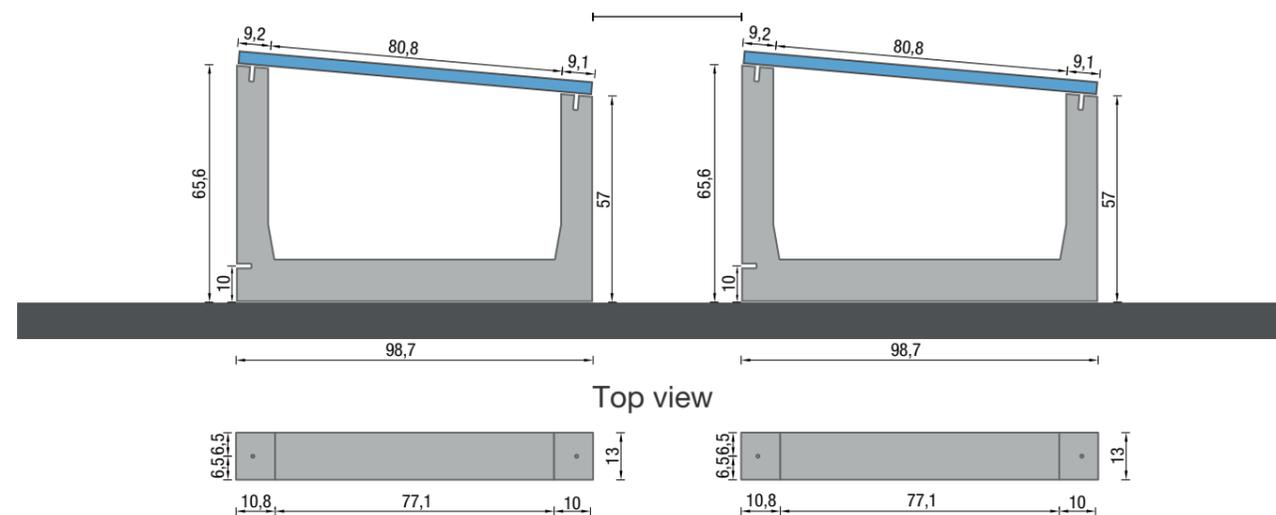
Inclination Angle	5°	Quantity for pallet	8 pieces
Ballast weight	64 kg	Pallet dimensions	110 cm x 60 cm h = 61 cm
Module positioning	Horizontal / Vertical	Pallet weight	512 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

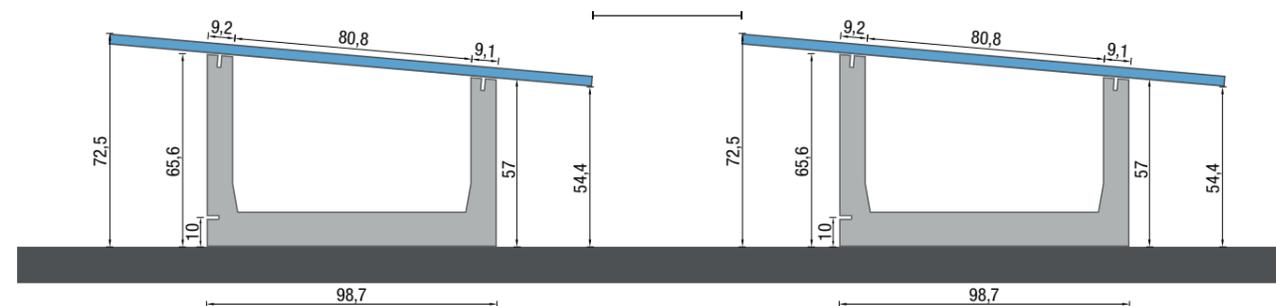
Minimum distance recommended between module rows 60 cm



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 60 cm

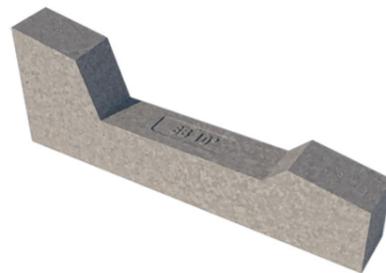


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 10°.V

Art. 23010.V



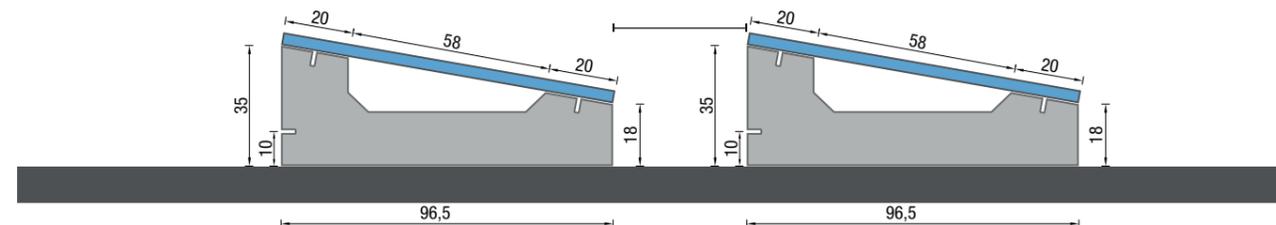
Inclination Angle	10°	Quantity for pallet	10 pieces
Ballast weight	60 kg	Pallet dimensions	70 cm x 98 cm h = 64 cm
Module positioning	Horizontal / Vertical	Pallet weight	600 kg

SYSTEM DETAILS

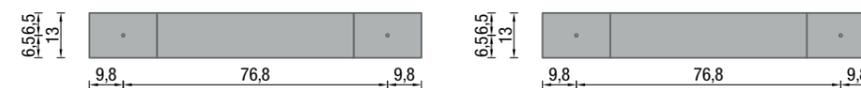
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 / 100 cm



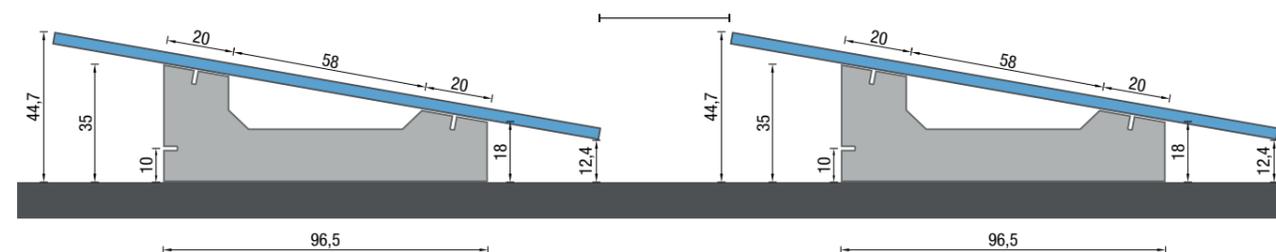
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 cm / 100 cm

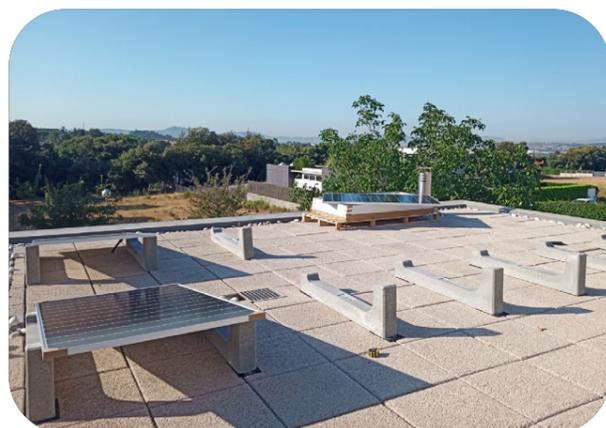
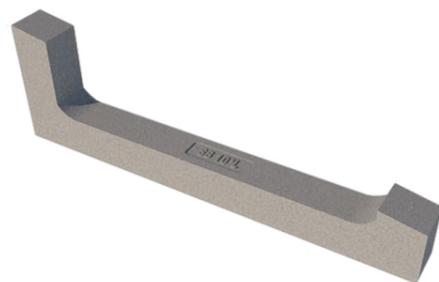


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 10°.L

Art. 23010.L



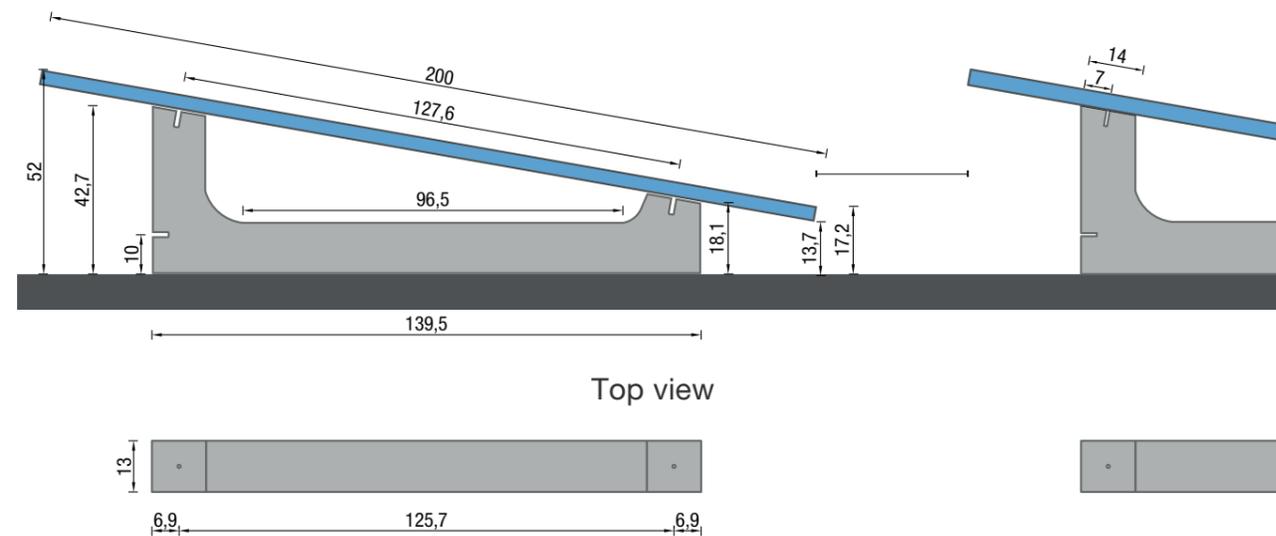
Inclination Angle	10°	Quantity for pallet	10 pieces
Ballast weight	70 kg	Pallet dimensions	130 cm x 70 cm h = 72 cm
Module positioning	Vertical	Pallet weight	700 kg

SYSTEM DETAILS

VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 90 cm

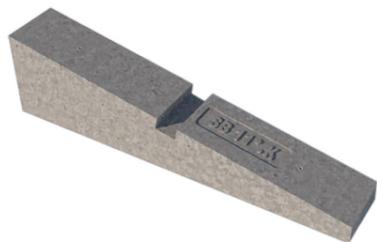


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 11°.K

Art. 23011.K



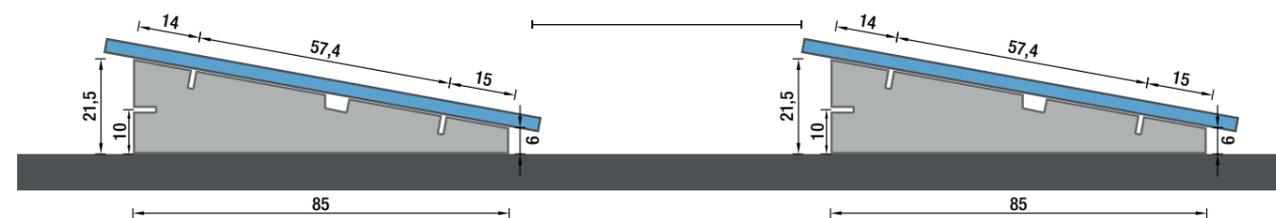
Inclination Angle	11°	Quantity for pallet	14 pieces
Ballast weight	42 kg	Pallet dimensions	120 cm x 70 cm h = 40 cm
Module positioning	Horizontal	Pallet weight	588 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

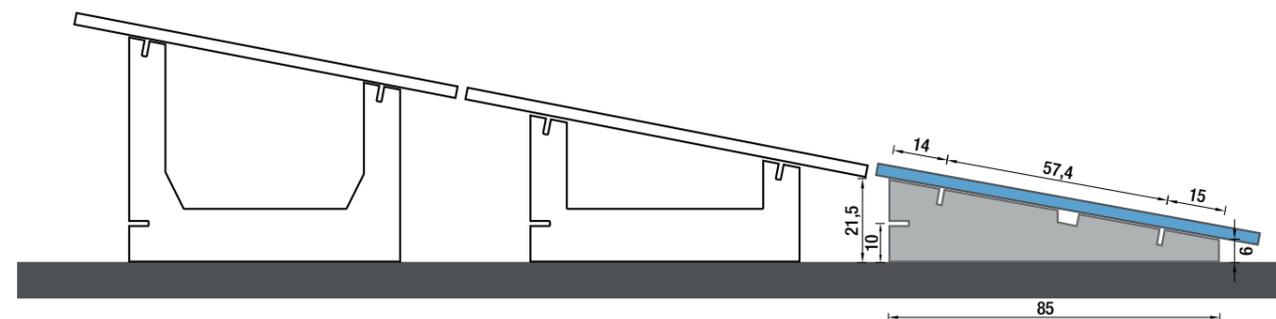
Minimum distance recommended between module rows 60 cm



Top view



Side view

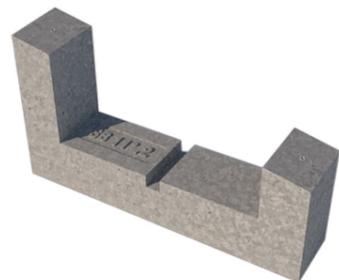


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 11°.2

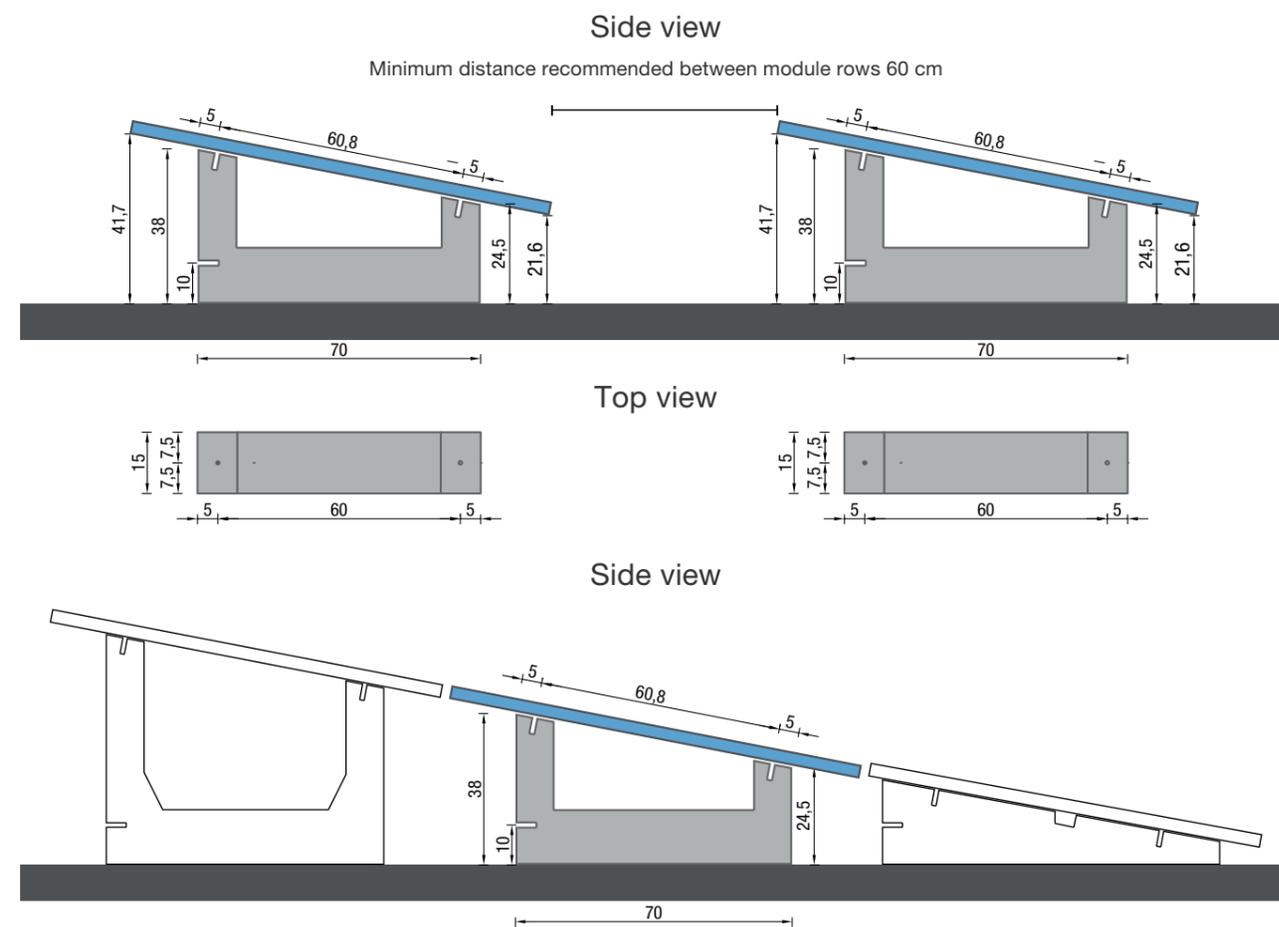
Art. 23011.2



Inclination Angle	11°	Quantity for pallet	12 pieces
Ballast weight	42 kg	Pallet dimensions	88 cm x 65 cm h = 77 cm
Module positioning	Horizontal	Pallet weight	504 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING



Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 11°.3

Art. 23011.3



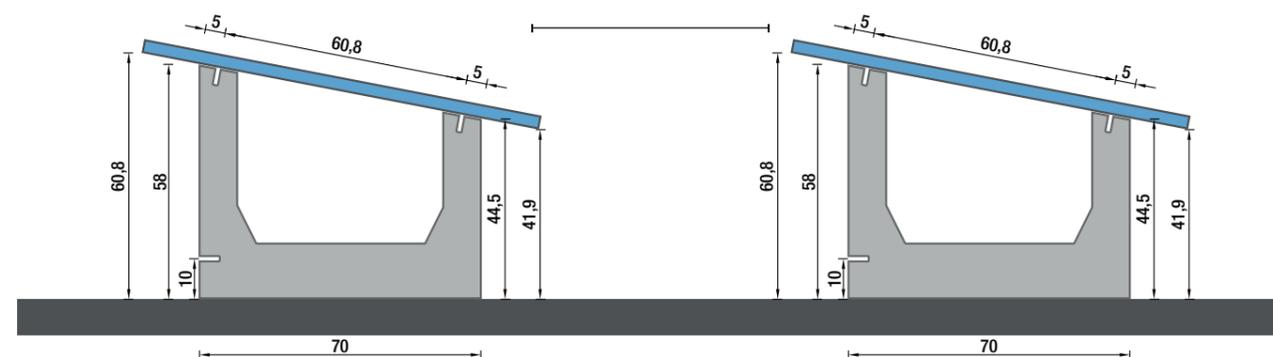
Inclination Angle	11°	Quantity for pallet	12 pieces
Ballast weight	61 kg	Pallet dimensions	88 cm x 65 cm h = 116 cm
Module positioning	Horizontal	Pallet weight	732 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

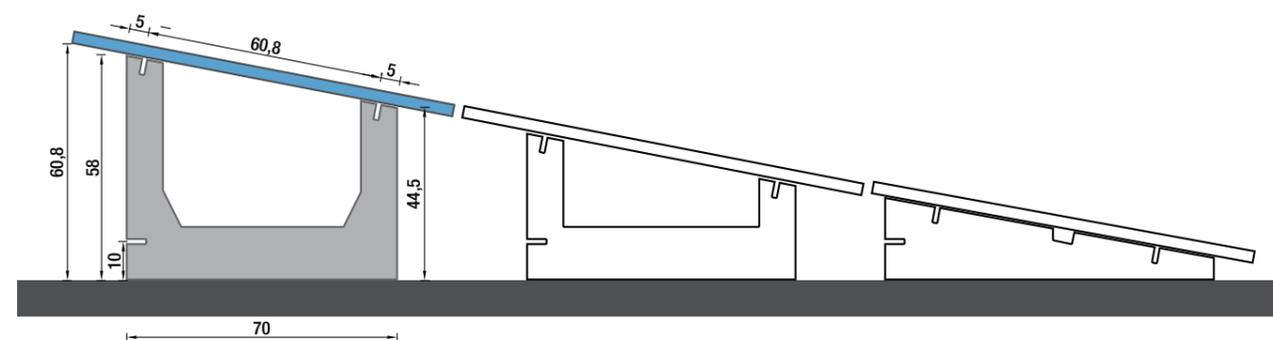
Minimum distance recommended between module rows 60 cm



Top view



Side view

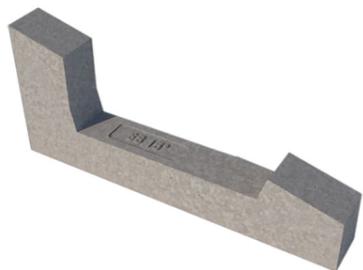


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 15°

Art. 23015



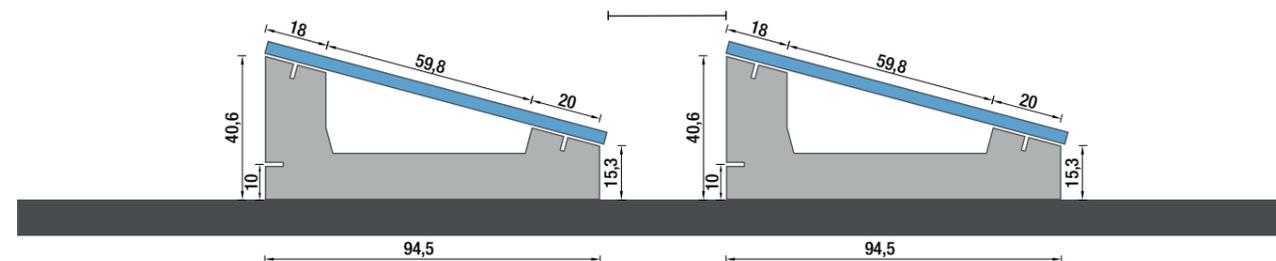
Inclination Angle	15°	Quantity for pallet	10 pieces
Ballast weight	47 kg	Pallet dimensions	88 cm x 65 cm h = 67 cm
Module positioning	Horizontal / Vertical	Pallet weight	470 kg

SYSTEM DETAILS

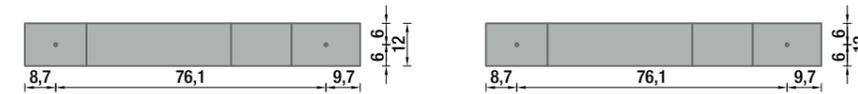
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 cm



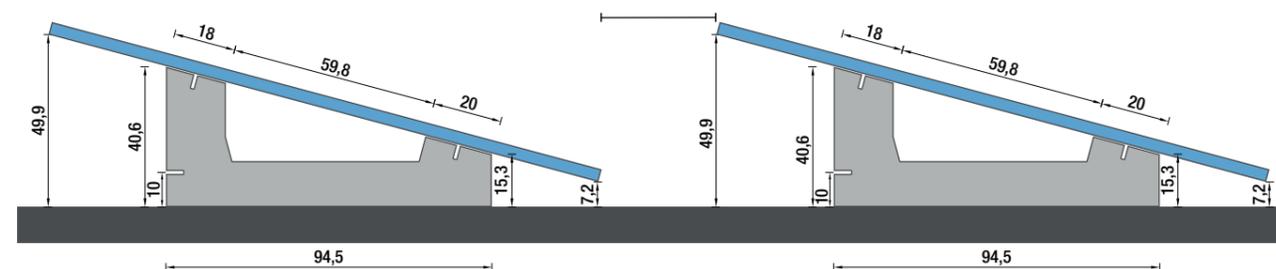
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 cm

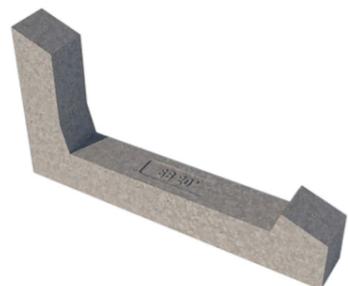


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 20°

Art. 23020



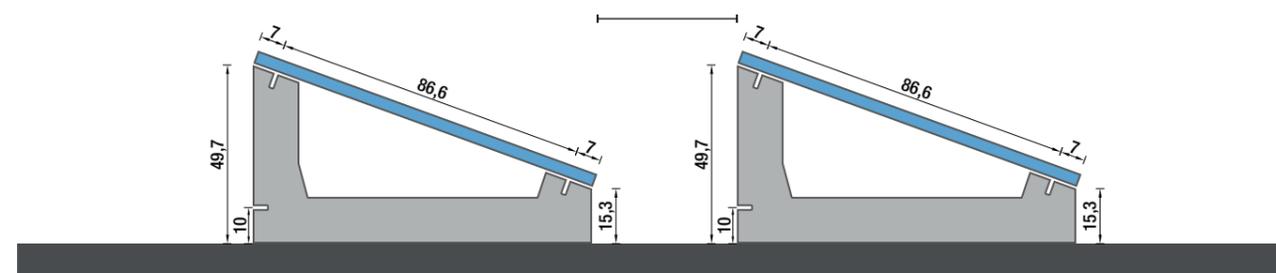
Inclination Angle	20°	Quantity for pallet	10 pieces
Ballast weight	54 kg	Pallet dimensions	98 cm x 70 cm h = 76 cm
Module positioning	Horizontal / Vertical	Pallet weight	540 kg

SYSTEM DETAILS

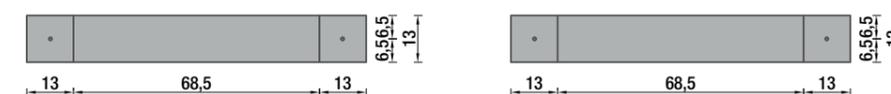
HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 cm



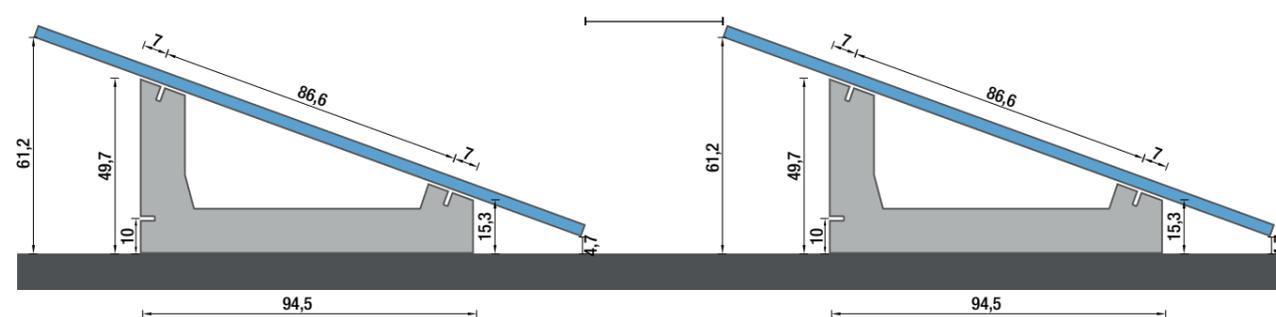
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 80 cm

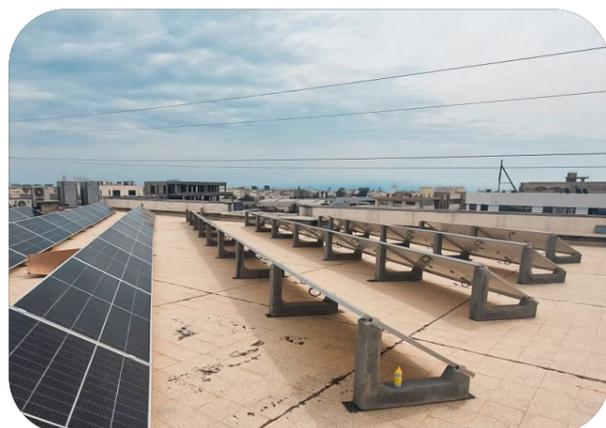


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 30°.1

Art. 23030.1



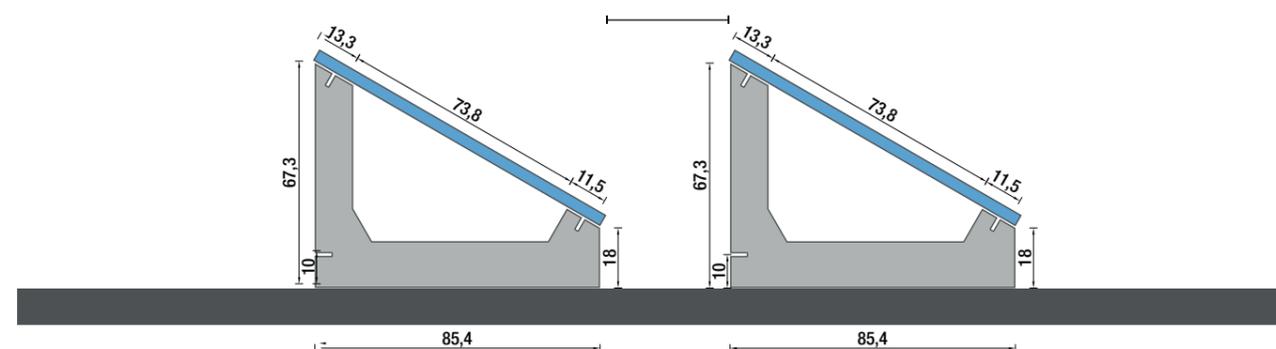
Inclination Angle	30°	Quantity for pallet	10 pieces
Ballast weight	58 kg	Pallet dimensions	86 cm x 86 cm h = 92 cm
Module positioning	Horizontal / Vertical	Pallet weight	580 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 100 cm



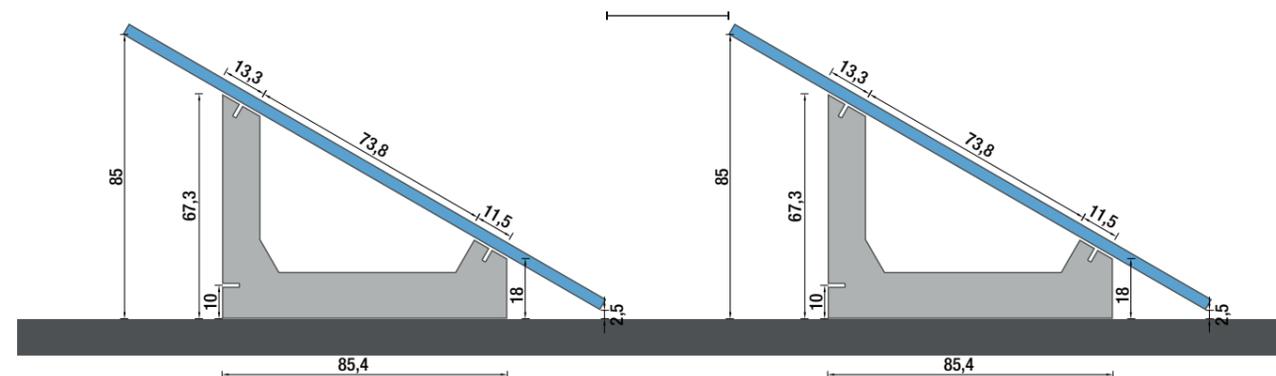
Top view



VERTICAL PANEL LAYING

Side view

Minimum distance recommended between module rows 100 cm

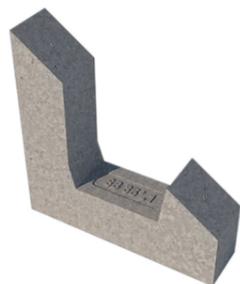


Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

BALLAST 35°.1

Art. 23035.1



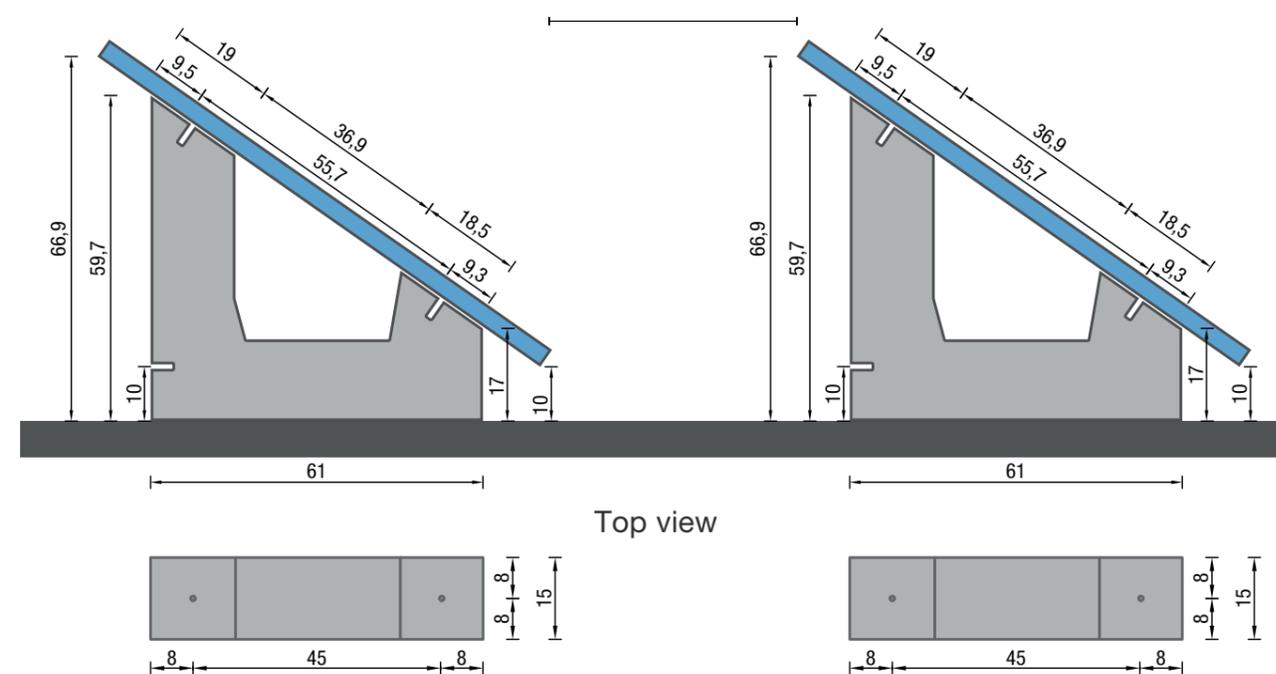
Inclination Angle	35°	Quantity for pallet	10 pieces
Ballast weight	60 kg	Pallet dimensions	75 cm x 65 cm h = 84 cm
Module positioning	Horizontal	Pallet weight	600 kg

SYSTEM DETAILS

HORIZONTAL PANEL LAYING

Side view

Minimum distance recommended between module rows 120 cm



Info

- The torque applied shall refer to the mechanical standard conforming to the bolt in use; with M8 bolts in stainless steel use a torque of 12 - 14 Nm.
- Avoid screwdrivers impulse.
- It's recommended to consult the information indicated in the assembly instructions of the panel manufacturer.
- Always follow Sun Ballast assembly instructions.
- The dimensions shown in the figure are all expressed in centimeters.

ACCESSORIES

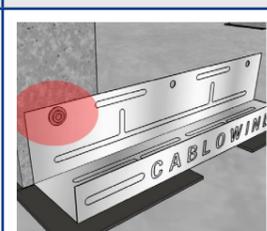


SHEATHS

DESCRIPTION OF THE ARTICLE	DETAIL	TYPE OF SHEATH	ARTICLE
Rubber protection sheath 0.5 cm thick, cut 25 x 15 cm (2 Pieces)		EPDM	KG23125

NB: For 10°.L and 0°.KP ballast 4 Stücke must be inserted under each structure

CABLOWIND

	CABLOWIND 95 CM	CABLOWIND 160 CM	CABLOWIND 185 CM	KIT STAFFA CABLOWIND
Detail				
Product	Cablowind Channel 12 x 9 x 95 cm	Cablowind Channel 12 x 9 x 160 cm	Cablowind Channel 12 x 9 x 185 cm	Cablowind universal bracket
Code	CW.CABLOWIND.95	CW.CABLOWIND.165	CW.CABLOWIND.185	KITSTAFFA.CW
Weight	17 Kg	29 Kg	34 Kg	1 Kg
Pallet quantity	30 Pz	18 Pz	18 Pz	-----
Pallet weight	510 Kg	522 Kg	612 Kg	-----

CABLOWIND SYSTEM



CABLOWIND is a Sun Ballast accessory consisting of two elements: a concrete channel and a Zincomagnelis bracket that used together allow the connection between the ballasts ensuring greater stability and load for the wind resistance of the system and the correct accommodation of the electrical cables.

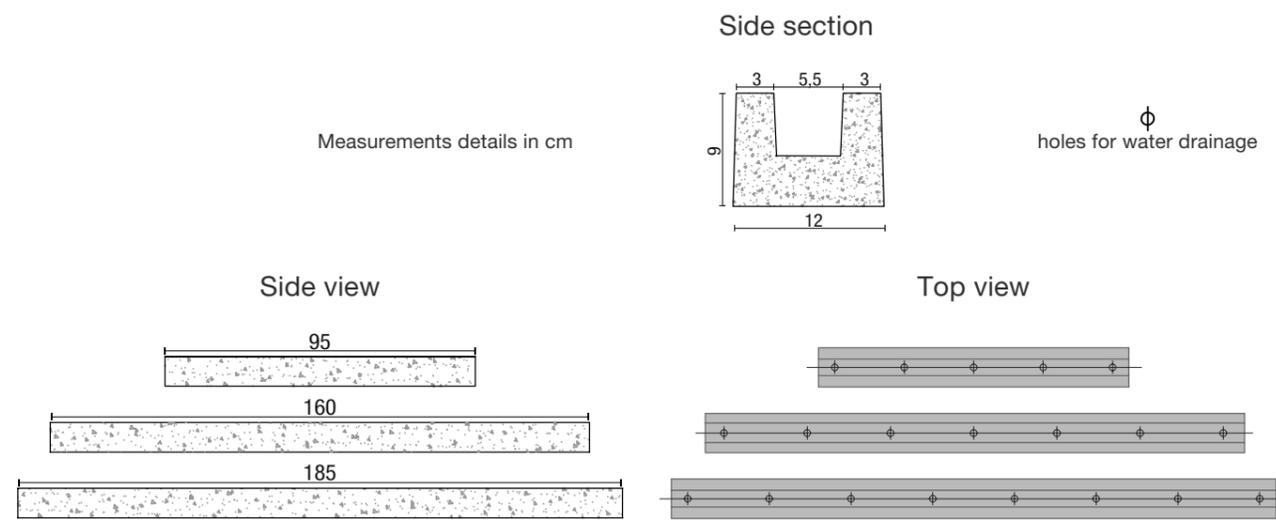
CABLOWIND is compatible with all Sun Ballast Standard systems with inclination from 5 ° to 35 ° with panels both in vertical and horizontal installation.

Cablowind Channel	
Material	Concrete
Lengths available	95cm - Vertical panel laying L = 95 - 120 cm
	160cm - Horizontal panel laying L = 160 - 185 cm
	185cm - Horizontal panel laying L = 186 - 211 cm

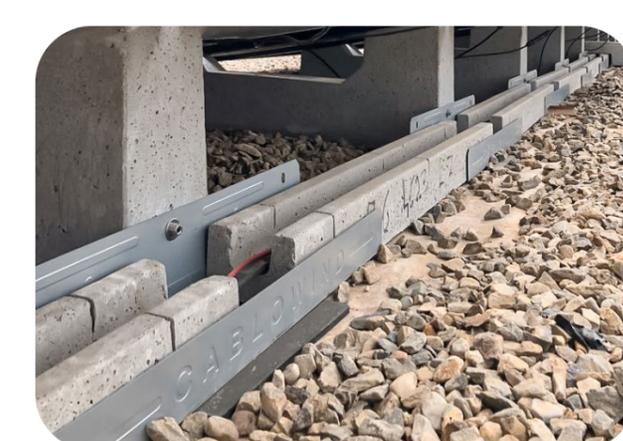
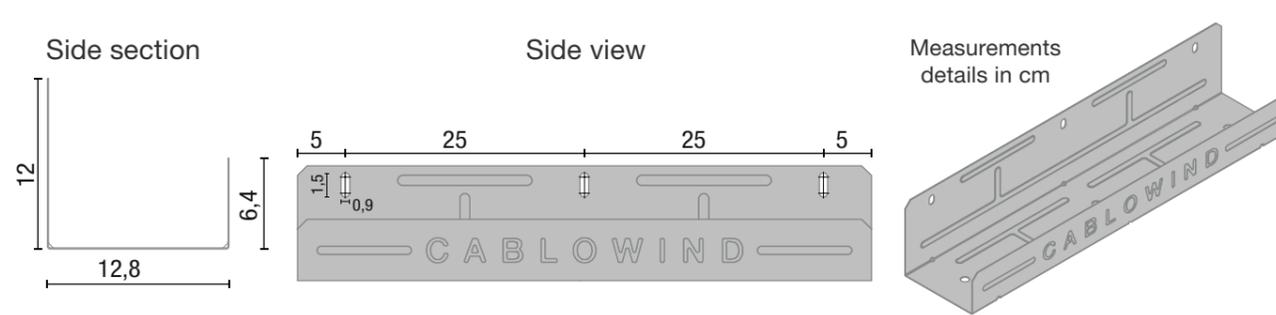


Article	cw.cablowind.95	cw.cablowind.160	cw.cablowind.185
Description	Cablowind channel 12 x 9 x 95 cm	Cablowind channel 12 x 9 x 160 cm	Cablowind channel 12 x 9 x 185 cm
Weight	17 kg	29 kg	34 kg
Pallet size	70 x 98 cm	70 x 98 cm	70 x 98 cm
Pallet quantity	30 pieces	18 pieces	18 pieces
Pallet weight	510 kg	522 kg	612 kg

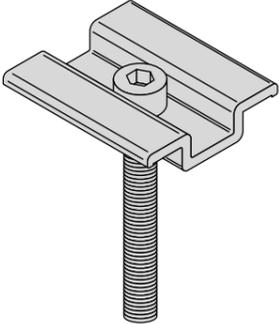
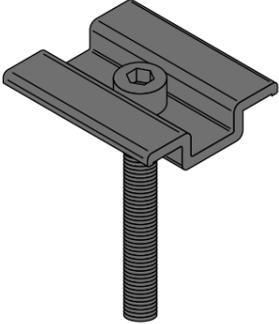
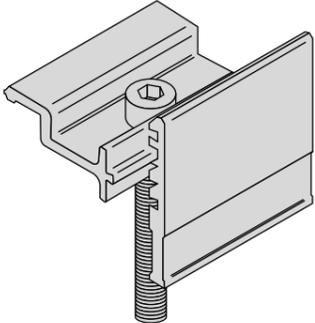
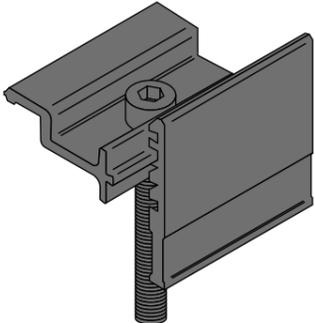
SYSTEM DETAILS



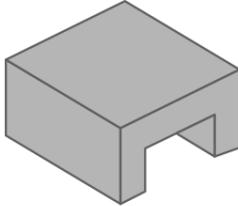
Cablowind Collar	
Article	CW.STAFFA
Material	Zinc magnelis
Thickness	8/10
Weight	1Kg



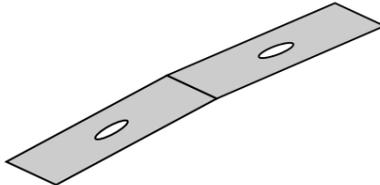
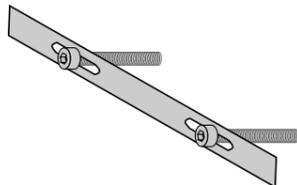
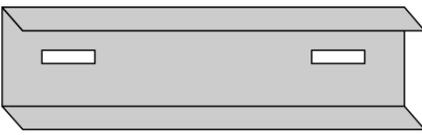
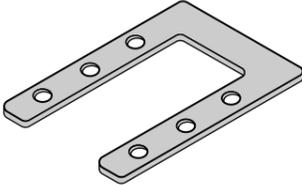
FIXING KIT

DESCRIPTION OF THE ARTICLE	DETAIL	ARTICLE
Kit aluminium central clamp, stainless screw 8 x 50 (10 ps)		K23900/U.50
Kit aluminium central clamp, stainless screw 8 x 55 (10 ps)		K23900/U.55
Kit in black aluminium central clamp, stainless screw 8 x 50 (10 ps)		K23900/UN.50
Kit in black aluminium central clamp, stainless screw 8 x 55 (10 ps)		K23900/UN.55
Universal aluminium terminal clamp, stainless screw 8 x 50 (10 ps)		K23920/U.50
Universal aluminium terminal clamp, stainless screw 8 x 55 (10 ps)		K23920/U.55
Universal black aluminium terminal clamp, stainless screw 8 x 50 (10 ps)		K23920/UN.50
Universal black aluminium terminal clamp, stainless screw 8 x 55 (10 ps)		K23920/UN.55

ADDITIONAL WEIGHTS 30 KG

DETAIL	DESCRIPTION OF THE ARTICLE	ARTICLE	PALLET QUANTITY	PALLET DIMENSIONS	PALLET WEIGHT
	Additional weight (30.5x30x17)	23030.CRP	18 pieces	90 cm x 98 cm h= 50 cm	540 Kg

BALLAST ACCESSORIES

DESCRIPTION OF THE ARTICLE	DETAIL	ARTICLE
Universal East-West junction plate for ballast		23815
Universal junction plate		K23804
Junction plate for Sail System 11°		K23011
Junction plate for Sail System 5°		K23005
Earthing plate (10 ps)		PMT2300
Polyurethane foam 750 ml		SCH750

FIELDS OF APPLICATION

Where are our systems installed?

Our structures can be positioned on multiple flat surfaces.

It is possible to make installations on:



Cement e flooring



Gravel



Sheath



Green roof



On the ground



Slightly inclined roof

From 5 ° to 10 ° it is possible to use our ballasts with the help of special devices such as foams chemicals, preferring lower ballast inclinations to avoid the sliding effect.



TECHNICAL ASSISTANCE

Free technical service at your disposal

The technical aspect is perhaps the most strategic in the field of photovoltaics because a good one design allows you to arrive on the construction site in prepared manner, with ready-made material e especially aware of what the possible ones are critical issues to manage and the solutions to be adopted.

Precisely because they are aware of the importance of this service, our office has always offered free technical advice to all customers e industry technicians who require support in plant design and installation phase photovoltaic in order to meet the needs of our customers by sharing and proposing to them the most suitable and best solutions from one point from a technical but also an economic point of view, always in compliance with the technical regulations in force.

In addition to the design aspect, we also carry out a valuable work orientation towards customers in order to facilitate the understanding of our systems, to guide customers in the choice of best system to use and therefore facilitate the use of our products making it faster and simple installations.

Sun Ballast technical office consists of a team of professionals including engineers, architects and appraisers and is certainly characterized by the competence and speed of execution of services as we are aware that many times the timing for the development of projects and budgets are very tight. For this reason we deliver our technical reports in a maximum of 24 h.



Technical drawing of the plant



Calculation sizing



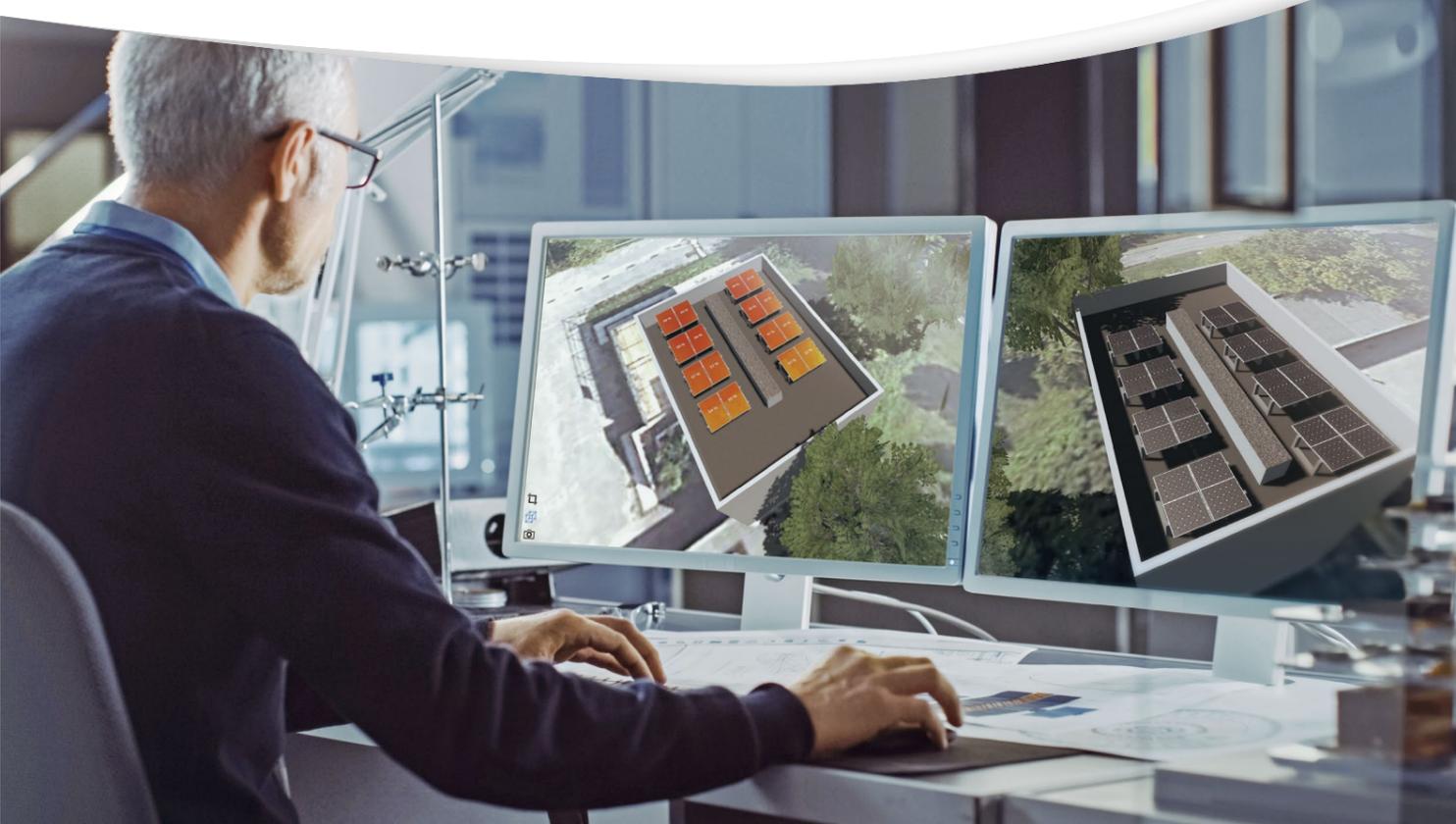
Bill materials



Signed technical report by a qualified technician



Telephone support and on site



DISTRIBUTORS

We have hundreds of distributors located throughout the European territory, most of which with goods available in their warehouses to be able to see and touch our products and to have immediate delivery.



SAFETY INSTRUCTIONS

Indications for planning and sizing

- Value the need for accessories to enhance the stability of the system according to the wind load, as shown in DM14 01 2008 Circ. 02 February 2009-N 617.
- The crucial factors for the wind load calculation are the speed of reference, that changes according to the area of the plant location (from 1 to 9), the building height, the distance from the roof edges.
- Pay particular attention to installations within 30 km from the coast and/or typically windy.

- The designer and the installer are in charge for the sizing of the plant structure.
- Make sure that the substructure is appropriate in terms of capacity.
- Ask the client the residual bearing capacity available, check that the slab performs the load division and divide the weight of modules + ballast per m², included the area between the rows and the distance from the roof edges.
- For any doubt consult a qualified technician.

TECHNICAL REQUIREMENTS DECLARATION

Seat: Via della Costituzione 26-42028 Poviglio (RE)- Italia

Management System: UNI EN ISO 9001:2015 - N°CERTIFICATO: 50 100 3413

Denomination: Ballasts in precast unreinforced concrete (Inside there is an iron rod to increase mechanical elasticity)

Article: Sun Ballast (Patented System)

Technical features:

- Exposure class: XC4 unless otherwise specified
- Strength class: C32/40
- Minimum cement content: 340 kg/m²
- Class of fire resistance CA1 (as established by the Decree of the Italian Ministry of the Interior on the 14th January 1985)
- Maximum depth of water (H₂O) penetration under the pressure 500 kPa: 15 mm
- Medium depth of water (H₂O) penetration under the pressure 500 kPa: 10 mm

- Determination of the tensile/pull-out strength of the buckle M8 embedded in the concrete element through direct tensile test on the bolt M8 which is screwed in the buckle

- Minimum tensile strength of the test at 15 KN (1530 kg) without any slipping of the buckle inserted in the Sun Ballast ballast
- Weight tolerance +/-5%

BASIC SRL DECLARES THAT

The production complies with all instructions and procedure of the quality management system certified according to the UNI EN ISO 9001:2015. Any modification to the product covered by this declaration made without the authorisation of the manufacturer shall render this declaration of technical conformity null and void.



PRODUCT WARRANTY

Basic Srl guarantees the functionality over time of Sun Ballast supports for photovoltaic panels on flat roofs, produced and marketed by the Company itself, for a period of 25 years from the date of purchase.

Subject of the warranty

Basic Srl guarantees the resistance to corrosion derived by weather conditions (rain, ice, temperature fluctuations, salinity) of the supports, from the same produced and marketed, for photovoltaic panels on flat roof for a period of 25 years from the date of purchase.

Warranty term and conditions

The Warranty will be operational only if all the following conditions are applied:

1. The system must be fully realized with the range of accessories supplied by Basic:

- Central brace in aluminum
- Terminal brace in aluminum
- Screw for central and terminal brace INOX A2m
- Sheath
- Potential accessories

2. The ballast system shall be installed in a workmanlike manner and in compliance with the specific installation instructions of Basic Srl which are into force at the moment of purchasing and written in the technical specifications and in these assembly instructions.

3. If the ballasted system has been built using materials and components other than those specified in point "1", they must in any case have been marketed by Basic Srl. Any damage due to products not marketed by Basic Srl is excluded from this warranty

This warranty is provided to the client with every order placed by the client. In the event of damage attributable to the terms stated in this warranty, and excluding any other obligation or reimbursement, Basic Srl:

- Shall provide a replacement product without additional charges. If the product is no longer in production, Basic Srl shall supply an equivalent product of equal value.
- Shall provide directly, through personnel chosen by the same and at its own expense, to restore the original functionality, possibly after an inspection by one of its representatives who will assess and determine the type of intervention required.

Exclusions

This warranty does not include:

- Damages caused by soil movements, settlement of the structure of the immovable property or movements of the structure
- Damages caused by an incorrect use or maintenance of the structure, by activities, tampering or changes made by third parties
- Accidental or voluntary damages, actions of war included
- Damages caused by lightnings
- Damages caused by natural disasters
- Damages derived from a wrong installation
- Damages derived from a wrong dimensioning

Any other obligation or indemnity to be paid by Basic Srl is expressly included, and Basic Srl shall not be held liable for any direct or indirect damage to goods, movable and immovable property, rights or activities of the person guaranteed to third parties..

Procedures

The request for activation of this warranty shall be made in writing and shall be received within 30 days from the date on which the damage becomes evident. The notice shall be accompanied by an evidence of purchase (copy of the invoice), shall state the details of the declared damages and shall be sent to: info@sunballast.com, to your marketing representative or on our website: <https://www.sunballast.com/staff/>

In any case, the client's rights against its direct seller are not affected, in accordance with the applicable legislation on warranty in the sale of consumer goods art. 1490 of the Italian Civil Code. La presente garanzia è trasferibile a successivi proprietari senza obbligo di preavviso a Basic Srl.

This warranty is transferable to subsequent owners without prior notice from Basic Srl.

Sun Ballast was born with the intention to make a **significant contribution** in the **renewable energy** market, which by nature is linked to the **challenge** and the concept of **sustainability**.

The activities carried out and the resources employed have the goal of **finding solutions** where costs, environmental impact and quality of the product are in **complete harmony** and **constantly improving**.

Our hope is to be of help to our customers, thus doing our part in the **improve** life in this beautiful planet.

www.sunballast.com



CRIBIS
Prime Company



UNI EN ISO 9001: 2015
Nro 50 100 13413



Supporting solar innovation
Patented systems - Made in Italy

For info and quotes:

@ info@sunballast.com

☎ +39 0522 960926

🌐 www.sunballast.com

📍 Basic Srl Via della Costituzione, 26 42028 Poviglio (RE) Italy - VAT: 02557770357

FOLLOW US ON:

