



Project information



Project name

Nick S

Company

Reference

Project address

17 Frognal, London NW3 6AR, UK

Module quantity

12 pcs

DC Power

5,46 kWp

Module dimensions / weight*

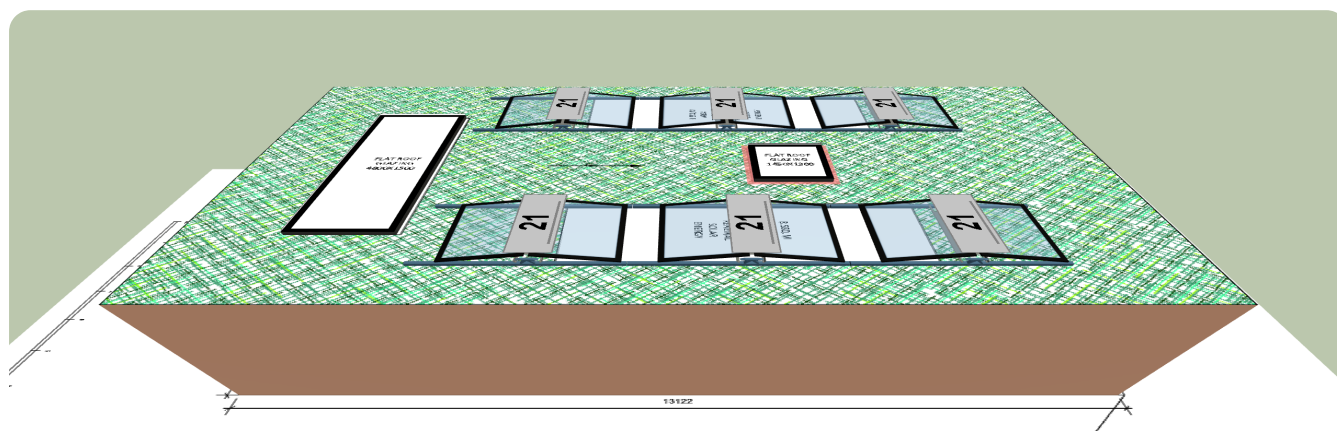
1 762 x 1 134 x 30 mm / 21,5 kg

Module manufacturer/model + Wp

**Astronergy CHSM54RNs(DG)(BLH)/F-BH
455Wp**

Creator of the project

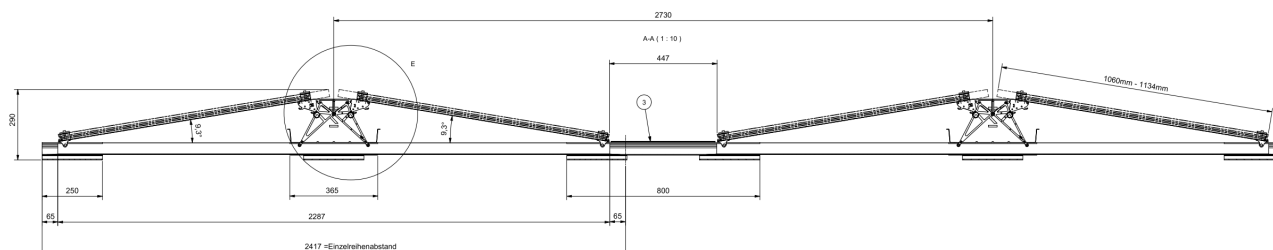
raul.cornean@hdmsolar.co.uk





FD3 mounting system specification

System type	FD3-EW	Foundation	Rubber
Orientation	Landscape	Grounding	No
Tilt	10°		
Row pitch	2 730 mm		



Wind and snow load parameters

Country

United Kingdom

Norm wind action

BS EN 1991-1-4/NA:2008

Basic Wind Speed $V_{b,0}$

22 m/s

Norm snow action

BS EN 1991-1-3/NA:2018

Snow load zone

Zone 3

Height above sea level

67,04 m

Design lifetime

25 years

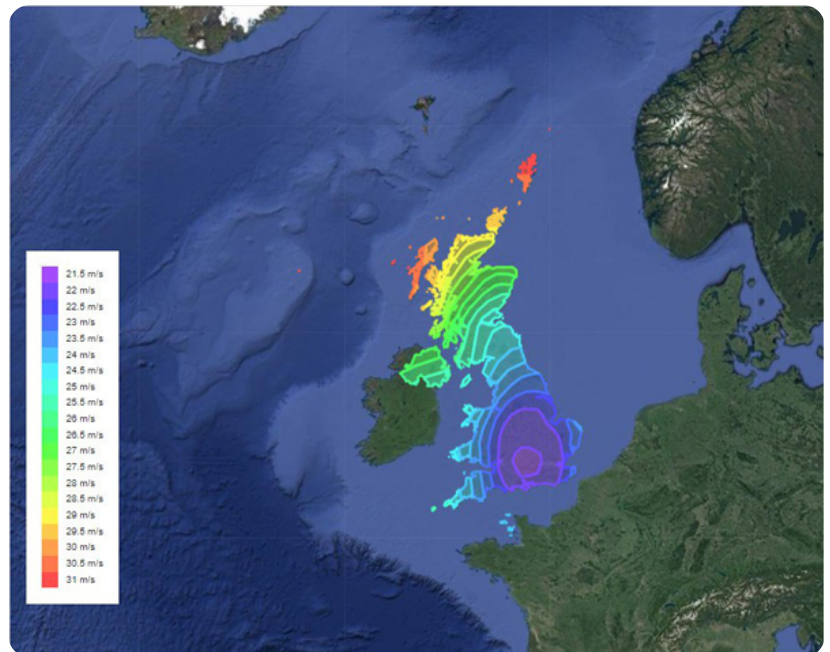
Consequence Class

CC1 (EN 1990)

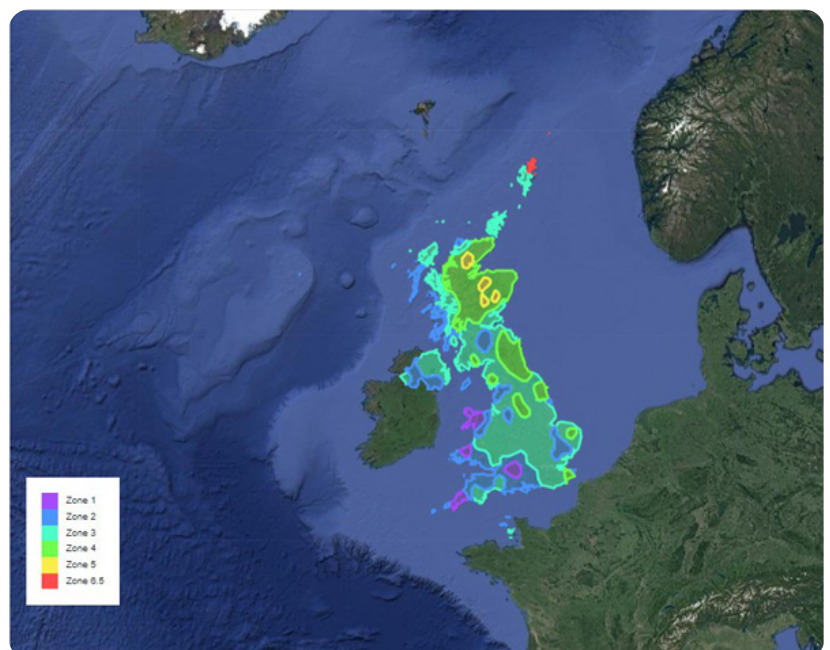
Orography factor

$C_o = 1,000$

Wind speed map



Snow load map

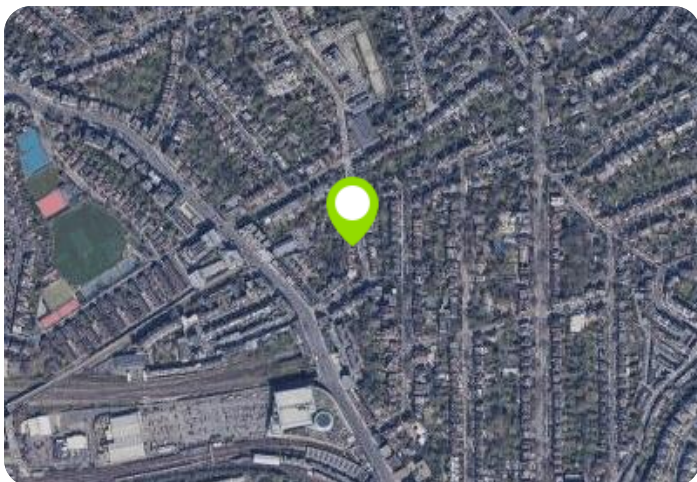


Terrain category



Terrain category 3 (Town terrain)

Urban area covered with buildings, hedges, vineyards, grove



Highest building (m)

4,00 m

Perimeter radius (m)

500

Distance to shoreline (km)

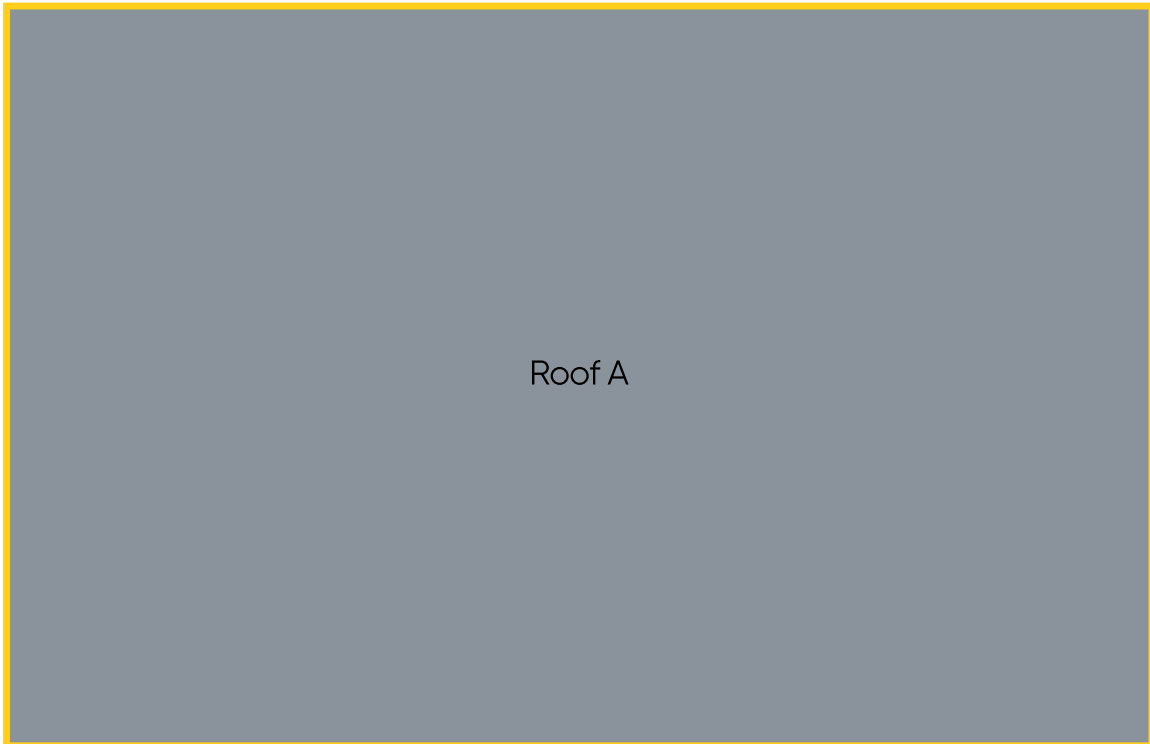
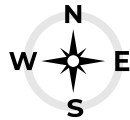
80

Distance to edge town (km)

15



Project overview





Roof A | Summary

Roof properties

Height	4,00 m	Roof area	112,8 m ²
Slope	5°	PV system area (modules + spacing)	23,6 m ²
Type	Flat	Cladding	Membrane roof
Parapet height	0,00 m	Membrane Type	TPO
Parapet width	0,00 m	Number of panels	12 pcs
Friction coefficient	0,6	Power	5,46 kWp

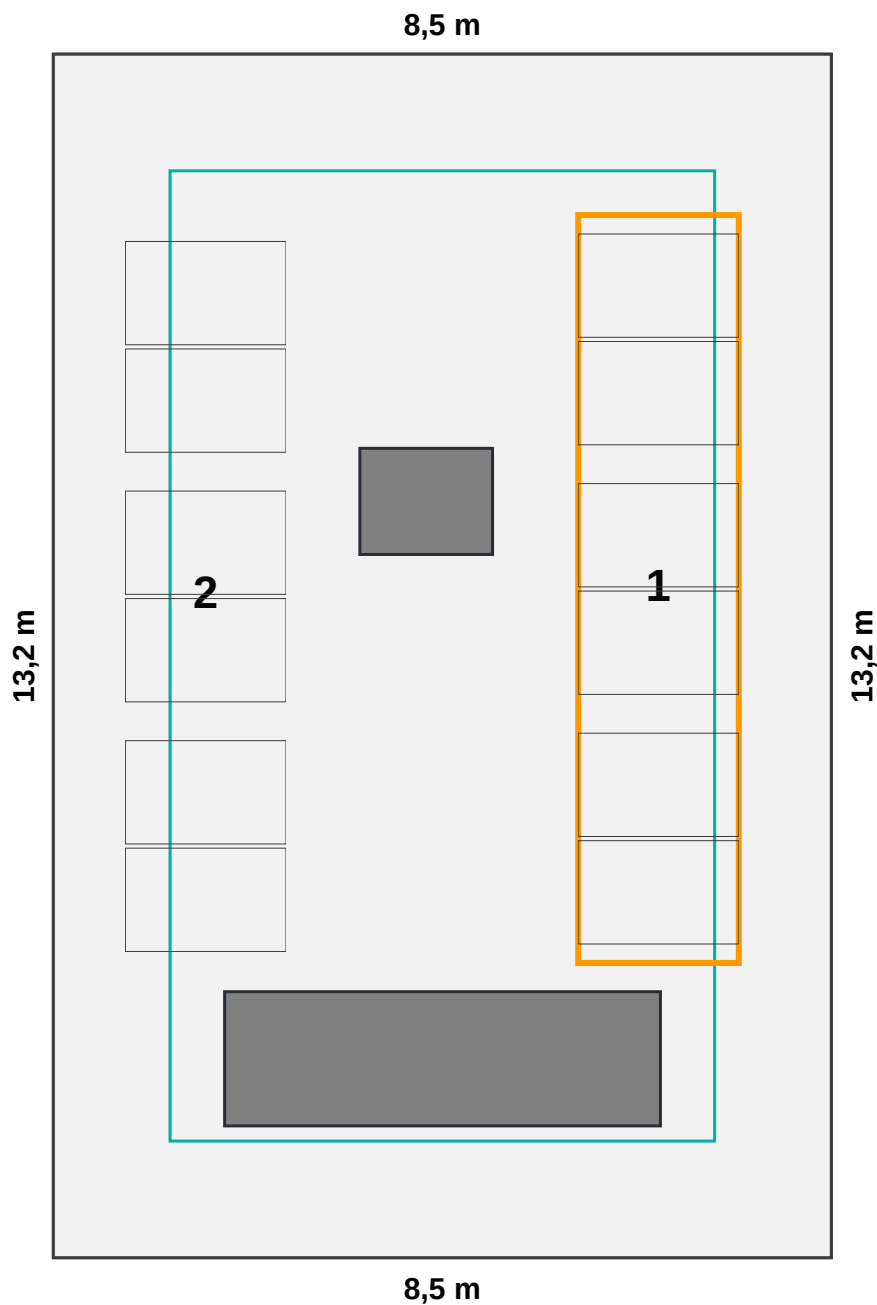
Eurocode calculations

Peak velocity pressure	380,6 N/m ²	Accidental snow load on roof	0 N/m ²
Characteristic snow load on roof	372 N/m ²	Combination factor for wind load	0.5

Weight calculations

Modules weight	258 kg	Average weight on module area	20,4 kg/m ²
Substructure weight	97 kg		
Ballast weight	126 kg		
Total weight	481 kg		

Roof A | Field 1 | PV Modules

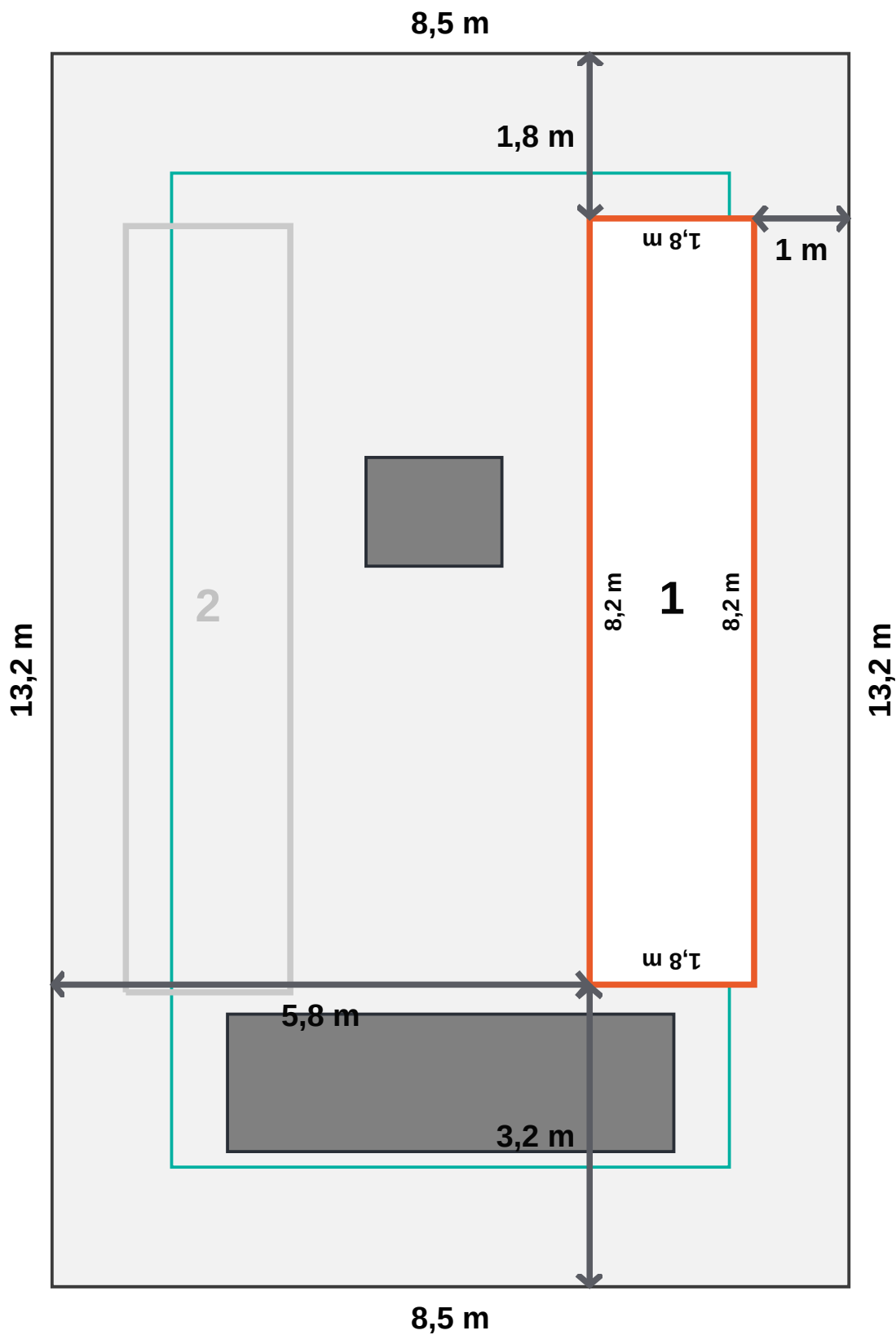


— Mounting Systems roofzone

Components

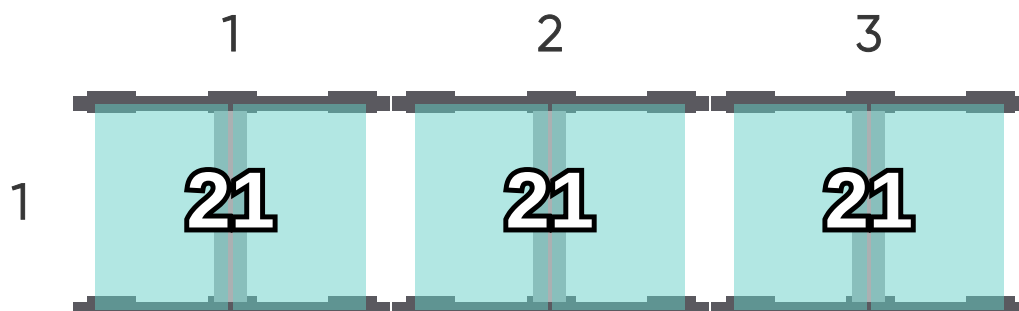
Module	6 Pcs	Ballast tray, 1831mm	3 Pcs
Base rail EW XL, 2287mm	6 Pcs	Locking front support 0.25m	4 Pcs
Locking middle support 0.8m EW	4 Pcs	Side Deflector EW XL, 2277mm	6 Pcs
Support flat roof 10°/15	6 Pcs	end clamp 30-40mm, 40mm	24 Pcs
FD3 Module front support	12 Pcs	Ball locking pin 6x50mm	12 Pcs
Rubber pad, 250mm	18 Pcs	Ballast amount	63 kg

Roof A | Field 1 | PV Modules





Roof A | Field 1 | PV Modules

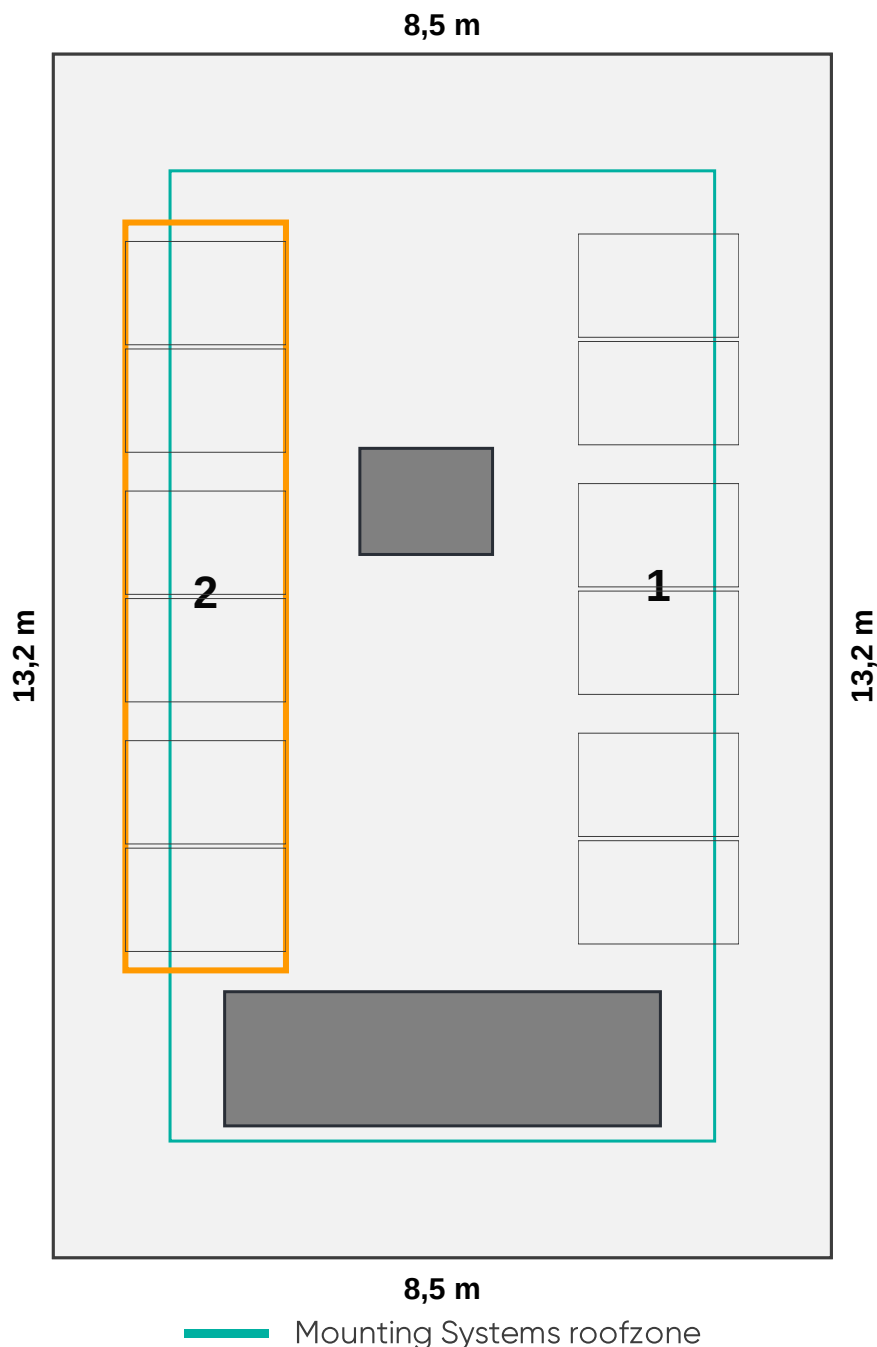


Legend



QTY = quantity of ballast tiles
Ballast dimensions (weight):
Ballast in kg

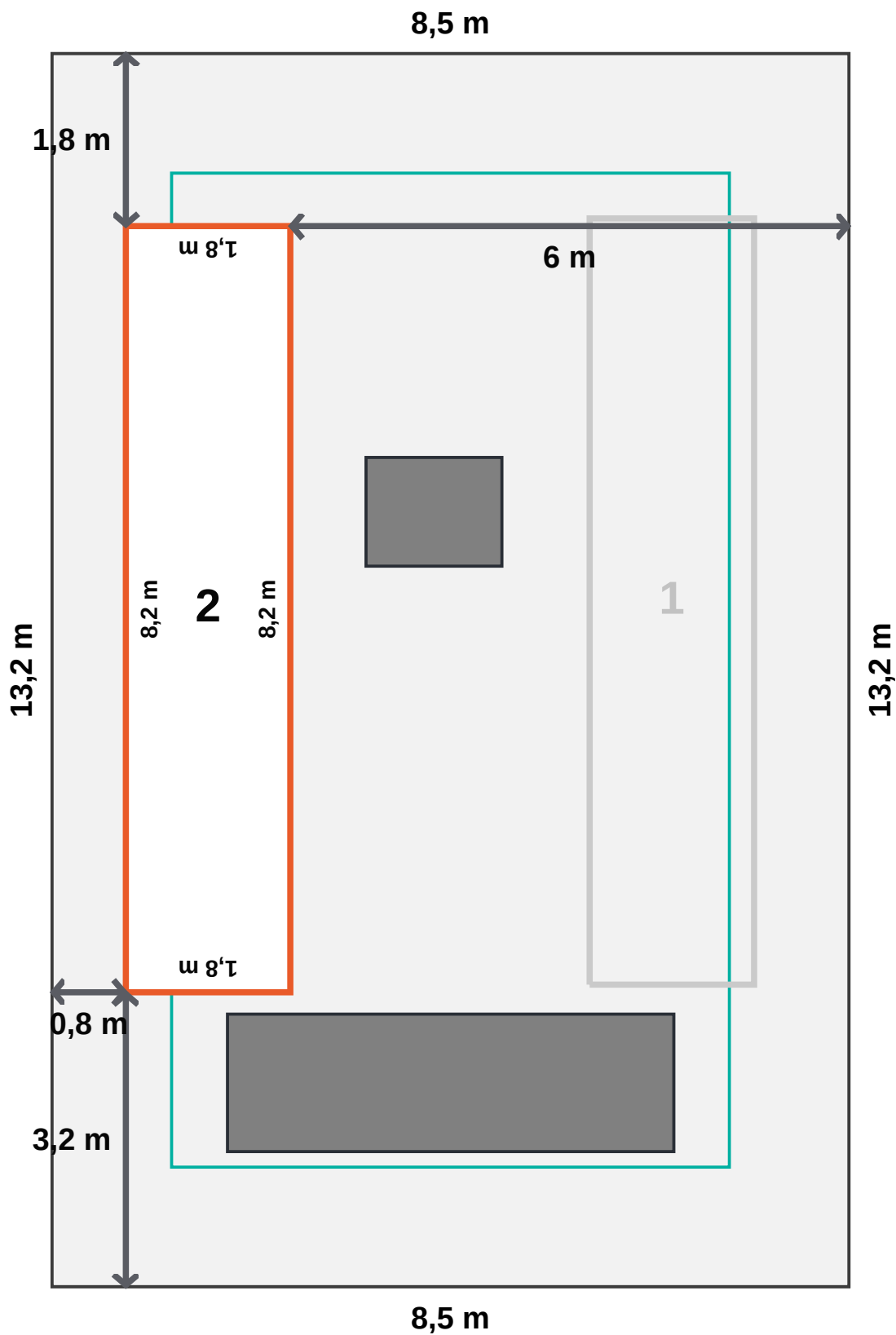
Roof A | Field 2 | PV Modules



Components

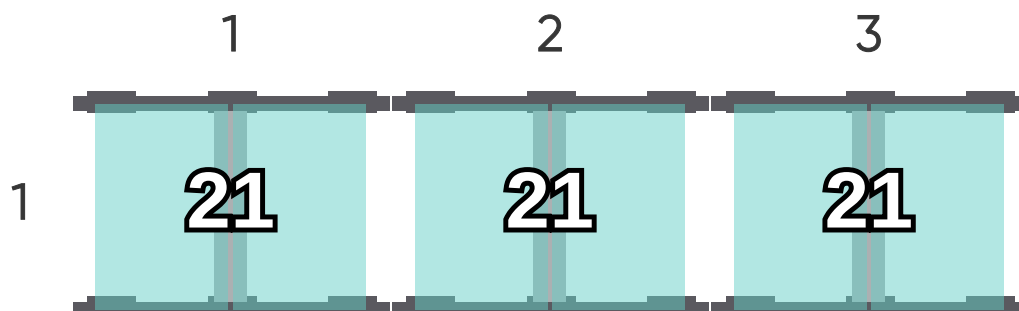
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Roof A | Field 2 | PV Modules





Roof A | Field 2 | PV Modules



Legend



QTY = quantity of ballast tiles
Ballast dimensions (weight):
Ballast in kg





Roof A | Bill of materials

Code		Module and Ballast				Qty	
Astronergy		CHSM54RNs(DG)(BLH)/F-BH				12 pcs	
Ballast		Ballast in kg				126 kg	
Order item number	Description	PU	Order qty (number of PU)	Single article number	Required number of pieces (single article)	Weight (kg)	Total weight (kg)
720-1922	Base rail EW XL, 2287mm	10	2	600-0380	12 Pcs	1.558	18.696
720-1916	Locking middle support 0.8m EW	10	1	600-0366	8 Pcs	0.696	5.568
720-1873	Support flat roof 10°/15	10	2	711-0260	12 Pcs	1.097	13.162
720-1874	FD3 Module front support	20	2	814-0703	24 Pcs	0.110	2.640
720-1921	Rubber pad, 250mm	20	2	814-0704	36 Pcs	0.215	7.740
720-1889	Ballast tray, 1831mm	10	1	801-0373 Replacement: 801-0386	6 Pcs	4.726	28.356
720-1915	Locking front support 0.25m	20	1	600-0365	8 Pcs	0.216	1.728
720-1924	Side Deflector EW XL, 2277mm	10	2	801-0381	12 Pcs	1.343	16.116
720-1855	end clamp 30-40mm, 40mm	20	3	702-0478	48 Pcs	0.055	2.659
720-1892	Ball locking pin 6x50mm	50	1	807-0351	24 Pcs	0.015	0.358



Project total | Bill of materials

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Disclaimer

Please check all inputs and details carefully. Ensure that local conditions match those in the sizing software.

Every roof has individual characteristics that must be taken into consideration. An expert survey must therefore be carried out prior to every installation. All calculations need to be checked and approved by an expert (e.g. structural engineer) before work begins.

Prior to installation, the installer of the photovoltaic system must ensure that the existing roof structure is adequate to bear the additional loads. The sizing software neither takes account of nor replaces structural calculations for the relevant building and roof.

The installation must comply with the latest installation advice, the installation instructions for the module used, approvals and all generally applicable standards and directives.

Our offers are non-binding. To become legally binding, declarations of acceptance and all orders require our written or electronic confirmation. Our declarations aimed at conclusion, modification or termination of contracts will become legally binding only through our written or electronic confirmation.

This project report does not include a review of the entered data. The individual responsible for data entry must verify the information provided. If the project report is prepared by an employee of Mounting Systems GmbH, it will be based solely on the documents or information supplied by the customer. A separate review of these documents—such as an on-site visit—will not occur.

The customer is responsible for determining the coefficient of friction required for calculating the ballast in flat roof installations. If no information is available, the ballast will be calculated using a default coefficient of friction of 0.6. The customer must verify this value before installing the systems.

Mounting Systems GmbH accepts no liability or guarantee for errors arising from incorrect entries or omissions in the calculation basis.