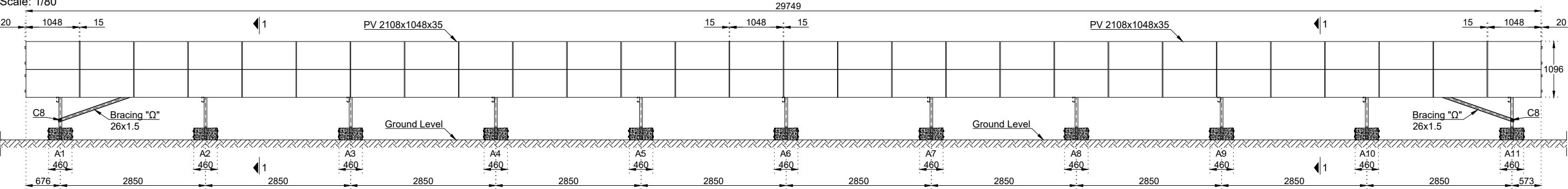
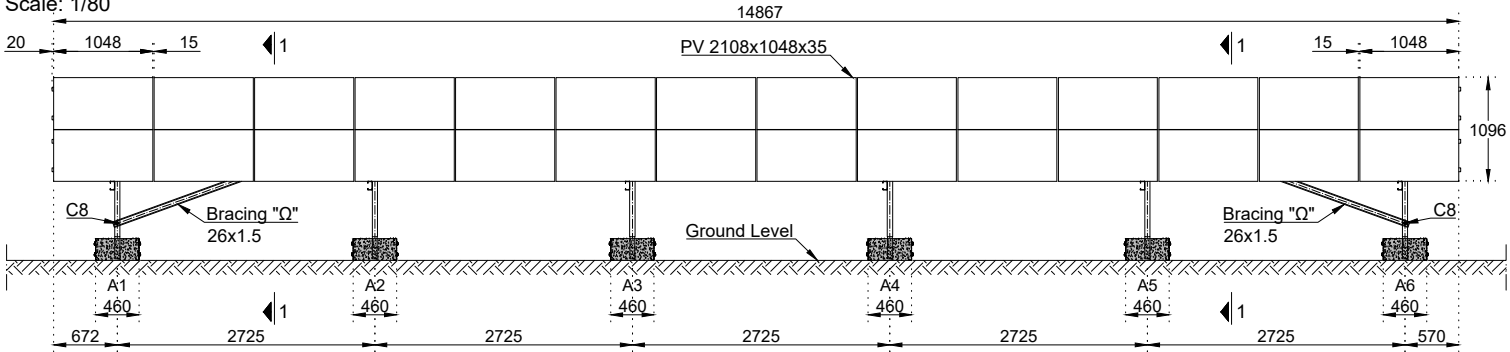


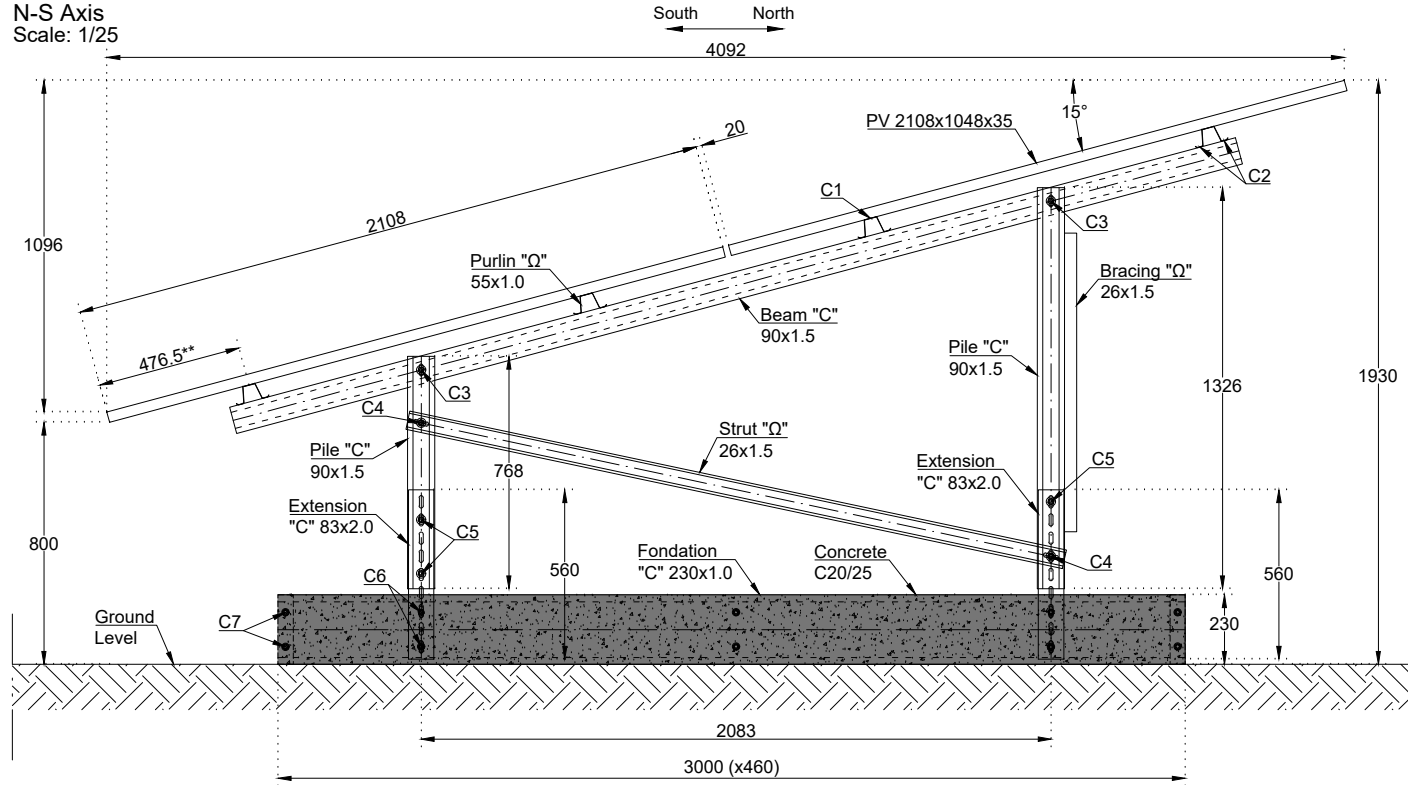
South Elevation - 2V28
E-W Axis
Scale: 1/80



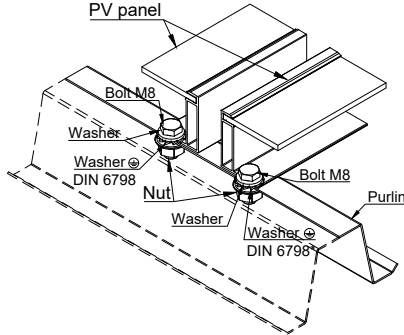
South Elevation - 2V14
E-W Axis
Scale: 1/80



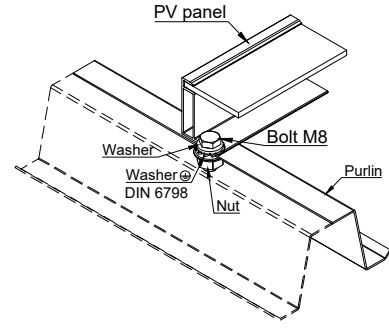
Cross-Section 1-1
N-S Axis
Scale: 1/25



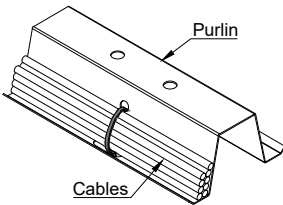
Interior PV module fixation



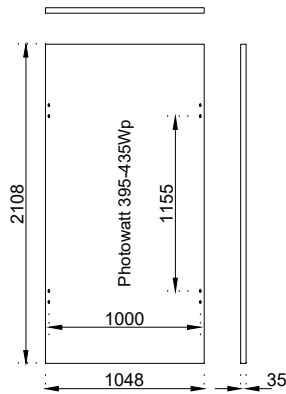
Exterior PV module fixation



Cable Tray Detail
(illustrative drawing)



Photowatt
PV Module: PW72LHT-C



- Notes:
- Structure designed for the PV module presented:
 - Peak power: 395-435Wp;
 - Dimensions: 2094x1038x35;
 - Weight: 24.3kg.
 - Wind Design assumptions:
 - Basic wind speed 22m/s (Eurocode);
 - Category terrain II;
 - Type of structure: canopy roofs;
 - Degree of blockage under a canopy: 0 (empty, free-standing);
 - Global coefficients;
 - Friction forces not considered on the model.
 - Snow Design assumptions:
 - Characteristic snow load: $s_k=0.45\text{kN/m}^2$;
 - Roof shape coefficient: 0.80;
 - Accident design situation where snow is the accidental action is not considered.
 - Structural Materials:
 - Cold formed profiles: steel grade S350GD+ZM310;
 - M8 and M12 bolts, nuts and washers: stainless steel A2-70.
 - Design assumptions:
 - Design of the structure according to the Eurocodes;
 - Atmospheric and ground corrosion class C3;
 - Temperature and seismic loads were not considered on the 3D design model;
 - Consequence class CC1 / Execution class XC1;
 - Design combinations according to EN1990;
 - Design life: 25 years.
 - Unless otherwise specified, all dimensions are in millimeter.
- (**) The mounting holes for the bolts are placed in accordance with the installation manual provided by the manufacturer.

5	Added connections details.	FA	18/01/2024
4	Change foundation design.	FA	20/12/2023
3	Change foundation size.	DM	18/11/2022
2	Change foundation size.	DM	09/11/2022
1	Increased foundation width to 600mm.	FA	21/10/2022
REV:	DESCRIPTION:	BY:	DATE:

STATUS: Execution Stage

PRADECON

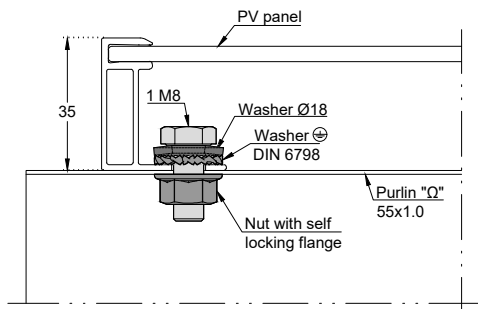
Rua D. António Bento Martins Jr., 26
4480-028 Arcos VCD, Portugal
Tel.: +351 252 663 210
Email: pradecon@pradecon.pt www.pradecon.pt

CLIENT:

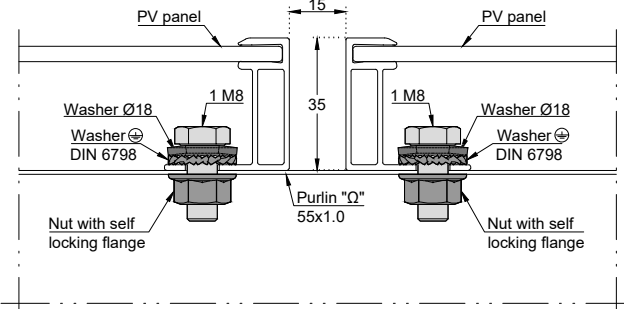
**GÉNÉRALE
du SOLAIRE**

SITE: Coved Montauty France			
TITLE: South elevation, Cross-Section and details			
SCALE AT A3: 1:25, 1:80	DATE: 08/07/22	DRAWN: DM	CHECKED: JF
PROJECT NO: 22.203	DRAWING NO: 001/002		REVISION: 5

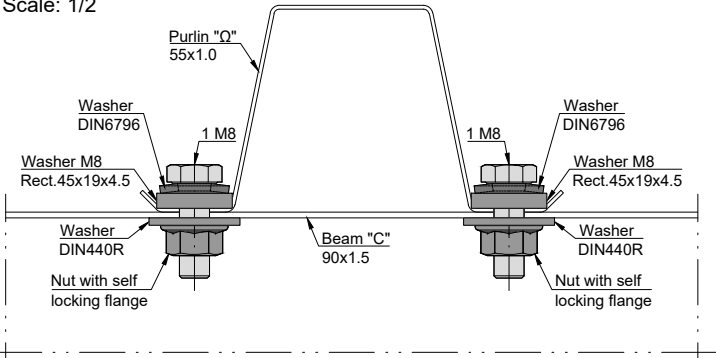
Connection C1
End panel
Scale: 1/2



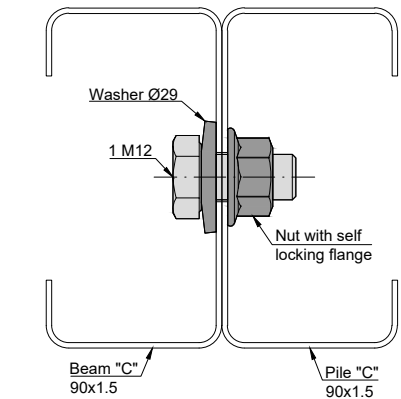
Connection C1
Middle panel
Scale: 1/2



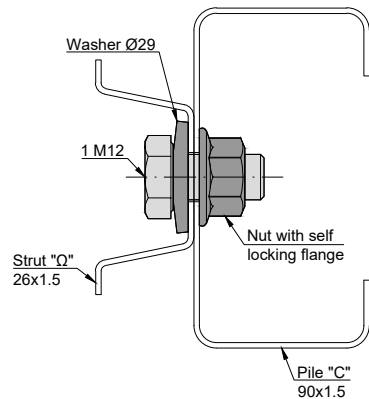
Connection C2
Purlin / Beam
Scale: 1/2



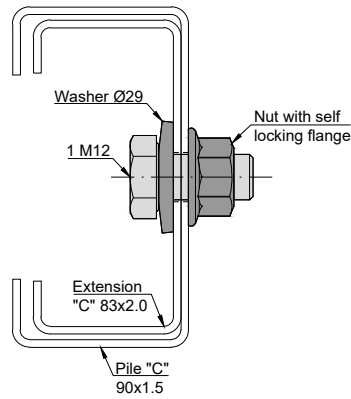
Connection C3
Pile / Beam
Scale: 1/2



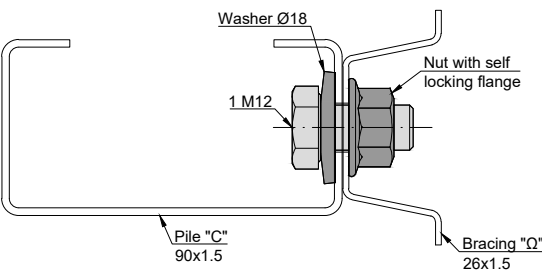
Connection C4
Pile / Strut
Scale: 1/2



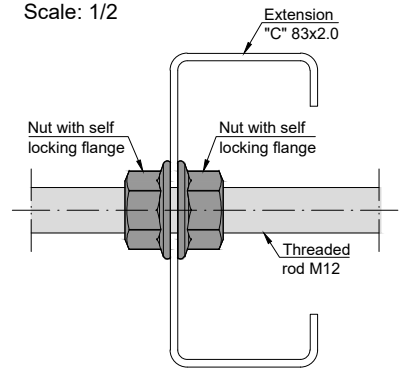
Connection C5
Pile / Extension
Scale: 1/2



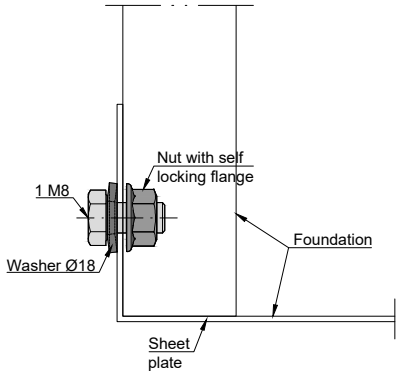
Connection C6
Pile / Bracing
Scale: 1/2



Connection C7
Column / Treaded rod
Scale: 1/2



Connection C8
Sheet Plate / Foundation
Scale: 1/2



FASTENING ELEMENT	
ELEMENTS *	DESCRIPTION
	C1 - M8 Connection - Purlin/PV module Quantity per table 2V14: 112un Quantity per table 2V28: 224un
	C2 - M8 Connection - Purlin/Beam, Purlin/Purlin Quantity per table 2V14: 48un Quantity per table 2V28: 88un
	C3 / C4 / C5 / C6 - M12 Connection - Pile/Beam; Pile/Strut; Pile/Extension; Bracing/Pile Quantity per table 2V14: 46un Quantity per table 2V28: 81un
	C7 - M12 Connection - Pile/Treaded rod Quantity per table 2V14: 120un Quantity per table 2V28: 220un
	C8 - M8 Connection - Sheet Plate/Foundation Quantity per table 2V14: 48un Quantity per table 2V28: 88un

(*) All pictures shown are for illustration purpose only. Actual element may vary due to element enhancement.

MATERIAL TABLE		
ACCORDING TO EN1090		
STEEL ELEMENT	GRADE	CORROSION PROTECTION
All profiles	S350GD+Magnelis ZM310 (EN1090-4)	GD+Magnelis ZM310 (EN10346)
FASTENER ELEMENT	GRADE	
C1 to C8	Stainless steel A2 70	

CONNECTION DESIGNATION	ELEMENTS	QUANTITY PER CONNECTION
C1	Bolt M8x20 DIN 933 ISO 4017	1
	Nut M8 w/lub DIN 6923 ISO 10663	1
	Washer M8 DIN 6796 ISO 10670	1
	Washer M10 DIN 6798 A	1
C2	Bolt M8x25 DIN 933 ISO 4017	1
	Nut M8 w/lub DIN 6923 ISO 10663	1
	Washer M8 Rect. 45x19x4.5	1
	Washer M8 DIN 440R ISO 7094	1
	Washer M8 DIN 6796 ISO 10670	1
C3; C4; C5 C6; C6	Bolt M12x25 DIN 933 ISO 4017	1
	Nut M12 w/lub DIN 6923 ISO 10663	1
	Washer M12 DIN 6796 ISO 10670	1
C7	Nut M12 w/lub DIN 6923 ISO 10663	1
C8	Bolt M8x25 DIN 933 ISO 4017	1
	Nut M8 w/lub DIN 6923 ISO 10663	1
	Washer M8 DIN 6796 ISO 10670	1

CONNECTIONS TABLE		
CONNECTION	ELEMENTS CONNECTED	TIGHTENING TORQUE N.m
C1	Panel/Purlin	12-16*
C2	Purlin/Beam	25 ⁺⁰ ₋₅
C3	Beam/Pile	65 ⁺⁵ ₋₁₀
C4	Strut/Pile	65 ⁺⁵ ₋₁₀
C5	Pile/Extension	65 ⁺⁵ ₋₁₀
C6	Bracing/Pile	65 ⁺⁵ ₋₁₀
C7	Pile/Threaded rod	Not applicable
C8	Plate/Foundation	Not applicable

(*) - This value is a recommendation from the pv module manufacturer (according to the pv module installation manual).

Inspection of preloaded bolted connection:
- After every tightening, the bolt it is sealed with a ink.

5	Added connections details.	FA	18/01/2024
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3	Change foundation size.	DM	18/11/2022
2	Change foundation size.	DM	09/11/2022
1	Increased foundation width to 600mm.	FA	21/10/2022
REV:	DESCRIPTION:	BY:	DATE:

Execution Stage

PRADECON

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CLIENT:

**GÉNÉRALE
du SOLAIRE**

SITE: Coved Montauty
France

TITLE: Connection details

SCALE AT A3: 1:2	DATE: 08/07/22	DRAWN: DM	CHECKED: JF
PROJECT NO: 22.203	DRAWING NO: 002/002	REVISION: 5	