



# COMHAIRLE NAN EILEAN SIAR

The Town and Country Planning Scotland Act 1997 – Section 36(1)

Town and Country Planning General Development Procedure Order 2013 Regulation 16

Planning Register - Part 1

## Application Details

Reference Number 24/00298/PPD

Date registered as valid 14/08/2024.

Description of Development Site ground mounted solar PV panels

Address or description of location to which the development relates Back Free Church of Scotland, Back, Isle of Lewis

E 148297 N 940125

Applicant Name Mr Alex Macleod, Back Free Church of Scotland

Applicant Address 17b Coll, Isle of Lewis, HS2 0JR

Agent name (if applicable) David Macleod, Total Design (Lighthill) Ltd

Agent address (if applicable) Balard, 68 Lighthill, Back, Isle of Lewis

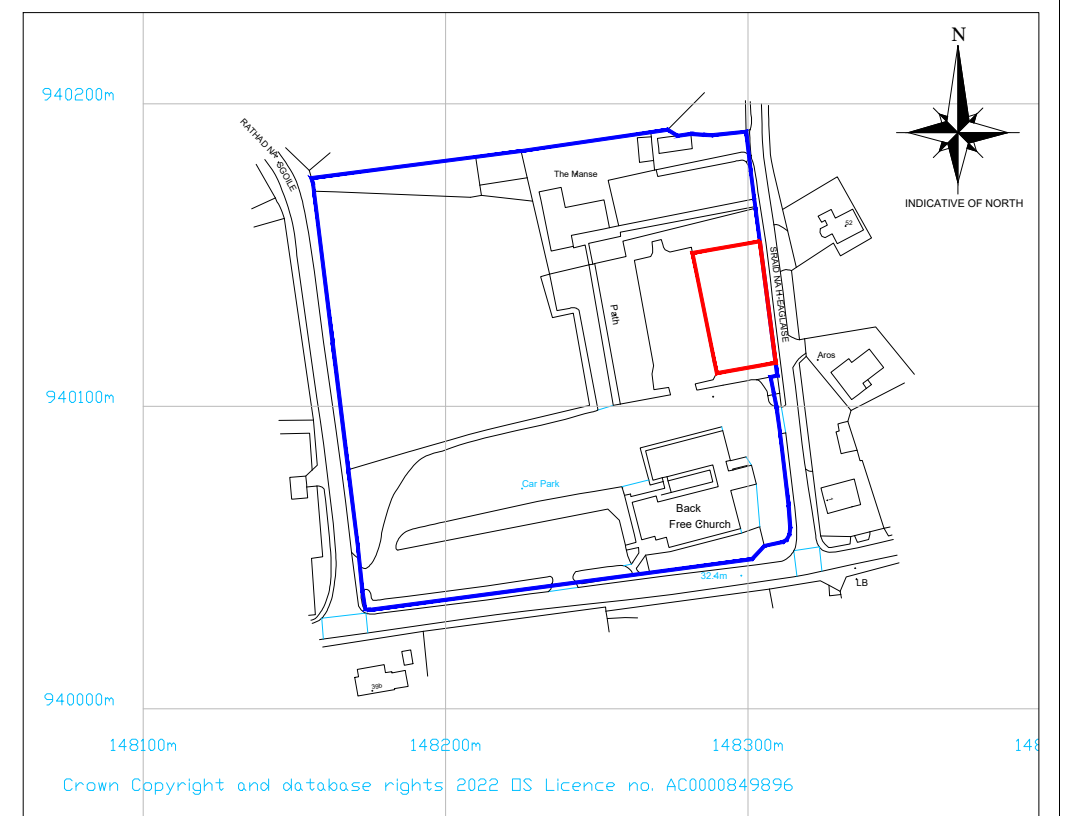
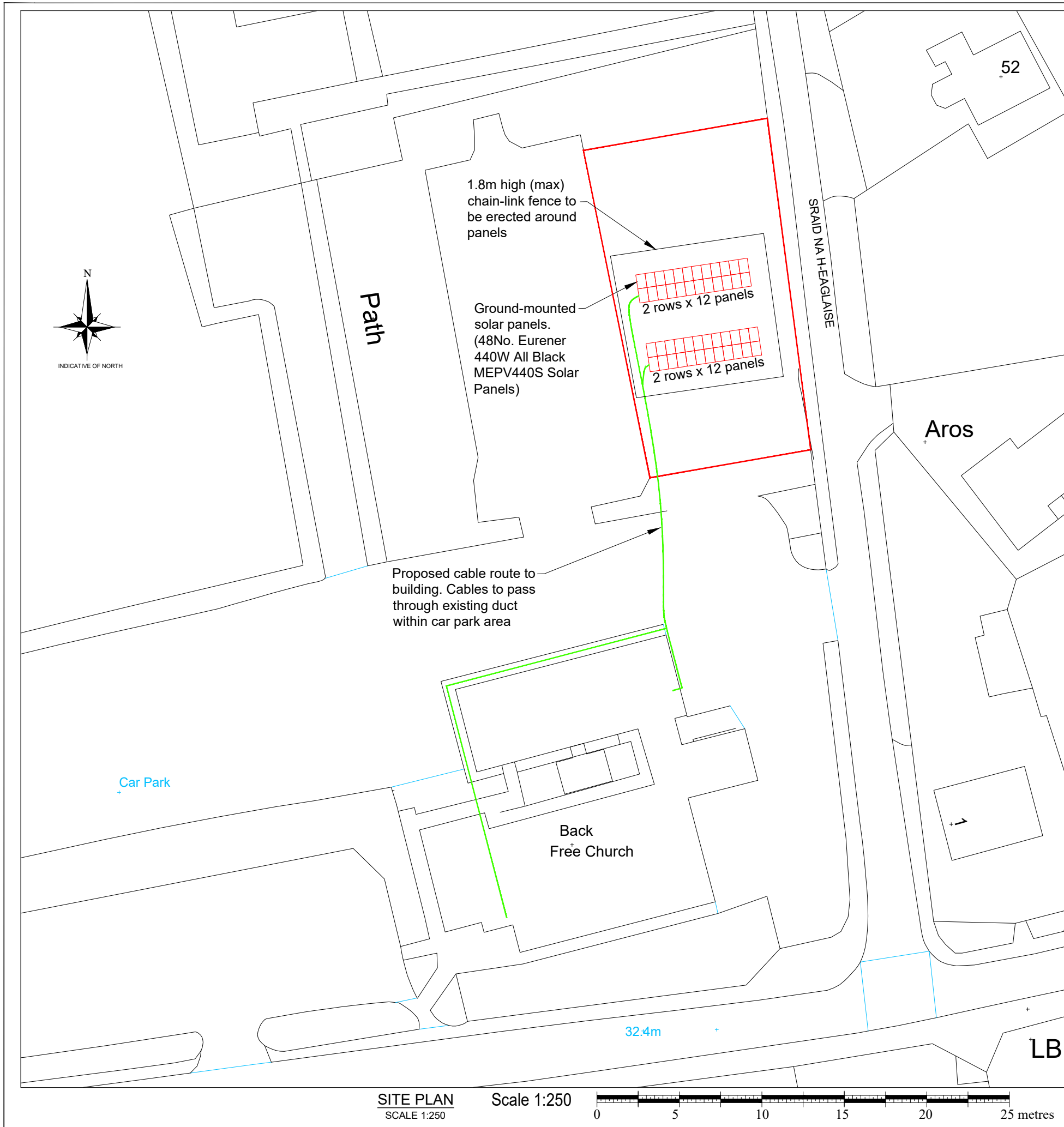
**The above application summary is accompanied by plans and drawings sufficient to describe the development and where relevant any design statement.**

Important Note: on Tuesday 07 November 2023, Comhairle nan Eilean Siar experienced a criminal cyber incident and is working with Police Scotland, the Scottish Government and the National Cyber Security Centre to investigate the matter.

The Online Planning Portal remains unavailable as does our suite of integrated software and hardware systems. In order to enable access by the wider public to application documents and consult upon planning applications, interim systems have been put in place on the temporary website of Comhairle nan Eilean Siar, including a rudimentary facility to display a limited number of documents per application.

Any party wishing to view the application file in full may do so at the offices of Comhairle nan Eilean Siar at Sandwich Road, Stornoway Isle of Lewis, HS1 2BW or Balivanich, Isle of Benbecula. HS7 5LA,

ordinarily between 9am and 5pm Monday to Friday (excluding public and local holidays). It is recommended that in advance of visiting an office to view an application that you make an appointment by sending an email to [planning@cne-siar.gov.uk](mailto:planning@cne-siar.gov.uk)



**Notes:**

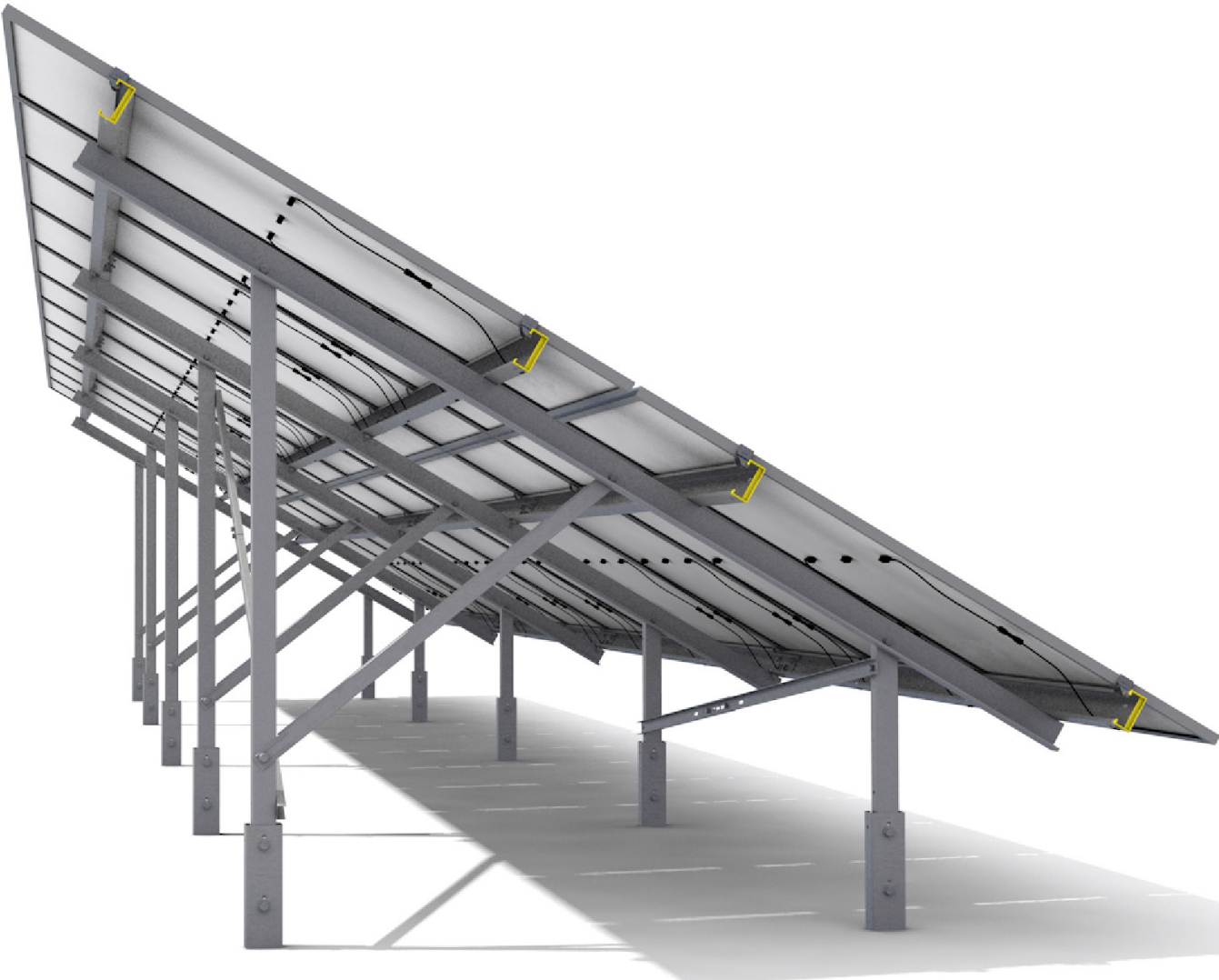
- 1) This drawing to be read in conjunction with the relevant specification and all other relevant drawings.
- 2) All dimensions and levels to be checked on site and any discrepancies identified prior to commencement of work.
- 3) All dimensions in metres unless otherwise noted.
- 4) All levels in metres unless otherwise noted.

<b>Applicant:</b> Back Free Church of Scotland					
Project Proposed solar PV panels, Back Free Church of Scotland, Isle of Lewis					
Drawing <b>SITE &amp; LOCATION PLANS</b>					
Drawn by: D MacLeod Date: 13.08.24					
Checked by: - Date: -					
Approved by: - Date: -					
Drawing No. <b>P1337-PV-001</b>					Revision <b>01</b>
Drawing Scale: AS NOTED @ A3					

Modular 2-In-Portrait Datasheet



**SOLARPORT**  
FIXING THE FUTURE



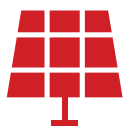
ISO 9001  
ISO 45001  
ISO 14001



# Modular

## 2-in-portrait ground mount system

For commercial and domestic-scale, held in stock for rapid deployment



Easy site planning



Held in stock



Range of angles  
available



Utilises a range of  
foundation options

### Overview:

The Modular system is ingeniously engineered for commercial and domestic sites, with the flexibility to accommodate any of our foundation options. Site planning, design, and deployment are streamlined for ultimate convenience.

Benefit from an elegant design that minimises component variations, featuring universal parts for easy expandability. The Modular framework employs a single fixing size throughout, eliminating on-site complications and accelerating the installation process.

Strategically designed to be compatible with 80% of the UK's landmass and versatile enough to accommodate the majority of panel sizes in the market, the Modular system simplifies planning and offers peace of mind for those that want Solarport quality, straight off the shelf.

With Modular systems readily stocked, we guarantee swift, direct-to-site deliveries.



# Technical data

Modular is held in stock for rapid distribution and can utilise a multitude of different foundation options, ensuring that almost no terrain is off limits.

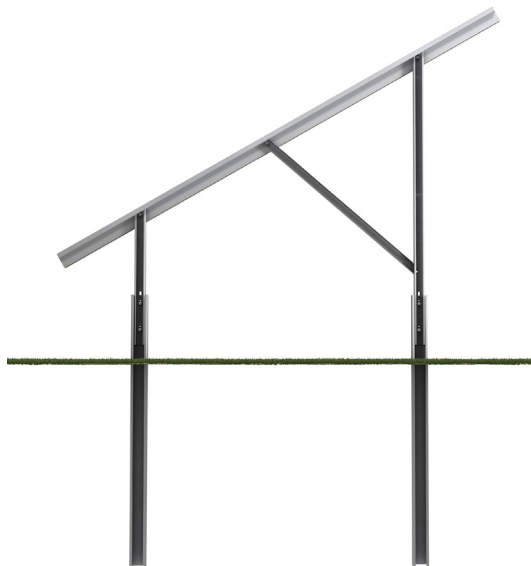
The modular design allows for the tables to be built in bays of 2 or 3 panels wide and is suitable for ground up to a maximum slope of approximately 5°.

Panel configuration:	2-in-portrait
Panel min and max length:	Minimum length: 1650 mm. Maximum length: 2470 mm
Purlin configuration:	4 purlins, position determined by panel dimensions and clamping zones
Panel clamping zones:	Please refer to panel manufacturer's specification
Panel clamp specifications:	Panels fitted using aluminium top hat and end clamps, with sliding clamps to give mounting positions
System angles:	20°, 25°, 30°
System min and max heights:	20°: Minimum (clearance): 785 mm Maximum (to top of rafter): 2200 mm 25°: Minimum (clearance): 735 mm Maximum (to top of rafter): 2455 mm 30°: Minimum (clearance): 680 mm Maximum (to top of rafter): 2694 mm
Bay sizes:	2 panels and 3 panels wide
Table configuration min and max:	2 panels x 2 panels min. 30 panels x 2 panels max.
Bay pitches:	2000 mm, 2500 mm, 3000 mm, 3500 mm. Each pitch can have 100 mm added if Extension Joiner is used
Foundation types:	C Pile, V Pile, Concreted Pile, Ballasted, X Anchor, Spirafix, Direct Fix, Ground Screw
Material specification:	S350 & S450 grade steel, coating Z600 or ZM310. Hot rolled steel (S355JR), hot dipped galvanised to ISO 1461
Wind speed:	Fundamental basic UK wind velocity within the UK up to 28m/s
Snow loads:	0.7 kN/m <sup>2</sup> max
Design codes:	Designed in accordance with BS EN 1991-1-4:2005 + A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)



# Modular foundation types and technical data

Install the Modular system with any of the following foundation options



**Name:** C Pile

**Suitable for:** Sites where breaking ground is possible, geotechnical results permit use and/or machinery is available

**Installation:** Piling rig.  
2000 mm pile, 1500 mm embedment

**Material:** S350 & S450 grade steel. Coating Z600 or ZM310. Hot rolled steel (S355JR). Hot dipped galvanised to ISO 1461

**Dimensions:** 120 mm x 70 mm x 3 mm x 2000 mm

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)

**Name:** V Pile

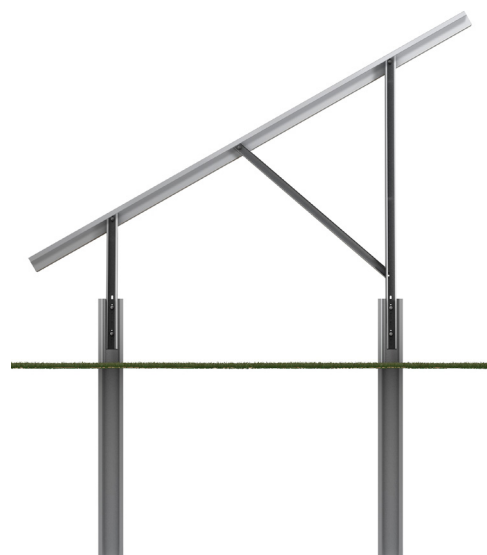
**Suitable for:** Sites where breaking ground is possible and geotechnical results permit use. Performs well in rocky and/or hard ground conditions

**Installation:** Piling rig. Only issued if test results permit use

**Material:** S350 & S450 grade steel. Coating Z600 or ZM310. Hot rolled steel (S355JR). Hot dipped galvanised to ISO 1461

**Dimensions:** 102 x 44 x 30 (length determined by test results)

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)



**Name:** X Anchor (Patent Number: GB2607092)

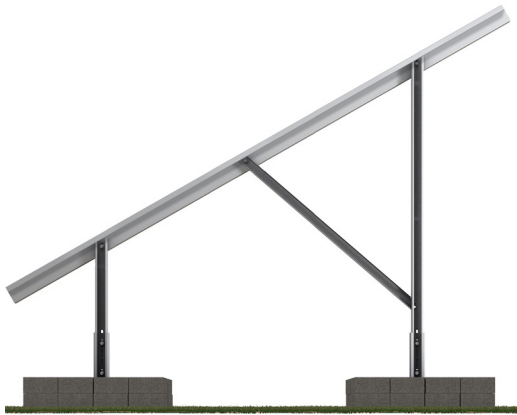
**Suitable for:** Sites that require shallow embedment and/or no heavy machinery

**Installation:** Steel rods driven in with hand tools

**Material:** Hot rolled steel (S355JR). Hot dipped galvanised to ISO 1461

**Dimensions:** 600 mm embedment

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)



**Name:** Ballasted

**Suitable for:** Sites where breaking ground is not permitted (archaeological or geotechnical)

**Installation:** Steel plates weighted with high density concrete blocks

**Material:** S350 & S450 grade steel. Coating Z600 or ZM310

**Dimensions:** Plate size: 960 mm x 900 mm

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)

**Name:** Concreted Pile

**Suitable for:** Sites where breaking ground is possible, geotechnical results permit use and/or machinery is available

**Installation:** 1500 mm pile, 250 mm dia x 1000 mm deep augered hole, 4 bags of Postcrete per hole

**Material:** S350 & S450 grade steel. Coating Z600 or ZM310. Hot rolled steel (S355JR). Hot dipped galvanised to ISO 1461

**Dimensions:** 120 mm x 70 mm x 3 mm x 1500 mm

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)



**Name:** Direct Fix

**Suitable for:** Non-cracked concrete foundations ranging between C20/25 & C50/60

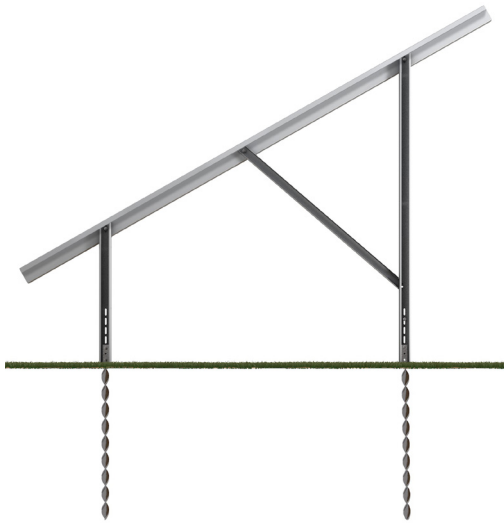
**Installation:** Torque controlled expansion bolts fitted into concrete with hand tools

**Material:** Adjustable upright: S350 & S450 grade steel. Coating Z600 or ZM310. Bolts: High tensile steel hot dipped galvanised to EN 1461

**Dimensions:** M12 x 145mm torque controlled expansion bolts

**Design codes:** Designed in accordance with BS EN 1991-1-4:2005 +A1:2010. BS EN 1090 & BS EN 1991 Parts 1, 3 & 7 (Eurocodes)





Name: Spirafix

Suitable for: Sites that require shallow embedment and/or no heavy machinery

Installation: Steel screws driven in with hand tools

Material: Sherardised steel

Dimensions: 50 mm x 1050 mm

Website link: <https://www.spirafix.com>

Name: Ground Screw

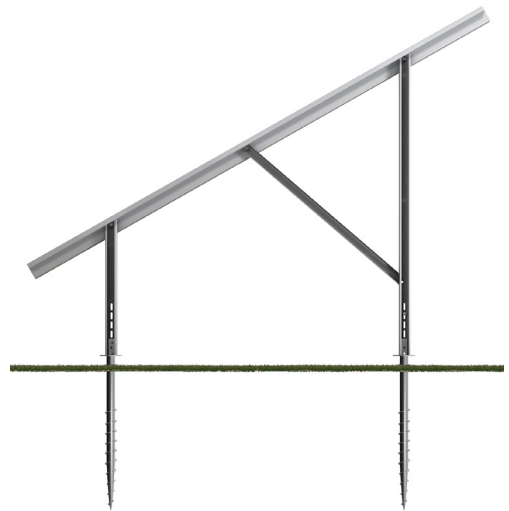
Applicable with: Twin post systems

Suitable for: Sites where breaking ground is possible

Installation: By hand and/or with drilling machinery

Material: Q235 steel. Hot dip galvaised to DIN EN ISO 1461

Dimensions: Pipe - 68 x 2 x 1200mm. Flange - 120 x 5mm



Further Technical Information & Customer Support Details:

Modular PV Contacts:

**Head of Modular PV:**  
 Peter Bechervaise  
 Pete.Bechervaise@SolarportSystems.com

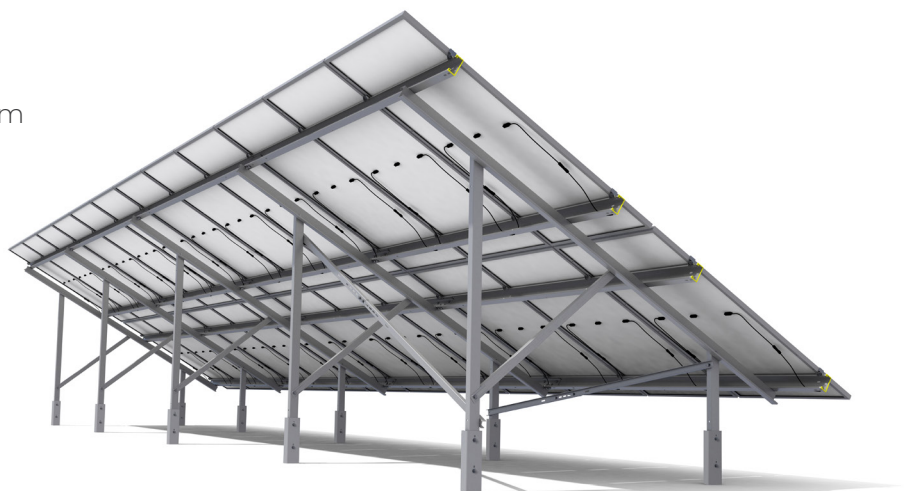
**Sales Engineer:**  
 Niall Davis  
 Niall.Davis@SolarportSystems.com

Head Office:

**Office Manager:**  
 Lucy Hughes  
 Lucy.Hughes@SolarportSystems.com

Address:

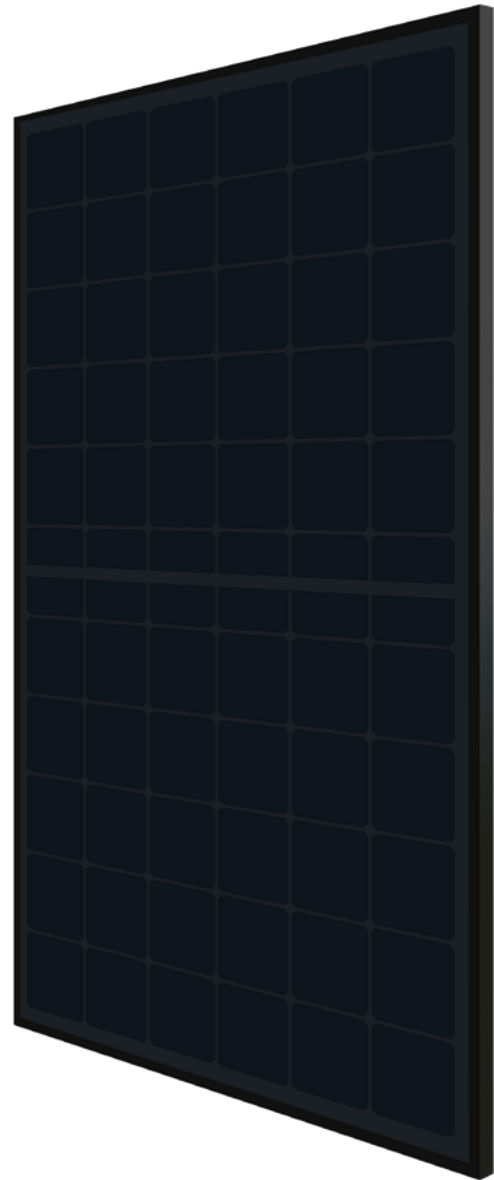
The Core, Gore Cross Business Park, Bridport, Dorset, DT6 3FH



# Ultra

MEPV 132 cells — Eurener PV Module

> **440Wp**



**N-type cell**

Higher resistance to LID and LeTID



**Back contact technology**

Improved energy yield by reducing BB shadowing



**Better temperature coefficient**

Minimized thermal losses, improved efficiency



**Easy to handle**

Comfortable installation thanks to an optimized area size



**Premium aesthetic**

Commercial and residential rooftop integration



**Elegant design**

Cells free from frontal metallization



**20 Years**

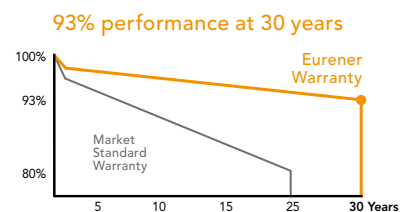
**Product Warranty**

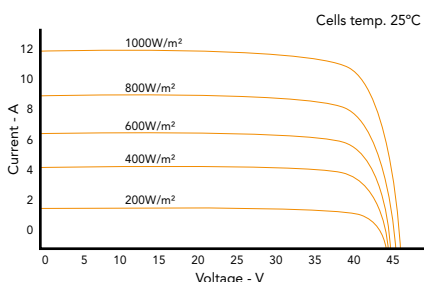
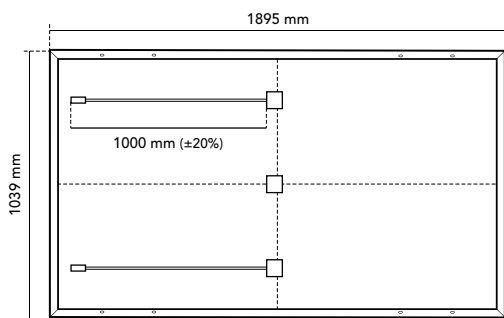
+5 years for Premium Partners

**30 Years**

**Performance Warranty**

Linear Warranty





Mechanical Specification	
Solar cells	132 (6 x 22), N-Type monocrystalline silicon cells
Front Glass	3,2 mm thick tempered glass with high strength and ARC
Frame	Black anodized aluminium
Junction Box	IP68, 3 by-pass diodes
Connector	Original MC4-Evo 2
Cable	1000 mm (±20%) length and 4 mm <sup>2</sup> section
Dimension	1895 x 1039 x 30 mm (±1%)
Area	1,97 m <sup>2</sup>
Weight and packaging	21 kg, 900 pcs-truck
Temperature Coefficients	
Temperature coefficient of Isc (α)	0,045 %/°C
Temperature coefficient of Voc (β)	-0,247 %/°C
Temperature coefficient of Pmax (γ)	-0,290 %/°C
Temperature range	-40 °C ~ +85 °C
Nominal operating cell temperature (NOCT)	43 ± 2 °C

Black	MEPV 440
<b>STC: 1000 W/m<sup>2</sup>, module temperature 25°C, AM 1,5</b>	
Nominal power. Pmax	440 Wp
Module efficiency	22,37 %
Short-circuit current (Isc)	12,06 A
Open-circuit voltage (Voc)	46,30 V
Maximum power current (Imp)	11,12 A
Maximum power voltage (Vmp)	39,60 V
<b>NOCT: 800 W/m<sup>2</sup>, ambient temperature 20°C, AM 1,5</b>	
Nominal power. Pmax	337,10 W
Short-circuit current (Isc)	9,73 A
Open-circuit voltage (Voc)	44,24 V
Maximum power current (Imp)	8,98 A
Maximum power voltage (Vmp)	37,54 V
<b>Operating parameters</b>	
Maximum voltage	1500 V
Maximum series fuse rating. Ir	20 A
Power output tolerance	0 - +3%
Voc and Isc tolerance	±3%
Fire rating	Class C (UL 790)
Protection class	Class II (IEC 61140)
Hail resistance	HW3/RG3
Mechanical loads	Front load 5400 Pa, Back load 2400 Pa

NOTE: Read the instruction manual of this product and follow the indications STC. Values are valid for: 1000W/m<sup>2</sup>, AM 1,5 and cells temperature of 25°C. Measurement tolerance +/-3% (AAA Solar simulation -IEC 60.904-9-). All the information of this brochure may be amended without notice by Eurener. Eurener\_MEPV 132\_ULTRA\_440Wp\_EN\_JAN2024