

Solar electricity for plain tiled roofs

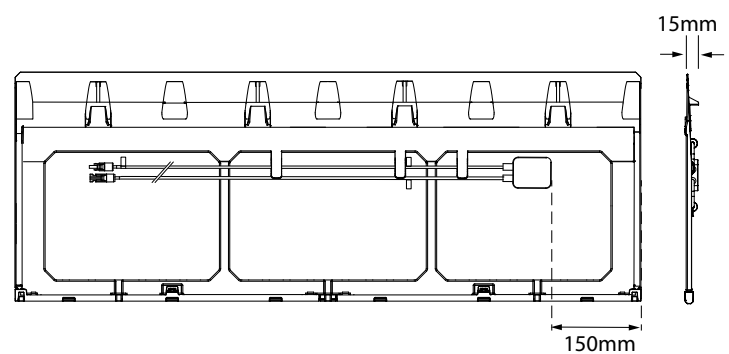
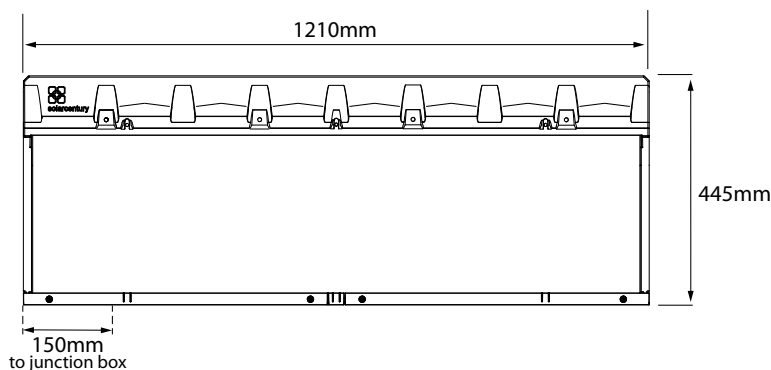
Solarcentury's C21e solar plain tile system delivers universal compatibility with small format plain tiles and an excellent performance per m², providing a perfect complement to a traditional plain tiled roof.

No extra planning: The C21e solar plain tile system sits flush with standard roof tiles, to provide a traditional finish. They protect your home from the elements whilst producing electricity.

Ease of installation: Fitted to standard wooden battens using traditional roofing practice, with one C21e covering the width of approximately seven conventional tiles.

No specialist skills: Designed to be installed by roofers, as part of the roof build, the C21e solar plain tile system fits 'straight out of the box' without the need for bespoke flashings or fillers.

Fast to fit: As fast to fit as traditional plain tiles, and complete with simple click-to-fit connectors, allowing all of the electrical work to be carried out within the building.



Dimensions

Gross width	1210 mm	
Gross length	445 mm	
Profile depth	15 mm	
Covering width	1210 mm	
C21e tile gauge	300 mm	
Maximum roof pitch (subject to fixing specification)	90°	
Minimum roof pitch*	30°	
Covering capacity	2.8 C21e/m ²	
Individual unit weight	4.9 kg	
Weight as laid	15.5 kg/m ²	
Batten size	up to 450mm rafter centres	38 x 25 mm
(nailed to BS5534)	up to 600mm rafter centres	50 x 25 mm

Screws and fixings supplied:

C21e stainless steel roof hooks with Torx fixing screws (T20) three per C21e unit,
C21e stainless steel starter course hooks with Torx fixing screws (T20) three per unit
on the bottom course, adjustable channels and tile interfaces.

Refer to fixing specification for the plain tiles to be installed alongside C21e.

* If the minimum pitch for the conventional plain tile is greater than the minimum pitch for C21e, the fixing specification for the conventional plain tile should take precedence. Please refer to the C21e plain tile installation guide for details.

Electrical specification

Photovoltaic cell technology	Monocrystalline
Cell dimensions (quantity) / diodes	125 x 125 mm (18) / 1
Peak power ⁽¹⁾	50 Wp
Wp/m ²	138
Laminate size (active area)	1174 x 318 mm
Cell efficiency	18.9 %
Module efficiency	13.9 %
Maximum power voltage (Vmp) ⁽²⁾	9.2 V
Maximum power current (Imp) ⁽²⁾	5.45 A
Open circuit voltage (Voc) ⁽²⁾	11.4 V
Short circuit current (Isc) ⁽²⁾	5.70 A
Maximum system voltage (Vdc)	1000 V DC
Series fuse rating	9 A
NOCT	48.0 °C
Temperature coefficient of the open-circuit voltage	-0.027 V/°C -0.241 %/°C
Temperature coefficient of the short-circuit current	1.88 mA/°C 0.033 %/°C
Temperature coefficient of the power	-0.37 %/°C
Connectors	MC4 type IP65 push fit connectors
Cables	Class II double insulated 4mm ² cable, rated -40° +85°

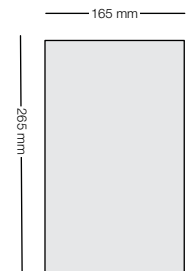
(1) Measured under Standard Test Conditions of 1000W/m² irradiance, AM 1.5 spectrum, 25°C cell temperature.

(2) Values of current, voltage and power +/- 5%.

Compatibility

C21e plain tile is compatible with clay and concrete single and double camber plain tiles from a range of manufacturers including;

- Cemex
- Dreadnought
- Imerys
- Keymer
- Koramic
- Marley (Eternit)
- Redland (Monier)
- Sandtoft



For a full list please see
www.solarcentury.co.uk/C21e

Certifications & warranty

Weather-tightness tested to roofing industry standard prEN15601.
External fire exposure test to BS 476-3: 2004, AB rating.



- Qualified, IEC 61215
- Safety Tested, IEC 61730
- Periodic Inspection

Power output guaranteed for 25 years from date of commissioning (80% performance). 10 year product warranty.

Installation

Please refer to the C21e Installation Guide before starting installation. Solarcentury solar plain tiles must be laid and fixed to comply with BS 5534: the British Standard Code of practice for slating and tiling, and BS 8000: Part 6: the British Standard Code of practice for workmanship on building sites.



For information on purchasing a C21e solar system,
please contact the Solarcentury C21e team on 020 7549 1186

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For installations outside of the Specification please contact Solarcentury.
Solarcentury reserves the right to change specifications when necessary without prior notice.