

Datasheet

C21e
solarelectricroofslate

Solar electricity for slate roofs

Solarcentury's C21e Slate delivers an excellent performance per m² and is compatible with a wide range of natural and artificial slates, providing a perfect complement to a traditional slate roof.

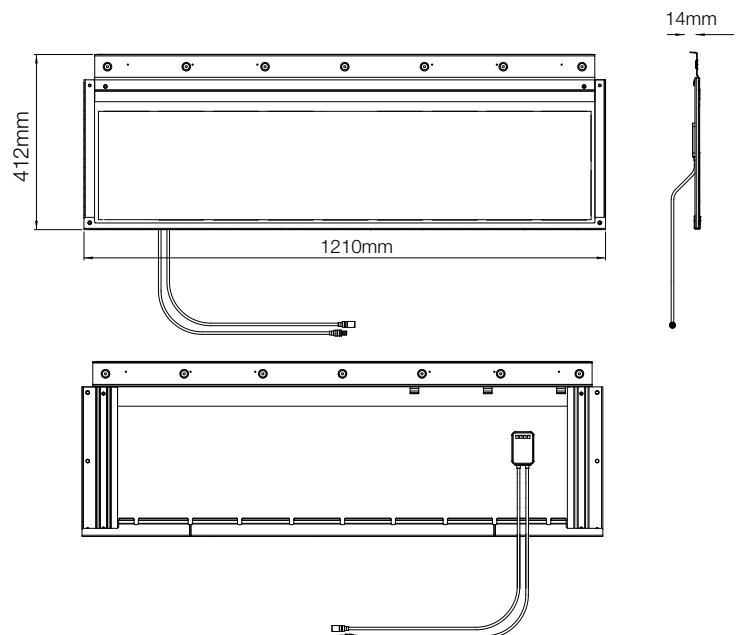


No extra planning: C21e slates sit flush with standard roofing slates, to provide a traditional finish. Protecting your home from the elements and producing power for your home.

Ease of installation: Fitted to standard wooden battens using traditional roofing practice, with one solar slate covering the width of several conventional slates.

No specialist skills:
Designed to be installed by slaters, as part of the roof build.

Fast to fit: Faster to fit than traditional slate, with all of the electrical work carried out within the building.



Compatibility

Natural slate - 600 x 300, 500 x 300, 500 x 250, 320 x 220, 300 x 200
 Marley Eternit fibre cement: Rivendale 600 x 300, Garsdale 600 x 300 & 500 x 300, Birkdale 600 x 300, Thrutone 600 x 300

Dimensions

	For slate size	600 x 300	500 x 300 & 500 x 250	320 x 220	300 x 200	mm
Gross Width		1210	1210	1210	1210	mm
Gross Length		412	412	412	412	mm
Profile Depth		14	14	14	14	mm
Exposed Length		300	300	315	315	mm
Covering width		1210	1210	1210	1210	mm
Minimum roof pitch (subject to fixing specification)		30	30	35	35	degrees
Maximum roof pitch (subject to fixing specification)		70	70	70	70	degrees
C21e Slate gauge		300	300	315	315	mm
Slate gauge		250	200	105	105	mm
Slate headlap		100	100	110	90	mm
Covering capacity		2.8	2.8	2.6	2.6	C21e/m ²
Individual unit weight		5.1	5.1	5.1	5.1	kg
Weight as laid		14.0	14.0	13.4	13.4	kg/m ²
Batten size (Minimum. For rafters not exceeding 600mm centres, nailed to BS5534)		50 x 25	50 x 25	20 x 50	20 x 50	mm
Screws and fixings (supplied)	4 stainless steel screws with EPDM washers and 2 slate hooks (per unit). Soak trays.					

Refer to fixing specification for the slates to be installed alongside C21e

Electrical Specification*

Photovoltaic cell technology	Monocrystalline	
Cell Dimensions	125 x 125 mm	
Power ⁽¹⁾	52 Wp	
Wp/m² (600x300)	143	
Wp/m² (500x250)	143	
Wp/m² (320x220)	136	
Laminate size (active area)	1174 x 318 mm	
Number of cells	18	
Cell efficiency	20 %	
Module efficiency	14.9 %	
Maximum power voltage*	9.80 V	
Maximum power current*	5.30 A	
Open circuit voltage*	12.0 V	
Short circuit current*	5.55 A	
Maximum system voltage	600 V DC	
Temperature coefficient of the open-circuit voltage	-0.0342 V/°C	-0.286 %/°C
Temperature coefficient of the short-circuit current	2.27 mA/°C	0.028 %/°C
Temperature coefficient of the power	-0.38 %/°C	
Cables	Class II double insulated 4mm cable	
Connectors	Standard MC IP65 push fit connectors	

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

* Values of current, voltage and power +/- 10%

Certifications

Weather-tightness tested by BRE to PIT Agreed Roofing Industry standards prEN15601

CE

External fire exposure test to BS 476-3: 2004, AA rating (Indicative)

Installation

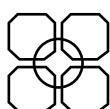
Please refer to Solarcentury's Design and Installation Guide before starting installation.

Solarcentury solar electric roof slates 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.

Warranty

Power output guaranteed for 25 years from date of commissioning (80% performance)

10 year product warranty.



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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.