

Issue Version	Date	By	Checked	Approved
0.0	28 <sup>th</sup> May 2014	MJA	LS	MJA

## SOLAR SLATE – Multi

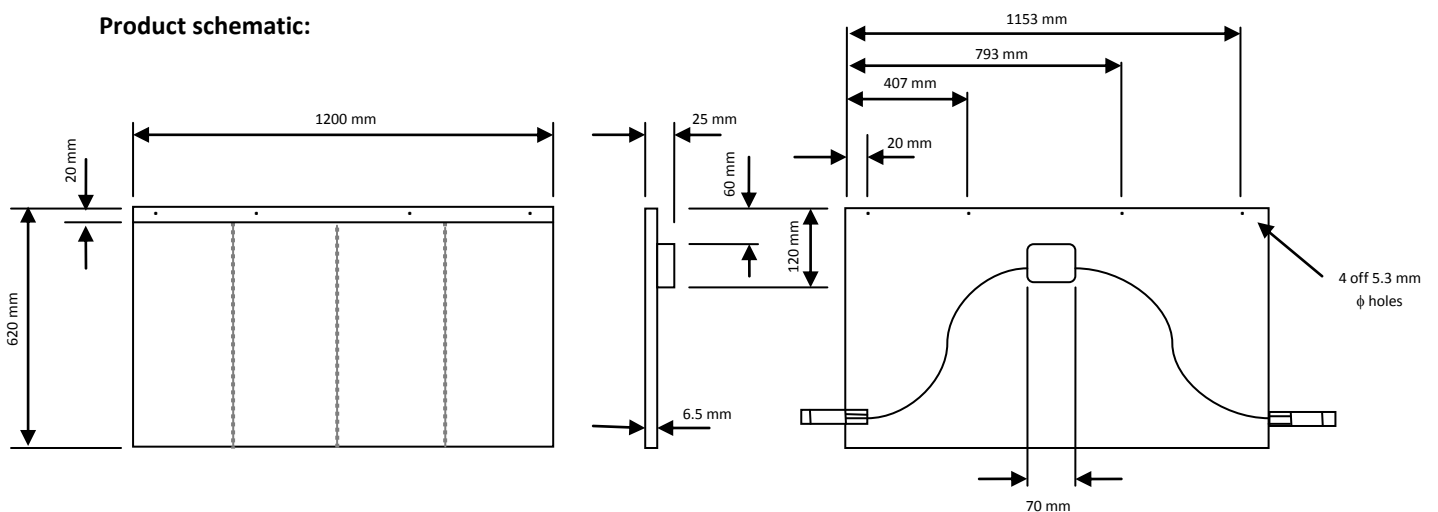
The Solar Slate ‘Multi’ is a photovoltaic unit that visually emulates a row of four standard 24” x 12” (610 mm x 305 mm) ‘Duchess’ roofing slates. The product has a very good colour match to traditional Welsh ‘blue’ slate grades<sup>1</sup>, and is installed utilising four stainless steel screws through preprepared holes along the top edge of the unit with two screwed penny washers overlapping the unit’s sides, on a 260 mm batten gauge.

The product is designed to be linked together in a series of ‘strings’ to feed DC electrical power into a set of inverters for either on-site consumption or export.

**Product:** Solar Slate ‘Multi’ product installed in a slate roof



**Product schematic:**



<sup>1</sup> Roofing slate is a natural product that varies in appearance according to both origin and weather exposure, so exact colour matching is impossible to guarantee, however please contact Solar Slate Limited for recommended materials to achieve the best colour alignment.

**Product specifications:**

<b>Mechanical</b>	Nominal Dimensions (L x W x T)	620 mm x 1200 mm x 6.5 mm
	Connectors	Multi-contact connectors Type MC4 with 1.0 m fly leads
	Junction box	Solar Slate custom designed Antaya junction box
	Slate weight (individual product)	10.5 Kg
	Slate product packaging	Standard palletised carton containing 25 slates Carton dimensions 1250 mm (L) x 800 mm (W) x 800 mm (H) plus Euro pallet Packed weight 285 Kg ( including pallet)
	Roof mounting method	Using stainless steel slate roofing screws and penny washers: <ul style="list-style-type: none"> <li>- 4 off M5 x 25 mm A2 pan head wood screws</li> <li>- 2 off M5 x 25 mm A2 counter sunk wood screws</li> <li>- 4 off M5 x 20 A2 penny washer</li> <li>- 2 off M5 x 30 A2 penny washer</li> </ul> Batten gauge 260 mm
	Minimum roof angle <small>(When applied in accordance with BS5534:2003 this is determined by the matching 'Duchess' size natural slates headlap)</small>	27.5° In 'Moderate' exposure areas < than 56.5 litre/m <sup>2</sup> per spell 35° In 'Severe' exposure areas > 56.5 litre/m <sup>2</sup> per spell
<b>Electrical</b>	Nominal output at STC (P <sub>max</sub> . MPP)	39 Wp. (+/- 10%)
	Short Circuit Current - I <sub>sc</sub>	5.12 A
	Open Circuit Voltage - V <sub>oc</sub>	10.15 V
	Current at MPP	4.94 A
	Voltage at MPP	8.24 V
	Temperature coefficient of power	0.0461 % / °C
	Temperature coefficient of Voltage - V <sub>oc</sub>	-0.3324 % / °C
	Maximum permissible system voltage - V <sub>MAX</sub>	600 V (Maximum string length is 59 Multi Solar Slates)



**Note:** Under normal conditions, a photovoltaic unit is likely to experience conditions that produce more current and /or voltage than reported at standard test conditions. Accordingly the values of I<sub>sc</sub> and V<sub>oc</sub> specified for this product should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor ratings, fuse sizes and size of controls connected to the PV output.

**Product certifications:**

Design Qualification and Type Approval testing to:- IEC 61215:2005 / EN 61215:2005  
EN 61730:2007 +A1 2012

Flammability combined testing and classification to BS476-3:2004, ENV1187:2002-Test 4, BS 13501-5:2005

Weather Resistance Test MCS012 (FprEN 15601[2] Test method)

Resistance to Wind Uplift test MCS012 (EN14437:2004 Test method)

European Community Design Registration 001321301-0001



Certificate Number BABT 8504 R1- Product category 8504-02 Multi 24/12 panels

UK patent No. 2456160

**Warranty:**

The Solar Slate Multi has a 10 year product and power performance warranty.

Power performance warranted as a minimum of 80% of initial estimated output after 10 years

**Contacts:**

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