



**Cyclone Testing Station**  
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## TEST SUMMARY SHEET – TS872

Reappraisal Date of Test Summary Sheet: 31 December 2016 (See Note 3 below).

Simulated cyclic wind load strength testing was conducted on **SunLock** framing system which supported photo voltaic solar modules. The testing was performed with the use of new materials provided by **Energy Matters Pty Ltd**.

### Description of Tested Photo Voltaic Solar Panels

Product Names: *SL2R4.2* rail, *SLLF005* L-Foot bracket, *SLECF38* end clamp and *SLMC014* mid clamps  
Panel Dimensions: 1,665 mm long and 991 mm wide  
Panel Description: Photo voltaic solar module fixed to top flange of a perimeter frame  
Panel Frame Description: Nominally 1.7 mm thick “Cee” shaped aluminium extrusion cross section with outer top and bottom flange width of 12 mm and 28 mm, respectively, web height of 38 mm  
L-Foot Bracket: 80 × 50 × 8 mm “L” shaped aluminium extrusion bracket  
Rail: Slotted rectangular aluminium extrusion channel with overall dimensions 54 × 31 mm and varying total cross section thickness between 1 mm and 2 mm  
End Clamp: Aluminium extrusion in the form of a “Z” section with one lip, with dimensions of the section being 15 × 30 × 25 × 13 mm, a depth of 45 mm, and average thickness of 5 mm  
Mid Clamp : Aluminium extrusion with an overall width of 42 mm and an overall height of 18 mm, 45 mm deep with a nominal 3-4 mm thickness, and a 16 mm wide groove  
L-Foot Bracket Bolt: M8 × 25 mm bolt with a 22 × 15 mm, 22.5 mm deep grooved connector nut  
End and Mid Clamp Bolt: M8 × 35 mm and M8 × 50 mm stainless steel bolts, respectively, with a 22 × 15 mm, 22.5 mm deep grooved connector nut

### Client Details

Name of Client: Energy Matters Pty Ltd  
Address of Client: and 63-69 Market St, South Melbourne, VIC, 3205

### Report and Test Details

Report Details: Cyclone Testing Station Report No. TS872, dated 19 December 2012  
Report Title: Cyclic Strength Wind Load Testing of SunLock Framing System supporting Photo Voltaic Solar Modules  
Wind Load Testing: Cyclic strength tests to BCA 2012 LHL test regime

### Recommended Ultimate Strength Limit State Design Wind Capacities for Three Panel Configuration

Panel Size (mm)	Rail Spacing (mm)	L-Foot Bracket Spacing (mm)	Recommended Cyclonic Ultimate Strength Limit State Design Wind Capacity (kPa)
1,665 × 991	1,249	1,011	4.90

### Conditions of Use

- Design capacities are only applicable for materials, test geometries and installation method used;
- Refer to Report No. TS872, (contact Energy Matters Pty Ltd) for full details of the specimen, test methods, acceptance criteria and results;
- These design capacities are based on legislation and standards that are current at the time of issue and may be subject to change. Therefore this Test Summary Sheet should be reappraised by the date noted.

Signed

Mr. T. Walther  
Senior Engineer

Mr. C. J. Leitch  
Authorised Signatory  
Senior Consulting Engineer

Date

19/12/2012

19-12-2012

