

Cyclone Testing Station
College of Science and Engineering
James Cook University
Townsville Qld 4811 Australia

Telephone (07) 4781 4722
Email: jcu.cts@jcu.edu.au
www.jcu.edu.au/cts

TEST SUMMARY SHEET – TS1191

Reappraisal Date of Test Summary Sheet: 31 December 2024 (See Note 2 below)

Static and cyclic simulated wind load strength testing was conducted on **Q CELLS Q.PEAK DUO L-G8.2** Photovoltaic Solar Panels. The testing was performed with the use of new materials provided by **Hanwha Q CELLS Australia Pty Ltd.**

Description of Photovoltaic Solar Panels and Set-Up Tested

Product Name: Q CELLS Q.PEAK DUO L-G8.2
Panel Geometry: 2,080 mm long and 1,030 mm wide
Cell Panel Description: 3.2 mm thick photovoltaic module fixed to top flange of a perimeter frame
Panel Frame Description: Nominally 2 mm thick “Cee” shaped aluminium extrusions with cross sections with outer top and bottom flange width of 12 mm and 35 mm respectively for side extrusion and 8 mm and 24 mm respectively for width extrusion. Both had a web height of 35 mm and comprised a box section.
Module Mounting Rail: Rectangular shaped hollow aluminium extrusion section overall dimensions 110 × 65 mm nominally 2 mm thick. Connected with a splice nominally 105 × 45 mm with varying thickness and length of 300 mm
Mounting Rail Clamp: “U” shaped aluminium extrusion 30 mm wide 12 mm and 9 mm top and bottom flanges and 50 mm length
Mid Clamp Assembly: “T” shaped aluminium extrusion 18 mm high, 40 mm wide and 40 mm length with flange thickness of 4 mm and length of 12 mm. Stainless steel M8 × 45 mm bolt and connector nut
End Clamp Assembly: “Z” shaped aluminium extrusion 36 mm high 12 mm and 16 mm top and bottom flanges and 40 mm length with average thickness of 4 mm. Stainless steel M8 × 28 mm bolt and connector nut.

Manufacturer’s Details

Name of Manufacturer: Hanwha Q CELLS Australia Pty Ltd
Address of Manufacturer: Suite 1, Level 1, 15 Blue Street, North Sydney, NSW 2060

Report and Test Details

Report Details: Cyclone Testing Station Report No. TS1191, dated 06 October 2020
Report Title: Static and Cyclic Simulated Wind Load Strength Testing of Q CELLS Q.PEAK DUO L-G8.2 Photovoltaic Solar Modules
Test Regimes: Static wind load testing to AS 4040.2, cyclic wind load to NCC 2019 LHL

Recommended Limit State Design Wind Pressures

Module Size (mm)	Rail Spacing (mm)	T-Rail Clamp Bracket Spacing (mm)	System Tested	Recommended Non-Cyclonic Ultimate Strength Limit State Design Wind Capacity (kPa)	Recommended Cyclonic Ultimate Strength Limit State Design Wind Capacity based on LHL Cyclic Testing (kPa)
2,080 × 1,030	350-1,38-350	1,000	Three Modules	6.98	5.45

Conditions of Use

1. Refer to Report No. TS1191, (contact Hanwha Q CELLS Australia) for full details of the Photovoltaic Solar Panels installation, test methods and results;
2. These test results 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. S. Ingham
CTS Authorizing Signatory

Dr. D. Henderson
Senior Research Fellow

Date



Accredited Laboratory Number
14937
Accredited for compliance with
ISO/IEC 17025 - Testing