

PHOTOVOLTAIC (PV) MODULE Testing

Facilitate Testing Services for Safety and Performance of PV modules



BEST PARTNER FOR INNOVATION



SIRIM QAS International has developed the PV Module Testing Laboratory to support the government initiative under the Solar Testing and Certification Programme.

The laboratory is ready to facilitate the test requirements related to safety and performance of PV modules based on Standard MS or IEC 61215, MS or IEC 61730 and IEC TS 62804-1 to ensure that PV Modules are safe and reliable to operate in general open-air climates and in various environmental conditions.

The lab facility able to assist PV industries in terms of the product development and compliance programme. It also supports the implementation of regulation if any, set by the government in providing verification testing and inspection services to ensure the PV Modules in accordance with the standards' requirements.

TESTING SERVICES

IEC 61730: Photovoltaic (PV) Module Safety

Test Categories	Test
Environmental stress	MST 51-56
General inspection	MST 01-07
Electrical shock hazard	MST 11-14, MST 16-17, MST 42
Fire hazard	MST 21-22, MST 25
Mechanical stress	MST 33, MST 42

• IEC 61215: Photovoltaic (PV) Module Performance

Test Categories	Test
General inspection	MQT 01
Electrical characteristics	MQT 02-03, MQT 06-07, MQT 18-19
Thermal characteristics	MQT 04-05, MQT 18
Environmental stress	MQT 10-13, MQT 15
Withstanding hot-spot heating effect	MQT 09

 IEC 62804-1: Potential Induced Degradation (PID) - To assess the durability of PV module to the constant voltage stress.

Major Test Equipment

- Steady-state solar simulator with I-V measurement system
- Environmental chamber with
- current supplyUV conditioning chamber
- Wet leakage current test system
- Impulse voltage tester
- Ground continuity tester
- Insulation resistance tester
- Electroluminescence (EL) camera system
- Cut susceptibility tester
- Robustness of termination tester

Range of PV Module Type

- Crystalline silicon module
- Thin film module

WHY SIRIM QAS?

SIRIM QAS is an internationally recognised conformity assessment body with decades of experience in providing certification, inspection and testing services to both local and international customers.

We also provides comprehensive testing services, technical support and assistance to the industries, authorities, institutions, traders and other laboratories.

Application Process:

- Enquiry/Application by Customer
 Issue of Quotation
- 3 Submission of Test Items
- 4 Product Testing
- 5 Issuance of Test Report

