



CENER

NATIONAL RENEWABLE
ENERGY CENTRE

ADItch



PHOTOVOLTAIC SOLAR ENERGY DEPARTMENT

SOLAR TRACKER TESTS BASED ON IEC 62817:2014 Ed. 1 STANDARD

CENER is able to perform tests according to IEC 62817:2014 Ed.1 "Photovoltaic systems – Design qualification of solar trackers".
ENAC Accreditation : January 2019.

Tests included in the standard that CENER can perform:

➤ ENVIRONMENTAL TESTS

- Temperature cycle with dust
- Operation temperatures verification
- Humidity freeze cycling
- Freeze-spray test

➤ FUNCTIONAL TESTS

- Tracking limits verification
- Hard limit switch operation
- Automatic sun tracking after power outage
- Operation modes verification
- Stow position verification

➤ PERFORMANCE TESTS

- Daily energy and peak power consumption
- Stow time and stow energy and power consumption

➤ MECHANICAL TESTS

- Repeatability test
- Deflection under static load test
- Torsional stiffness, mechanical drift, drive torque and backlash testing
- Moment testing under extreme wind loading
- Accelerated mechanical cycling

➤ TESTS SPECIFIC TO TRACKER ELECTRONIC EQUIPMENT

- Mechanical tests
- Electrical tests
- Environmental tests

➤ OTHER TESTS

- Tracker accuracy characterization
- Visual inspection



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