

## 10.6 Scope of Accreditation

Issue No: 04/ Issue Date:30<sup>th</sup> May 2022  
 File Manager: Al-Sowailem



### Testing Laboratory Accreditation No. ATL 0090

is accredited by the GCC Accreditation Center (GAC) in accordance with the recognized International Standard ISO/IEC 17025:2017, “General requirements for the competence of testing and calibration laboratories”

<b>Gulf Renewable Energy Laboratory</b>	
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**Locations where testing activities covered by the above Accreditation Standard are undertaken**

1- <b>address:</b> 3rd Industrial City, Dammam Kingdom of Saudi Arabia P.O. Box 39558 Khobar – 31942
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ACCREDITED  
**TESTING**  
ISO/IEC 17025:2017  
No. ATL 0090

### For the following scope:

#### Scope:

### 3. Performance and Approvals Testing

3.29 Performance test on solar appliances and components

Scope details are as follows:

TEST CATEGORY	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS / PARAMETERS OR PROPERTIES, COMPONENTS, CHARACTERISTICS TESTED	SPECIFICATION, STANDARD TEST METHOD OR TECHNIQUE USED	Remarks
Photovoltaic (PV) modules	Terrestrial photovoltaic (PV) modules	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1: Test requirements	IEC 61215-1:2016, SASO IEC 61215-1:2016, UL 61215-1: 2017 IEC 61215-1:2021	P
	Crystalline silicon terrestrial photovoltaic (PV) Module	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules	IEC 61215-1-1:2016, SASO IEC 61215-1-1:2016	P
	Terrestrial photovoltaic (PV) modules	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 2: Test requirements	IEC 61215-2:2016, SASO IEC 61215-2:2016, UL 61215-2: 2017 IEC 61215-2:2021	P

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Photovoltaic (PV) modules	Terrestrial photovoltaic (PV) Module	4.1 (MQT01): Visual inspection	IEC 61215-2:2016 § 4.1, SASO IEC 61215-2:2016 § 4.1	P
	Terrestrial photovoltaic (PV) Module	4.2 (MQT02): Maximum power determination	IEC 61215-2:2016 § 4.2, SASO IEC 61215-2:2016 § 4.2	P
	Terrestrial photovoltaic (PV) Module	4.3 (MQT 03): Insulation test	IEC 61215-2:2016 § 4.3, SASO IEC 61215-2:2016 § 4.3	P
	Terrestrial photovoltaic (PV) Module	4.4 (MQT 04): Measurement of temperature coefficients	IEC 61215-2:2016 § 4.4, SASO IEC 61215-2:2016 § 4.4	P
	Terrestrial photovoltaic (PV) Module	4.5 (MQT 05): Measurement of NMOT	IEC 61215-2:2016 § 4.5, SASO IEC 61215-2:2016 § 4.5	P
	Terrestrial photovoltaic (PV) Module	4.6 (MQT 06): Performance at STC	IEC 61215-2:2016 § 4.6, SASO IEC 61215-2:2016 § 4.6	P
	Terrestrial photovoltaic (PV) Module	4.7 (MQT 07) : Performance at low irradiance	IEC 61215-2:2016 § 4.7, SASO IEC 61215-2:2016 § 4.7	P
	Terrestrial photovoltaic (PV) Module	4.8 (MQT 08): Outdoor exposure test	IEC 61215-2:2016 § 4.8, SASO IEC 61215-2:2016 § 4.8	P
	Terrestrial photovoltaic (PV) Module	4.9 (MQT 09): Hot-spot endurance test	IEC 61215-2:2016 § 4.9, SASO IEC 61215-2:2016 § 4.9	P
	Terrestrial photovoltaic (PV) Module	4.10 (MQT 10): UV preconditioning test	IEC 61215-2:2016 § 4.10, SASO IEC 61215-2:2016 § 4.10	P

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	Terrestrial photovoltaic (PV) Module	4.11 (MQT 11): Thermal cycling test	IEC 61215-2:2016 § 4.11, SASO IEC 61215-2:2016 § 4.11	P
Photovoltaic (PV) modules	Terrestrial photovoltaic (PV) Module	4.12 (MQT 12): Humidity-freeze test	IEC 61215-2:2016 § 4.12, SASO IEC 61215-2:2016 § 4.12	P
	Terrestrial photovoltaic (PV) Module	4.13 (MQT 13): Damp heat test	IEC 61215-2:2016 § 4.13, SASO IEC 61215-2:2016 § 4.13	P
	Terrestrial photovoltaic (PV) Module	4.14 (MQT 14) Robustness of terminations	IEC 61215-2:2016 § 4.14, SASO IEC 61215-2:2016 § 4.14	P
	Terrestrial photovoltaic (PV) Module	4.14.2 (MQT 14.1): Retention of junction box on mounting surface	IEC 61215-2:2016 § 4.14.2, SASO IEC 61215-2:2016 § 4.14.2	P
	Terrestrial photovoltaic (PV) Module	4.14.3 (MQT 14.2): Test of cord anchorage	IEC 61215-2:2016 § 4.14.3, SASO IEC 61215-2:2016 § 4.14.3	P
	Terrestrial photovoltaic (PV) Module	4.15 (MQT 15): Wet leakage current test	IEC 61215-2:2016 § 4.15, SASO IEC 61215-2:2016 § 4.15	P
	Terrestrial photovoltaic (PV) Module	4.16 (MQT 16): Static mechanical load test	IEC 61215-2:2016 § 4.16, SASO IEC 61215-2:2016 § 4.16	P
	Terrestrial photovoltaic (PV) Module	4.17 (MQT 17): Hail test	IEC 61215-2:2016 § 4.17, SASO IEC 61215-2:2016 § 4.17	P
	Terrestrial photovoltaic (PV) Module	4.18.1 (MQT 18.1): Bypass diode thermal test	IEC 61215-2:2016 § 4.18.1, SASO IEC 61215-2:2016 § 4.18.1	P

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	Terrestrial photovoltaic (PV) Module	4.18.2 (MQT 18.2): Bypass diode functionality test	IEC 61215-2:2016 § 4.18.2, SASO IEC 61215-2:2016 § 4.18.2	P
Photovoltaic (PV) modules	Terrestrial photovoltaic (PV) Module	4.19 (MQT 19): Stabilization	IEC 61215-2:2016 § 4.19, SASO IEC 61215-2:2016 § 4.19	P
	Terrestrial photovoltaic (PV) Module	4.19.5 (MQT 19.1): Initial stabilization	IEC 61215-2:2016 § 4.19.5, SASO IEC 61215-2:2016 § 4.19.5	P
	Terrestrial photovoltaic (PV) Module	4.19.6 (MQT 19.2): Final stabilization	IEC 61215-2:2016 § 4.19.6, SASO IEC 61215-2:2016 § 4.19.6	P
	Photovoltaic (PV) Module	Photovoltaic (PV) module safety qualification, Part 1: Requirement for construction	IEC 61730-1: 2016, SASO IEC 61730-1: 2016, UL 61730-1: 2017	P
	Photovoltaic (PV) Module	Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing	IEC 61730-2: 2016, SASO IEC 61730-2: 2016, UL 61730-2: 2017	P
	Photovoltaic (PV) Module	10.2 (MST01): Visual inspection	IEC 61730-2:2016 § 10.2, SASO IEC 61730-2:2016 § 10.2	P
	Photovoltaic (PV) Module	10.3 (MST 02): Performance at STC	IEC 61730-2:2016 § 10.3, SASO IEC 61730-2:2016 § 10.3	P
	Photovoltaic (PV) Module	10.4 (MST 03): Maximum power determination	IEC 61730-2:2016 § 10.4, SASO IEC 61730-2:2016 § 10.4	P
	Photovoltaic (PV) Module	10.6 (MST 05): Durability of markings	IEC 61730-2:2016 § 10.6, SASO IEC 61730-2:2016 § 10.6	P

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	Photovoltaic (PV) Module	10.7 (MST 06): Sharp edge test	IEC 61730-2:2016 § 10.7, SASO IEC 61730-2:2016 § 10.7	P
	Photovoltaic (PV) Module	10.8 (MST 07): Bypass diode functionality test	IEC 61730-2:2016 § 10.8, SASO IEC 61730-2:2016 § 10.8	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.9 (MST 11): Accessibility test	IEC 61730-2:2016 § 10.9, SASO IEC 61730-2:2016 § 10.9	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.10 (MST 12): Cut susceptibility test	IEC 61730-2:2016 § 10.10, SASO IEC 61730-2:2016 § 10.10	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.11 (MST 13): Continuity test of equipotential bonding	IEC 61730-2:2016 § 10.11, SASO IEC 61730-2:2016 § 10.11	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.12 (MST 14): Impulse voltage test	IEC 61730-2:2016 § 10.11, SASO IEC 61730-2:2016 § 10.12	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.13 (MST 16): Insulation test	IEC 61730-2:2016 § 10.13, SASO IEC 61730-2:2016 § 10.13	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.14 (MST 17): Wet leakage current test	IEC 61730-2:2016 § 10.14, SASO IEC 61730-2:2016 § 10.14	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.15 (MST 21): Temperature test	IEC 61730-2:2016 § 10.15, SASO IEC 61730-2:2016 § 10.15	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.16 (MST 22): Hot-spot endurance test	IEC 61730-2:2016 § 10.16, SASO IEC 61730-2:2016 § 10.16	P

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Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.19 (MST 25): Bypass diode thermal test	IEC 61730-2:2016 § 10.19, SASO IEC 61730-2:2016 § 10.19	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.20 (MST 26): Reverse current overload test	IEC 61730-2:2016 § 10.20, SASO IEC 61730-2:2016 § 10.20	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.21 (MST 32): Module breakage test	IEC 61730-2:2016 § 10.21, SASO IEC 61730-2:2016 § 10.21	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.22 (MST 33): Screw connections test	IEC 61730-2:2016 § 10.22, SASO IEC 61730-2:2016 § 10.22	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.22.1 (MST 33 a): Test for general screw connection	IEC 61730-2: 2016 §10.22.1, SASO IEC 61730-2: 2016 §10.22.1	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.22.2 (MST 33 b): Test for locking screw	IEC 61730-2: 2016 §10.22.2, SASO IEC 61730-2: 2016 §10.22.2	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.23 (MST 34): Static mechanical load test	IEC 61730-2:2016 § 10.23, SASO IEC 61730-2:2016 § 10.23	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.24 (MST 35): Peel test	IEC 61730-2:2016 § 10.24, SASO IEC 61730-2:2016 § 10.24	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.25 (MST 36): Lap shear strength test	IEC 61730-2:2016 § 10.25, SASO IEC 61730-2:2016 § 10.25	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.26 (MST 37): Materials creep test	IEC 61730-2:2016 § 10.26, SASO IEC 61730-2:2016 § 10.26	P

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Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.27 (MST 42): Robustness of terminations test	IEC 61730-2:2016 § 10.27, SASO IEC 61730-2:2016 § 10.27	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.28 (MST 51): Thermal cycling test	IEC 61730-2:2016 § 10.28, SASO IEC 61730-2:2016 § 10.28	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.29 (MST 52): Humidity freeze test	IEC 61730-2:2016 § 10.29, SASO IEC 61730-2:2016 § 10.29	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.30 (MST 53): Damp heat test	IEC 61730-2:2016 § 10.30, SASO IEC 61730-2:2016 § 10.30	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.31 (MST 54): UV test	IEC 61730-2:2016 § 10.31, SASO IEC 61730-2:2016 § 10.31	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.32 (MST 55): Cold conditioning	IEC 61730-2:2016 § 10.32, SASO IEC 61730-2:2016 § 10.32	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	10.33 (MST 56): Dry heat conditioning	IEC 61730-2:2016 § 10.33, SASO IEC 61730-2:2016 § 10.33	P
Photovoltaic (PV) modules	Crystalline silicon PV modules	Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation	IEC TS 62804-1:2015	P
Photovoltaic (PV) modules	Crystalline silicon PV modules	4.3.2 Test method a	IEC TS 62804-1:2015§ 4.3.2	P
Photovoltaic (PV) modules	Crystalline silicon PV modules	4.3.3 Test method b	IEC TS 62804-1:2015§ 4.3.3	P



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Photovoltaic (PV) modules	Photovoltaic (PV) Module	Salt mist corrosion testing of photovoltaic (PV) modules	IEC 61701-2: 2011	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	Photovoltaic devices - Part 13: Electroluminescence of photovoltaic modules	IEC TS 60904-13:2018	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	Photovoltaic (PV) modules - Cyclic (dynamic) mechanical load testing	IEC TS 62782:2016	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	Photovoltaic (PV) modules - Type approval, design and safety qualification - Retesting	IEC TS 62915:2018	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	Extended thermal cycling of PV modules - Test procedure	IEC 62892:2019	P
Photovoltaic (PV) modules	Photovoltaic (PV) Module	Photovoltaic modules - Bypass diode - Thermal runaway test	IEC 62979:2017	P
PV testing	Terrestrial photovoltaic (PV) modules	Photovoltaic cells - Part 1: Measurement of light-induced degradation of crystalline silicon photovoltaic cells	IEC63202-1: 2019	P

**Note:** the text in blue indicates the new scope OR update in the Edition of a test method in this issue of the scope of accreditation.

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### Log of Suspended Scopes:

TEST CATEGORY	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS / PARAMETERS OR PROPERTIES, COMPONENTS, CHARACTERISTICS TESTED	SPECIFICATION, STANDARD TEST METHOD OR TECHNIQUE USED	Date Suspended	Date Reinstated

### Log of Withdrawn Scopes:

TEST CATEGORY	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS / PARAMETERS OR PROPERTIES, COMPONENTS, CHARACTERISTICS TESTED	SPECIFICATION, STANDARD TEST METHOD OR TECHNIQUE USED	Date Withdrawn

**END**

Status of this accreditation can be checked in the GAC's website to confirm the validity of this accreditation - <https://www.gac.org.sa/en/>