CERTIFICATE OF ACCREDITATION

This is to attest

GCC ELECTRICAL POWER LAB CO.

3RD INDUSTRIAL CITY, MODON 3
DAMMAM, 39558 SAUDI ARABIA

Testing Laboratory TL-1165

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date September 16, 2025

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Accredited to ISO/IEC 17025:2017 *Effective Date September 16, 2025*

Cables Systems, Cables and Accessories	
ICEA S-108-720	Extruded Insulation Power Cables Rated Above 46 Through 500 KV AC only sections: 9.8 Volume Resistivity 10.2 Cable qualification tests 10.3.1 Polyethylene Jackets 10.3.3 Polyethylene Chloride 10.4.3 Resistance Stability Test 10.5 Qualification tests on cable system
IEC 60227-3	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 3: Non-sheathed cables for fixed wiring. (for reference of IEC 60227-1 and IEC 63294 standard)
IEC 60227-4	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 4: Sheathed cables for fixed wiring. (for reference of IEC 60227-1 and IEC 63294 standard)
IEC 60227-5	Polyvinyl Chloride Insulated Cables of Rated Voltages Up to And Including 450/750 V – Part 5: Flexible cables (cords) (for reference of IEC 60227-1 and IEC 63294 standard)
IEC 60502-1	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) – Part 1: Cables for rated voltages of 1 kV (Um = 1,2 kV) and 3 kV (Um = 3,6 kV) Clause 16 Sample tests Clause 17 Type tests, electrical Clause 18 Type tests, non-electrical (except clauses 18.15, 18.22, in clause 18.9 exclude IEC 60811-504, IEC 60811-506 test methods)
IEC 60502-2	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) – Part 2: Cables for rated voltages from 6 kV (Um = 7,2 kV) up to 30 kV (Um = 36 kV) Clause 17 Sample tests Clause 18 Type tests, electrical Clause 19 Type tests, non-electrical (except clauses 19.16, 19.19, 19.20)
IEC 60502-4	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) – Part 4: Test requirements on accessories for cables with rated voltages from 6 kV (Um = 7,2 kV) up to 30 kV (Um = 36 kV) (only for reference for IEC 61442 standard)
IEC 60840	Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um = 36 kV) up to 150 kV (Um = 170 kV) – Test methods and requirements

	Clause 12 Type tests on cable systems (exclude clause 12.5.8 to exclude only IEC 60811-504, IEC 60811-506 test methods, 12.5.14, 12.5.19) Clause 13 Prequalification test of the cable system. Clause 14 Type tests on cables Clause 15 Type tests on accessories Annex H Additional tests for accessories (exclude clause H.6)
IEC 61442	Test methods for accessories for power cables with rated voltages from 6 kV (Um = 7,2 kV) up to 30 kV (Um = 36 kV) Clauses: 5 AC Voltage Test 6 DC Voltage Test 7 Impulse Voltage Test 8 Partial Discharge Test 9.Tests at elevated temperature 10 Heating Cycle at air 15 Impact test at ambient temperature 16 Screen resistance measurement 17 Screen leakage current measurement 19 Operating force test 20 Operating eye test 21 Capacitive test point performance
IEC 62067	Power cables with extruded insulation and their accessories for rated voltages above 150 kV (Um = 170 kV) up to 500 kV (Um = 550 kV) – Test methods and requirements Clause 12 Type tests on cable systems (except clause 12.5.8 to exclude only IEC 60811-504, IEC 60811-506 test methods, 12.5.14) Clause 13 Prequalification test of the cable system Clause 14 - Type test on cables. Clause 15 - Type test on accessories. Annex H Additional tests for accessories (exclude clauses H.6) H.5.1.2 Internal Pressure test H.5.1.3 Cantilever load withstand test H.5.2.2 Internal Pressure test H.5.2.3 Bending Test
HD 629-1-S3	Test requirements for accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1: Accessories for cables with extruded insulation Inclusion refer to EN 61442 Clauses: 4 AC Voltage Test 5 DC Voltage Test 6 Impulse voltage test 7 Partial Discharge Test 8 Tests at elevated temperature 9 Heating cycles voltage test 14 Impact test at ambient temperature 15 Screen resistance measurement 16 Screen leakage current measurement 18 Operating force test 19 Operating eye test 20 Capacitive test point performance

IEC 61238-1-3	Compression and mechanical connectors for power cables - Part 1-3: Test methods and requirements for compression and mechanical connectors for power cables for rated voltages above 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) tested on non-insulated conductors, clauses: 6.2.2 Electrical resistance measurements 6.3 Heat cycling test 7 Mechanical test
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ASTM B230	Standard Specification for Aluminum 1350–H19 Wire for Electrical Purposes
ASTM B231	Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
ASTM B232	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated- Steel Reinforced (ACSR)
ASTM B399	Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 and 6201-T83 Conductors
ASTM B502	Standard Specification for Aluminum-Clad Steel Core Wire for Use in Overhead Electrical Aluminum Conductors Except clause 13. Torsion Test
ASTM B549	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum- Clad Steel Reinforced for Use in Overhead Electrical Conductors
EN 50189	Conductors for overhead lines - Zinc coated steel wires. Except 11.5.2 Torsion test
IEC 61089	Round wire concentric lay overhead electrical stranded conductors All clauses except: Annex B Stress-Strain test
IEC 62641	Conductors for overhead lines – Aluminium and aluminium alloy wires for concentric lay stranded conductors
IEC 63248	Conductors for overhead lines – Coated or cladded metallic wire for concentric lay stranded conductors. Except subclauses: 7.4.4.1 torsion, 7.4.4.3 Reverse bend, 7.4.6 Linear Expansion
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IEC 60947-1	Low-voltage switchgear and controlgear – Part 1: General rules (only clauses 8.1.2, 9.2.2.1 Glow wire testing, 9.3.3.4.1 Dielectric properties-Type tests No.3,4, Annex M Hot wire, Arc ignition and Annex Q - Tests for environmental categories A, B, C) Subclauses: 6.2 Marking, 8.1.4, 8.2.3.4 and 8.2.3.5 Verification of clearance and creepage distances 8.1.12 Degrees of protection of enclosed equipment (IP coding)-Annex C 8.2.2, 9.3.3.3 Temperature rise test. 8.2.3.2 Impulse withstand voltage. 8.2.3.3 Power frequency test annex Q Resistance to corrosion- damp heat cycling test (Db
IEC 60947-2	Low-voltage switchgear and controlgear – Part 2: Circuit-breakers 5.2 Marking Refer to IEC 60947-1 for below subclauses: 8.1.4, 8.2.3.4 and 8.2.3.5 Verification of Clearances and Creepage distances 8.1.12 Verification of the IP coding

	8.2.2 Temperature-rise tests 8.2.3.2 Impulse withstand voltage. 8.2.3.3 Power-frequency withstand voltage.
IEC 60947-3	Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units 6.2 Marking Refer to IEC 60947-1 for below subclauses: 8.1.2.2 Resistance to abnormal heat and fire due to internal electric effects (glow-wire test) 8.1.4 Verification of Clearances and Creepage distances 8.1.12 Verification of the IP coding 8.2.3.3 Power-frequency withstand voltage. 8.2.3.2 Impulse withstand voltage. 8.2.2 Temperature-rise tests
IEC 61439-1	Low-voltage switchgear and controlgear assemblies - Part 1: General rules Subclauses: 10.2.3.2 resistance to abnormal heat and fire glow wire 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.2.8 mechanical Operation 8.3,10.4, Annex F Verification of Clearances and Creepage distances 8.2.1, 10.2.6 Verification of the IK coding 8.2.2, 10.3 Verification of the IP coding 10.9.2 power frequency withstand voltage 10.9.3, Annex G Impulse withstand voltage 10.10, Annex L Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
IEC 61439-2	Low-voltage switchgear and controlgear assemblies – Part 2: Power switchgear and controlgear assemblies Refer to IEC 61439-1 for below clauses subclauses: 10.2.3.2 Resistance to abnormal heat and fire glow wire 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.2.8 mechanical Operation 10.4 Verification of Clearances and Creepage distances 10.2.6 Verification of the IK coding 10.3 Verification of the IP coding 10.9.2 power frequency withstand voltage 10.9.3, Annex G Impulse withstand voltage. 10.10 Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
IEC 61439-3	Low-voltage switchgear and controlgear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO) Refer to IEC 61439-1 for below clauses subclauses: 10.2.3.2 resistance to abnormal heat and fire glow wire

	10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.13 Mechanical Operation refer to IEC 61439-1 clause 10.2.8. Verification of Clearances and Creepage distances refer to IEC 61439-1 sub-clause 8.3,10.4, Annex F 10.2.6 Verification of the IK coding 10.3 Verification of the IP coding 10.9.2 power frequency withstand voltage 10.9.3, Annex G Impulse withstand voltage. 10.10 Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
IEC 61439-4	Low-voltage switchgear and controlgear assemblies – Part 4: Particular requirements for assemblies for construction sites (ACS) Refer to IEC 61439-1 for below clauses subclauses: 10.2.3.2 Resistance to abnormal heat and fire due to internal electric effects (glow-wire test) 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.2.8 Mechanical operation tests 10.4 Verification of Clearances and Creepage distances 10.2.6 Verification of the IK coding 10.3 Verification of the IP coding 10.9.2 Power-frequency withstand voltage 10.9.3 Impulse withstand voltage 10.10 Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
IEC 61439-5	Low-voltage switchgear and controlgear assemblies – Part 5: Assemblies for power distribution in public networks Refer to IEC 61439-1 for below clauses subclauses: 10.2.3.2 Resistance to abnormal heat and fire due to internal electric effects (glow-wire test) 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.2.8 Mechanical operation tests 10.4 Verification of Clearances and Creepage distances 10.2.6 Verification of the IK coding 10.3 Verification of the IP coding 10.9.2 Power-frequency withstand voltage 10.9.3 Impulse withstand voltage 10.10 Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
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	Part 6: Busbar trunking systems (busways) Refer to IEC 61439-1 for below clauses subclauses: 10.2.3.2 Resistance to abnormal heat and fire due to internal electric effects (glow-wire test) 10.2.4 Resistance to ultra-violet (UV) radiation 10.2.5 Lifting 10.2.7 Marking 10.2.8 Mechanical operation tests 10.4 Verification of Clearances and Creepage distances 10.2.6 Verification of the IK coding 10.3 Verification of the IP coding 10.9.2 Power-frequency withstand voltage 10.9.3 Impulse withstand voltage 10.10 Temperature-rise tests 10.2.2 Resistance to corrosion- damp heat cycling test (Db) 10.2.2 Resistance to corrosion- salt mist test (Ka) 10.2.3.1 Thermal stability (dry heat test)
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IEC-60076-10	Power transformers - Part 10: Determination of sound levels (only clause 11.2)
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IEC 60255-21-1	Electrical relays Part 21: Vibration, shock, bump and seismic test on measuring relays and protection equipment Section One — Vibration tests (sinusoidal)
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IEC 60372	Locking devices for ball and socket couplings of string insulator units Dimensions and tests, Subclause: 5.3.3 Visual examination 5.3.4 Verification of dimensions
IEC 60383-1	Insulators for overhead lines with a nominal voltage above 1000 V – Part 1: Ceramic or glass insulator units for a.c. systems – Definitions, test methods and acceptance criteria, Subclauses: 12 Dry lightning impulse voltage test 13 Wet/dry power frequency voltage test 15 Puncture withstand test 16 Routine electrical test 17 Verification of the dimensions 18 Electromechanical Failing Load Test 19 Mechanical failing Load Test 20 Thermal Mechanical Performance Test 22 Verification of the axial, radial and angular displacements 26 Porosity Test 27 Galvanizing Test 29 Routine Visual Inspection
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IEC 60437	Radio interference test on high-voltage insulators
IEC 60507	Artificial pollution tests on high-voltage ceramic and glass insulators to be used on a.c. systems. Only clauses 5 and 6
IEC 60660	Insulators – Tests on indoor post insulators of organic material for systems with nominal voltages greater than 1000 V up to but not including 300 kV Subclauses: 3.3 Dry lightning impulse voltage test 3.4 Wet/dry power frequency voltage test 3.5 Partial discharge measurement
IEC 61109	Insulators for overhead lines – Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than 1 000 V – Definitions, test methods and acceptance criteria, Subclauses: 9.2.2 tracking and erosion test 9.4.2 Mechanical Load test 10.2.4 Dry lightning impulse withstand voltage test 10.2.5 Wet power-frequency voltage tests 10.2.6 Wet switching impulse withstand voltage test 10.3 Damage limit proof Test 11.5 Galvanizing Test 11.2 Verification of dimensions 12.2 Visual examination
IEC 61462	Composite hollow insulators - Pressurized and unpressurized insulators for use in electrical equipment with AC rated voltage greater than 1000 V AC and D.C. voltage greater than 1500V - Definitions, test methods, acceptance

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IEC 62231	Composite station post insulators for substations with a.c. voltages greater than 1 000 V up to 245 kV – Definitions, test methods and acceptance criteria, subclauses: 9.2.2, Wet power withstand voltage test 8.2.3, Reference dry power frequency test 9.3 Mechanical tests
IEC 62896	Hybrid insulators for a.c. and d.c. high-voltage applications – Definitions, test methods and acceptance criteria Subclauses: 9.2 Dry lightning impulse voltage test 9.2 Wet/dry power frequency voltage test 9.2 Dry/Wet switching impulse voltage test 8.3.3 Polymeric insulator tracking and erosion test. 9.2 Power frequency puncture overvoltage test, clause 6 8.2.3.2 Verification of dimensions and visual inspection
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IEC 60068-2-2	Environmental testing - Part 2-2: Tests - Test B: Dry heat
IEC 60068-2-75	Environmental Testing – Part 2-75: Tests – Clause 5 Test Eha: Pendulum Hammer
IEC 61300-2-22	Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-22: Tests – Change of temperature
IEC 62561-1	Lightning protection system components (LPSC) – Part 1: Requirements for connection components, Subclauses: Annex D.2 Resistance to corrosion- salt mist test cyclic (Kb)
IEC 62262	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)