



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

CertifiGroup, Inc.
901 Sheldon Dr.,
Cary NC 27513

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1545
Certificate Number


ANAB Approval

Certificate Valid: 07/08/2016-05/12/2017
Version No. 003 Issued: 07/08/2016



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).



ANSI-ASQ National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

CertifiGroup, Inc.

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TESTING

Valid to: May 12, 2017

Certificate Number: AT-1545

I. Mechanical

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*DETECTION LIMIT/ RANGE/ EQUIPMENT
Enclosures, Electrical Equipment	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	IEC 60529	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Luminaries	Ingress Protection Tests (IP2X-6X) (IPX1-X8)	IEC 60598-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Rotating Electrical Machine	Ingress Protection Tests (IP1X-6X) (IPX1-X8) Sec. 33.6 Rain Test	IEC 60034-5 UL 1004-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank, Rain Test Apparatus
Electrical Equipment of Machines	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	EN 60204-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank



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Explosive Atmospheres	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	IEC 60079	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Household and similar Electrical Appliances	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	EN 60335-1 UL 60335-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Medical Equipment	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	IEC 60601-1 UL 60601-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Laboratory Equipment	Ingress Protection Tests (IP1X-6X) (IPX1-X8)	IEC 61010-1 UL 61010-1	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Audio, video and similar electronic apparatus	Sec.12.1.3 Impact Test Sec. 12.1.4 Drop Test Sec. 12.1.5 Stress Relief	IEC 60065	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank, 50mm sphere, Oven, Impact Hammer
Enclosures, Road Vehicle Equipment	IP1X-4X, IPX1-X4, IPX4K, IPX5-6, IPX6K, IPX7-X8, IPX9K	DIN 40050-9	Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Immersion Tank, Dust Chamber
Outdoor Use Equipment	IP5X, IPX4 - Section 9.1 IP5X, IP6X - Section 9.3(Dust) Sec. 10.2 (Impact Test) Sec. 8.5, Annex D (Gasket Tests)	IEC 60950-22	Dust Chamber, Spray Tester, Oscillating Spray Tester, Thermocouple Reader, Tensile Strength Tester, Temperature and Humidity Recorder 50 mm sphere, 18kg Weight, 1.35kg Impact Weight, Calipers

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Information Technology Equipment	Outdoor Use Equipment Sec. 1.1.2, Annex T Ingress Protection Tests (IP1X-6X) (IPX1-X8) Sec. 4.2.5 Impact Test Sec. 4.2.6 Drop Test Sec. 4.2.7 Stress Relief Test	IEC 60950-1 UL 60950-1	50 mm sphere, Oven, Mechanical Probes, Drip Box, Oscillating Spray Tester, Spray Tester, Jet Nozzle, Dust Chamber, Immersion Tank
Enclosures, Electrical Equipment	Type 1, 2, 3, 3R, 3X, 3RX, 3S, 3SX, 4, 4X, 5, 6, 6P, 12, 12K, 13 Sec 5.2 (Protection against Hazardous Parts) Sec. 5.3 (Dripping and Light Splashing) Sec 5.4 (Rain) Sec. 5.5.2.1.3 (Atomized Water- Method A) Sec. 5.5.2.2.3 (Atomized Water- Method B) Sec. 5.5.1.3 (Hose Method) Sec. 5.6 (External Icing) Sec. 5.7 (Hosedown) Sec. 5.8 (Indoor Corrosion Protection) Sec. 5.9 (Outdoor Corrosion Protection) Sec. 5.10 (Corrosion Protection) Sec. 5.11 (Temporary Submersion) Sec. 5.12 (Prolonged Submersion) Sec. 5.14 (Gasket Tests)	NEMA 250	Mechanical Probes, Drip Box, Rain Test Apparatus, Immersion Tank, Jet Nozzle, Atomized Water Nozzle, Salt Fog Chamber, Tensile Strength Tester, Thermocouple Reader
Enclosures, Electrical Equipment	Type 1, 2, 3, 3R, 3S, 4, 4X, 5, 6, 6P, 12, 12K, 13 Sec 8.2 (Drip Test) Sec. 8.3 (Rain Test) Sec. 8.4.2.1.2 (Atomized Water- Method A) Sec 8.4.2.2.2 (Atomized Water- Method B) Sec. 8.4.1.2(Hose Method) Sec. 8.5 (External Icing) Sec. 8.6 (Hosedown) Sec. 8.7 (Indoor Corrosion) Sec. 8.8(Outdoor Corrosion) Sec. 8.9 (Additional Corrosion) Sec.8.10 (Submersion Test)	UL 50E	Drip Box, Rain Test Apparatus, Immersion Tank, Jet Nozzle, Atomized Water Nozzle, Salt Fog Chamber, Immersion Tank, Tensile Strength Tester, Thermocouple Reader, 18kg Weight, 1.35kg Impact Weight, Calipers

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	8.11.2 (External Pressurization Method) Sec. 8.13 (Gasket Tests) Sec. 8.14 (Rod Entry)		
Enclosures, Electrical Equipment	Sec 26.4.3 Drop Test	UL/CSA/EN/IEC 60079-0	Tape Measure Concrete
Luminaries	Wet Locations Sec. 16.5.2 Rain Sec. 16.5.4 Immersion	UL 1598	Rain Test Apparatus, Immersion Tank
Motor Operated Appliances	Outdoor Use	UL 73	Rain Test Apparatus
Movable and Wall or Ceiling Hung Electric Room Heaters	Sec. 49 Water Spray Test	UL 1278	Rain Test Apparatus
Electric Fans	Sec. 38 Water Spray Test	UL 507	Rain Test Apparatus
Temperature and Humidity	(-100 to 200) °C (0 to 99) % RH	Multiple Standards or Customer Request	Temperature and Humidity Recorder, Environmental Chambers
Department of Defense Test Standard for Environmental Engineering Considerations and Laboratory Test	Sec. 509.4, 512.4 (F) Sec. 509.5, 512.5 (G)	MIL-STD-810 F MIL-STD-810 G	Salt Fog Chamber, Immersion Tank
Standard Practice for Operating Salt Spray (Fog) Apparatus	Salt Spray (Fog)	ASTM B117	Salt Fog Chamber
NEBS Requirements: Physical Protection	Sec. 5.1.1.2 High Humidity Sec. 5.1.1.13 High Temp/Thermal Shock	GR-63-CORE	Environmental Chambers, Oven, Thermocouple Reader
Generic Requirements for Electronic Equipment Cabinets	Sec. 3.31.2 Rain Intrusion Sec. 3.31.3 & 3.31.4 Water Intrusion Sec. 3.31.5 Lawn Sprinklers	GR-487-CORE	Rain Test Apparatus, Immersion Tank,
Surface Vehicle Recommended Practice	Sec. 4.3 Salt Spray Atmosphere	SAE J1455	Salt Fog Chamber,
Resistance to Impact Test	Sec. 26.4.2 Explosive atmospheres	UL/CSA/EN/IEC 60079-0	25mm/1kg sphere Hardened steel base



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Toys	Small Parts (Choke Hazard)	ASTM F963-11; 4.6 16 CFR 1501 SOR 2011-17; 7, 30, S1 M00.1(4) ISO 8124-1; 4.4,5.2 EN71-1; 8.2	Choke Hazard Tester
Toys	Sharp Edges	ASTM F963-11; 4.7 16 CFR 1500.49 M00.2(4) ISO 8124-1; 4.6,5.8 EN71-1; 4.7,8.11	Sharp Edge Tester Caliper
Toys	Sharp Points	ASTM F963-11; 4.9 16 CFR 1500.49 M00.3(4) ISO 8124-1; 4.7,5.9 EN71-1; 8.12	Sharp Point Tester SPT-1000 Caliper
Toys	Accessibility	ASTM F963-11; 3.1.2 ISO 8124-1; 5.7 EN71-1; 8.10	Child Finger Probes Caliper
Toys	Drop Test (Impact Test)	ASTM F963-11; 8.7.1 16 CFR 100.51(b) M01.1(5.4) ISO 8124-1; 5.24.2 EN71-1; 4.5,8.5	Scale Tape Measure Impact Medium
Toys	Flexure Test	ASTM F963-11; 8.12 16 CFR 1500.51(d) ISO 8124-1; 4.9,5.24.8 EN71-1; 8.13	Flexure Tester Force Gauge
Toys	Torque test for removal of components	ASTM F963-11; 8.8 16 CFR 1500.51(e) ISO 8124-1; 5.24.5 EN71-1; 8.3	Torque Wrench
Toys	Tension test for removal of components	ASTM F963-11; 8.9 16 CFR 1500.51(f) M01.1(5.5) ISO 8124-1; 5.24.6 EN71-1; 8.4	Force Gauge Seam Clamp Feeler Gauge Attachment
Toys	Tension test for seams	ASTM F963-11; 4.27,8.9.1 ISO 8124-1; 5.24.6.2 EN71-1; 8.4.2.2	Force Gauge Seam Clamp Feeler Gauge Attachment
Toys	Compression test	ASTM F963-11; 8.10 16 CFR 1500.51(g) ISO 8124-1; 5.24.7 EN71-1; 8.8	Force Gauge Rigid metal disc attachment



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Toys	Bite Test	16 CFR 1500.51(c)	Tape Measure Force Gauge Bite Test Clamp
Toys	Leakage of liquid-filled toys	ISO 8124-1; 4.24,5.19 EN71-1; 5.5,8.15	Force Gauge Puncture Tester Stopwatch Cobalt Chloride Paper Temp/Humidity Chamber
Toys	Tire Removal and snap in axle tension/compression Test	ASTM F963-11; 8.11	Wire Hook Rigid Plate Weights Sharp Point Tester Sharp Edge Tester
Toys	Toys with Locking Mechanisms and Hinges	ASTM F963-11; 4.13, 8.25 SOR 2011/17; 14	Force Gauge
Toys	Security of attached eyes and noses to Dolls, Plush Toys, and Soft Toys	SOR 2011/17; 31, S4 M01.2	Weights Claw Hook Discs Stopwatch Caliper Test Stand
Toys	Simulated Protective Devices (Masks, Helmets, Etc)	ASTM F963-11; 4.19.1, 8.7.4 ISO 8124-1; 4.14,5.14, 5.24.6.4 EN71-1; 8.4.2.3	Force Gauge Steel Ball Tape Measure Multiple Equipment Items
Toys	Pacifiers, Rattles, Teethers, Squeeze Toys (Geometric Shape of Certain Toys)	ASTM F963-11; 4.20,4.22,4.23,4.24 16 CFR 1510,1511 SOR 2011-17; 40, S8 ISO 8124-1; 4.5,5.3 EN71-1; 5.8,8.16	Rattle Test Fixture Supplemental Test Fixture Caliper
Toys	Preschool Play Figures	ASTM F963-11; 4.32.3 ISO 8124-1; 4.5.4,5.6 EN71-1; 5.11,8.33	Rattle Test Fixture Supplemental Test Fixture Caliper
Toys	Small Balls and Suction Cups	ASTM F963-11; 4.34 16 CFR1500.18(a)(17) ISO 8124-1; 4.5.2,5.4 EN71-1; 5.10,5.13,8.32	Small Ball Test Fixture
Toys	PomPoms	ASTM F963-11; 4.35, 8.16 ISO 8124-1; 4.5.3,5.5	Torque Wrench Seam Clamp Small Ball Test Fixture Force Gauge
Toys	Hemispheric-Shaped toys	ASTM F963-11; 4.36 ISO 8124-1; 4.5.5 EN71-1; 5.12	Caliper Optical Comparator



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Toys	Toys with nearly Spherical Ends	ASTM F963-11; 4.32	Supplemental Fixture Scale Tape Measure/ Caliper
Toys	Jaw Entrapment in handles and steering wheels	ASTM F963-11; 4.39	Jaw Entrapment Fixtures
Toys	Tests for toys with shaft-like handles	SOR 2011/17; 37	Tape Measure Force Gauge
Toys	Springs	ASTM F963-11; 4.18.6 ISO 8124-1; 4.14 EN71-1; 4.10.4	Calipers Force Gauge
Toys	Spring Wound Driving Mechanisms	SOR 2011/17; 15(d)	Ruler/Caliper Child Test Finger
Toys	Perimeter of Cords and Chains	EN71-1; 8.36	Test Blocks Force Gauge Head Probe
Toys	Tests for Loops, Cords, and Elastics	ASTM F963-11; 4.14, 8.22 SOR 2011/17; 41 ISO 8124-1; 4.11,5.11 EN71-1; 4.13,5.4,8.19,8.20	Force Gauge Caliper Weights Tape Measure Head Probe Hook Test Fixture
Toys	Breakaway feature separation test	EN71-1; 8.38	Force Gauge
Toys	Self-retracting cords	EN71-1; 8.39	1 kg weight Tape Measure
Toys	Length of cords, chains, and electrical cables	EN71-1; 8.40	Tape Measure
Toys	Toys comprising monofilament fibers	EN71-1; 5.9	Tape Measure
Toys	Plastic Film/Sheet Thickness	ASTM F963-11; 4.12, 8.21 SOR 2011/17; 4 M03(4) ISO 8124-1; 4.10,5.10 EN71-1; 4.3,5.3,8.25	Tape Measure Micrometer
Toys	Toys with Accessible Wires or Rods	ASTM F963-11; 4.10	Angle Meter Tape Measure Caliper Force Gauge

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Toys	Toys Containing Nails and Fasteners	ASTM F963-11; 4.11 SOR 2011/17; 28	Multiple Equipment Items
Toys	Toy Closures and Ventilation	ASTM F963-11; 4.16	Caliper Force Gauge
Toys	Toy Clearance	ASTM F963-11; 4.18	Accessibility Probes Calipers Force Gauge
Toys	Tip Over Test	ASTM F963-11; 8.7.2 16 CFR 1500.51(b)(4) ISO 8124-1; 5.24.3	Scale Impact Medium
Toys	Stability of Stationary Floor Toys	ASTM F963-11: 4.15.4	Angle Meter Scale Tape Measure
Toys	Tumble Test for Wheeled Toys	ASTM F963-11; 8.7.3	Scale Wooden Steps
Toys	Ride on Stability Test	ASTM F963-11; 8.15	Angle Meter Weights Tape Measure
Toys	Overload of ride on toy seats	ASTM F963-11; 8.26	Weights Tape Measure
Toys	Dynamic Strength Test for wheeled ride on toys	ASTM F963-11; 8.20	Weights Stopwatch Tape Measure
Toys	Wheels, Tires, and Axles	ASTM F963-11; 4.17	Sharp Edge Tester Sharp Point Tester Choke Hazard Tester
Toys	Toys Intended to be Attached to a Crib or Playpen	ASTM F963-11; 4.26	Inspection
Toys	Projections	ASTM F963-11; 4.8	Inspection
Toys	Use and Abuse Testing	ASTM F963-11; 8.5,8.6	Washer/Dryer Multiple Equipment Items
Electrical Products	Creepage & Clearance Distances	US and International Standards	Calipers, Tape Measure
Electrical Products	Strain Relief Test	US and International Standards	Force Gauge, Tape Measure, Stop Watch



ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*DETECTION LIMIT/ RANGE/ EQUIPMENT
Electrical and Mechanical Products	Stability Test	US and International Standards	Angle Meter, Tape Measure
Electrical and Mechanical Products	Impact Test	US and International Standards	Mechanical Probes, Impact Ball, Impact Hammer, 50 mm sphere, Tape Measure, Force Gauge
Electrical and Mechanical Products	Enclosure Push Test	US and International Standards	Mechanical Probes, Force Gauge
Electrical and Mechanical Products	Pull Test	US and International Standards	Force Gauge
Electrical and Mechanical Products	Permanence of Marking	US and International Standards	Stop Watch
Electrical and Mechanical Products	Weight Loading Test	US and International Standards	Force Gauge, Stop Watch, Tape Measure
Plastics	Mold Stress Test	US and International Standards	Lab Oven
Plastics	Ball Pressure Test	US and International Standards	Lab Oven, Ball Pressure Tester, Ball Pressure Test Stand, Thermocouple, Thermocouple Meter
Plastics	<u>Flame Tests</u> 3/4 Inch, 20 mm, 5 Inch, 127 mm, Horizontal Burn: HB Vertical Burn: V-0, V-1, V-2, 5VA, 5VB, 50W, 500W	US and International Standards	Flame Hood, Gas Supplies, Gas Flow Meter, Manometer/Pressure Gauge, Bunsen Burners, Needle Flame Burner, Flame Calibration Blocks, Flame Calibration Gauges, Burner Test Stand, Burner Wing Tips, Burner Angle Blocks, Wire Gauze & Screens, Stop Watch
Plastics	Glow Wire Test	US and International Standards	Glow Wire Tester



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Plastics	Hot Wire Ignition Test	US and International Standards	Hot Wire Ignition Tester Hot Wire Ignition Tester Power Supply
ITE	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test.	IEC 60950-1 (2005); IEC60950-1:2005+A1:2009; EN 60950-1 (2006); EN60950-1:2006 + A11:2009; EN60950-1:2006 + A1:2010; AS/NZS 60950-1 (2003); ANSI/UL 60950-1 (2007); CAN/CSA C22.2 60950-1-07 (2007)	Digital Multimeter, Dielectric Tester, Leakage Current Meter, Ground Continuity Tester force gauge, power meter, Oscilloscope, ammeter temperature / humidity meter, pressure and vacuum gauge, scale, data logger, oven creepage and clearance tools, stopwatch, measuring tape
Measurement Control and Lab Use	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test	IEC 61010-1 (2001); IEC61010-1:2010 EN 61010-1 (2001); EN61010-1:2010 UL61010-1 (2008) CAN/CSAC22.2 No.61010-1 (2004)	Digital Multimeter, Dielectric Tester, Leakage Current Meter, Ground Continuity Tester, force gauge, power meter, Oscilloscope, ammeter temperature / humidity meter, pressure and vacuum gauge, scale, data logger, oven creepage and clearance tools, stopwatch, measuring tape



ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*DETECTION LIMIT/ RANGE/ EQUIPMENT
Medical Equipment	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test	IEC 60601-1:1988+ A1:1991 + A2:1995; IEC60601-1:2005 EN 60601-1: 1990 +A1:1993 + A2:1995; EN60601-1:2006; UL60601-1 (2006); AAMI ES60601-1:2010	Digital Multimeter, Dielectric Tester, Leakage Current Meter, Ground Continuity Tester, force gauge, power meter, Oscilloscope, ammeter temperature / humidity meter, pressure and vacuum gauge, scale, data logger, oven creepage and clearance tools, stopwatch, measuring tape
Machinery	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test	IEC60204-1:2005 +A1:2008 EN60204-1:2006 + A1:2009	Digital Multimeter, Dielectric Tester, Insulation Resistance Tester, Ground Continuity Tester, , Oscilloscope, Ammeter, Protractor, Force Gauge, Measuring Tape,
Household & Similar Electronics	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test Permanence of Marking Weight Loading Test Mold Stress Test, Ball Pressure Test Humidity Conditioning Test	EN60335-1:2002 +A14:2010 IEC60335-1:2001 +A2:2006 UL60335-1 (2006)	Digital Multimeter, Dielectric Tester Leakage Current Meter, force gauge, power meter, Oscilloscope, ammeter, temperature / humidity meter, pressure and vacuum gauge, scale,data logger, oven, creepage and clearance tools,stop-watch, measuring tape
Audio, Video and Similar Electronic App.	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test	EN60065:2002 +A2:2010 IEC60065:2001 +A2:2010 UL60065 (2004)	Digital Multimeter, Dielectric Tester Leakage Current Meter, force gauge, power meter, Oscilloscope, ammeter temperature / humidity meter, pressure and vacuum gauge, scale, data logger, oven creepage and clearance tools, stopwatch, measuring tape



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General (Enclosures)	Electrical, Mechanical, Chemical and Environmental Tests per the selected Standard and in accordance with the Test Plan for the Equipment Under Test	IEC 529, EN60529 Amendment 1: 1999-11 Section 13.2 & Section 14.2	Accessibility Probes, Dust Test Chamber, Drip Box System Oscillating Spray Test System, Handheld Spray Tester, Jet Nozzle Kit, High Flow Rate Water Delivery System with Water Tanks, Immersion Tanks, High Pressure, High Temperature Spray Test System

II. Electrical

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*DETECTION LIMIT/ RANGE/ EQUIPMENT
Electrical Products	Input	(Standards)	Oscilloscope, DMM, Power Analyzer
Electrical Products	Leakage Current	(General, North America)	DMM, Leakage Current Meter
ITE, Laboratory, Household	Leakage Current	Harmonized Standards, 60950, 61010, 60335	DMM, Leakage Current Meter
Medical Equipment	Leakage Current	Medical 60601-1	DMM, Leakage Current Meter
Electrical Products	Temperature Rise	Thermocouple Method	Data Logger, Measuring Tape, DMM
Products	Temperature Rise	Change of Resistance Method	Data Logger, Measuring Tape, DMM. COR Tester
Insulation materials, Electrical products, Circuit Boards	Dielectric Voltage Withstand	0-4000 VAC	Hi-Pot (Dielectric) Tester, Stop Watch
Insulation materials, Electrical products, Circuit Boards	Dielectric Voltage Withstand	0-5000 VDC	Hi-Pot (Dielectric) Tester, Stop Watch
Electrical Products	Grounding Continuity Test	1-500 Amps	GC Tester, DMM, Clamp-on Meter



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Electrical Products	Voltage Measurements	AC & DC 0-600V	DMM
Electrical Products	Current Measurements	0-400A	Ammeter
Insulation and Electrical Products	Insulation Resistance Test	0->2KMΩ	IR Meter
Electrical Products	Capacitor Discharge Test	Mains Voltage 0-300VAC Decay Voltage 0-425VDC	Oscilloscope
Electrical Products	Abnormal Operation	Component Fault, Locked Rotor, Short Circuit, Blocked Vents, Overload Current	Data Logger, Measuring Tape, DMM, Power Analyzer, Hi-Pot (Dielectric) Tester, Tissue Paper, Cheese Cloth
Transformers and Electrical Products	Transformer Fault Testing	Short Circuit Test Overload Test	DMM
Products	Thermal Shock	Low Temperature Thermal Shock High Temperature Thermal Shock Cyclic Temperature Thermal Shock	HALT Chamber Thermocouple
Products	Temperature and Vibration	HALT-HASS Processes and Implementation	HALT Chamber Thermocouple Accelerometer

Notes:

1. * = As Applicable..
2. This scope is formatted as part of a single document including the Certificate of Accreditation No. AT-1545



Vice President

