# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

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| **Laboratory Name :** | ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA | | |
| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
| **Certificate Number** | TC-8778 | **Page No** | 1 of 73 |
| **Validity** | 26/12/2021 to 25/12/2023 | **Last Amended on** | 24/03/2022 |

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| Permanent Facility | | | | |
| 1 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Battery marking | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.9.2) |
| 2 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Venting | IS 16046 (part 2)IEC 62133 (PART 2)(Cl. 5.3) |
| 3 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Assembly of cells into Batteries | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.5.6) |
| 4 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Battery Safety Component | IS 16046 (part 2) IEC 62133 (PART 2):2017, (Cl.5.8) |
| 5 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Case stress at high ambient temperature (Battery) | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 7.2.2) |
| 6 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Caution for Ingestion of Small Cells and Batteries | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.9.3) |
| 7 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Cell marking | IS 16046 (part 2) IEC 62133 (PART 2), (Cl.9.1) |
| 8 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | charging procedure for test purpose first procedure | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.7.1.1) |
| 9 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Charging procedure for test purpose second procedure | IS 16046 (part 2) IEC 62133 (PART 2)(Cl.7.1.2) |
| 10 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Continuous charging at constant voltage(Cells) | IS 16046 (part 2) IEC 62133 (PART 2), (Cl.7.2.1) |
| 11 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Crush (cells) | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 7.3.5) |
| 12 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | External short-circuit (Battery) | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 7.3.2) |
| 13 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | External short-circuit (Cell) | IS 16046 (part 2) IEC 62133 (PART 2), (Cl. 7.3.1) |
| 14 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Forced discharge (Cells) | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.7.3.7) |
| 15 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Free fall | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 7.3.3) |
| 16 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | General Safety Considerations | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.5,Cl.5.1 ) |
| 17 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Information for Safety | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 8,Cl 8.1) |
| 18 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Insulation & wiring | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 5.2), |

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**Certificate Number** TC-8778 **Page No** 2 of 73

**Validity** 26/12/2021 to 25/12/2023 **Last Amended on** 24/03/2022

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|---|---|---|---|---|
| 19 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Mechanical shock | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.7.3.8.2) |
| 20 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Other Information | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.9.4) |
| 21 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Over-charging of battery | IS 16046 (part 2) IEC 62133 (PART 2) (Cl.7.3.6) |
| 22 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Small cell and battery safety information | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 8.2) |
| 23 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Temperature Voltage and Current Management | IS 16046 (part 2) IEC 62133 (PART 2):2017, (Cl.5.4) |
| 24 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Terminal Contact | IS 16046 (part 2) IEC 62133 (PART 2), (Cl.5.5) |
| 25 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Thermal abuse (Cells) | IS 16046 (part 2) IEC 62133 (PART 2)(Cl.7.3.4) |
| 26 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Type test and sample size | IS 16046 (part 2) IEC 62133 (PART 2) (Cl. 6) |
| 27 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Lithium system) | Vibration | IS 16046 (part 2) IEC 62133 (PART 2):2017, (Cl.7.3.8.1) |
| 28 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Assembly of Cells in to Batteries | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.5.6)) |
| 29 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Battery marking | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl.9.2) |
| 30 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Case stress at high ambient temperature (Batteries) | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl. 7.2.3) |
| 31 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Caution for small Cell and Batteries | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.9.3) |
| 32 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Cell marking | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.9.1) |
| 33 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Charging procedure for testing purposes | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.1) |
| 34 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Charging procedure for testing purposes | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.1) |
| 35 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Continuous Low Rate Charging(Cells) | IS 16046 (Part 1)IEC 62133 (PART 1) , (Cl. 7.2.1) |
| 36 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Crushing of cells | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.6) |
| 37 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | External short circuit | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.2) |

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|---|---|---|---|---|
| 38 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Forced discharge (cells) | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.7.3.9) |
| 39 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Free fall | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.3) |
| 40 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | General Safety Consideration | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl. 5,Cl.5.1) |
| 41 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Incorrect installation | IS 16046 (Part 1) IEC 62133 (PART 1), (Cl. 7.3.1) |
| 42 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Information for Safety | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 8, Cl. 8.1)) |
| 43 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Insulation & wiring | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl. 5.2) |
| 44 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Low pressure (cells) | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.7) |
| 45 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Mechanical shock (Crash hazard) | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.4) |
| 46 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Other Information | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 9.4) |
| 47 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Overcharge | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.7.3.8) |
| 48 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Packaging | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.10) |
| 49 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Packing & Transport | IS 16046 (Part 2) IEC 62133 (PART 2) (Cl.10) |
| 50 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Quality Plan | IS 16046 (Part 1)IEC 62133 (PART 1) , (Cl. 5.7)) |
| 51 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Quality Plan | IS 16046 (part 2) IEC 62133 (PART 2), (Cl. 5.7) |
| 52 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Small cell and battery safety information | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 8.2) |
| 53 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Temperature cycling | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl. 7.2.4) |
| 54 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Temperature, Voltage and Current Management | S 16046 (Part 1) IEC 62133 (PART 1) (Cl. 5.4) |
| 55 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Terminal Contacts | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl.5.5) |
| 56 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Thermal abuse (Cells) | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.3.5) |

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| 57 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Type test and sample size | IS 16046 (Part 1) IEC 62133 (PART 1), Cl. 6 |
| 58 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Venting | IS 16046 (Part 1) IEC 62133 (PART 1) (Cl.5.3) |
| 59 | ELECTRICAL- CELLS & BATTERIES | Secondary cells and batteries containing alkaline or other non-acid electrolytes (Nickel system) | Vibration | IS 16046 (Part 1)IEC 62133 (PART 1) (Cl. 7.2.2) |
| 60 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Cell designation and marking | IS 16047 (PART 3) IEC 61960 :2017(PART 3) (CL. 5) |
| 61 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Charge (Capacity) recovery after long term storage | IS 16047 (PART 3) IEC 61960 :2017(PART 3)(Cl. 7.5) |
| 62 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Charge (Capacity) retention and recovery | IS 16047 (PART 3) IEC 61960 (PART 3) (Cl. 7.4) |
| 63 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Charging procedure for test purposes | IS 16047 (PART 3) IEC 61960 (PART 3) (Cl. 7.2) |
| 64 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Discharge performance | IS 16047 (PART 3) IEC 61960 (PART 3) (Cl. 7.3,Cl. 7.3.1,Cl. 7.3.2, Cl. 7.3.3) |
| 65 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Endurance in cycles | IS 16047 (PART 3) IEC 61960 (PART 3) (Cl. 7.6, Cl.7.6.1, Cl.7.6.2, Cl. 7.6.3) |
| 66 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Measurement of the Internal AC resistance | IS 16047 (PART 3) IEC 61960: 2017 (PART 3) (Cl. 7.7.2) |
| 67 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes-Secondary Lithium Cells and Batteries for Portable Applications | Measurement of the Internal DC resistance | IS 16047 (PART 3) IEC 61960 (PART 3) (Cl. 7.7.3) |
| 68 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Capacity Test | IS 16270 (Cl. 8.1) |
| 69 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Charge Retention Test | IS 16270 (Cl. 8.3) |
| 70 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Conditions of Use | IS 16270 (Cl. 4.0) |
| 71 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Cycle Endurance in Photovoltaic Application (Extreme Condition) | IS 16270 (Cl. 8.4, Cl.8.4.1,Cl. 8.4.2,Cl. 8.4.3,Cl. 8.4.4 |

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| **Certificate Number** | TC-8778 | **Page No** | 5 of 73 |
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| 72 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Endurance Test | IS 16270 (Cl. 8.2) |
| 73 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Functional Characteristics | IS 16270 (Cl. 6) |
| 74 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | General Requirements | IS 16270 (Cl. 5.0) |
| 75 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | General Test Conditions | IS 16270 (Cl. 7) |
| 76 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Non-Spillability / Semi Non Spillability / Splash Proof Test | IS 16270 (Cl. 8.7) |
| 77 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Sulphation Test | IS 16270 (Cl. 8.5) |
| 78 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Verification of Marking | IS 16270 (Cl. 5.4) |
| 79 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Water Consumption of Flooded Battery Types and Cells with Partial Gas Recombination | IS 16270 (Cl. 8.4.5) & (Cl. 8.4.6) |
| 80 | ELECTRICAL- CELLS & BATTERIES | Secondary Cells and Batteries For Solar Photovoltaic Application-General Requirements and Method For Tests | Water Loss Test | IS 16270 (Cl. 8.6) |
| 81 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Alternative Rates of Test Discharges | IS 1651 (cl.12.6) (RA 2018 ) |
| 82 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Ampere-Hour Efficiency Tests | IS 1651 (Cl 12.9, Cl. 12.9.1) (RA 2018) |
| 83 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Capacities and Dimensions | IS 1651 (Cl. 7) (RA 2018) |
| 84 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Constructional Requirement | IS 1651 (Cl. 6) (RA 2018) |
| 85 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Endurance Test | IS 1651 (Cl.12.8) (RA 2018) |
| 86 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | General Requirement For Test | IS 1651 (Cl.11) (RA 2018 ) |
| 87 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Loss of Capacity on Storage | IS 1651 (Cl.12.7) (RA 2018) |
| 88 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Manual instruction | IS 1651 (Cl. 9) (RA 2018) |
| 89 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Marking & Packing | IS 1651 Cl. 8 (RA 2018) |

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| 90 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Materials | IS 1651 (CL. 5) (RA 2018) |
| 91 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Rating and Designation | IS 1651 (Cl.4) (RA 2018) |
| 92 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Short Circuit Current and Internal Resistance Test (Internal Resistance) | IS 1651 (Cl. 12.13) (RA 2018) |
| 93 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Short Circuit Current and Internal Resistance Test (Short Circuit Current) | IS 1651 (Cl. 12.13) (RA 2018) |
| 94 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Test for Capacity | IS 1651 (Cl. 12.5) (RA 2018) |
| 95 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Test of Suitability of Floating Battery Operation | IS 1651 (Cl. 12.12) (RA 2018) |
| 96 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Tests for Voltage During Discharge | IS 1651 (Cl. 12.10) (RA 2018) |
| 97 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Verification of Constructional Requirement | IS 1651 (Cl.12.2) (RA 2018 ) |
| 98 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Verification of Dimension | IS 1651 (Cl.12.4) (RA 2018) |
| 99 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Verification of Marking and Packaging | IS 1651 (Cl.12.3) (RA 2018 ) |
| 100 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Water Loss Test | IS 1651 (Cl. 12.11) (RA 2018) |
| 101 | ELECTRICAL- CELLS & BATTERIES | Stationary cells and batteries, lead-acid type (with tubular positive plates) | Watt-Hour Efficiency Tests | S 1651 (Cl 12.9, Cl. 12.9.2) (RA 2018) |
| 102 | ELECTRICAL- CELLS & BATTERIES | Stationary lead acid batteries, lead acid type(With tubular positive plates ) | Classification of test | IS 1651 (Cl.12.1) (RA 2018) |
| 103 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Ampere-Hour and Watt-Hour Efficiency Tests (Ampere-Hour Efficiency Test) | IS 13369 (Cl.11.8, Cl.11.8.1) (RA 2017) |
| 104 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Ampere-Hour and Watt-Hour Efficiency Tests (Watt-Hour Efficiency Test) | IS 13369 (Cl.11.8, Cl.11.8.2) (RA 2017) |
| 105 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Capacity and Dimensions | IS 13369 (Cl. 7) (RA 2017) |
| 106 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Classification of Test | IS 13369 (Cl.11.1) (RA 2017) |

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 107 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Construction Requirement | IS 13369 (Cl. 6.0 & Cl. 11.2) (RA 2017) |
| 108 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Endurance Test | IS 13369 (Cl.11.7) (RA 2017) |
| 109 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Equilibrium Float Current Test | IS 13369 (Cl. 11.10) (RA 2017) |
| 110 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | General Requirement For Tests | IS 13369 (Cl.10) (RA 2017) |
| 111 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | General Requirement For Test | IS 13369 (Cl.10) (RA 2017) |
| 112 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Loss of Capacity on Storage | IS 13369 (Cl.11.6) (RA 2017) |
| 113 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Manual Instruction | IS 13369 (Cl. 9.0) (RA 2017) |
| 114 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Marking & Packing | IS 13369 (Cl. 8.0 & Cl. 11.3) (RA 2017) |
| 115 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Materials | IS 13369 (Cl. 5.0) (RA 2017) |
| 116 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Rating & Designation | IS 13369 (Cl.4) (RA 2017) |
| 117 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Test for Capacity | IS 13369 (Cl. 11.5) (RA 2017) |
| 118 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Verification of Dimensions | IS 13369 (Cl. 11.4) (RA 2017) |
| 119 | ELECTRICAL- CELLS & BATTERIES | Stationary Lead-Acid Batteries (with Tubular Positive Plates) in Monobloc Container-Specification) | Water Loss Test | IS 13369 (Cl. 11.9) (RA 2017) |
| 120 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Amper Hour Efficiency Test | IS 15549 (Cl.12.4) (RA 2020) |
| 121 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Capacity Test at other Discharge Rates | IS 15549 (Cl.12.3) (RA 2020) |
| 122 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | CHARGERS | IS 15549 (Cl. 6) (RA 2020) |
| 123 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Classification of Tests | IS 15549 (Cl.10) (RA 2020) |
| 124 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Endurance Life Cycle Test | IS 15549 (Cl.12.10) (RA 2020) |
| 125 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Flame Arrestor | IS 15549 (Cl.5.0) (RA 2020) |

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|---|---|---|---|---|
| 126 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Marking on Cell | IS 15549 (Cl.8.0) (RA 2020) |
| 127 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Material & Construction | IS 15549 (Cl.4.0) (RA 2020) |
| 128 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Rating and Designation | IS 15549 (Cl.7.0) (RA 2020) |
| 129 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | TEMPERATURE FOR TESTS | IS 15549 (Cl. 9) (RA 2020) |
| 130 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test for C1 Capacity | IS 15549 (Cl.12.2) (RA 2020) |
| 131 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test for C10 Capacity | IS 15549 (Cl.12.1) (RA 2020) |
| 132 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test for Oxygen Recombination Efficiency | IS 15549 (Cl.12.9) (RA 2020) |
| 133 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test for Retention of Charge | IS 15549 (Cl.12.6) (RA 2020) |
| 134 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test for vent seal operation | IS 15549 (Cl.12.8) (RA 2020) |
| 135 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Test on Separators | IS 15549 (Cl.12.7) (RA 2020) |
| 136 | ELECTRICAL- CELLS & BATTERIES | Stationary Regulated Lead Acid Batteries | Watt Hour Efficiency Test | IS 15549 (Cl.12.5) (RA 2020) |
| 137 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliance | Terminal For External Conductor | IS 302-1(Cl.26) |
| 138 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Abnormal Operation | IS 302-1 (Cl. 19) |
| 139 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Classification | IS 302 -1 (Cl.6) |
| 140 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Components | IS 302-1(Cl. 24) |
| 141 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Construction | IS 302-1 (Cl. 22) |
| 142 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Creepage Distances , Clearances and solid insulation | IS 302-1 (Cl. 29) |
| 143 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Heating | IS 302-1 (Cl. 11) |
| 144 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Internal Wiring | IS 302-1 (Cl. 23) |

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|---|---|---|---|---|
| 145 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Leakage Current and Electric Strength | IS 302-1 (Cl. 16) |
| 146 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Leakage Current and Electric strength at operating temperature | IS 302-1 (Cl. 13) |
| 147 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Marking and instruction | IS 302-1 (Cl. 7) |
| 148 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Mechanical Strength | IS 302-1 (Cl. 21) |
| 149 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Moisture Resistance | IS 302-1 (Cl. 15) |
| 150 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Overload Protection of transformer and associated circuit | IS 302-1(Cl. 17) |
| 151 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | power Input and Current | IS 302-1 (Cl. 10) |
| 152 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Protection Against access to live part | IS 302-1 (Cl. 8) |
| 153 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Provision For Earthing | IS 302-1 (Cl. 27) |
| 154 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Resistance to Heat, Fire | IS 302-1 (cl. 30 ) |
| 155 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Resistance to Rusting | IS 302-1 (Cl. 31) |
| 156 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Screws and Connections | IS 302-1 (Cl. 28) |
| 157 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Screws and Connections | IS 302-1 (Cl. 28) |
| 158 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Stability and Mechanical Hazards | IS 302-1 (Cl. 20) |
| 159 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Supply Connection And External Flexible Cords | IS 302-1 (Cl. 25) |
| 160 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Supply Connection And External Flexible Cords | IS 302-1 (Cl. 25) |
| 161 | ELECTRICAL- DOMESTIC ELECTRICAL APPLIANCES | Safety of household and similar electrical appliances | Transient Over Voltages | IS 302-1 (Cl. 14) |

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|---|---|---|---|---|
| 162 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electrical and Electronics Products | Tests for protection against solid foreign objects indicated by the first characteristic (IP1X to 6X) numeral | IS/IEC 60529 (Cl.5.2 & Cl.13, Table 2 & Table 7 ) |
| 163 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electrical and Electronics Products | Marking | IS/IEC 60529 (Cl.10) |
| 164 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electrical, Electronics and Electro-mechanical Items | High Temperature Test | IEC 60068-2- 2(2007)EN 60068-2- 2(2007)IS 9000:Part3:Sec 1 to 5: 1977 (R:2010)QM 333 (Test No 2) JSS 55555,JSS 50101 |
| 165 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electrical, Electronics and Electro-mechanical Items | Impact, Drop Test | IEC 60068-2-31: 2008 IS 7028 (Part 4): 1987 IS 9000-7 (Sec 1-8) (RA 2018) QM 333 JSS 55555,JSS50101: |
| 166 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronic and Electrical items | Shock Test | IS 9000 (Part7/Sec 1): |
| 167 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronic and Electrical items | Vibration test (sinusoidal) test) | IS 9000 (Part 8) 1981/ / IEC 60068-2-6 |
| 168 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanica | Change of Temperature | IS 9000 Part 14 Sec.1 and Sec.2 (RA 2021) |
| 169 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical | Cold Test | IS 9000 (Part 2/Sec 1 to 4) RA 2019:1977/ IEC 60068-2-1 |
| 170 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical | DAMP HEAT TEST | IEC 60068-2- 30(2005)EN 60068-2- 30 (2005)IS 9000:Part5:Sec 1 and 2:1981(R 2010)QM 333 (Test No 3) JSS 55555,JSS50101 |
| 171 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical | Test For Protection Against Access to Hazardous Parts Indicated by the First Characteristic (IP1X to 6X) Numeral | IS/IEC 60529 (Cl.5.1 & Cl.12, Table 1 & Table 6 |
| 172 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical items | Dry Heat | IS 9000 (Part 3/Sec 1 to 5) RA 2019: 1977/ IEC 60068-2-2 |

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|---|---|---|---|---|
| 173 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical items | Dry Heat Test | test no 2 of QM 333 |
| 174 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical items | steady state | IEC 60068-2- 78(2012)EN 60068-2- 78 (2013)IS 9000:Part4:2008 (2015) QM 333 (Test No 5) JSS 55555,JSS50101: |
| 175 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Electronics, Electrical and Electro-mechanical items | Composite temperature/humidity Cyclic test | IS 9000 Part 6 1978, IEC 60068-2-38, Test no 4 of QM 333: 22 of JSS 55555 JSS 50101 |
| 176 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Enclosures for Electrical and Electronics Products | Tests for protection against water indicated by the second characteristic ( IP X1 to IP X8) numeral | IS/IEC 60529 (Cl.6 & Cl.14, Table 3 & Table 8) |
| 177 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Enclosures for Electrical and Electronics Products | Degrees of protection against access to hazardous parts indicated by the additional letter(A,B,C,D) (IPXXA to IPXXD) | IS/IEC 60529 (Cl.7 Table 4 & Cl. 15) |
| 178 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Telecommunication equipment | Cold test | Test no. 1(Section 3) of QM 333 |
| 179 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Telecommunication equipment | DUST TEST | test no 15 (Section 3) of QM 333 |
| 180 | ELECTRICAL-ENVIRONMENTAL TEST FACILITY | Telecommunication equipment | Vibration test | Test no.6 QM 333, iec 61373,JS 55555 |
| 181 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | battery chargers for self contained emergency luminaries | IS 10322 (Part 5/Sec 8) (Clause. 20) |
| 182 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Construction | IS 10322 (Part 5/Sec 8) (Cl. 7) |
| 183 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Creepage distances & clearances | IS 10322 (Part 5/Sec 8) (Cl.8) |
| 184 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Endurance test and thermal test | IS 10322 (Part 5/Sec 8) (Cl.13) |

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|---|---|---|---|---|
| 185 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | External & Internal Wiring | IS 10322 (Part 5/Sec 8) (Cl.11) |
| 186 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Insulation resistance and electric strength | IS 10322 (Part 5/Sec 8) (Cl. 15) |
| 187 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Marking | IS 10322 (Part 5/Sec 8) (Cl. 6) |
| 188 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Protection against electric shock | IS 10322 (Part 5/Sec 8) (Cl. 12) |
| 189 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Provision of earthing | IS 10322 (Part 5/Sec 8) (Cl. 9) |
| 190 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Resistance to dust, solid objects & moisture | IS 10322 (Part 5/Sec 8) (Cl. 14) |
| 191 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Resistance to heat, fire and tracking | IS 10322 (Part 5/Sec 8) (Cl. 16) |
| 192 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | REST MODE AND INHIBITION MODE FACILITIES | IS 10322 (Part 5/Sec 8) (Cl. 22) |
| 193 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHT | Terminals | IS 10322 (Part 5/Sec 8) (Cl. 10) |
| 194 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | EMERGENCY LIGHTING | Test devices for emergency operation | IS 10322 (Part 5/Sec 8) (Cl. 21) |
| 195 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Classification of Luminaires | IS 10322 (Part 5/Sec 1) (Cl. 5) |
| 196 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Construction | IS 10322 (Part 5/Sec 1) (Cl. 7) |
| 197 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Creepage Distance and Clearance | IS10322 (Part 5/Sec 1) (Cl. 8) |
| 198 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Drain Holes | IS 10322 (Part 5/Sec 1) (Cl. 4.17) |

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|---|---|---|---|---|
| 199 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Electrical connection and current carrying parts | IS10322 (Part 5/Sec 1) (Cl. 4.11) |
| 200 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Endurance Tests and Thermal Tests | IS10322 (Part 5/Sec 1) (Cl. 13) |
| 201 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | External and Internal Wiring | IS10322 (Part 5/Sec 1) (Cl. 11) |
| 202 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Flammable Materials | IS10322 (Part 5/Sec 1) (Cl. 4.15) |
| 203 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Ignitors | IS 10322 (Part 5/Sec 1) (Cl. 4.19) |
| 204 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Insulating Linings and Sleeves | IS10322 (Part 5/Sec 1) (Cl. 4.9) |
| 205 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Insulation resistance and electric strength | IS10322 (Part 5/Sec 1) (Cl. 15) |
| 206 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Lampholders | IS10322 (Part 5/Sec 1) (Cl. 4.4) |
| 207 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Luminaires marked with luminaires suitable for direct mounting on flammable surface symbol | IS10322 (Part 5/Sec 1) (Cl. 4.16) |
| 208 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Marking | IS10322 (Part 5/Sec 1) (Cl. 6) |
| 209 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Mechanical Hazard | IS 10322 (Part 5/Sec 1) (Cl. 4.25) |
| 210 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Mechanical Strength | IS 10322 (Part 5/Sec 1) (Cl. 4.13) |
| 211 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Protection against electric shock | IS10322 (Part 5/Sec 1) (Cl. 12) |

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|---|---|---|---|---|
| 212 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Protective shield (Tungsten Halogen Lamps) | IS 10322 (Part 5/Sec 1) (Cl. 4.21) |
| 213 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Provision for earthing | IS10322 (Part 5/Sec 1) (Cl. 9) |
| 214 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Rasistance to heat, fire and tracking | IS10322 (Part 5/Sec 1) (Cl. 16) |
| 215 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Resistance to Corrosion | IS10322 (Part 5/Sec 1) (Cl. 4.18) |
| 216 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Resistance to dust and moisture | IS10322 (Part 5/Sec 1) (Cl. 14) |
| 217 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Rough service Luminaires - Vibrant requirements | IS10322 (Part 5/Sec 1) (Cl. 4.20) |
| 218 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Screws and Connections(Mechanical ) and Glands | IS10322 (Part 5/Sec 1) (Cl. 4.12) |
| 219 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Semi luminaires | IS10322 (Part 5/Sec 1) (Cl. 4.23) |
| 220 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Short- circuit Protection | IS 10322 (Part 5/Sec 1) (Cl. 4.26) |
| 221 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Starter Holders | IS10322 (Part 5/Sec 1) (Cl. 4.5) |
| 222 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Suspensions and Adjusting devices | IS 10322 (Part 5/Sec 1) (Cl. 4.14) |
| 223 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Terminal Blocks | IS 10322 (Part 5/Sec 1) (Cl. 4.6) |
| 224 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Terminals | IS10322 (Part 5/Sec 1) (Cl. 10) |
| 225 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Terminals and supply connections | IS 10322 (Part 5/Sec 1) (Cl. 4.7) |

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|---|---|---|---|---|
| 226 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Fixed general purpose luminaires (Particular Requirements) | Wireways | IS10322 (Part 5/Sec 1) (Cl. 4.3) |
| 227 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | Creepage Distances And Clearances | IS 10322 (Part 5 /Sec 5) (RA 2018) (Cl. No. 5) |
| 228 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | External And Internal Wiring | IS 10322 (Part 5 /Sec 5) (Cl. No. 11) |
| 229 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | Marking | IS 10322 (Part 5 /Sec 5) (Cl. No. 6) |
| 230 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | Protection Against Electric Shock | IS 10322 (Part 5 /Sec 5) (Cl. No.12) |
| 231 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | Provision For Earthing | IS 10322 (Part 5 /Sec 5) (Cl. No. 9) |
| 232 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Flood Lights | Terminals | IS 10322 (Part 5 /Sec 5) (Cl. No. 10) |
| 233 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Creepage Distance and Clearance | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.8) |
| 234 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Endurance test and thermal tests | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014) (Cl. 20.13) |
| 235 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | External and internal wiring | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014) (Cl. 20.11) |
| 236 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Insulation resistance and electric strength | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.15) |
| 237 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Insulation resistance and electric strength | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.15) |
| 238 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Marking | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.6) |
| 239 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Protection against electric shock | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.12) |

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|---|---|---|---|---|
| 240 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Protection against electric shock | IS 10322(Part 5/Sec 7) (Cl. 20.5.2 and 20.12.2) |
| 241 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Resistance to dust, solid objects and moisture | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.14) |
| 242 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Resistance to dust, solid objects and moisture | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.14) |
| 243 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Resistance to heat, fire and tracking | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014)(Cl. 20.16) |
| 244 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Lighting Chains | Terminals | IS 10322(Part 5/Sec 7) / IEC 60598-2-20 (2014) (Cl. 20.10) |
| 245 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | External And Internal Wiring | IS 10322 (Part 5 /Sec 3) Cl. No. 11 |
| 246 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Insulation Resistance And Electric Strength | IS 10322 (Part 5 /Sec 3) Cl. No. 15 |
| 247 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Protection Against Electric Shock | IS 10322 (Part 5 /Sec 3) Cl. No. 12 |
| 248 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Provision For Earthing | IS 10322 (Part 5 /Sec 3) Cl. No. 9 |
| 249 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Resistance To Heat, Fire And Tracking | IS 10322 (Part 5 /Sec 3) Cl. No. 14 |
| 250 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Screw Terminals | IS 10322 (Part 5 /Sec 3) Cl. No. 10 |
| 251 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Creepage Distances And Clearances | IS 10322 (Part 5 /Sec 3) Cl. No. 8 |
| 252 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Endurance Tests And Thermal Tests | IS 10322 (Part 5 /Sec 3) Cl. No. 13 |
| 253 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Marking | IS 10322 (Part 5 /Sec 3) Cl. No. 6 |

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|---|---|---|---|---|
| 254 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Resistance To Dust And Moisture | IS 10322 (Part 5 /Sec 3) Cl. No. 14 |
| 255 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | CONSTRUCTION | IS 10322 (Part 5 /Sec 3) |
| 256 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | Insulation Resistance And Electric Strength | IS 10322 (Part 5 /Sec 3) Cl. No. 15 |
| 257 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaires for Road and Street Lighting | screw terminals | IS 10322 (Part 5 /Sec 3) (Cl. No. 10) |
| 258 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Attachments to Lamps | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.22) |
| 259 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Classification of Luminaires | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 2) |
| 260 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Construction | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4) |
| 261 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Creepage Distances and Clearances | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 11) |
| 262 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Double and reinforced insulation | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.10) |
| 263 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Drain Holes | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.17) |
| 264 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Endurance Tests and Thermal Tests | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 12) |
| 265 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | External and Internal Wiring | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 5) |
| 266 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Flammable Materials | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.15) |
| 267 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Ignitors | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 4.19) |

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|---|---|---|---|---|
| 268 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Insulating Linings and Sleeves | IS 10322 (Part 1) / IEC 60598-1 (2014) ( cl .4.9) |
| 269 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Insulation resistance and electric strength (Leakage Current Test) | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 10) |
| 270 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Insulation resistance and electric strength (Electric Strength Test) | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 10) |
| 271 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Insulation resistance and electric strength (Insulation Resistance Test) | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 10) |
| 272 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Lamp holders | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl 4.4) |
| 273 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Luminaires marked with luminaires suitable for direct mounting on flammable surface symbol | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl 4.16) |
| 274 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Marking | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 3) |
| 275 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Mechanical Hazard | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 4.25): |
| 276 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Protection against electric shock | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 8) |
| 277 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Protective shield (Tungsten Halogen Lamps) | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl. 4.21) |
| 278 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Provision for earthing | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl.7) |
| 279 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Resistance to Corrosion | IS 10322 (Part 1) / IEC 60598-1 (2014) (Cl.4.18) |
| 280 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Resistance to dust, solid objects and moisture | IS 10322 (Part 1) / IEC 60598-1:2014 (Cl. 9) |

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|---|---|---|---|---|
| 281 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Resistance to heat, fire and tracking | IS 10322 (Part 1) / IEC 60598-1 (Cl.13) |
| 282 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Screw Terminals | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl.14) |
| 283 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Screwless Terminals and Electrical Connections | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl.15) |
| 284 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Screws and Connections (Mechanical ) and Glands | IS 10322 (Part 1) / IEC 60598-1:2014 (Cl. 4.12) |
| 285 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Starter Holders | IS 10322 (Part 1) / IEC 60598-1:2014 (Cl. 4.5) |
| 286 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Switches | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.8) |
| 287 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Terminal Blocks | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl.4.6) |
| 288 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Terminals and supply connections | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.7) |
| 289 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Luminaries (Part 1: General requirements and tests) | Wireways | IS 10322 (Part 1):2014 / IEC 60598-1 (Cl. 4.3) |
| 290 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Construction | IS 10322 (Part 5 / Sec 2) (Cl No.7) |
| 291 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Construction | IS 10322 (Part 5 / Sec 2) (Cl No.7) |
| 292 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Creepage Distances And Clearances | IS 10322 (Part 5 / Sec 2) (Cl. No. 8 |
| 293 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Endurance Test and Thermal Test | IS 10322 (Part 5 / Sec 2) Cl.13 |
| 294 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | External and Internal Wiring | IS 10322 (Part 5 / Sec 2) Cl No. 11 |

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|---|---|---|---|---|
| 295 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Insulation Resistance and Electric Strength | IS 10322 (Part 5 / Sec 2) ( Cl No. 15) |
| 296 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Insulation Resistance and Electric Strength | IS 10322 (Part 5 / Sec 2) ( Cl No. 15 |
| 297 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Marking | IS 10322 (Part 5 / Sec 2) Cl. No.6 |
| 298 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Protection Against Electric Shock | IS 10322 (Part 5 / Sec 2) Cl No. 12 |
| 299 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Provision for Earthing | IS 10322 (Part 5 / Sec 2) Cl. No. 9 |
| 300 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Resistance to Dust and Moisture | IS 10322 (Part 5 / Sec 2) Cl No. 14 |
| 301 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | Resistance to Heat, Fire and Tracking | IS 10322 (Part 5 / Sec 2) Cl No. 16 |
| 302 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | screws Terminals | IS 10322 (Part 5 / Sec 2) Cl No.10 |
| 303 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Recessed Luminaries | screws terminals | IS 10322 (Part 5 / Sec 2) Cl No.10: |
| 304 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Marking | IS 15885(Part 2/Sec 13) (Cl. 7) |
| 305 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Construction | IS 15885 (Part 1) (Cl. 15) |
| 306 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | safety of lamp control gear | Creepage distance and clearance | IS 15885 (Part 1) (Cl.16) |
| 307 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Electric Strength | IS 15885 (Part 1) (Cl. 12) |
| 308 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Fault Conditions | IS 15885 (Part 1) (Cl. 14) |

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|---|---|---|---|---|
| 309 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Marking | IS 15885 (Part 1) (Cl. 7) |
| 310 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Moisture resistance and insulation | IS 15885 (Part 1) (Cl. 11) |
| 311 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Protection Against Accidental contact with live parts | IS 15885 (Part 1) (Cl. 10) |
| 312 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Provision for protective earthing | IS 15885 (Part 1) (Cl. 9) |
| 313 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | safety of lamp control gear | Resistance to Corrosion | IS 15885 (Part 1) (Cl. 19) |
| 314 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | safety of lamp control gear | Resistance to heat, fire and tracking | IS 15885 (Part 1) (Cl. 18) |
| 315 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | safety of lamp control gear | Screws, current carrying parts and connections | IS 15885 (Part 1) (Cl. 17) |
| 316 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | Terminals | IS 15885 (Part 1) (Cl. 8) |
| 317 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | terminals | IS 15885 (Part 1) (Cl. 8) |
| 318 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of Lamp Control gear | thermal endurance test for windings of ballast | IS 15885 (Part 1) (Cl. 13) |
| 319 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Construction | IS 15885(Part 2/Sec 13) (Cl. 16) |
| 320 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Creepage distance and clearance | IS 15885(Part 2/Sec 13) (Cl. 17) |
| 321 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Electric Strength | IS 15885(Part 2/Sec 13) (Cl. 12) |
| 322 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Fault Conditions | IS 15885(Part 2/Sec 13) (Cl. 14) |

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|---|---|---|---|---|
| 323 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Moisture resistance and insulation | IS 15885(Part 2/Sec 13) (Cl.11) |
| 324 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Protection Against Accidental contact with live parts | IS 15885(Part 2/Sec 13) (Cl. 8) |
| 325 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Provision for protective earthing | IS 15885(Part 2/Sec 13) (Cl. 10) |
| 326 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Resistance to Corrosion | IS 15885(Part 2/Sec 13) (Cl. 20) |
| 327 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Resistance to heat, fire and tracking | IS 15885(Part 2/Sec 13) (Cl. 19) |
| 328 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Screws, current carrying parts and connections | IS 15885(Part 2/Sec 13) (Cl. 18) |
| 329 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Terminals | IS 15885(Part 2/Sec 13) (Cl. 9) |
| 330 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | thermal endurance test for windings of ballast | IS 15885(Part 2/Sec 13) (Cl. 13) |
| 331 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Safety of lamp control gear d.c. or a.c. Supplied Electronic Control gear for LED modules | Transformer heating | IS 15885(Part 2/Sec 13) (Cl. 15) |
| 332 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Bending Moment Axial Pull & Mass | IS 16102 (Part 1) (Cl. 6.2) |
| 333 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Cap Temperature Test | IS 16102 (Part 1) (Cl. 10) |
| 334 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Creepage Distance and Clearance | IS 16102 (Part 1) (Cl. 14) |
| 335 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Fault Condition | IS 16102 (Part 1) (Cl. 13) |
| 336 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Insulation Resistance and Electric Strength after Humidity Treatment | IS 16102 (Part 1) (Cl. 8): 2012 |

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|---|---|---|---|---|
| 337 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Insulation Resistance and Electric Strength after Humidity Treatment | IS 16102 (Part 1) (Cl. 8) |
| 338 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Interchangeability | IS 16102 (Part 1) (Cl. 6) |
| 339 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Marking | IS 16102 (Part 1) (Cl. 5) |
| 340 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Mechanical strength | IS 16102 (PART 1 )(CL. 9) |
| 341 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Protection Against Accidental Contact with live parts | IS 16102 (Part 1 ) (Cl. 7) |
| 342 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Resistance to flame and Ignition | IS 16102 (Part 1) (Cl. 12) |
| 343 | ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES | Self-Ballasted Led Lamps for general lighting services | Resistance to Heat | IS 16102 (Part 1) (Cl. 11) |
| 344 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterrupted power systems (UPS) | Gas Concentration | IS 16242 (Part 1):2014/ IEC 62040-1 (Cl. 7.4.3/RD) |
| 345 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Requirements for auxiliary circuits | IS 16242(Part 1) 2014/IEC 62040-1 (Cl. 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5/RD) |
| 346 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems | Requirements for auxiliary circuits | IS 16242(Part 1) 2014 /IEC 62040-1 (Cl. 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5/RD): |
| 347 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Construction details | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.4/RD): |
| 348 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | A.C. and D.C. Power Isolation | IS 16242 (Part 1) 2014/ IEC 62040 -1)(Cl. 5.4/RD) |
| 349 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Abnormal Operating and fault Condition | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 8.3/RD) |
| 350 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Battery Location | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.6 /RD) |
| 351 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Clearances , Creepage Distances And Distance Through Insulation | IS 16242 (Part 1)2014 / IEC 62040 -1) (Cl. 5.7/RD) |

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|---|---|---|---|---|
| 352 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Connection to power | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl.6.2/RD) |
| 353 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Connection to telecommunication networks | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 9/RD) |
| 354 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Connection to telecommunication networks | IS 16242 (Part 1) 2014/ IEC 62040 -1)(2008)(Cl. 9/RD) |
| 355 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Construction details | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.4/RD) |
| 356 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Construction details | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.4/RD) |
| 357 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Construction details | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.4/RD) |
| 358 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Durabiliity | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 4.7.16/RD) |
| 359 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Electric strength | IS 16242 (Part 1) 2014/ IEC 62040 -1)(2008)(Cl. 8.2/RD) |
| 360 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Enclosure | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.1/RD) |
| 361 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | equipment movement | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.4.4/RD |
| 362 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | General provision for earth leakage | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 8.1 /RD) |
| 363 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Limited Power source | IS 16242 (Part 1) 2014/IEC 62040-1(2008)Cl.5.2.5: / RD |
| 364 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | markings and instructions | IS 16242 (Part 1) 2014 / IEC 62040 -1) (Cl. 4.7/RD |
| 365 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Mechanical strength | IS 16242 (Part 1) 2014 / IEC 62040 -1) (Cl. 7.3 /RD |
| 366 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Mechanical strength | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.3 /RD) |
| 367 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Mechanical strength | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.3 /RD) |
| 368 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | OPENING | IS 16242(Part 1) 2014/IEC 62040-1 (Cl. 7.4.2/RD) |
| 369 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Over current and earth fault protection | IS 16242 (Part 1) 2014/IEC 62040-1(2008) (Cl. 5.5/RD) |
| 370 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Power interfaces | IS 16242 (Part 1) 2014 / IEC 62040 -1)(Cl. 4.6/RD) |

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|---|---|---|---|---|
| 371 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Protection Against Electric Shock And Energy Hazards | IS 16242( Part 1) 2014/ IEC 62040-1 (Cl. 5.1.1,5.1.2,5.1.3, 5.1.4,5.1.5/RD) |
| 372 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Protection of personnel - Safety interlocks | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 5.6/RD) |
| 373 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Protective Bonding | S 16242 (Part 1) 2014/ IEC 62040-1 (Cl. 5.3.3 /RD |
| 374 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | PROTECTIVE EARTHING | IS 16242 (Part 1) 2014/ IEC 62040-1 (Cl. 5.3.2 /RD) |
| 375 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Protective earthing and bonding | IS 16242 (Part 1) 2014/ IEC 62040-1(2008) (Cl. 5.3 /RD) |
| 376 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Protective earthing and bonding | IS 16242 (Part 1) 2014/ IEC 62040-1 (Cl. 5.3 /RD) |
| 377 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Requirements for auxiliary circuits | IS 16242 (Part 1) 2014/IEC 62040-1: (Cl. 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5/RD) |
| 378 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Resistance to fire | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.5 /RD) |
| 379 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Stability | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7 2/RD) |
| 380 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | stability | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7 2/RD) |
| 381 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | temperature rise | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.7/RD |
| 382 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | temperature rise | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.7/RD) |
| 383 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Temperature rise | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 7.7/RD) |
| 384 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Wiring connections and supply | IS 16242 (Part 1):2014/ IEC 62040 -1 (Cl.6, Cl. 6.1/ RD) |
| 385 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Wiring terminals for external power conductors | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 6.3 /RD) |
| 386 | ELECTRICAL- POWER SUPPLIES & STABILIZERS | Uninterruptible power systems (UPS) | Wiring, Connection and Supply | IS 16242 (Part 1) 2014/ IEC 62040 -1) (Cl. 6/RD) |
| 387 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Plugs and sockets | IS 616:2017 IEC 60065 (Clause. 15.1) |
| 388 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Antenna coaxial sockets mounted on the apparatus & Telescoping or rod antennas | IS 616 : 2017/ IEC 60065 (Cl. 12.5 , 12.6) |

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| 389 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Antenna coaxial sockets mounted on the apparatus & Telescoping or rod antennas | IS 616 2017 / IEC 60065 (Cl. 12.5 , 12.6) |
| 390 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Antenna coaxial sockets mounted on the apparatus & Telescoping or rod antennas | IS 616 : 2017/ IEC 60065 (Cl. 12.5, 12.6 ) |
| 391 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Apparatus containing coin/button cell batteries | IS 616 : 2017/ IEC 60065 (Cl.12.7 ) |
| 392 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | batteries | IS 616 : 2017/ IEC 60065 (Cl. 14.11) |
| 393 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Clearance And Creepage Distance | IS 616 : 2017/ IEC 60065 (Cl. 13 ) |
| 394 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Clearance in circuits conductively connected to the mains | IS 616:2017 IEC 60065 (Cl. 13.3.2) |
| 395 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Clearances | IS 616:2017 IEC 60065 (Clause. 13.3) |
| 396 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Clearances in circuit is not conductivity connected to the mains | IS 616:2017 IEC 60065 (Clause. 13.3.3) |
| 397 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Components | IS 616:2017 IEC 60065 (Clause. 14) |
| 398 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Constructional requirements with regards to protection against electric shock | IS 616 : 2017/ IEC 60065 (Clause. 8) |
| 399 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Constructional requirements with regards to protection against electric shock | IS 616:2017 IEC 60065: (Clause. 8) |
| 400 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Constructional requirements with regards to protection against electric shock | IS 616:2017 IEC 60065:(Clause. 8) |
| 401 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Constructional requirements with regards to protection against electric shock | IS 616 : 2017/ IEC 60065 (Cl. 8) |
| 402 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Constructional requirements with regards to protection against electric shock | IS 616:2017 IEC 60065 (Clause. 8) |
| 403 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Creepage Distances | IS 616:2017 IEC 60065 (Cl. 13.4) |

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|---|---|---|---|---|
| 404 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Determination of Working Voltage | IS 616 : 2017/ IEC 60065 (Cl. 13.2 ) |
| 405 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Devices forming a part of the mains plug | IS 616 : 2017/ IEC 60065 ( 15.4. |
| 406 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Drawers Test | IS 616 : 2017/ IEC 60065 (Cl. 12.4 ) |
| 407 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Drawers Test | IS 616 : 2017/ IEC 60065 (Cl. 12.4 ) |
| 408 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Electric shock hazard under normal operating conditions | IS 616 : 2017/ IEC 60065 (Cl. 9 ) |
| 409 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Electric shock hazard under normal operating conditions | IS 616 : 2017/ IEC 60065 (Cl. 9 ) |
| 410 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Electric shock Hazards | IS 616 : 2017/ IEC 60065, (Cl. 11.1 ) |
| 411 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Electrical connection and Mechanical Fixings | IS 616 : 2017/ IEC 60065 (Cl. 17) |
| 412 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | external Flexible Cords | IS 616 : 2017/ IEC 60065 (Cl. 16) |
| 413 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Fault condition - Heating | IS 616 : 2017/ IEC 60065 (Cl. 11.2 ) |
| 414 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Fixing of Actuating Elements | IS 616 : 2017/ IEC 60065 (Cl. 12.2) |
| 415 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | General Requirement | IS 616 : 2017/ IEC 60065 (Cl. 3 ) |
| 416 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | General Test Condition | IS 616:2017 IEC 60065 (Clause. 4, Clause. 4.1,Clause. 4.2, Clause. 4.3) |
| 417 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Heat resistance of insulating material | IS 616 : 2017/ IEC 60065 (Cl. 7.2) |
| 418 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | heating under normal operating conditions | IS 616 : 2017/ IEC 60065 (Cl.7) |
| 419 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Humidity Treatment | IS 616 : 2017/ IEC 60065 (Cl. 10.3 ) |
| 420 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Insulation Resistance and dielectric strength | IS 616 : 2017/ IEC 60065 (Cl. 10.4 ) |
| 421 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Insulation Resistance and dielectric strength | IS 616 : 2017/ IEC 60065 (Cl. 10.4 ) |

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|---|---|---|---|---|
| 422 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Light emitting diode | IS 616:2017 IEC 60065 (Clause. 6.3) Only by Evaluation of Datasheets |
| 423 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Marking & Instructions | IS 616 : 2017/ IEC 60065 Cl.5 |
| 424 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | markings and instructions | IS 616 : 2017/ IEC 60065 Cl.5 |
| 425 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Measurement of transient voltages | IS 616 : 2017/ IEC 60065 (Cl.13.3.4) |
| 426 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Mechanical strength -bump test | IS 616:2017 / IEC 60065 (Cl. 12 , 12.1.2) ) |
| 427 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Mechanical Strength -vibration test | IS 616: 2017 / IEC 60065 (Cl. 12.1.3) |
| 428 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Mechanical Strength Drop test | IS 616:2017 / IEC 60065 (Cl. 12.1.5 ) |
| 429 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Mechanical Strength Impact test | IS 616 : 2017/ IEC 60065 (Cl. 12.1.4 ) |
| 430 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Provision for protective earthing | IS 616:2017 / IEC 60065 (Cl. 15.2 ) |
| 431 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Remote Control devices held in hand | IS 616:2017 / IEC 60065 (Cl. 12.3 ) |
| 432 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Resistance to fire | IS 616 : 2017/ IEC 60065 (Cl 20) |
| 433 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Stability and Mechanical hazards | IS 616 : 2017/ IEC 60065 (Cl. 19 ) |
| 434 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | stress relief | IS 616 : 2017/ IEC 60065 (Cl. 12.1.6 ) |
| 435 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | Surge test | IS 616 : 2017/ IEC 60065 (Cl. 10.2 ,14.2 ) |
| 436 | ELECTRONICS- AUDIO EQUIPMENT | AUDIO, VIDEO AND SIMILAR ELECTRONICS APPARATUS | terminals | IS 616 : 2017/ IEC 60065 (Cl. 15.1, 15.3) |
| 437 | ELECTRONICS- ELECTRONIC COMPONENTS & EQUIPMENT SUB ASSEMBLIES | Mobile Phone Handset | Inputting and Readability | IS 16333(Part-3) |

# SCOPE OF ACCREDITATION

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| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 438 | ELECTRONICS-ELECTRONIC COMPONENTS & EQUIPMENT SUB ASSEMBLIES | Mobile Phone Handsets: Indian Language Support for Mobile Handsets | Marking | IS 16333 (Part 3) IS 16333 (Part 1): (Cl. 6, 6.1, 6.2) |
| 439 | ELECTRONICS-ELECTRONIC COMPONENTS & EQUIPMENT SUB ASSEMBLIES | Mobile Phone Handsets: Indian Language Support for Mobile Handsets | Tests | IS 16333 (Part 3) (Cl. 5, 5.1, 5.2, Annex A, Annex B, Annex C) IS 16350 : 2016 + A1 (Cl. 5, 5.1 to 5.24, Amnd 1) |
| 440 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Overriding | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 2.8.6) |
| 441 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Clearances, creepage distances and distances through insulation | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 2.10, Cl. 2.10.1) |
| 442 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Containers for Liquids or Gases | IS 13252 PART-1 : 2010/ IEC 60950-1 (Cl 4.3.11)) |

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 443 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Edges and Corners | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 4.3.1) |
| 444 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | General conditions for tests | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 1.4) |
| 445 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Impulse Test | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 6.2.2.1)) |
| 446 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Input Current | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 1.6.2) |

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|---|---|---|---|---|
| 447 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Mechanical Actuators | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 2.8.8) |
| 448 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Resistors bridging Insulation | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 1.5.7) |
| 449 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Separation of the protecting earthing conductors from protective bonding conductors | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 2.6.4.3) |
| 450 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Steady State Test | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 6.2.2.2)) |

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|---|---|---|---|---|
| 451 | ELECTRONICS- IT EQUIPMENT | printer, smart watch, cctv camera, CCTV recorder, wireless keyboard, VDU, power adapter, mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server, laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine /franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products and other electronics , telecommunication and information products | Transformers | IS 13252 PART 1: 2010 / IEC 60950- 1 (Cl. 1.5.4) |
| 452 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products Resistance to | Connection to Telecommunication Networks | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 6 ): |
| 453 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products Resistance to | Protection from hazardous voltages | IS 13252 (Part-1 ): 2010/ IEC 60950-1 (Cl 6.1.1 ) |
| 454 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Abnormal operating and fault conditions | IS 13252 (PART 1) 2010 / IEC 60950- 1 (Cl. 5.3) |

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|---|---|---|---|---|
| 455 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Abrasion resistance test | IS 13252 (PART 1) 2010 / IEC 60950 -1 (Cl.2.10.8.4) |
| 456 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Access to ELV wiring | IS 13252 (PART 1) 2010 /IEC 60950- 1 (Cl. 2.1.1.3) |
| 457 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Access to energized parts | IS 13252 (Part 1) : 2010 /IEC 60950- 1 (Cl. 2.1.1.1) |
| 458 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Access to hazardous voltage circuit wiring | IS 13252-1: 2010 /IEC 60950- 1 ( Cl. 2.1.1.4) |
| 459 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Adhesives for Constructional Purpose | IS 13252 (Part-1 ): 2010/ IEC 60950-1 (Cl .4.6.5) |

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|---|---|---|---|---|
| 460 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Adjustable controls | IS 13252 (Part 1) 2010 / IEC 60950- 1 (4.3.3) |
| 461 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Audio amplifiers in information technology equipment | IS 13252 (Part 1) 2010 / IEC 60950- 1: (Cl. 2.1.1.9) |
| 462 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Batteries | IS 13252 (PART 1) 2010 /IEC 60950- 1 (Cl. 4.3.8)) |
| 463 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Battery compartments | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.1.1.2) |
| 464 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Bottom of Fire Enclosure | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl.4.6.2)): |

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|---|---|---|---|---|
| 465 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Clearances | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl.2.10.3) |
| 466 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Colour of Insulation | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 2.6.3.5 ) |
| 467 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Component External Terminations | IS 13252 (Part 1) : 2010 / IEC 60950-1 (Part 1) (Cl.2.10.7) |
| 468 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Connection by plugs And sockets | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl. 4.3.5 ) |
| 469 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Connection of TNV Circuits to other circuits | IS 13252 (PART-1) : 2010/ IEC 60950-1 (Cl 2.3.4 ): |

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|---|---|---|---|---|
| 470 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Connection to cable distribution system | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 7, Cl. 7.1)) |
| 471 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Connection to cable distribution system | IS 13252 (Part 1) 2010/ IEC 60950- 1 (Cl. 7) |
| 472 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Construction of printed board | IS 13252 (Part 1) : 2010 / IEC 60950-1 (Cl.2.10.6 ) |
| 473 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Contact Gaps | IS 13252 (PART 1) 2010/ IEC 60950- 1 (Cl. 2.8.7.1) |
| 474 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Creepage distance | IS 13252 (Part 1): 2010 / IEC 60950- 1 (Cl.2.10.4) |

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 475 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Determination of working voltage | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl.2.10.2) |
| 476 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Direct plug-in equipment | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl. 4.3.6 ) |
| 477 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Discharge of capacitors in equipment | IS 13252 (Part 1): 2010 / IEC 60950- 1 (Cl. 2.1.1.7) |
| 478 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Discharge of capacitors in equipment | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 2.1.1.7) |
| 479 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Doors and Covers in Fire Enclosures | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl.4.6.3) |

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|---|---|---|---|
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| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 480 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Drop test | IS 13252 (Part 1): 2010/ IEC 60950- 1 ( Cl.4.2.6) |
| 481 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Durability | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl. 1.7.11) |
| 482 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Dust, powders, liquids and gases | IS 13252 PART 1: 2010/ IEC 60950- 1: (Cl. 4.3.10) |
| 483 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Electric strength | IS 13252 (Part 1) : 2010 / IEC 60950-1 (Cl. 5.2) |
| 484 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Electric strength test | IS 13252 (Part 1): 2010 / IEC 60950-1 (Cl.2.10.8.3) |

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|---|---|---|---|
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 485 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Enclosed and sealed parts | IS 13252 (Part 1): 2010 / IEC 60950- 1(Cl. 2.10.12) |
| 486 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Energy hazard | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl. 2.1.1.5) |
| 487 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Energy hazard | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl. 2.1.1.5) |
| 488 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Energy hazard | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl. 2.1.1.5) |
| 489 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Energy Hazards - DC main Supply | IS 13252 (Part 1): 2010 / IEC 60950- 1 (Cl.2.1.1.8)) |

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|---|---|---|---|---|
| 490 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Fail-safe operation | IS 13252 PART 1 : 2010/ IEC 60950- 1: (Cl. 2.8.4) |
| 491 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Flammable Liquids | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl.4.3.12) ): |
| 492 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Functional earthing | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 2.6.2) |
| 493 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Grade of insulation | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl. 2.9.3) |
| 494 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Handles and manual controls | IS 13252(Part 1): 2010 / IEC 60950- 1 ( 4.3.2) |

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 495 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Heating element in earthed equipment | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 4.3.7) |
| 496 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | High pressure lamps | IS 13252 (PART 1) 2010/ IEC 60950- 1 (Cl. 4.2.9) |
| 497 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Humidity conditioning | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 2.9.2) |
| 498 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Impact test | IS 13252 (Part 1):2010/ IEC 60950- 1(Cl. 4.2.5) |
| 499 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Impulse Test | IS 13252(Part-1) : 2010/ IEC 60950-1 (Cl 7.4.3) |

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|---|---|---|---|---|
| 500 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Insulation between primary circuits and cable distribution system | IS 13252 (Part 1): 2010 /IEC 60950- 1 (Cl. 7.4, Cl. 7.4.1) |
| 501 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Integrity of protective earthing | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl. 2.6.5,Cl. 2.6.5.1,Cl. 2.6.5.2,Cl. 2.6.5.3,Cl. 2.6.5.4,Cl. 2.6.5.5,Cl. 2.6.5.6,Cl. 2.6.5.7,Cl. 2.6.5.8) |
| 502 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Limited Current Circuit | IS 13252 (PART-1) : 2010/ IEC 60950-1 (Cl.2.4,Cl.2.4.1,Cl.2.4.2,Cl.2.4.3 ): |
| 503 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Limited Power Sources | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl. 2.5 ) |
| 504 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Limited Power Sources | IS 13252 (Part 1) 2010 / IEC 60950- 1: (Cl. 2.5 ) |

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|---|---|---|---|---|
| 505 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Manual control | IS 13252 (Part 1) : 2010 / IEC 60950- 1 ( Cl. 2.1.1.6) |
| 506 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Marking and instructions | IS 13252 (Part 1): 2010 / IEC 60950-1(Cl. 1.7) |
| 507 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Mechanical Strength | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl.4.2.1 ) |
| 508 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Oil and grease | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl.4.3.9) |
| 509 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Openings and Encloures | IS 13252 (Part-1):2010/ IEC 60950-1 (Cl.4.6,Cl.4.6.1) ): |

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|---|---|---|---|---|
| 510 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Openings in Transportable Equipment | IS 13252 (Part-1): 2010/ IEC 60950-1 (Cl.4.6.4): |
| 511 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Over-Current and Earth Fault Protection in Primary Circuits | IS 13252 (Part 1):(2010) / IEC 60950- 1 (Cl. 2.7) |
| 512 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Power Interface | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl.1.6) |
| 513 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Power Interface | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl.1.6): |
| 514 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Properties of insulating materials | IS 13252 (Part 1): 2010 /IEC 60950- 1 (Cl. 2.9.1) |

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| **Laboratory Name :** | ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA | | |
| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
| **Certificate Number** | TC-8778 | **Page No** | 45 of 73 |
| **Validity** | 26/12/2021 to 25/12/2023 | **Last Amended on** | 24/03/2022 |

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 515 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection against hazardous moving parts | IS 13252 (Part 1): 2010 /IEC 60950- 1 (Cl. 4.4,Cl. 4.4.1,Cl. 4.4.2,Cl. 4.4.3,Cl. 4.4.4,Cl. 4.4.5) |
| 516 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection by basic insulation | IS 13252 (Part 1): 2010/IEC 60950- 1 (Cl. 2.3.2.2) |
| 517 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection from electric shock and energy hazard (Protection in operator access area) | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 2.1, Cl. 2.1.1) |
| 518 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection in restricted access locations | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl. 2.1.3) |
| 519 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection in Service Access Areas | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.1.2) |

# SCOPE OF ACCREDITATION

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| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 520 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection of cable distribution system service persons and users of other equipment connected to system, from hazards voltage in the equipment. | IS 13252 (Part 1) 2010 / IEC 60950 -1 (Cl.7.2)) |
| 521 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection of equipment users from over voltages on telecommunication networks | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 6.2, Cl 6.2.1, Cl 6.2.2 and Cl 6.2.2.3): |
| 522 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection of equipment users from overvoltages on the cable distribution system | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl.7.3) |
| 523 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection of Telecommunication Wiring System from Over Heating | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 6.3 ): |
| 524 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protection requirement for safety interlocks | IS 13252 (Part 1) 2010/ IEC 609501 -1(Cl. 2.8.1, 2.8.2, 2.8.3, 2.8.5) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 525 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protective Earthing | IS 13252 (Part 1) : 2010/ IEC 60950- 1 (Cl.2.6.1) |
| 526 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Protective earthing conductors & Protective bonding conductors | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.6.3,Cl. 2.6.3.1,Cl. 2.6.3.2,Cl. 2.6.3.3) |
| 527 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Resistance of earthing conductors and their terminations | IS 13252 (Part 1): 2010 / IEC 60950-1 (Cl.2.6.3.4) |
| 528 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Resistance to abnormal heat | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl.4.5.5) |
| 529 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Resistance to fire | IS 13252 (Part 1): 2010 / IEC 60950- 1 (Cl. 4.7) |

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| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 530 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Sample Preparation and preliminary inspection | IS 13252(Part 1): 2010 / IEC 60950- 1 (Cl. 2.10.8.1) |
| 531 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Securing of parts | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl 4.3.4) |
| 532 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | SELV circuits | IS 13252 (Part 1) 2010/ IEC 60950- 1 (Cl. 2.2) |
| 533 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | SELV circuits | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.2) |
| 534 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Separation from hazardous voltages | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 2.9.4) |

# SCOPE OF ACCREDITATION

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|---|---|---|---|
| **Laboratory Name :** | ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA | | |
| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
| **Certificate Number** | TC-8778 | **Page No** | 49 of 73 |
| **Validity** | 26/12/2021 to 25/12/2023 | **Last Amended on** | 24/03/2022 |

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 535 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Separation from Hazards Voltage | IS 13252 PART-1 : 2010/ IEC 60950-1 (Cl. 2.3.3 ): |
| 536 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Separation of the protecting earthing conductor from protective bonding conductors | IS 13252(Part-1) : 2010/ IEC 60950-1 (Cl 2.6.4.3 ) |
| 537 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Separation of the Telecommunication from Earth | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 6.1.2.) |
| 538 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Separation of the Telecommunication Network from earth | IS 13252 (Part-1) : 2010/ IEC 60950-1 (Cl 6.1.2) |
| 539 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | SOLID INSULATION | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.10.5) |

# SCOPE OF ACCREDITATION

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| **Laboratory Name :** | ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA | | |
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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 540 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Solid Insulation | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.10.5) |
| 541 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Stability | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 4.1) |
| 542 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | STABILITY | IS 13252 (Part 1): 2010 / IEC 60950- 1 (Cl. 4.1) |
| 543 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Steady Force Test | IS 13252 (Part 1):2010/IEC 60950- 1 (Cl.4.2.2, 4.2.3, 4.2.4) |
| 544 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Stress Relief Test | IS 13252 (Part 1) : 2010 / IEC 60950- 1 (Cl.4.2.7) |

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 545 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Switches and relays | IS 13252 (PART 1) 2010/ IEC 60950- 1 (Cl. 2.8.7,Cl. 2.8.7.2,Cl. 2.8.7.3,Cl. 2.8.7.4) |
| 546 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Temperature tests | IS 13252 (PART 1) 2010/ IEC 60950- 1 (Cl. 4.5.2 ) |
| 547 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Terminals | IS 13252 (Part 1): 2010/ IEC 60950 - 1 (Cl.2.6.4,Cl.2.6.4.1,Cl.2.6.4.2) |
| 548 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Test for Operating Voltages Generated Externaly | IS 13252 (PART-1) : 2010/ IEC 60950-1 (Cl.2.3.5 ): |
| 549 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Test for pollution degree 1 environment and for insulating compound | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl.2.10.10, 2.10.11) |

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|---|---|---|---|---|
| 550 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Thermal conditioning | IS 13252 (Part 1): 2010/IEC 60950- 1 (Cl 2.10.8.2) |
| 551 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Thermal Cycling | IS 13252 (Part 1) 2010 / IEC 60950- 1 (Cl. 2.10.9): |
| 552 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Thermal Requirements | IS 13252 (Part 1): 2010/ IEC 60950- 1 (Cl. 4.5) |
| 553 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | TNV | IS 13252 (PART-1): 2010/ IEC 60950-1 (Cl 2.3.2, Cl 2.3.2.1, Cl 2.3.2.2, Cl 2.3.2.3, Cl 2.3.2.4): |
| 554 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | TNV Circuit | IS 13252 (PART 1) 2010 /IEC 60950- 1(Cl. 2.3,Cl. 2.3.1)) |

# SCOPE OF ACCREDITATION

| | | | |
|---|---|---|---|
| **Laboratory Name :** | ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA | | |
| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
| **Certificate Number** | TC-8778 | **Page No** | 53 of 73 |
| **Validity** | 26/12/2021 to 25/12/2023 | **Last Amended on** | 24/03/2022 |

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 555 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Touch current & protective conductor current | IS 13252(Part 1) : 2010/ IEC 60950- 1 (Cl. 5.1) |
| 556 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Voltage Surge Test | IS 13252 PART-1 : 2010/ IEC 60950-1 (Cl 7.4.2 ): |
| 557 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Wall or ceiling mounted equipment | IS 13252(Part 1) 2010 / IEC 60950- 1 (Cl. 4.2.10) |
| 558 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Wiring connections & supply | IS 13252 (Part 1): 2010 / IEC 60950-1(Cl.3.0,3.1,3.2,3.3,3.4, 3. 5) |
| 559 | ELECTRONICS- IT EQUIPMENT | printer,smart watch,cctv camera,CCTV recorder,wireless keyboard,VDU,power adapter,mobile, telephone answering machine, projectors, all in one computer, bar code scanner, iris scanner, power bank, ADPM , set top box, server,laptop, notebook, tablet, plotters, scanner, smart card reader, passport reader, point of sale terminal, mail processing machine/ postage machine/franking machine, Optical finger print scanner, USB driven bar code reader and other electronics , telecommunication and information products | Wiring connections & supply | IS 13252 (Part 1): 2010 / IEC 60950-1(Cl.Cl.3.0,3.1,3.2,3.3,3. 4,3. 5) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 560 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 561 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline | Wiring Terminals for Connection of External Conductors. | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 13.3.3,Cl. 13.3.3.1 and Cl. 13.3.3.2) |
| 562 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Hail Test | IS 14286 2010 / IEC 61215 (Cl. 10.17): |
| 563 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Hot-Spot Endurance Test | IS 14286 2010 / IEC 61215 (Cl. 10.9) |
| 564 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Hot-Spot Endurance Test | IS 14286 2010 / IEC 61215 (Cl. 10.9) |
| 565 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Humidity Freeze Test | IS 14286 2010 / IEC 61215 (Cl. 10.12) |
| 566 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Insulation Test | IS 14286 2010 / IEC 61215 (Cl. 10.3) |
| 567 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Insulation Test | IS 14286 2010 / IEC 61215 (Cl. 10.3) |
| 568 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Insulation Test | IS 14286 2010 / IEC 61215 (Cl. 10.3): |
| 569 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Major Visual Defects | IS 14286 2010 / IEC 61215 Cl. 7 |
| 570 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 571 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 572 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Maximum Power Determination | IS 14286 2010 / IEC 61215) (Cl. 10.2 |
| 573 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Measurement of Nominal Operating Cell Temperature (NOCT) | IS 14286 2010 / IEC 61215 (Cl. 10.5) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 574 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Measurement of Temperature Coefficient | IS 14286 2010 / IEC 61215 (Cl. 10.4) |
| 575 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Measurement of Temperature Coefficient | IS 14286 2010 / IEC 61215 (Cl. 10.4 |
| 576 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Measurement of Temperature Coefficient | IS 14286 2010 / IEC 61215 (Cl. 10.4 |
| 577 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Outdoor exposure test | IS 14286 2010 / IEC 61215 (Cl. 10.8) |
| 578 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Outdoor exposure test | IS 14286 2010 / IEC 61215 (Cl. 10.8) |
| 579 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7): |
| 580 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 581 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 582 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Performance at STC and NOCT | IS 14286 2010 / IEC 61215 (Cl. 10.6) |
| 583 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Performance at STC and NOCT | IS 14286 2010 / IEC 61215 (Cl. 10.6) |
| 584 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Robustness of Terminations Tests | IS 14286 IEC 61215:2016 (Cl. 10.14) |
| 585 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Testing (Preconditioning) | IS 14286 2010 / IEC 61215 (Cl. 5) |
| 586 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | UV Preconditioning Test | IS 14286 2010 / IEC 61215 (Cl. 10.10) |
| 587 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | UV Preconditioning Test | IS 14286 2010 / IEC 61215 (Cl. 10.10) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 588 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Visual Inspection | IS 14286 2010 / IEC 61215 (Cl. 10.1) |
| 589 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules | Wet Leakage Current Test | IS 14286 2010 / IEC 61215 (Cl. 10.15) |
| 590 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules Chamber size: 1000mm x 2000mm | Bypass Diode Thermal Test | IS 14286 2010 / IEC 61215(Cl. 10.18) |
| 591 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1000mm x 2000mm | Damp-Heat Test | IS 14286 2010 / IEC 61215 (Cl. 10.13 |
| 592 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1000mm x 2000mm | Humidity Freeze Test | IS 14286 2010 / IEC 61215 (Cl. 10.12) |
| 593 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1000mm x 2000mm | Thermal Cycling Test | IS 14286 2010 / IEC 61215 (Cl. 10.11) |
| 594 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1000mm x 2000mm | Thermal Cycling Test | IS 14286 2010 / IEC 61215 (Cl. 10.11) |
| 595 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 596 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 597 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 598 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Maximum Power Determination | IS 14286 2010 / IEC 61215 (Cl. 10.2) |
| 599 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Maximum Power Determination | IS 14286 2010 / IEC 61215) (Cl. 10.2 |
| 600 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Mechanical Load Test | IS 14286: 2010 / IEC 61215 Cl.10.16 |
| 601 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7): |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 602 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 603 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 604 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at Low Irradiance | IS 14286 2010 / IEC 61215 (Cl. 10.7) |
| 605 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at low irradiance | IS 14286: 2010 / IEC 61215 (Cl. 10.7) |
| 606 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at STC and NOCT | IS 14286 2010 / IEC 61215 (Cl. 10.6) |
| 607 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at STC and NOCT | IS 14286 2010 / IEC 61215 (Cl. 10.6) |
| 608 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at STC and NOCT | IS 14286: 2010 / IEC 61215 (Cl. 10.6) |
| 609 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Crystalline Silicon Terrestrial Photovoltaic (PV) Modules up to max module size: 1100mm x 2200mm | Performance at STC and NOCT | IS 14286:2010 / IEC 61215 (Cl. 10.6): |
| 610 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Connectors - Resistance to Inclusion of Water (Ingress Protection) | IS/IEC 61730-1 (Cl. 7.3) |
| 611 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Outer Surface (Flame Spread Index Test) | IS/IEC 61730- 1 (Cl. 5.4) |
| 612 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Outer Surface (UV Resistance Test) | IS/IEC 61730- 1 (Cl. 5.4) |
| 613 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Outer Surface (Partial Discharge Test) | IS/IEC 61730-1 (Cl. 5.4) |
| 614 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Bonding and Grounding | IS/IEC 61730 -1 (CL. 8) |
| 615 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Conduit Applications- Non-metallic -Conduit Bending Test | IS/IEC 61730-1 (Cl. 10.9) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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**Validity** 26/12/2021 to 25/12/2023 **Last Amended on** 24/03/2022

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 616 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Conduit Applications-Metallic - Conduit Bending Test | IS/IEC 61730-1 (Cl. 10.8) |
| 617 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Connectors - Accessibility Test | IS/IEC 61730-1 (Cl. 7.3): |
| 618 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Connectors -Steel Ball Impact Test | IS/IEC 61730-1 (Cl. 7.3) |
| 619 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Connectors -UV Resistance Test | IS/IEC 61730-1 (Cl. 7.3) |
| 620 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Field Wiring Terminals | IS/IEC 61730-1 (Cl. 7.2) |
| 621 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Gasket and Seals | IS/IEC 61730-1 (Cl. 10.5) |
| 622 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Internal Volume Measurement | IS/IEC 61730-1 (Cl. 10.3) |
| 623 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Marking | IS/IEC 61730-1 (Cl. 11) |
| 624 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Mechanical Securement - Clearance and Creepage Distance Measurement | IS/IEC 61730-1 (Cl. 6.3) |
| 625 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Openings | IS/IEC 61730-1 (Cl. 10.4) |
| 626 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Output Lead or Cables | IS/IEC 61730-1 (Cl. 7.4) |
| 627 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymer Server to Support Live Parts (Comparative Tracking Index Test) | IS/IEC 61730-1 (Cl. 5.3) |
| 628 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymer Server to Support Live Parts (High Current Arc Ignition Test) | IS/IEC 61730-1 (Cl. 5.3) |
| 629 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymer Server to Support Live Parts (Ultraviolet Light Exposure Test) | IS/IEC 61730-1 (Cl. 5.3) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 630 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Enclosure for Live Parts (Hot Wire Ignition Resistance Test) | IS/IEC 61730-1 (Cl. 5.2): |
| 631 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Enclosure for Live Parts (UV RADIATION RESISTANCE TEST) | IS/IEC 61730-1 (Cl. 5.2): |
| 632 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Enclosure for Live Parts (Flammability Rating Test) | IS/IEC 61730-1 (Cl. 5.2) |
| 633 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving as an Outer Surface (Thermal Index Test) | IS/IEC 61730- 1 (Cl. 5.4) |
| 634 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving to Support Live Parts (Inclined Plane Tracking Rating Test) | IS/IEC 61730-1 (Cl. 5.3) |
| 635 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Sharp edges | IS/IEC 61730-1 (Cl. 10.7): |
| 636 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Splices | IS/IEC 61730- 1 (Cl.6.2) |
| 637 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Strain Relief | IS/IEC 61730-1 (Cl. 10.6) |
| 638 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Structural Glazing Materials - Module Breakage Test | IS/IEC 61730- 1 (Cl. 5.6) |
| 639 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction | Wall Thickness Measurement | IS/IEC 61730-1:(Cl. 10.2) |
| 640 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photo-voltaic (PV) Module Safety Qualification: Requirements For Construction. | Barriers | IS/IEC 61730-1 (Cl. 5.5) |
| 641 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Creepage and Clearance Distance | IS/IEC 61730 -1 (CL. 9) |
| 642 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Field Connection - General Requirement | IS/IEC 61730 -1) (CL. 7.1)) |
| 643 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Grounding Continuity Test MST 13 | IS/IEC 61730 -2 (CL.10.4) |

# SCOPE OF ACCREDITATION

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| 644 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Internal Wiring | IS/IEC 61730 - 1 Cl.6.1 |
| 645 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Marking | IS/IEC 61730 (PART 1) (CL.11) |
| 646 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | polymeric materials -Thermal Index Test | IS/IEC 61730-1 (Cl. 5.1) |
| 647 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements For Construction | Polymers Serving to Support Live Parts (Flammability Classification Test) | IS/IEC 61730-1 (Cl. 5.3) |
| 648 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Accessibility Test | IS/IEC 61730 -2 Cl.10.2 |
| 649 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Conduit Bending Test | IS/IEC 61730 -2 (Cl. 11.2) |
| 650 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Cut Susceptibility Test MST 12 | IS/IEC 61730-2 (CL.10.3) |
| 651 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Dielectric Withstand Test MST 16 | IS/IEC 61730 - 2 (CL.10.6) |
| 652 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Grounding Continuity Test MST 13 | IS/IEC 61730 - 2 (CL. 10.4) |
| 653 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Impulse Voltage Test MST 14 | IS/IEC 61730 - 2 (10.5) |
| 654 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Module Breakage Test MST 32 | IS/IEC 61730 - 2 (CL. 10.10) |
| 655 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Partial Discharge-Test MST 15 | IS/IEC 61730-2(Cl. 11.1) |
| 656 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Reverse Current Overload Test MST 26 | IS/IEC 61730 - 2 (CL 10.9 ) |
| 657 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Temperature Test (MST 21) Outdoor Method and Solar Simulator Method | IS/IEC 61730 -2 (Cl. 10.7 ) |

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| 658 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Terminal Box Knockouts tests MST 44 | IS/IEC 61730 - 2 (CL. 11.3) |
| 659 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Testing | IS/IEC 61730-2 (Cl.8) |
| 660 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Photovoltaic (PV) Module Safety Qualification: Requirements for Testing | Visual Inspection | IS/IEC 61730 -2 (CL. 10.1) |
| 661 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General | Software and Firmware Performing Safety Functions | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 15 |
| 662 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Batteries | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 14.8) |
| 663 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirement | Battery Inputs | IS 16221 (Part 1):2016 / IEC 62109-1: (Cl. 4.2.2.7.2) |
| 664 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirement | Controls | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 4.2.2.10) |
| 665 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirement | covers and removable parts | IS 16221 (Part 1):2016 / IEC 62109-1: (Cl. 4.2.2.5) |
| 666 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirement | Earthing Terminals | IS 16221 (Part 1):2016 / IEC 62109-1: (Cl. 4.2.2.9) |
| 667 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Equipment With Multiple Source of Supply | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.5.5) |
| 668 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | External Protective Earthing Conductor | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.6.3.5)) |
| 669 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Fuse Holders | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 14.4) |
| 670 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirement | General Testing Requirements | IS 16221 (Part 1):2016 / IEC 62109-1: (Cl. 4) |
| 671 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Insulation Requirement above 30 kHZ | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 7.3.7.9) |

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| 672 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Protection against Mechanical Hazards | IS 16221 (Part 1) 2016/ IS 16221 (Part 2) 2015/ IEC 62109-1 (Cl. 8): |
| 673 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Resistance to Arcing | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 13.6.3.1) |
| 674 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirement | Software and Firmware Performing Safety Functions | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 15 |
| 675 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Securing Parts | IS 16221 (Part 1):2016 / IEC 62109-1 (Cl.13.2) |
| 676 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Access Probe Tests & Service Access Areas | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl.7.3.4.2.3, 7.3.4.2.4): |
| 677 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Adjustable Control | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 13.1.1) |
| 678 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Appliance Inlets | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 13.3.2.3) |
| 679 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Back Feed Voltage Protection | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.4.6): |
| 680 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Backfeed current Test for Equipment more than 1 Source of Supply | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl.4.4.4.6)) |
| 681 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Chemical Hazards | IS 16221 (Part 1) 2010 / (IS 16221 PART 2) 2015/ IEC 62109-1 Cl.12 |
| 682 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Coating | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.7.6) |
| 683 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Components | IS 16221 (Part 1) 2016/ IS 16221 (Part 2) 2015/ IEC 62109-1 Cl. 14: |
| 684 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Conditions of Loading | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 4.2.2.8) : |
| 685 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Connection to an a.c. mains supply | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 13.3.2) |

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|---|---|---|---|---|
| 686 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Connectors, plugs and sockets | IS 16221 (Part 1):2016/ IEC 62109-1 (Cl. 13.3.7) |
| 687 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Content for Warning Markings | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5.2.2, Cl. 5.2.2.1, Cl. 5.2.2.2, Cl. 5.2.2.3, Cl. 5.2.2.4, Cl. 5.2.2.5: |
| 688 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Decisive Voltage Classification | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.2)) |
| 689 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Disconnection from supply sources | IS 16221 (Part 1):2016/ IEC 62109-1 (Cl. 13.3.6) |
| 690 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Documentation | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.5.3) |
| 691 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Durability of Markings | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5.1.2): |
| 692 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Electrical rating Test | S 16221 (Part 1) 2016/ IEC 62109-1 (Cl 4.7, Cl. 4.7.1 and Cl 4.7.2) |
| 693 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Electrical Ratings Tests | S 16221 (Part 1) 2016/ IEC 62109-1 (Cl 4.7, Cl. 4.7.1 and Cl. 4.7.2) |
| 694 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Equipment with multiple sources of supply | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5.2.4) |
| 695 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Excessive Touch Current | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5.2.5) |
| 696 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Expelled Part | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 8.6) |
| 697 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Fault Conditions | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl.7.2) |
| 698 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Functional Insulation | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.7.3.7.3) |

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| 699 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Grouping of Wiring Terminals | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.3.3.5) |
| 700 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Humidity Preconditioning | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl.4.5): |
| 701 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Insulation Including Clearance and Creepage Distance | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl.7.3.7 and Cl.7.3.7.1)) |
| 702 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Limitation of Current through Protective Impedance | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.7.3.5.3.1): |
| 703 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Limited Power Sources | IS 16221 (Part 1):2016 / IEC 62109-1 (Cl. 9.2 and Cl. 9.2.1_) |
| 704 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Mains Voltage Selecting Devices | IS 16221 (Part 1) 2016 / IEC 62109-1 (14.5) |
| 705 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Marking and Documentation | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5) |
| 706 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Means of Connection for External Protective Earthing Conductor | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.7.3.6.3.6)) |
| 707 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Motor Overtemperature Protection | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 14.2) |
| 708 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Openings in Enclosures | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.5.) |
| 709 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Partial Discharge | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl.7.5.3) |
| 710 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Permanently Connected Equipment | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 13.3.2.2) |
| 711 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Pollution Degree | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl.6.2) |
| 712 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Polymers Serving as Solid Insulation | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 13.6.3) |

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| 713 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Power Supply Cords and Protection Against Mechanical Damage. | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.3.2.4 and Cl. 13.3.2.6)) |
| 714 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection Against Direct Contact | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.4,Cl. 7.3.4.1 and Cl. 7.3.4.2,) |
| 715 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Protection Against Electric Shock | IS 16221 (Part 1):2016/ IEC 62109-1 (Cl. 7.3) |
| 716 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection against Electric Shock and Energy Hazards | IS 16221 (Part 1) 2016/ IS 16221 PART 2:2015/ IEC 62109-1 (Cl. 7): |
| 717 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection Against Energy Hazards | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 7.4, Cl. 7.4.1, Cl. 7.4.2 and Cl. 7.4.3) ) |
| 718 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection Against Indirect Contact | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 7.3.6, Cl. 7.3.6.1) |
| 719 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection Against Liquid Hazards | IS 16221 (Part 1) 2016/IS 16221 (Part 2) 2015 / IEC 62109-1(Cl. 11): |
| 720 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Protection against Mechanical Hazards & Moving Parts | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 8, Cl.8.2) |
| 721 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection Against Shock Hazard Due to Stored Energy | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 7.3.9,Cl. 7.3.9.1 and Cl. 7.3.9.2,) |
| 722 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection against sonic Pressure hazards | IS 16221 (Part 1) 2016/ IEC 62109-1 (2010) (Cl.10, Cl.10.1 and Cl.10.2): |
| 723 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection by Means of Insulation of Live Parts | IS 16221 (Part 1):2016 / IEC 62109-1 (Cl.7.3.4.3): |
| 724 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection by Means of Limited Voltages | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 7.3.5.4)) |
| 725 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protection in Case of Direct Contact | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 7.3.5,Cl 7.3.5.1 and Cl 7.3.5.2) ) |
| 726 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protective Bonding Impedance | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.6.3.4) |

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| 727 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protective Class 1- Protective Bonding and Earthing | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 7.3.6.3,Cl. 7.3.6.3.1 and Cl. 7.3.6.3.2) |
| 728 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protective Class II - Double or Reinforced Insulation | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.6.4) |
| 729 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Protective Separation | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl.7.3.3 ) |
| 730 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Provisions for External Connections | IS 16221 (Part 1):2016 / IEC 62109-1 (Cl. 13.3): |
| 731 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Provisions for Lifting and Carrying | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 8.4): |
| 732 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | PWB Spacing For Functional Insulation | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.7.7) |
| 733 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Rating of Protective Bonding & Test Current, Duration and Acceptance Criteria | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 7.3.6.3.3, Cl. 7.3.6.3.3.1): |
| 734 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Residual Current Detection (RCD) or Monitoring (RCM) Device Compatibility | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 7.3.8) |
| 735 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Resistance To Fire (Flammability Test) | IS 16221 (Part 1) 2016/ 16221 /IEC 62109-1 (Cl. 9.1) |
| 736 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Short -Circuit and Over Current Protection | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 9.3,Cl. 9.3.1,Cl. 9.3.2 and Cl. 9.3.3)) |
| 737 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Single fault conditions to be applied | IS 16221 (Part 1):2016/ IEC 62109-1 (Cl. 4.4.4) |
| 738 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Solid Insulation & Requirements for Electrical Withstand Capability of Solid Insulation | IS 16221 (Part ) 2016/ IEC 62109-1 (Cl. 7.3.7.8 & Cl. 7.3.7.8.2): |
| 739 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-Part 1 General Requirements | Sonic hazard markings and instructions | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 5.2.3) |

# SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

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| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
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| 740 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Stability | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl.8.3) |
| 741 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Stranded Wire | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.3.3.6) |
| 742 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Stress Relief Test | IS 16221 (Part 1) :2016/ IEC 62109-1 (Cl. 13.6.2.1): |
| 743 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Supply Wiring Space | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 13.3.4)) |
| 744 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Terminal Boxes for External Connections | IS 16221 (Part 1) 2016/IEC 62109-1 (Cl. 5.1.9): |
| 745 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Thermal Index or Capability | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 13.6.1.1)) |
| 746 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Thermal Testing | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 4.3,Cl. 4.3.1,Cl. 4.3.2,Cl. 4.3.2.1,Cl. 4.3.2.2,Cl. 4.3.2.3): |
| 747 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Thickness Requirements for Metal Enclosures | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 13.8): |
| 748 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Thin Sheet or Tape Material | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 7.3.7.8.3) |
| 749 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Touch Current in Case of Failure of the Protective Earthing Conductor | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.3.6.3.7) |
| 750 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Touch Current Measurement | IS 16221 (Part 1) 2016 / IEC 62109-1: (Cl. 7.5.4)) |
| 751 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | UV Exposure | IS 16221 (Part 1) 2016/ IEC 62109-1(Cl. 6.4) |
| 752 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | UV Resistance | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl.13.6.4) |

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| 753 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Visibility and Legibility Requirements for Warning Markings | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 5.2.1)) |
| 754 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Wall Mounting | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 8.5): |
| 755 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Wire Bending Space for Wires 10 mm² and Greater | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 13.3.5): |
| 756 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Wiring Terminal Design | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 13.3.3.4): |
| 757 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Wiring Terminals Sizes | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 13.3.3.3): |
| 758 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-part 1 General Requirements | Wound Components & Potting Materials | IS 16221 (Part 1): 2016/ IEC 62109-1 (Cl. 7.3.7.8.5 & Cl. 7.3.7.8.6) |
| 759 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-General Requirements | Mains Supply, Supply Ports other than Mains & Photovoltaic Supply Sources) | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 4.2.2.6, Cl. 4.2.2.7 & Cl. 4.2.2.7.1) |
| 760 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Converters for Use in Photovoltaic Power Systems-General Requirements | Testing in single Fault condition | IS 16221 (Part 1) : 2016/ IEC 62109-1 (Cl. 4.4) |
| 761 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power converters for Use in Photovoltaic Power systems-Part 1 (General requirements) | Physical Requirements | IS 16221 (Part 1):2016 / IEC 62109-1 (Cl.13, Cl.13.1) |
| 762 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Circuits or Components Used as Transient Over-Voltage Limiting Devices | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 14.7): |
| 763 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Clearance Distances and Creepage | IS 16221 (Part 1) 2016 / IEC 62109-1(Cl. 7.3.7.4 & Cl. 7.3.7.5) |
| 764 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Cord Anchorages and Strain Relief | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.3.2.5) |
| 765 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Direct Plug-in Torque Test | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.3.8) |
| 766 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Environmental Categories and Minimum Environmental Conditions | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 6, Cl. 6.1) |

# SCOPE OF ACCREDITATION

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|---|---|---|---|---|
| 767 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Impulse Voltage Test | IS 16221 (Part 1) 2016/IEC 62109-1 (Cl. 7.5.1) |
| 768 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Ingress Protection | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 6.3) |
| 769 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Insulation Between a Circuit and its Surroundings | IS 16221 (Part 1) 2016: / IEC 62109-1 (Cl. 7.3.7.2) |
| 770 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Insulation Between Live Parts and Accessible Conductive Parts | IS 16221 (Part 1) / IEC 62109-1 (2010) (Cl. 7.3.6.2) |
| 771 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Insulation Voltages | IS 16221(Part 1) / IEC 62109-1 (2010) (Cl. 7.3.7.1.4) |
| 772 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Internal Wiring and Connections | IS 16221 (Part 1) / IEC 62109-1 (2010) (Cl. 13.4) |
| 773 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Limitation of Discharging Energy Through Protective Impedance | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 7.3.5.3.2) |
| 774 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Mechanical Resistance to Deflection, Impact or Drop | IS 16221 (Part 1) 2016/ IEC 62109-1(Cl. 13.7) |
| 775 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Over Temperature Protection Devices | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 14.3) |
| 776 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Polymers Serving as Solid Insulation | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 13.6.3) |
| 777 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Printed Circuit Boards | IS 16221 (Part 1) 2016 / IEC 62109-1 (Cl. 14.6) |
| 778 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Printed Wiring Boards (PWBs) | IS 16221 (Part 1) 2016 / IEC 62109-1:(Cl. 7.3.7.8.4) |
| 779 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Resistance To Fire (Needle Flame) | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 9.1) |
| 780 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Resistance To Fire (Glow wire test at 550°C) | IS 16221 (Part 1) 2016 /IEC 62109-1 (Cl 9.1) |

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| 781 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Resistance To Fire (Flame Spread Index Test) | IS 16221 (Part 1) 2016 /IEC 62109-1 (Cl 9.1)) |
| 782 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Power Convertors for Use in Photovoltaic Power Systems-part 1 General Requirements | Voltage Test (Dielectric Strength Test) | IS 16221 (Part 1) 2016/ IEC 62109-1 (Cl. 7.5.2): |
| 783 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photo-voltaic Power Systems Part 2:Particular Requirements for Inverters | Additional Requirements for Stand-alone Inverters | IS 16221 (Part 2) 2015 / IEC 62109-2 (Cl. 7.3.10): |
| 784 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photo-voltaic Power Systems Part 2:Particular Requirements for Inverters | Fault-Tolerance of Automatic Disconnecting Means | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.4.4.15.2): |
| 785 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2: Particular Requirements for Inverters | General Testing Requirements | IS 16221 (Part 2):2016/ IEC 62109-2 (Cl. 4) |
| 786 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2: Particular Requirements for Inverters | Measurement requirements for AC outputs ports for stand-alone inverters | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.7.3) |
| 787 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2: Particular Requirements for Inverters | Testing in Single Fault Condition | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.4) |
| 788 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2: Particular Requirements for Inverters | Warning Markings | IS 16221 (Part 2):2015/IEC 62109-2 (Cl. 5.2) |
| 789 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Array Insulation Resistance Detection for Inverters for ungrounded and Functionally grounded arrays | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.2) |
| 790 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Array Insulation Resistance Detection for Inverters for ungrounded and Functionally grounded arrays | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.2) |
| 791 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Array Residual Current Detection | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.3, Cl. 4.8.3.1, Cl. 4.8.3.2, and and Cl. 4.8.3.3) |
| 792 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Automatic Checking of the Disconnect Means | IS 16221 (Part 2) 2015 / IEC 62109-2 (Cl. 4.4.4.15.2.3): |
| 793 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Cooling System Failure - Blanketing Test | IS 16221 (Part 2) 2015 / IEC 62109-2 (Cl. 4.4.4.17) |

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| 794 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Design of Insulation or Separation | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.4.4.15.2.2) |
| 795 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Documentation | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 5.3) |
| 796 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Electrical Rating Test | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.7) |
| 797 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Electrical Rating Test | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.7) |
| 798 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Environmental Requirement and Conditions | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 6): |
| 799 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Equipment Rating | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 5.1.4) |
| 800 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Fault - Tolerance of Protection for Grid - Interactive Inverters & Fault - Tolerance of Residual Current Monitoring. | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.4.4.15 and Cl. 4.4.4.15.1) |
| 801 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Fault Indication | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 13.9) |
| 802 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Functionally Grounded Arrays | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 7.3.11) |
| 803 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | General Requirements regarding Inverter Isolation and Array Grounding | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.1) |
| 804 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Information Related to Installation | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 5.3.2) |
| 805 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Information Requirement for Non -Sinusoidal Waveform | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.4) |
| 806 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Inverted Backfeed Current on to the Array | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 9.3.4) |

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| 807 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Inverters for closed electrical operating areas | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 5.2.2.6)) |
| 808 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Marking and Documentation | IS 16221 (Part 2)2015/ IEC 62109-2 (Cl. 5) |
| 809 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Non-Sinusoidal Output waveform Requirements (Total Harmonic Distortion Measurement) | IS 16221 (Part 1) 2016 / IEC 62109-1:(Cl. 4.7.5.3 and Cl. 4.7.5.3.2)) |
| 810 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Output Voltage waveform Requirements for Inverters for Dedicated Loads | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.5) |
| 811 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Peak Voltage | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.3.4) |
| 812 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Physical Requirement | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 13)) |
| 813 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Protection Against Fire Hazards | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 9) |
| 814 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Protection Against Sonic Pressure Hazards | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 10) |
| 815 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Protection by Application of RCD' s | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.3.4) |
| 816 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Protection by Residual Current Monitoring | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.8.3.5, Cl. 4.8.3.5.1,Cl. 4.8.3.5.2 and Cl. 4.8.3.5.3) |
| 817 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Sinusoidal Output Voltage Waveform Requirements (Individual Harmonic Voltage Measurement) | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.2) |
| 818 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Sinusoidal Output Voltage Wavefrom requirement (THD Measurement) | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.2) |
| 819 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Stand - alone inverters - Load Transfer Test | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.4.4.16) |

# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

**Laboratory Name :** ACE TEST LAB, INDUSTRIAL PLOT NO.-69, KH.NO.-54, G.T. KARNAL ROAD, NANGLI POONA, DELHI, INDIA

**Accreditation Standard** ISO/IEC 17025:2017

**Certificate Number** TC-8778 **Page No** 73 of 73

**Validity** 26/12/2021 to 25/12/2023 **Last Amended on** 24/03/2022

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| 820 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Steady State Output Frequency | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.7.4.5)) |
| 821 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Steady State output voltage at normal DC input, Steady State output voltage across the DC input range, Load step response of the output voltage at nominal DC input | IS 16221 (Part 2) 2015/ IEC 62109-2 (Cl. 4.7.4, Cl. 4.7.4.2, Cl. 4.7.4.3, Cl. 4.7.4.4) |
| 822 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | System Located in Closed Electrical Operating Areas | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.8.3.6) |
| 823 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Waveform Slope | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.3.3) |
| 824 | ELECTRONICS-MISCELLANEOUS PRODUCTS | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2:Particular Requirements for Inverters | Waveform Slope | IS 16221 (Part 2) 2015/IEC 62109-2 (Cl. 4.7.5.3.3) |