National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CENTRAL ELECTRONICS CENTRE,INDIAN INSTITUTE OF TECHNOLOGY, MADRAS, IIT MADRAS, CHENNAI, TAMIL NADU, INDIA

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
Permanent Facility				
1	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Life Cycle	IS 14257 Clause No:9.3.12
2	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Capacity five Hours	IS 14257 Clause No:9.3.4
3	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Charge Acceptance Test	IS 14257 Clause No:9.3.8
4	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Charge Retention Test	IS 14257 Clause No:9.3.10
5	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Cold cranking performance test	IS 14257 Clause No:9.3.6
6	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Dimensions and layouts	IS 14257 Clause No:9.3.2
7	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	High rate discharge test	IS 14257 Clause No:9.3.5
8	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Over Charge Endurance	IS 14257 Clause No:9.3.13
9	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Reserve Capacity Test	IS 14257 Clause No:9.3.7
10	ELECTRICAL- CELLS & BATTERIES	Lead acid Storage Batteries for Motor Vehicles with light weight and high cranking performance	Vibration Resistance Test	IS 14257 Clause No:9.3.15
11	ELECTRICAL- CELLS & BATTERIES	Lead Acid Traction Bateries	Capacity	IEC 60254-1 : 2005 / IS 5154 (Part 1) Clause No:5.2
12	ELECTRICAL- CELLS & BATTERIES	Lead Acid Traction Batteries	Charge Retention test	IEC 60254-1 : 2005 / IS 5154 (Part 1) Clause No:5.3
13	ELECTRICAL- CELLS & BATTERIES	Lead Acid Traction Batteries	Energy Density	IEC 60254-1 : 2005 / IS 5154 (Part 1) Clause No : 6.1
14	ELECTRICAL- CELLS & BATTERIES	Lead acid traction batteries	High rate discharge performance test	IEC 60254-1 : 2005 / IS 5154 (Part 1) Clause No:5.4
15	ELECTRICAL- CELLS & BATTERIES	Secondary Batteries for the Propulsion of Electric Road Vehicles	Charge Efficiency	IS 13514 Clause 8.7.1
16	ELECTRICAL- CELLS & BATTERIES	Secondary Batteries for the Propulsion of Electric Road Vehicles	Continuous discharge at maximum vehicle system power	IS 13514 Clause 8.8.1
17	ELECTRICAL- CELLS & BATTERIES	Secondary Batteries for the Propulsion of Electric Road Vehicles	Measurement of self discharge	IS 13514 Clause 8.7.3
18	ELECTRICAL- CELLS & BATTERIES	Secondary Batteries for the Propulsion of Electric Road Vehicles	Partial discharge test	IS 13514 Clause 8.7.2

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19	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	Test for Capacity	IS 1651 Clause No:12.5
20	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	A Loss of Capacity on Storage	IS 1651 Clause No:12.7
21	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	Alternative Rate of Test Discharge	IS 1651 Clause No:12.6
22	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	Ampere-Hour & Watt hour efficiency Test	IS 1651 Clause No:12.9
23	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	Endurance Test	IS 1651 Clause No:12.8
24	ELECTRICAL- CELLS & BATTERIES	Stationary cells and Batteries, Lead Acid Types	Test for Voltage during Discharge	IS 1651 Clause No:12.10
25	ELECTRICAL- CELLS & BATTERIES	Stationary Lead-Acid Batteries (With Tubular Positive Plates) In Monobloc Container	Test for Capacity	IS 13369 Clause No:11.5
26	ELECTRICAL- CELLS & BATTERIES	Stationary Lead-Acid Batteries (With Tubular Positive Plates) In Monobloc Container	A Loss of Capacity on Storage	IS 13369 Clause No:11.6
27	ELECTRICAL- CELLS & BATTERIES	Stationary Lead-Acid Batteries (With Tubular Positive Plates) In Monobloc Container	Ampere-Hour & Watt hour efficiency Test	IS 13369: Clause No:11.8
28	ELECTRICAL- CELLS & BATTERIES	Stationary Lead-Acid Batteries (With Tubular Positive Plates) In Monobloc Container	Endurance Test	IS 13369 Clause No:11.7
29	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Ampere-Hour efficiency	IS 15549 Clause No:12.4
30	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Capacity Test at other Discharge Rates	IS 15549 Clause No:12.3
31	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Endurance life cycle Test	IS 15549 Clause No:12.10
32	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Test for C1 Capacity	IS 15549 Clause No:12.2
33	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Test for C10 Capacity	IS 15549 Clause No:12.1
34	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Test for Retention of Charge	IS 15549 Clause No:12.6
35	ELECTRICAL- CELLS & BATTERIES	Stationary Valve Regulated Lead Acid Battery	Watt hour efficiency	IS 15549 Clause No:12.5
36	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Lighting products	Lamp Power	IES LM79 Clause No: 5

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37	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Luminaire	Total Input Power	IS 16107 (Part 2/Sec 1) Clause No:7
38	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Street Lighting Luminaire	Harmonics	IS 16107 (Part 2/Sec 2) Clause No:13
39	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Street Lighting Luminaire	Power Factor	IS 16107 (Part 2/Sec 2) Clause No:12
40	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Street Lighting Luminaire	Reverse Polarity	S 16107 (Part 2/Sec 2) Clause No:15
41	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Street Lighting Luminaire	Surge Protection	IS 16107 (Part 2/Sec 2) Clause No:14
42	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	LED Street Lighting Luminaire	Total Input Power	IS 16107 (Part 2/Sec 2) Clause No:7
43	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted Lamps for General Lighting Services	Harmonics	IS 15111(PART-II) (Clause No–14)
44	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted Lamps for General Lighting Services	Lamp wattage	IS 15111(PART-II) (Clause No–9)
45	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted Lamps for General Lighting Services	Starting and run up time	IS 15111(PART-II) (Clause No–8)
46	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted LED Lamps for General Lighting Services	Harmonics	IS 16102 part -2 (Clause No: 8.3)
47	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted LED Lamps for General Lighting Services	Lamp Power	IS 16102 part -2 (Clause No: 8.1)
48	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted LED Lamps for General Lighting Services	Marking & Dimension	IS 16102 part -2 (Clause No: 5 & 6)
49	ELECTRICAL- LAMPS, LUMINARIES & ACCESSORIES	Self Ballasted LED Lamps for General Lighting Services	Power Factor	IS 16102 part -2 (Clause No: 8.2)
50	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Automatic Line Voltage Corrector (step type) (Up to 5KVA)	Output Voltage Test	IS 8448 (Clause No–12.3)

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51	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Automatic Line Voltage Corrector (step type) (Up to 5KVA)	Damp heat test	IS 8448 (Clause No – 12.9)
52	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Automatic Line Voltage Corrector (step type) (Up to 5KVA)	High Voltage test	IS 8448 (Clause No – 12.5)
53	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Automatic Line Voltage Corrector (step type) (Up to 5KVA)	Insulation Resistance Test	IS 8448 (Clause No–12.4): 1989
54	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Automatic Line Voltage Corrector (step type) (Up to 5KVA)	No Load Current	IS 8448 (Clause No – 12.6)
55	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	GENERAL REQUIREMENTS	IS 13314, Cl 4
56	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Climatic test - Cold test	(IS/IEC 60068 (Part 2:Sec 1):2007) IS 13314 Clause No: 7.10
57	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Climatic test - Damp heat (cyclic) test	(IS 9000 (Part 5 / Sec 2):1981) IS 13314 Clause No:7.10
58	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Climatic test - Dry heat	(IS 9000 (Part 3):1972) IS 13314 Clause No:7.10
59	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Harmonic contents	IS 13314 Clause No:7.11
60	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	High Voltage test	IS 13314 Clause No:7.6
61	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Insulation Resistance Test	IS 13314 Clause No:7.7
62	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Marking	IS 13314 , cl 6
63	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	No load test (1) No load DC current	IS 13314 Clause No: 7.8.1
64	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	No load test (2) Output voltage	IS 13314 Clause No: 7.8.2
65	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Output Test (1)Voltage regulation	IS 13314 Clause No: 7.9.1
66	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Output Test (2) Frequency	IS 13314 Clause No: 7.9.2
67	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Output Test (3) Efficiency	IS 13314 Clause No: 7.9.3
68	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Output Test (4) Overload	IS 13314 Clause No: 7.9.4

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69	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Inverters run from storage batteries	Visual Inspection	IS 13314 Clause No:7.5
70	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Test - Bump	(IEC 60068-2-29) IS/IEC 61204 Clause No:7.2
71	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Test - Damp Heat	(IEC 60068 - 2-3) IS/IEC 61204 Clause No:7.2
72	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Test - Dry Heat	(IEC 60068-2-2) IS/IEC 61204 Clause No:7.2
73	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Test - Shock	(IEC I0068-2-27) IS/IEC 61204 Clause No:7.2
74	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Test - Vibration	(IEC 60068-2-6) IS/IEC 61204 Clause No:7.2
75	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Environmental Tests - Cold	(IEC 60068-2-1) IS/IEC 61204 Clause No:7.2
76	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Load Effect	IS/IEC 61204 Clause No: 3.7
77	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Rated outputs and total output power	IS/IEC 61204 Clause No:3.1
78	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Low Voltage Power Supply devices - DC output	Source Effect	IS/IEC 61204 Clause No:3.6
79	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Power supplies & stabilizers	Technical requirements	IS 13314, Cl 5
80	ELECTRICAL- POWER SUPPLIES & STABILIZERS	PV Inverter	Efficiency	IS/IEC 61683
81	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	Damp heat test	IS 9815 (Part I) (Clause No – 11.15)
82	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	High Voltage Test	IS 9815 (Part I) (Clause No – 11.5)
83	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	Insulation Resistance Test	IS 9815 (Part I) (Clause No – 11.4)
84	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	No Load Current Test	IS 9815 (Part I) (Clause No – 11.7)
85	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	No Load loss Test	IS 9815 (Part I) (Clause No – 11.8)
86	ELECTRICAL- POWER SUPPLIES & STABILIZERS	Servo Motor Operated Automatic Line Voltage Corrector	Output Voltage Test	IS 9815 (Part I) (Clause No – 11.6)

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87	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	UPS input specification - Conditions for normal mode operation -Characteristics to be declared by the manufacturer - Characteristics and conditions to be identified by the purchaser	IS 16242 (Part 3) Clause No 5.2
88	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (2) output normal mode-full load	IS 16242 (Part 3) Clause No 6.4.2.2
89	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (1) Steady state input voltage tolerance test	IS 16242 (Part 3) Clause No 6.4.1.1
90	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (2) Input frequency tolerance	IS 16242 (Part 3) Clause No 6.4.1.2
91	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (3) Inrush current	IS 16242 (Part 3) Clause No 6.4.1.3
92	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (4) Harmonic distortion of input current	IS 16242 (Part 3) Clause No 6.4.1.4
93	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (5) Power factor	IS 16242 (Part 3) Clause No 6.4.1.5
94	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Input – a.c. supply compatibility (6) Efficiency	IS 16242 (Part 3) Clause No 6.4.1.6
95	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Operation	IS 16242 (Part 3) Clause No 6.5.4
96	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (1) output normal mode-no load	IS 16242 (Part 3) Clause No 6.4.2.1
97	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (3) output stored energy mode-no load	IS 16242 (Part 3) Clause No 6.4.2.3
98	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (4) output stored energy mode-full load	IS 16242 (Part 3) Clause No 6.4.2.4
99	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (6) DC component	IS 16242 (Part 3) Clause No 6.4.2.6
100	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Linear load (7) Periodic output voltage variation test	IS 16242 (Part 3) Clause No 6.4.2.9
101	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Non-linear load (2) Stored energy mode – Full load	IS 16242 (Part 3) Clause No 6.4.3.2

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102	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Output – Non-linear load (1) Normal mode – Full load	IS 16242 (Part 3) Clause No 6.4.3.1
103	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Overload and fault clearing capability	IS 16242 (Part 3) Clause No 6.4.2.10
104	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Storage - Dry heat - Damp heat - Cold	IS 16242 (Part 3) Clause No 6.5.3
105	ELECTRICAL- POWER SUPPLIES & STABILIZERS	UPS (Single Phase)	Stored and restored energy time test	IS 16242 (Part 3) Clause No 6.4.4
106	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Bump Test	JSS 55555 : 2012 (Test No: 3) /JSS 50101: 1996 (Test No: 11) (Revision No. 1) / QM-333: 2010 (Test No: 13) /IEC 60068-2-29: 1987
107	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Change of Temperature /Rapid Temperature Cycling	IEC 60068-2-14 Clause No:7&8 :2009 /JSS 55555: 2012 (Test No:22) /JSS 50101: 1996(Test No:20) (Revision No. 1) / QM-333:(Test No:4):2010/ IS 9000 :(Part 14/Sec1&Sec2) : 1988
108	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Cold (Low Temperature)	IS/IEC 60571Clause 10.2.3:1998 /JSS 55555 : 2012 (Test No: 20) / JSS 50101: 1996 (Test No: 21) (Revision No. 1) /QM 333:2010(Test No: 1)/IEC 60068-2-1: 2007
109	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Composite Temperature Humidity	JSS 55555 : 2012 (Test No: 22) / JSS 50101: 1996 (Test No: 6) (Revision No. 1) / IEC60068-2-38: 2021
110	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Damp Heat Cyclic	IEC 60068-2-30:2005 /IEC 60571 Clause 10.2.5:1998/ JSS 55555:2012(Test No: 27) /JSS 50101: 1996 (Test No: 5) (Revision No. 1)/QM-333: 2010 (Test No: 3) / IS 9000(Part V): 1981
111	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Damp Heat Steady State	IEC 60068-2-78:2012/IEC 60571:1998/ JSS 55555: 2012 (Test No:10)/JSS 50101: 1996 (Test No: 7) (Revision No. 1)/QM-333(Test No:5): 2010 /IS 9000(Part IV): 2008

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112	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Dry Heat (High Temperature)	IEC 60068-2-2:2007/ IEC 60571 clause 10.2.4:1998/ JSS 55555 : 2012 (Test No: 17)/JSS 50101: 1996 (Test No: 22) (Revision No. 1)/ QM-333:2010(Test No:2) /IS 9000:(Part III/ Sec 1 to 5): 1977
113	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical & Electronic Products and components	Vibration	IEC 60068-2-64: 2008/IEC 61373 Clause 8:2010 / JSS 55555 : 2012 (Test No: 28)/JSS 50101:1996 (Test No: 23(Sine)&24 (Random)) (Revision No. 1)/QM-333:(Test No:6) 2010/IEC 60068-2-6: 2007
114	ELECTRONICS-ENVIRONMENTAL TEST FACILITY	Electrical/Electronics Products and components	Shock Test	IEC 60068-2-27: 2008/ IEC 60571: 1998/ IEC 61373: 2010; JSS 55555: 2012 (Test No: 17)/ IS 9000(Part 7/Sec1): 2018
115	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Clearances, creepage distances and distances through insulation	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.10
116	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Mechanical strength -Steady force test -Impact test -Drop test -Stress relief test -Wall or ceiling mounted equipment	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.2
117	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 6.1
118	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Provisions for earthing and bonding	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.6
119	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Limited power sources	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.5

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120	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Constructional Requirements with regard to protection against electric shock	IEC-60065: 2014 / IS-616 Clauses 8
121	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Creepage distances and Clearance	IEC-60065: 2014 / IS-616 Clause No: 13
122	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Electric Shock hazard under normal operating conditions	IEC-60065: 2014 / IS-616 Clauses 9.1 & 9.2
123	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Fault condition -Electrical shock hazard	IEC-60065: 2014 / IS-616 Clause No: 11.1
124	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Fault condition -Heating	IEC-60065: 2014 / IS-616 Clause No: 11.2
125	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Heat resistance of Insulating Material	IEC-60065: 2014 / IS-616 Clause 7.2
126	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Heating under normal operating condition -General	IEC-60065: 2014 / IS-616 Clause 7.1
127	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Insulation Requirements - Surge test -Humidity treatment - Insulation Resistance and dielectric Strength	IEC-60065: 2014 / IS-616 Clause 10
128	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Marking & Instruction requirements	IEC-60065:2014 / IS-616 Clause 5
129	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Mechanical Strength -Bump test -Vibration test -Impact test -Drop test -Stress relief test - Torque test -Crush test	IEC-60065: 2014 / IS-616 Clause No: 12
130	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Normal operating conditions	IEC-60065:2014 / IS-616 Clause 4.2
131	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Resistance to fire	IEC-60065: 2014 / IS-616 Clause No: 20
132	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Stability requirements	IEC-60065: 2014 / IS-616 Clause 19.1 & 19.2
133	ELECTRONICS- SAFETY TESTING FACILITY	Audio, Video And Similar Electronic Appliances & Components	Terminals -Plugs and sockets - Provisions for protective earthing -Devices forming a part of the MAINS plug	IEC-60065: 2014 / IS-616 Clause No: 15
134	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine,	Thermal requirement - Ball pressure test	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.5: 2010

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135	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Abnormal operating and fault conditions	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 5.3
136	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Connection to Cable distribution systems -Impulse test	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 7.4.3
137	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Connection to cable distribution systems -Voltage Surge Test	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 7.4.2
138	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Electrical insulation	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.9
139	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Electrical strength	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 5.2
140	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Limited current circuits	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.4
141	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Marking and Instructions	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No:1.7
142	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Openings in enclosures	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.6
143	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Over currents and earth fault protection in primary circuits	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.7

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144	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Power interface	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 1.6.2
145	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Protection against hazardous moving parts	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.4
146	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Protection from electric shock and energy hazards	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.1
147	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Protection of equipment users from overvoltages on telecommunication networks	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 6.2
148	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	SELV circuits	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.2
149	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Stability	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.1
150	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Thermal requirement - Temperature raise test	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 4.5
151	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	TNV circuits	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 2.3
152	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Touch and protective conductor current	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 5.1

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153	ELECTRONICS- SAFETY TESTING FACILITY	Information Technology Equipment (Computer Systems, Monitors, Printers, Scanners, Keyboards, Telephones & Automatic Data Processing Machine, Telecom equipments)	Wiring, connections and supply -Cord guards	IEC 60950-1:2005 +A1:2009+A2:2013 / IS 13252(part1): 2010+A1:2013+A2:2015 Clause No: 3.2.8
154	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Abnormal operating and fault conditions	IS 16242 (Part 1) Clause No:8.3
155	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Connection to telecommunication networks	IS 16242 (Part 1) Clause No: 9
156	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Electric strength	IS 16242 (Part 1) Clause No:8.2
157	ELECTRONICS- SAFETY TESTING FACILITY	UPS	General provisions for earth leakage	IS 16242 (Part 1) Clause No:8.1
158	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Limited current circuits	IS 16242 (Part 1) Clause No:5.2.3
159	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Limited power source	IS 16242 (Part 1) Clause No:5.2.5
160	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Markings and instructions	IS 16242 (Part 1) Clause No: 4.7
161	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Mechanical strength	IS 16242 (Part 1) Clause No: 7.3
162	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Over current and earth fault protection	IS 16242 (Part 1) Clause No:5.5
163	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Protection against electric shock and energy hazards	IS 16242 (Part 1) Clause No: 5.1
164	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Protective earthing and bonding	IS 16242 (Part 1) Clause No: 5.3
165	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Resistance to fire	IS 16242 (Part 1) Clause No: 7.5
166	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Safety extra low voltage circuits – SELV	IS 16242 (Part 1) Clause No: 5.2.1
167	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Stability	IS 16242 (Part 1) Clause No: 7.2
168	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Telephone network voltage circuits – TNV	IS 16242 (Part 1) Clause No:5.2.2
169	ELECTRONICS- SAFETY TESTING FACILITY	UPS	Temperature rise	IS 16242 (Part 1) Clause No:7.7

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170	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Color, CRI	IS15111(PART-II) Clause No : 11
171	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Colour, CCT	IS 15111(PART-II) Clause No:11
172	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Lamp efficacy	IS 15111(PART-II) Clause No : 15
173	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Life	IS 15111(PART-II) Clause No : 13
174	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Lumen maintenance test	IS 15111(PART-II) Clause No : 12
175	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted Lamps for General Lighting Services	Luminous flux	IS 15111(PART-II) Clause No : 10
176	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted LED Lamps for General Lighting Services	Colour Rendering Index (CRI)	IS 16102 part -2; Clause No:10.2)
177	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted LED Lamps for General Lighting Services	Colour Variation Categories - CCT and X-Y Coordinates.	IS 16102 part -2; Clause No:10.1)
178	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted LED Lamps for General Lighting Services	Lamp Life(Lumen Maintenance & Endurance Tests)	IS 16102 part - 2(Clause No:11)
179	PHOTOMETRY- LIGHT SOURCES (ELECTRIC LAMP)	Self Ballasted LED Lamps for General Lighting Services	Luminous flux	IS 16102 part -2; Clause No:9.1
180	PHOTOMETRY-LUMINARIES	LED Lighting products	Colour Characteristic (Chromaticity coordinates and CCT)	IES LM 79 (Clause No: 12)
181	PHOTOMETRY-LUMINARIES	LED Lighting products	Colour Rendering Index (CRI)	IES LM 79 (Clause No: 12)
182	PHOTOMETRY-LUMINARIES	LED Lighting products	Luminous efficacy	IES LM 79 (Clause No: 11)
183	PHOTOMETRY-LUMINARIES	LED Lighting products	Luminous flux	IES LM 79 (Clause No: 9.1)
184	PHOTOMETRY-LUMINARIES	LED Luminaire	Colour, CCT	IS 16107 (Part 2/Sec 1) Clause No: 9.1 & 9.2

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185	PHOTOMETRY-LUMINARIES	LED Luminaire	CRI	IS 16107 (Part 2/Sec 1) Clause No: 9.3
186	PHOTOMETRY-LUMINARIES	LED Luminaire	LED Luminaire Life	IS 16107 (Part 2/Sec 1) Clause No:10
187	PHOTOMETRY-LUMINARIES	LED Luminaire	Luminaire Efficacy	IS 16107 (Part 2/Sec 1) Clause No: 8.3
188	PHOTOMETRY-LUMINARIES	LED Luminaire	Luminous Flux	IS 16107 (Part 2/Sec 1) Clause No: 8.1
189	PHOTOMETRY-LUMINARIES	LED Street Lighting Luminaire	LED Luminaire Life	IS 16107 (Part 2/Sec 2) Clause No:10