

Laboratory ACE Test Labs, Plot No. 68, HSIIDC, Industrial Estate, Rai Sonipat, Haryana

Accreditation Standard ISO/IEC 17025: 2005

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRICAL TESTING

I. LAMPS, LUMINAIRES AND ACCESSORIES				
1.	Self- Ballasted LED Lamps for General Purposes Lighting Services	Verification of Marking	IS 16102 (Part 1): 2012 (RA 2015) Cl. 5 IEC 62560: 2011 (A1 2015) Cl. 5	Qualitative
		Interchangeability - Go Gauges - No-Go Gauges	IS 16102 (Part 1): 2012 (RA 2015) Cl. 6 IEC 62560: 2011 (A1 2015) Cl. 6	Qualitative
		Protection against Accidental contact with live parts	IS 16102 (Part 1): 2012 (RA 2015) Cl. 7 IEC 62560: 2011 (A1 2015) Cl. 7	0.1 N to 50N 0.01 MΩ to 1000 MΩ at 100 V _{dc} to 1000 V _{dc} 0.1 kV _{ac} to 5 kV _{ac} 1 mA to 250 mA
		Insulation Resistance And Electric Strength After Humidity treatment	IS 16102 (Part 1): 2012 (RA 2015) Cl. 8 IEC 62560: 2011 (A1 2015) Cl. 8	Qualitative 0.1°C to 60 °C 10 % to 99% RH 0.01 MΩ to 1000 MΩ at 100 V _{dc} to 1000 V _{dc}
		Mechanical strength - Torsion - Bending - Axial Pull	IS 16102 (Part 1): 2012 (RA 2015) Cl. 9 IEC 62560: 2011 (A1 2015) Cl. 9	Qualitative

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		Cap temperature rise	IS 16102 (Part 1): 2012 (RA 2015) Cl. 10 IEC 62560: 2011 (A1 2015) Cl. 10	Ambient to 200 °C 0.1 V _{ac} to 600 V _{ac} 0.01 A to 30 A 0.01 W to 5000 W
		Resistance to heat	IS 16102 (Part 1):2012 (RA 2015) Cl. 11 IEC 62560: 2011 (A1 2015) Cl.11	0.1°C to 300°C Qualitative 0.01 mm to 300 mm
		Resistance to flame and ignition	IS 16102 (Part 1):2012 (RA 2015) Cl. 12 IEC 62560: 2011 (A1 2015) Cl. 12	Qualitative 0.01 s to 99.99 min Ambient to 999.9°C 0.01 s to 99.99 min 0.01 mm to 300 mm
		Fault conditions	IS 16102 (Part 1):2012 (RA 2015) Cl. 13 IEC 62560: 2011 (A1 2015) Cl. 13	0.1 °C to 300 °C Ambient to 199.9 °C 0.1 V _{ac} to 600 V _{ac} 0.01 A to 30 A 0.01 W to 5000 W 0.01 MΩ to 1000 MΩ 50 V _{dc} to 1000 V _{dc} Qualitative 0.1 kV _{ac} to 5 kV _{ac} 1 mA to 250 mA
		Creepage distances and Clearances	IS 16102 (Part 1):2012 (RA 2015) Cl. 14, IEC 62560:2011 (A1 2015) Cl. 14	0.01 mm to 300 mm
2.	Lamp Control gear DC or AC supplied	Durability of Marking (Using Petroleum spirit)	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 7 IS 15885 (Part 2): 2011 (RA 2015)	0.01 s to 99.99 min

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	Electronic Control gear for LED Modules	Terminals	IEC 61347-2-13: 2014 Cl. 7	0.01 Nm to 2Nm
			IS 15885 (Part 1): 2011	1.50 Nm to 30 Nm
			IEC 61347-1: 2015 Cl. 8	6.8 Nm to 135Nm
			IS 15885 (Part 2): 2011: 2011 (RA 2015)	0.1 N to 500 N
			IEC 61347-2-13: 2014 Cl. 9	0.01 s to 99.59 min
				0.1 °C to 300°C
				Up to 20A
				Up to 600 V _{rms}
		Provisions for protective earthing	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 9 IS 15885 (Part 2): 2011 (RA 2015) IEC 61347-2-13: 2014 Cl. 10	0.1 A to 150A 0.1 V to 12V 0.01 Ω to 1 Ω
		Protection against accidental contact with live parts	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 10 IS 15885 (Part 2): 2011 (RA 2015) IEC 61347-2-13: 2014 Cl. 8.0	0.1 N to 500 N 0.1 μA to 20 mA Qualitative
		Moisture resistance and Insulation	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 11 IS 15885 (Part 2): 2011 (RA 2015) IEC 61347-2-13: 2014 Cl. 11	0.1°C to 60°C 10% to 99% RH 10 kΩ to 2 GΩ at 50 V _{dc} to 1000 V _{dc}
		Electric strength	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 12 IS 15885 (Part 2): 2011 (RA 2015)	0.1 kV to 5 kV 1 mA to 250 mA

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		Fault conditions	IEC 61347-2-13: 2014 Cl. 12 IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 14 IS 15885 (Part 2): 2011 (RA 2015) IEC 61347-2-13: 2014 Cl. 14	0.1°C to 300 °C 0.1 V _{ac} to 600 V _{ac} 0.01 A to 30A 0.01 W to 5000W 10 kΩ to 2 GΩ 50 V _{dc} to 1000 V _{dc}
		Transformer heating	IS 15885 (Part 1): 2011 IEC 61347-1: 2015: 2015 IS 15885 (Part 2): 2011 (RA 2015) IEC 61347-2-13: 2014, Cl. 15	Up to 20 A Up to 600 V _{rms} 0.1 V _{ac} to 300 V _{ac} Ambient to 300 °C
		Creepage distances and clearances	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 16 IS 15885 (Part 2): 2011 (RA 2015) Cl. 17 IEC 61347-2-13: 2014 Cl. 18	0.01 mm to 300mm
		Screws current carrying parts and connections	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 17 IS 15885 (Part 2): 2011 (RA 2015) Cl. 18 IEC 61347-2-13: 2014 Cl. 19	0.01 Nm to 2Nm 1.50 Nm to 30Nm 6.8 Nm to 135Nm 0.1 N to 500 N
		Resistance to heat, fire and tracking	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 18 IS 15885 (Part 2): 2011 (RA 2015) Cl. 19 IEC 61347-2-13: 2014 Cl. 20	0.1°C to 400 °C 0.01 mm to 300mm 9.5 mm 0.5 mm 0.01 s to 99.99 min Ambient to 960 °C

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				0.01 s to 99.59 min Up to 20A Up to 600 V _{rms} 0.01 s to 99.59 min 0.1 °C to 300 °C 0.01 s to 99.59 min
		Resistance to corrosion	IS 15885 (Part 1): 2011 IEC 61347-1: 2015 Cl. 19 IS 15885 (Part 2): 2011 (RA 2015) Cl. 20 IEC 61347-2-13: 2014 Cl. 21	0.1 °C to 300 °C 0.01 s to 99.59 min
3.	Fixed General Purpose Luminaries	Durability of Marking (Using Petroleum Spirit)	IS 10322 (Part 5): 2012 (RA 2017) Cl.6 IEC 60598-2-1: 1987 EN 60598-2-1 Cl.1.5	Qualitative
		Verification of Construction	IS 10322 (Part 5): 2012 (RA 2017) Cl. 7 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.6	0.1 mm to 300 mm 0.01 Nm to 135 Nm 0.1 N to 500 N 0.7 Nm 0° to 90° 550°C to 960°C
		Creepage Distance and Clearances	IS 10322 (Part 5): 2012 (RA 2017) Cl. 8 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.7	0.01 mm to 300 mm
		Provision for Earthing	IS 10322 (Part 5): 2012 (RA 2017) Cl. 9 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.8	Up to 12 V Up to 150 A 0.01 Ω to 1 Ω
		Terminals	IS 10322 (Part 5): 2012 (RA 2017) Cl. 10	0.01 mm to 300 mm 0.01 Nm to 135 Nm

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			IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.9	0.1 N to 500 N
		External and Internal Wiring	IS 10322 (Part 5): 2012 (RA 2017) Cl. 11 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.10	0.01 Nm to 135 Nm 0.1 N to 500 N
		Protection Against Electric shock	IS 10322 (Part 5): 2012 (RA 2017) Cl.12 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.11	0.1 V _{ac} to 50 V _{ac}
		Endurance (Thermal)	IS 10322 (Part 5): 2012 (RA 2017) Cl. 13 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.12	Up to 600 V _{ac} Up to 20 A 0.1 kW to 5 kW 25 °C to 300 °C
		Insulation Resistance and Electric Strength	IS 10322 (Part 5): 2012 (RA 2017) Cl. 15 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.14	Up to 600V Up to 20A 0.1 kW to 5 kW 0.01 kV _{ac} to 5 kV _{ac} Up to 250 mA 0.01 s to 99.59 min 1 kΩ to 2000 MΩ 0.01 s to 99.59 min
		Resistance to Heat, Fire and Tracking - Comparative Tracking Index - Needle Flame	IS 10322 (Part 5): 2012 (RA 2017) Cl. 16 IEC 60598-2-1: 1987 EN 60598-2-1 Cl. 1.15	20 N 0.01 mm to 300 mm 70°C to 180°C 10% to 97% RH 550 °C to 960 °C 175 V to 600 V at 50Hz 0°C to 700°C

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II.	BATTERIES			
1.	Secondary Cells and Batteries Containing Alkaline or other non-acid Electrolytes – Portable Sealed Secondary Cells, and for Batteries Made from them for use in Portable Applications	Nickel systems Verification of General safety considerations Insulation and wiring Venting Temperature Voltage current management Terminal contacts Continuous low rate charging Vibration	IS 16046: 2015 IEC 62133: 2012 Cl. 5.1 IS 16046: 2015 IEC 62133: 2012 Cl. 5.2 IS 16046: 2015 IEC 62133: 2012 Cl. 5.3 IS 16046: 2015 IEC 62133: 2012 Cl. 5.4 IS 16046: 2015 IEC 62133: 2012 Cl. 5.5 IS 16046: 2015 IEC 62133: 2012 Cl. 7.2.1 IS 16046: 2015 IEC 62133: 2012 Cl. 7.2.2	Qualitative 0.1 MΩ to 1000 MΩ 10 V _{dc} to 1000 V _{dc} Qualitative Qualitative Qualitative 0.001 V to 30 V 0.001 A to 10 A 300 kgf 25.4 mm to 25.4 mm 5 Hz to 4000Hz 981 m/s ²
		Molded case stress at high ambient temperature Temperature cycle Incorrect installation	IS 16046: 2015 IEC 62133: 2012 Cl. 7.2.3 IS 16046: 2015 IEC 62133: 2012 Cl. 7.2.4 IS 16046: 2015 IEC 62133: 2012 Cl. 7.3.1	Ambient to 150°C 99:99:99 s (-) 70°C to 150°C 99:99:99 s 40 % to 98% RH Up to 1Ω 0.001 V to 30 V 0.001 A to 10 A

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		External short circuit	IS 16046: 2015 IEC 62133: 2012 Cl. 7.3.2	1000 A _{dc} / 500A _{dc} 99:99:99 s 5 mΩ 60 mΩ to 100 mΩ
		Free fall	IS 16046: 2015 IEC62133: 2012 Cl. 7.3.3	Up to 5kg 300 mm to 1500 mm
		Mechanical shock	IS 16046: 2015 IEC 62133: 2012 Cl. 7.3.4	150 m/s ² to 20000 m/s ² 1500 mm 5000 GN/s
		Thermal abuse	IS 16046 Cl.7.3.5 IEC 62133	Ambient to 150°C 99:99:99 s
		Low pressure	IS 16046 Cl. 7.3.7 IEC 62133	10 kPa to 100 kPa 99:99:99 s
		Overcharge	IS 16046 Cl.7.3.8 IEC 62133	0.001 V to 30 V 0.001 A to 10 A
		Force discharge	IS 16046 Cl.7.3.9 IEC 62133	0.001 V to 30 V 0.001 A to 10 A
		Lithium systems	IS 16046: 2015	0.001 V to 30 V
		Charging procedure	IEC 62133: 2012 Cl. 8.1	0.001 A to 10 A
		Continuous low rate charging	IS 16046: 2015 IEC 62133: 2012 Cl. 8.2.1	0.001 V to 30 V 0.001 A to 10 A
		Molded case stress at high ambient temperature	IS 16046: 2015 IEC 62133: 2012 Cl. 8.2.2	Ambient to 150°C 99:99:99 s
		External short circuit	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.1	5 mΩ 60 mΩ to 100 mΩ Ambient to 80 °C
		Free fall	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.3	Up to 5kg 300 mm to 1500mm
		Thermal abuse	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.4	Ambient to 150°C 99:99:99 s

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		Crush	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.5	Up to 20kN Up to 20 V Up to 150mm 0.01 mm/s to 20 mm/s
		Over charging of battery	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.6	0.001 V to 30 V 0.001 A to 10 A
		Forced discharge (cell)	IS 16046: 2015 IEC 62133: 2012 Cl. 8.3.7	0.001 V to 30 V 0.001 A to 10 A
		Verification of Marking	IS 16046: 2015 IEC 62133: 2012 Cl. 10	Qualitative
iii.	LAMPS, LUMINARIES AND ACCESSORIES			
1.	Luminaires: General Requirements and Tests: Section 2:2012 Recessed LED luminaires	Marking	IS:10322 (P-5/S-2):2012 Cl.6 IEC 60598-2-2: 2011	Qualitative Test
Construction		IS:10322 (P-5/S-2): 2012 Cl.7 IEC 60598-2-2: 2011	Qualitative 0.1N to 75 N 0.01mm to100mm 0.1 Nm to 1.5 Nm L.C: 0.2 Nm 1 Nm to 5 Nm L.C 0.5 Nm 0.2J 0.35J	
			0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 1350 °C, L.C. 0.1°C	
Creepage Distance and Clearance		IS:10322 (P-5/S-2):2012 Cl. 8	0.01 mm to 100 mm	

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		Provision for Earthing	IEC 60598-2-2: 2011 IS:10322 (P-5/S-2):2012 Cl. 9	0.01 V to 9.99 V 0.01 A to 50 A
		Terminals	IEC 60598-2-2: 2011 IS:10322 (P-5/S-2):2012 Cl.10	0.01 mm to 300 mm 0.001 mm to 10.245 mm
			IEC 60598-2-2: 2011	0.1 N to 150N 0.1 s to 60.0 s 0.1°C to 187.5°C
		External and Internal Wiring	IS:10322 (P-5/S-2):2012 Cl. 11	0.001 V to 1000 V AC 0.001 V to 1000 V DC
			IEC 60598-2-2: 2011	0.001 mm to 0.75 mm 0.01 mm to 30 mm 0.1 N to 120 N
		Protection Against Electric Shock	IS:10322 (P-5/S-2):2012 Cl. 12/IEC 60598-2-2: 2011	Qualitative
		Endurance Test and Thermal Test	IS:10322 (P-5/S-2):2012 Cl. 13	0.01 W to 5000 W 0.001 A to 20 A 0.01 V to 600 V
			IEC 60598-2-2: 2011	0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 to 375°C, L.C. 0.1°C 15°C to 110°C, L.C. 0.1°C
		Resistance to Dust and moisture	IS:10322 (P-5/S-2):2012 Cl. 14	0.001 mm to 3.75 mm 0.01 mm to 225mm
			IEC 60598-2-2: 2011	0.1 N to 4.5 N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-2):2012 Cl. 15	Qualitative 0 V to 600 V AC 0 to 20 A AC
			IEC 60598-2-2: 2011	

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				0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1MΩ to 6MΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-2):2012 Cl. 16 IEC 60598-2-2: 2011	Qualitative 0.1°C to 187.5°C Ambient to 975°C 0.1 s to 60.0 s 0.01 mm to 300 mm 0 to 600 V AC L.C. 0.1 V, ± 1.0% 0 to 5 A AC, L.C. 0.001 A, ±1.0% 0 s to 99.99 s, 1%
2.	Luminaires: General Requirements and Tests: Section 3: 2012 Luminaires for road and street lighting	Marking	IS:10322 (P-5/S-3):2012 Cl.6 IEC 60598-2-3: 2011	Qualitative
		Construction	IS:10322 (P-5/S-3):2012 Cl.7 IEC 60598-2-3: 2011	Qualitative 0.1 N to 500 N 0.01 mm to 300 mm 0.1 Nm to 1.5 Nm, L.C. 0.2 Nm 1 Nm to 5 Nm, L.C. 0.5 Nm 0.5 J to 5.0 J 0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 1350 °C, L.C. 0.1°C

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		Creepage Distance and Clearance	IS:10322 (P-5/S-3):2012 Cl. 8 IEC 60598-2-3: 2011	0.01 mm to 100 mm
		Provision for Earthing	IS:10322 (P-5/S-3):2012 Cl. 9 IEC 60598-2-3: 2011	0.01 V to 9.99 V, 0.01 A to 50 A
		Terminals	IS:10322 (P-5/S-3):2012 Cl.10 IEC 60598-2-3: 2011	0.01 mm to 300 mm
				0.001 mm to 10.245 mm
				0.1 N to 150 N
				0.1 s to 60.0 s
				0.1 °C to 187.5 °C
		External and Internal Wiring	IS:10322 (P-5/S-3):2012 Cl. 11 IEC 60598-2-3: 2011	0.001 mm to 0.75 mm
				0.01 mm to 30mm
		Protection Against Electric Shock	IS:10322 (P-5/S-3):2012 Cl. 12 IEC 60598-2-3: 2011	0.1 N to 115 N
				0.01 mm to 30 mm
				0.1 s to 60.0 s
		Endurance Test and Thermal Test	IS:10322 (P-5/S-3):2012 Cl. 13 IEC 60598-2-3: 2011	0.1 N to 15 N
				0.001 V to 1000 V AC
				0.001 V to 1000 V DC
				0.01 W to 5000 W
				0.001 A to 20 A
		Resistance to Dust	IS:10322 (P-5/S-3):2012	0.01 V to 600 V
				0.001 V to 1000 V AC
				0.001 V to 1000 V DC
				-100 °C to 375 °C, L.C. 0.1°C
				15 °C to 110 °C, L.C. 0.1°C

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		and moisture (IP1X,IP2X, IP3X, IP4X, IPX5,IPX6 ONLY)	Cl. 14 IEC 60598-2-3: 2011	0.01 mm to 225mm 0.1 N to 4.5N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-3):2012 Cl. 15 IEC 60598-2-3: 2011	Qualitative 0 V to 600 V AC 0 to 20 A AC 0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1kΩ to 2GΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-3):2012 Cl. 16 IEC 60598-2-3: 2011	0.1°C to 187.5°C Ambient to 975°C 0.1 s to 60.0 s 0.01 mm to 300 mm 0 to 600 V AC L.C. 0.1V, ± 1.0% 0-5 A AC, L.C. 0.001A AC, ±1.0% 0 s to 99.99 s, 1%
3.	Luminaires: General Requirements and Tests: Section 5:2013 Floodlights	Marking	IS:10322 (P-5/S-5):2013 Cl.6 IEC 60598-2-5: 2015	Qualitative
		Construction	IS:10322 (P-5/S-5):2013 Cl.7 IEC 60598-2-5: 2015	0.1 N to 115 N 0.01 mm to 100 mm 10 Nm 0.1 Nm to 1.5 Nm, L.C. 0.2 Nm 1 Nm to 5 Nm, L.C. 0.5 Nm

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				0.5J to 5.0 J 0.1° to 360° 0.1 s to 60.0 s
		Creepage Distance and Clearance	IS:10322 (P-5/S-5):2013 Cl. 8 IEC 60598-2-5: 2015	0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 1350 °C, L.C. 0.1°C
		Provision for Earthing	IS:10322 (P-5/S-5):2013 Cl. 9 IEC 60598-2-5: 2015	0.01 mm to 100 mm
		Terminals	IS:10322 (P-5/S-5):2013 Cl.10 IEC 60598-2-5: 2015	0.01 V to 9.99 V, 0.01 A to 50 A
		External and Internal Wiring	IS:10322 (P-5/S-5):2013 Cl. 11 IEC 60598-2-5: 2015	0.01 mm to 100 mm 0.001 mm to 0.245 mm 0.1 N to 150N 0.1 s to 60.0 s 0.1°C to 187.5°C
		Protection Against Electric Shock	IS:10322 (P-5/S-5):2013 Cl. 12 IEC 60598-2-5: 2015	0.001 V to 1000 V AC 0.001 V to 1000 V DC
		Endurance Test and	IS:10322 (P-5/S-5):2013	0.001 mm to 0.75 mm 0.01 mm to 30 mm 0.001 m to 5 m 0.1 N to 115 N
				0.01 mm to 30 mm 0.1 s to 60.0 s 0.1 N to 15 N 0.001 V to 1000 V AC 0.001 V to 1000 V DC
				0.01 W to 5000 W

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		Thermal Test	Cl. 13 IEC 60598-2-5: 2015	0.001 A to 20 A 0.01 V to 600 V 0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 375 °C, L.C. 0.1°C Ambient to 60 °C, 0.1°C 15°C to 110 °C, L.C. 0.1°C
		Resistance to Dust and moisture (IP1X,IP2X, IP3X, Ip4x, Ipx5,Ipx6 Only)	IS:10322 (P-5/S-5):2013 Cl. 14 IEC 60598-2-5: 2015	0.001 mm to 3.75 mm 0.01 mm to 225 mm 0.1 N to 4.5N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-5):2013 Cl. 15 IEC 60598-2-5: 2015	Qualitative Test 0 V to 600 V AC 0 to 20 A AC 0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1MΩ to 6MΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-5):2013 Cl. 16 IEC 60598-2-5: 2015	0.1°C to 187.5°C Ambient to 975 °C 0.1 s to 60.0 s 0.01 mm to 300 mm 0.1 N to 115 N 0 to 600 V AC L.C. 0.1 V, ± 1.0% 0 to 5 A AC,

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Luminaires: General Requirements and Tests: Section 6:2013 Handlamps	Marking	IS:10322 (P-5/S-6):2013 Cl.6 IEC 60598-2-8: 2013	L.C. 0.001A AC, $\pm 1.0\%$ 0 to 99.99 s, 1% Qualitative Test
		Construction	IS:10322 (P-5/S-6):2013 Cl.7 IEC 60598-2-8: 2013	0.1 N to 115 N
				0.01 mm to 100 mm
				10 Nm
				0.1 Nm to 1.5 Nm, L.C. 0.2 Nm
				1 Nm to 5 Nm, L.C. 0.5Nm
				0.5 J to 5.0 J
Creepage Distance and Clearance	IS:10322 (P-5/S-6):2013 Cl. 8 IEC 60598-2-8: 2013	0.001 V to 1000 V AC		
		0.001 V to 1000 V DC		
Provision for Earthing	IS:10322 (P-5/S-6):2013 Cl. 9 IEC 60598-2-8: 2013	-100 °C to 1350 °C, L.C. 0.1°C		
		300 kgf		
Terminals	IS:10322 (P-5/S-6):2013 Cl.10 IEC 60598-2-8: 2013	25.4 mm to 25.4 mm, 5 Hz to 2000 Hz		
		0.01 mm to 100 mm		
		0.01 mm to 0.245 mm		
				0.1 N to 150 N

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				0.1 s to 60.0 s 0.1°C to 187.5°C
		External and Internal Wiring	IS:10322 (P-5/S-6):2013 Cl. 11 IEC 60598-2-8: 2013	0.001 V to 1000 V DC 0.001 V to 1000 V AC 0.001 mm to 0.75 mm 0.01 mm to 30 mm 0.001 m to 5 m 0.1 N to 115 N
		Protection Against Electric Shock	IS:10322 (P-5/S-6):2013 Cl. 12 IEC 60598-2-8: 2013	0.01 mm to 30 mm 0.1 s to 60.0 s 0.1 N to 15 N 0.001 V to 1000 V AC 0.001 V to 1000 V DC
		Endurance Test and Thermal Test	IS:10322 (P-5/S-6):2013 Cl. 13 IEC 60598-2-8: 2013	0.01 W to 5000 W 0.001 A to 20A 0.01 V to 600 V 0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 375°C, L.C. 0.1°C Ambient to 60 °C, 0.1°C 15 °C to 110 °C, L.C. 0.1°C
		Resistance to Dust and moisture	IS:10322 (P-5/S-6):2013 Cl. 14 IEC 60598-2-8: 2013	0.001 mm to 3.75 mm 0.01 mm to 225 mm 0.1 N to 4.5 N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-6):2013 Cl. 15 IEC 60598-2-8: 2013	Qualitative 0 V to 600 V AC 0 to 20 A AC

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1MΩ to 6MΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-6):2013 Cl. 16 IEC 60598-2-8: 2013	0.1 °C to 187.5 °C Ambient to 975 °C 0.1 s to 60.0 s 0.01 mm to 300 mm 0.1 N to 115 N 0 V to 600 V AC L.C. 0.1V, ± 1.0% 0 to 5 A AC, L.C. 0.001A AC, ±1.0% 0 to 99.99 s, 1%
5.	Luminaires: General Requirements and Tests: Section 7:2013 Lighting Chains	Marking	IS:10322 (P-5/S-7):2013 Cl.6 IEC 60598-2-20:2014	Qualitative
		Construction (FOR IP20 ONLY)	IS:10322 (P-5/S-7):2013 Cl.7 IEC 60598-2-20:2014	0.1 N to 115 N 0.01 mm to 100 mm 0.025 Nm 0.2Nm 0.15Nm 0.5 J to 5.0 J 0.001 V to 1000 V AC 0.001 V to 1000 V DC -40 °C to 0.0 °C L.C: 0.1 °C -100 °C to 1350°C,

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Creepage Distance and Clearance	IS:10322 (P-5/S-7):2013 Cl. 8 IEC 60598-2-20:2014	L.C. 0.1°C 0.01 mm to 100 mm
		Provision for Earthing	IS:10322 (P-5/S-7):2013 Cl. 9 IEC 60598-2-20:2014	0.01 V to 9.99 V, 0.01 A to 50 A
		Terminals	IS:10322 (P-5/S-7):2013 Cl.10 IEC 60598-2-20:2014	0.01 mm to 100 mm 0.001 mm to 10.245 mm 0.1 N to 150 N 0.1 s to 60.0 s 0.1°C to 187.5°C 0.001 V to 1000 V AC 0.001 V to 1000 V DC
		External and Internal Wiring	IS:10322 (P-5/S-7):2013 Cl. 11 IEC 60598-2-20:2014	0.001 mm to 0.75 mm 0.01 mm to 30 mm 0.001 m to 5 m 0.1 N to 115 N
		Protection Against Electric Shock	IS:10322 (P-5/S-7):2013 Cl. 12 IEC 60598-2-20:2014	0.01 mm to 30 mm 0.1 s to 60.0 s 0.1 N to 15 N 0.001 V to 1000 V AC 0.001 V to 1000 V DC
		Endurance Test and Thermal Test	IS:10322 (P-5/S-7):2013 Cl. 13 IEC 60598-2-20:2014	0.01 W to 5000 W 0.001 A to 20 A 0.01 V to 600 V 0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 375 °C,

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				L.C. 0.1°C 15 °C to 110 °C, L.C. 0.1°C
		Resistance to Dust and moisture	IS:10322 (P-5/S-7):2013 Cl. 14 IEC 60598-2-20:2014	0.001 mm to 3.75 mm 0.01 mm to 225 mm 0.1 N to 4.5 N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-7):2013 Cl. 15 IEC 60598-2-20:2014	Qualitative 0 V to 600 V AC 0 to 20 A AC 0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1 MΩ to 6 MΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-7):2013 Cl. 16 IEC 60598-2-20:2014	0.1°C to 187.5°C Ambient to 975°C 0.1 s to 60.0 s 0.01 mm to 300 mm 0.1 N to 115 N 0 to 600 V AC, L.C.0.1V, ± 1.0% 0 to 5A AC, L.C. 0.001A AC, ±1.0% 0 to 99.99 s, 1%
6.	Luminaires: General Requirements and Tests: Section 8 :2013 Emergency	Marking	IS:10322 (P-5/S-8):2013 Cl.6 IEC 60598-2-22: 2014+ A1: 2017	Qualitative
		Construction	IS:10322 (P-5/S-8):2013	0.1 N to 115 N

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	Lighting		Cl.7 IEC 60598-2-22: 2014+A1:2017	0.01 mm to 100 mm 0.35 Nm 0.2 Nm 0.15 Nm 0.5 J to 5.0 J 0.001 V to 1000 V AC 0.001 V to 1000 V DC 0.001 V to 1000 V DC 0.001 V to 1000 V AC -100 °C to 1350°C, L.C. 0.1°C
		Creepage Distance and Clearance	IS:10322 (P-5/S-8):2013 Cl. 8/IEC 60598-2-22: 2014+A1:2017	0.01 mm to 100 mm
		Provision for Earthing	IS:10322 (P-5/S-8):2013 Cl. 9 IEC 60598-2-22: 2014+A1:2017	0.01 V to 9.99 V, 0.01 A to 50 A
		Terminals	IS:10322 (P-5/S-8):2013 Cl.10 IEC 60598-2-22: 2014+A1:2017	0.01 mm to 100 mm
				0.001 mm to 10.245 mm
				0.1 N to 150 N
				0.1 s to 60.0 s
		External and Internal Wiring	IS:10322 (P-5/S-8):2013 Cl. 11 IEC 60598-2-22: 2014+A1:2017	0.1°C to 187.5°C
				0.001 V to 1000 V AC 0.001 V to 1000 V DC
				0.001 mm to 0.75 mm 0.01 mm to 30 mm 0.001 m to 5 m 0.1 N to 115 N
		Protection Against	IS:10322 (P-5/S-8):2013	0.01 mm to 30 mm

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Electric Shock	Cl. 12 IEC 60598-2-22: 2014+A1:2017	0.1 s to 60.0 s 0.1 N to 15 N 0.001 V to 1000 V AC 0.001 V to 1000 V DC
		Endurance Test and Thermal Test	IS:10322 (P-5/S-8):2013 Cl. 13 IEC 60598-2-22: 2014+A1:2017	0.01 W to 5000 W 0.001 A to 20 A 0.01 V to 600 V 0.001 V to 1000 V AC 0.001 V to 1000 V DC -100 °C to 375°C, L.C. 0.1°C 15 °C to 110°C, L.C. 0.1°C
		Resistance to Dust and moisture	IS:10322 (P-5/S-8):2013 Cl. 14 IEC 60598-2-22: 2014+A1:2017	0.001 mm to 3.75 mm 0.01 mm to 225 mm 0.1 N to 4.5 N 0.1 s to 60.0 s
		Insulation Resistance and Electric Strength	IS:10322 (P-5/S-8):2013 Cl. 15 IEC 60598-2-22: 2014+A1:2017	Qualitative 0 V to 600 V AC 0 to 20 A AC 0.1 kW to 5 kW 0.01 kV to 5 kV AC 0 to 250 mA 0.01 s to 99.99 minute 1 kΩ to 2000 MΩ 1MΩ to 6MΩ
		Resistance to Heat, Fire and Tracking	IS:10322 (P-5/S-8):2013 Cl. 16 IEC 60598-2-22: 2014+A1:2017	0.1°C to 187.5°C Ambient to 975°C 0.1 s to 60.0 s 0.01 mm to 300 mm 0.1 N to 115 N

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				0 to 600V AC L.C. 0.1V, $\pm 1.0\%$ 0 to 5A AC, L.C. 0.001A AC, $\pm 1.0\%$ 0 to 99.99 s, 1%
IV.	SAFETY TESTING FACILITY			
1.	Toys and Similar Products			
a.	Electric Toys	Marking-Inspection	IS 15644: 2006/ IEC 62115 (2003) Cl. 7	Qualitative
		Rubbing test	Cl.7.7	
		Power input	IS 15644: 2006/ IEC 62115 (2003) Cl. 8	$\leq 20\%$ rated power input
		Heating and abnormal operation-Temperature rise	IS 15644: 2006/ IEC 62115 (2003) Cl. 9	$\geq 25K$ to 55K
		Electric strength at operating temperature-Breakdown test	IS 15644: 2006/ IEC 62115 (2003) Cl. 10	Qualitative 0.01°C to 150°C 0 to 5 kV, 0.01KV, 0 to 250 mA, 5mA 0.1 s to 60.0 s
		Electric strength at room temperature-Compliance for insulation	IS 15644: 2006/ IEC 62115 (2003) Cl. 12	Qualitative 0 to 5 kV, 0.01KV, 0 to 250 mA, 5 mA 0.1 s to 60.0 s
		Mechanical strength	IS 15644: 2006/ IEC 62115 (2003) Cl. 13 and Ehb of IEC 60068-2-75	Qualitative

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		Construction	IS 15644: 2006/ IEC 62115 (2003)	
		Drop test	Cl. 14.7	Qualitative
		Supply voltage	Cl.14.1	≤ 24 v
		Power input	Cl.14.13	≤ 20W
		Protection of cords and wires	IS 15644: 2006/ IEC 62115 (2003) Cl. 15 & Cl.18	Qualitative
		Components - Inspection	IS 15644: 2006/ IEC 62115 (2003) Cl. 16	Qualitative
		Screws and connections Torque test	IS 15644: 2006/ IEC 62115 (2003) Cl. 17	Qualitative
		Clearances and Creepage Distances of Functional insulations	IS 15644: 2006/ IEC 62115 (2003) Cl. 18	≥ 0.5 mm
		Resistance to heat and fire Ball Pressure test	IS 15644: 2006/ IEC 62115 (2003) Cl.19	Qualitative 20N (Ball pressure)
		Glow Wire test	19.1 and IEC 60695-10-2	0.1°C to 150°C
		Needle Flame test	19.2.1 and IEC 60695-2-11 19.2.2,Annexure B and IEC 60695-2-2	1°C to 975°C 0.1 s to 60.0 s 0.01 mm to 100 mm Indentation Diameter <2mm
b.	Battery Toys intended to be used in Water& Toys Likely to be Cleaned with Liquid	Moisture resistance	IS 15644: 2006/ IEC 62115 (2003)	Qualitative
		Water immersion test	Cl. 11.1 & Cl.12	
		Resistance to humidity	Cl. 11.2 & Cl.12	
2.	Safety	Application of fault	IEC 61010-1 : 2010+	0.2 W to 5000 W

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements	conditions.	AMD1:2016 Cl. 4.4.2	10 Hz to 50 Hz 0.15 V to 600 V 1 mA to 20 A 1 °C to 400 °C
		Short Circuit.	IEC 61010-1 : 2010+ AMD1:2016 Cl. 4.4.2.7.2	0.2 W to 5000 W 10 Hz to 50 Hz 0.15 V to 600 V 1 mA to 20 A 1 °C to 400 °C
		Overload.	IEC 61010-1 : 2010+ AMD1:2016 Cl. 4.4.2.7.3	0.2 W to 5000 W 10 Hz to 50 Hz 0.15 V to 600 V 1 mA to 20 A 1 °C to 400 °C
		Mains Supply	IEC 61010-1 : 2010+ AMD1:2016 Cl. 4.3.2.5 & 5.1.3	0.2 W to 5000 W 1 Hz to 50Hz 0.15 V to 600 V 1 mA to 20 A
		Durability of markings.	IEC 61010-1 : 2010+ AMD1:2016 Cl. 5.3	Qualitative
		Protection against electric shock.	IEC 61010-1 : 2010+ AMD1:2016 Cl. 6	0.001 mA to 10 A 0.1µA to 20 mA Vac: 0.001 mV to 600 V 0.01 mm to 300 mm Up to 6.0 Nm 1A to 150A 0.1 V to 12 V 0.1 kVac to 5 kVac 0.10 kV to 12 kV 0.1 N to 500 N

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				25°C to 60°C, RH: 10% to 97%
		Stability	IEC 61010-1: 2010+ AMD1:2016 Cl. 7.4	0.1 N to 500 N 0.01° to 20°
		Resistance to mechanical stresses.	IEC 61010-1: 2010+ AMD1:2016 Cl. 8	0.5 J, 500gm Ball (50±1) mm Ø12 mm, 0.1 N to 500 N
		Containment of fire within the equipment.	IEC 61010-1: 2010+ AMD1:2016 Cl. 9.3	0.5 mm to 9.5 mm 0.01 s to 1 h 0.1 °C to 100 °C
		Limited Energy Circuit	IEC 61010-1: 2010+ AMD1:2016 Cl. 9.4	2 mΩ to 2 kΩ 0.1µA to 20 mA
		Resistance to Heat	IEC 61010-1: 2010+ AMD1:2016 Cl. 10.5	20.0 °C to 150°C Ball Ø 5 mm, 20N 0.5J, 500 gm Ball (50±1) mm Ø12 mm, 0.1N to 500N
		Fluid pressure and leakage	IEC 61010-1 : 2010+ AMD1:2016 Cl. 11.7	IPX5 and IPX 6
		Motors (temperature measurement under single fault condition)	IEC 61010-1 : 2010+ AMD1:2016 Cl. 14.2	0.2 W to 5000 W 1 Hz to 50 Hz 0.15V to 600V 1mA to 20A 1 °C to 400 °C
		Mains Transformers tested outside equipment.	IEC 61010-1 : 2010+AMD1:2016 Cl. 14.6	0.2 W to 5000 W 1 Hz to 50 Hz 0.15 V to 600 V 1mA to 20 A 1 °C to 400 °C
		Circuits to used to limit	IEC 61010-1 : 2010+	0.10 kV to 12 kV

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	Safety of Household and Similar Electrical Appliances, Part 1: General Requirements	Transient over voltages	AMD1:2016/Cl. 14.8	
		Marking & Instruction	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 7.0	Qualitative
		Protection Against Access to Live Parts	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 8.0	Qualitative
		Marking Starting Of Motor Operated Appliances	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 9.0	Qualitative
		Power Input & Current	IS 302:2008 (Part 1) IEC 60335-1 : 2013 Clause 10	0.2W -5000W 1Hz-50Hz 0.15V - 600V 1mA -20A
		Heating Under Normal Operating Conditions	IS302:2008 (Part 1) IEC 60335-1: 2013 Clause 11	0.2W -5000W 1Hz-50Hz 0.15V - 600V 1mA -20A 1-400 °C
		Leakage Current And Electric Strength At Operating temperature	IS302:2008 (Part 1) IEC 60335-1: 2013 Clause 13	0.1 µA to 20 mA 0.1 V to 5 kV 1mA to 250mA
		Transient Over Voltages	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 14	0.10 kV to 12 kV
		Moisture Resistance	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 15	25 to 60 °C (temp.) 10 to 95% (RH) Only IP 56
Leakage Current & Electrical Strength	IS 302:2008 (Part 1) IEC 60335-1 : 2013 Clause 16	0.1µA to 20 mA 0.1 kV to 5 kV 1mA to 250mA		

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Overload Protection Of Transformers And Associated Circuits	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 17	0.2W -5000W 1Hz-50Hz 0.15V - 600V 1mA -20A 1-400 °C
		Abnormal Operation	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 19	0.2W -5000W 1Hz-50Hz 0.15V - 600V 1mA -20A 1-400 °C
		Stability and Mechanical Hazards	IS302:2008 (Part 1) IEC 60335-1: 2013 Clause 20	Angle :0.01° to 20° 1-400 °C 0.7J Test Probe A 0.1-500N
		Mechanical Strength	IS302:2008 (Part 1) IEC 60335-1: 2013 Clause 21	0.1-500 N (hardened steel pin with force), 0.01 to 300 mm
		Construction	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 22	0.01 to 300 mm
		- Plug pin test	Clause 22.3	Upto 6.0 Nm Upto 200°C Upto 500N
		- Capacitor discharge test	Clause 22.5	200 MHz, 2- Channel Sampling Rate:500MS/s
		- Test on detachable parts	Clause 22.11	Upto 6.0 Nm Upto 500N
		- Clearance and creepage	Clause 22.31	0.01 Upto 150mm

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Internal Wiring	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 23	0.01 to 300 mm 0.1kVac to 5kVac Counter : 9999999, 90° Counter : 9999999, 45° 0.001-25mm
		Supply Connection And External Flexible Cords	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 25	0.01 to 300 mm 0.1 kVac to 5 kVac 0.01 to 2 Nm 0.1to 135 Nm 0.001-25mm 9999999, 90° Counter : 9999999, 45° Upto 100Kg
		Terminals For External Conductors	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 26	0.02 to 2 Nm 0.1to 135 Nm Upto 100 kg Upto 20 mm 0.01 to 300 mm 0.001-25mm 0.1-500 N
		Provision For Earthing	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 27	0.01 to 300 mm 0.02 1A to150A 0.1V to 12 V
		Screws And Connections	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 28	0.01 to 300 mm 0.03 Nm to 2 Nm 0.1 Nm to 135 Nm
		Clearances And Creepage Distances	IS 302:2008 (Part 1) IEC 60335-1: 2013	0.01 mm to 300 mm 20 to 600 V rms

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		Resistance To Heat And Fire Ball Pressure Test Glow Wire Test Needle Flame Test	Clause 29 IS 302:2008 (Part 1) IEC 60335-1: 2013, Clause 30.1	0.05 to 2.0 A rms 20.0to 150°C Ball Dia: 5mm, 20N 500°C to 960°C Time:1 s to 30 s Needle Inner Dia:0.5 mm 0.01 s to 99.59 minutes
		Resistance to Rusting	IS 302:2008 (Part 1) IEC 60335-1: 2013 Clause 31	0.1°C to 400°C (temp.) 10 to 97% (RH)

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRONICS TESTING

I. IT EQUIPMENT				
1.	Information Technology Equipment	Power Interface	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 1.6	1 mA to 20 A 0.15 V to 600 V 0.2 mV to 5000 W 1 Hz to 70 Hz
		Durability of marking	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 1.7.11	Qualitative
		Protection from electric shock and energy hazards	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.1	0.001 V _{dc} to 600 V _{dc} 0.001 V _{ac} to 600 V _{ac} 0.001 A _{dc} to 10 A _{dc} 0.001 A _{dc} to 10 A _{dc} 0.01 mm to 300 mm 0.1 N to 500 N
		Discharge of Capacitor	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.1.1.7	Qualitative 500 MS/s
		SELV circuits	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.2	0.1 V _p to 50 V _p 0.1 V _{dc} to 60 V _{dc}
		TNV circuits	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.3	0.1 V _p to 50 V _p 0.1 V _{dc} to 80 V _{dc}
		Limited current circuits	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.4	0.1 mA to 20 mA

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		Limited power sources	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.5	0.1 V to 800V
		Protective earthing conductors and protective bonding conductors	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.6.3	1 A to 150 A 0.1 V to 12 V 0.001 Ω to 0.600 Ω
		Humidity treatment	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.9.2	0.1°C to 70 °C 40 % to 96% RH
		Clearances And Creepage Distances	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.10	0.01 mm to 100 mm
		Distances through insulation	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.10.5.2	0.01 mm to 300 mm 0.001 mm to 25 mm
		Determination of working voltage	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 2.10.2	Qualitative 500 MS/s
		Wiring, connections and supply	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 3	Qualitative
		Stability	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 4.1	0.01° to 20° 0° to 360°
		Mechanical Strength	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 4.2	0.1 N to 500 N
		Impact to enclosure	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 4.2.4	Up to 0.5 Nm

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Impact to enclosure	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 4.2.5	49 mm to 51 mm
		Drop	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 4.2.6	Qualitative
		Stress relief	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.4.2.7	Qualitative
		Protection against moving fan blades	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.4.4.5	Qualitative
		Heating under normal operating conditions	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.4.5.1	0.1°C to 400 °C 2 mΩ to 2 kΩ
		Resistance to abnormal heat - Ball Pressure	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.4.5.5	20 °C to 150 °C 5 mm 20 N 0.01 mm to 4 mm
		Resistance to Fire - Horizontal Burning - Needle Flame - Glow wire	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.4.7	9.5 mm 0.01 s to 99.59 min 0.5 mm 0.01 s to 99.59 min 500°C to 960°C 1 s to 30 s
		Touch Current and protective conductor current	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.5.1	0.1 μA to 20 mA
		Electric Strength	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.5.2	0.1 V _{ac} to 5 kV _{ac} 1 mA to 250 mA 50 V _{dc} to 1000 V _{dc}

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Abnormal Operating and fault Condition	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.5.3	10 kΩ to 2 GΩ 1 °C to 400 °C 2 mΩ to 2 kΩ
		Connection to telecommunication networks - Impulse 10 μs /700 μs	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.6.2.2.1	0.1 kV to 6.0 kV 10 μs to 700 μs 50 V _{dc} to 1000 V _{dc} 10 kΩ to 2 GΩ
		Connection to Telecom Network - Impulse 1.2 μs /50μs	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl.6.2.2.1	0.10 kV to 12 kV 50 V _{dc} to 1000 V _{dc} 10 kΩ to 2 GΩ
		Connection to Telecom Network - Impulse 10μs/ 700 μs	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 6.2.2.1	100V to 7kV 10/700 μs 50 V _{dc} to 1000 V _{dc} 10 kΩ to 2 GΩ
		Connection to telecommunication networks - Voltage surge	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 7.4.2	0.5 kV to 10 kV
		Insulation between primary circuits and cable distribution systems - Impulse 10/700μs	IS 13252: 2010 (RA 2015) IEC 60950-1:2005 (A2 2013) Cl. 7.4.3	0.1 kV to 6.0 kV 10/700μs 50 V _{dc} to 1000 V _{dc} 10 kΩ to 2 GΩ
II.	DOMESTIC ELECTRONIC APPLIANCES & ACCESSORIES			
1.	Household and Electrical	Verification of Marking	IS 302 (Part 2/ Sec 25): 2014	Qualitative

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Appliances		IEC 60335-2-25 Cl. 7	
	Microwave Oven	Protection against Electric shock Energy hazards	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 8	0.001 V _{dc} to 600 V _{dc} 0.001 V _{ac} to 600 V _{ac} 0.001 A _{dc} to 10 A _{dc} 0.001 A _{dc} to 10 A _{dc} 0.01 mm to 300 mm
		Starting of Motor operated Appliances	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 9	2 mΩ to 2 kΩ
		Power input Current	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 10	1 mA to 20 A 0.15 V to 600 V 0.2 W to 5000 W 1 Hz to 70 Hz
		Heating - Under normal operating conditions	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 11	1 °C to 400 °C 2 mΩ to 2 kΩ
		Leakage Current Electrical Strength	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 13	0.1 μA to 20 mA 0.1 kV to 5 kV 1 mA to 250 mA 50 V _{dc} to 1000 V _{dc} 10 kΩ to 2 GΩ
		Transient Over Voltage - Pulse	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 14	1.2/50μs 500 V to 12 kV
		Humidity treatment	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 15.3	25 °C to 60 °C 10 % to 97% RH
		Leakage Current Electrical Strength	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 16	0.1 μA to 20 mA 0.1 kV to 5 kV 1 mA to 250 mA

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				50 V to 1000 V DC 10 kΩ to 2 GΩ
		Overload protection of transformers and associated circuits	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 17	0.001 V _{dc} to 600 V _{dc} 0.001 V _{ac} to 600 V _{ac} 0.001 A _{dc} to 10 A _{dc} 0.001 A _{ac} to 10 A _{ac} 1 °C to 400 °C 2 mΩ to 2 kΩ
		Endurance	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 18	100000 cycles Up to 3 mW/cm ² Up to 5 mW/cm ² Up to 10 mW/cm ²
		Abnormal Operation	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 19	0.001 V _{dc} to 600 V _{dc} 0.001 V _{ac} to 600 V _{ac} 0.001 A _{dc} to 10 A _{dc} 0.001 A _{ac} to 10 A _{ac} 2 mΩ to 2 kΩ 1 °C to 400 °C
		Stability Mechanical Hazards	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 20	0.1 N to 500 N 1m × 1m 0.01° to 20°
		Mechanical Strength	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 21	0.5J 500 g 49 mm to 51 mm 0.1 N to 500 N
		Verification of Construction	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 22	0.1 N to 500 N 0.01 mm to 300 mm Ambient to 300 °C
		Verification of Internal wiring	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 23	0.001 mm to 25 mm 0.01 mm to 300 mm

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Electric Strength	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 23	0.1 kV to 5 kV 1 mA to 250 mA
		Supply connection and external flexible cords	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 25	0.001 mm to 25 mm 0.01 mm to 300 mm 0.1 kV to 5 kV 1 mA to 250 mA 0.1 N to 500N 0.01 Nm to 1.5 Nm 0.1 Nm to 135 Nm
		Terminals for external conductors	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 26	0.001 mm to 25 mm 0.01 Nm to 1.5 Nm 0.1 Nm to 135 Nm
		Provision for earthing	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 27	1 A to 150 A 0.1 V to 12 V
		Screws and connections	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 28	0.01 mm to 300 mm 0.01 Nm to 2 Nm 0.1 Nm to 135 Nm
		Clearances and Creepage distances	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 29	0.1 N to 500 N 0.01 mm to 100 mm
		Tracking Index	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 29	20 V _{rms} to 600 V _{rms} 0.05 A to 2 A 0.01 s to 99.99 min
		Resistance to heat and fire - Glow wire test - Needle Flame test - Horizontal Burning	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 30	Ambient to 300 °C 0.01 mm to 300 mm 500 °C to 960 °C 0.01 s to 99.99 min 0.5 mm 0.01 s to 99.99 min

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		Resistance to rusting	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 31	9.5 mm 0.01 s to 99.99 min 0.1 °C to 400 °C 0.1 °C to 60°C
		Microwave Leakage	IS 302 (Part 2/ Sec 25): 2014 IEC 60335-2-25 Cl. 32	10 % to 97% RH Up to 3 mW/cm ² Up to 5 mW/cm ² Up to 10 mW/cm ²
III.	SAFETY TESTING FACILITY			
1.	Household and Electrical Appliances	Verification of Marking & Instruction	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 7	Qualitative
	Clocks	Protection against Electric shock & energy hazards	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 8	0.001 V _{dc} to 600 V _{dc} 0.001 V _{ac} to 600 V _{ac} 0.001 A _{dc} to 10 A _{dc} 0.001 A _{ac} to 10 A _{ac} 0.01 mm to 300 mm
		Starting of Motor operated Appliances	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 9	2 mΩ to 2 kΩ
		Power input & current	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 10	0.01 V _{ac} to 600 V _{ac} 0.0001 A to 30A 0.01 W to 5000W
		Heating under normal operating conditions	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002	1 °C to 400 °C 2 mΩ to 2 kΩ

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Leakage Current Electrical Strength	Cl. 11 IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 13	0.1 μ A to 20 mA 0.001 V_{dc} to 600 V_{dc} 0.001 V_{ac} to 600 V_{ac} 0.001 A_{dc} to 10 A_{dc} 0.001 A_{ac} to 10 A_{ac} 0.1 kV to 5 kV 1 mA to 250 mA 50 V_{dc} to 1000 V_{dc} 10 k Ω to 2 G Ω
		Transient over voltage	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 14	1.2 μ s /50 μ s 160 V to 4 kV
		Humidity treatment	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 15.3	1 °C to 60 °C 10 % to 97 % RH
		Leakage Current & Electrical Strength	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 16	0.1 μ A to 20 mA 0.1 kV to 5 kV 1 mA to 250 mA 50 V_{dc} to 1000 V_{dc} 10 k Ω to 2 G Ω
		Overload protection of transformers and associated circuits	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 17	0.001 V_{dc} to 600 V_{dc} 0.001 V_{ac} to 600 V_{ac} 0.001 A_{ac} to 10 A_{ac} 0.001 A_{ac} to 10 A_{ac} 1 °C to 400 °C 2 m Ω to 2 k Ω
		Abnormal Operation	IS 302 (Part 2/ Sec 26): 2014	Upto 600 V_{dc} Upto 600 V_{ac}

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IEC-60335-2-26: 2002 Cl. 19	Upto 10A _{dc} Upto 10 A _{ac} 2 mΩ to 2 kΩ 1 °C to 400 °C
		Stability and Mechanical Hazards	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 20	0.1 N to 500 N 1m × 1m 0.01° to 20°
		Mechanical Strength	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 21	0.5 J 500 g 49 mm to 51 mm 0.1 N to 500 N
		Construction	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 22	0.1 N to 500 N 0.01 mm to 300 mm Ambient to 300 °C
		Internal wiring	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 23	0.001 mm to 25 mm 0.01 mm to 300 mm
		Electric Strength	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 23	0.1 kV to 5 kV 1 mA to 250 mA
		Supply connection and external flexible cords	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 25	0.001 mm to 25 mm 0.01 mm to 300 mm 0.1 kV to 5 kV 1 mA to 250 mA 0.1 N to 500 N 0.01 Nm to 2Nm 0.1 Nm to 135 Nm

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Terminals for external conductors	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 26	0.001 mm to 25mm 0.01 Nm to 2 Nm 0.1 Nm to 135 Nm
		Provision for earthing	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 27	0.1 A to 150 A 0.1 V to 12 V 0.01 mm to 300 mm
		Screws and connections	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 28	0.01 mm to 300 mm 0.01 Nm to 2 Nm 0.1 Nm to 135 Nm
		Tracking Index	IS 302 (Part 2/ Sec 26):2014 IEC-60335-2-26: 2002 Cl. 29	20 V _{rms} to 600V _{rms} 0.05 A to 2 A 0.01 s to 99.59 min
		Resistance to heat and fire - Needle Flame test - Horizontal Burning	IS 302 (Part 2/ Sec 26):2014 IEC-60335-2-26: 2002 Cl. 30	20 °C to 300 °C 500 °C to 960°C 0.01 s to 99.59 min 0.5 mm 0.01 s to 99.59 min
		Resistance to rusting	IS 302 (Part 2/ Sec 26): 2014 IEC-60335-2-26: 2002 Cl. 31	1 °C to 400°C 0.1 °C to 60°C 10 % to 99% RH
IV.	AUDIO EQUIPMENT			
1.	Audio, Video Electronic	General requirements	IS 616: 2017 IEC 60065: 2014 Cl. 5.1	

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	appliances	Identification supply ratings	IS 616: 2017 IEC 60065: 2014 Cl. 5.2	1 mA to 20 A 0.15 V to 600 V 0.2 mV to 5000 W 1 Hz to 70 Hz
		Heating - Normal operating conditions	IS 616: 2017 IEC 60065: 2014 Cl. 7.1	0.1 °C to 400 °C 2 mΩ to 2 kΩ
		Heat resistance of insulating material	IS 616: 2017 IEC 60065: 2014 Cl. 7.2	1 °C to 200°C
		Constructional requirements with regard to the protection against electric shock	IS 616: 2017 IEC 60065: 2014 Cl. 8	0.1 N to 500 N 0.01 mm to 300 mm 0.01 mm to 25 mm
		Determination of hazardous live parts	IS 616: 2017 IEC 60065: 2014 Cl. 9.1.2	0.1 μA to 20mA
		Determination of accessible parts	IS 616: 2017 IEC 60065: 2014 Cl. 9.1.1.3	0.1 N to 100N
		Withdrawal of mains plug	IS 616: 2017 IEC 60065: 2014 Cl. 9.1.6	200MHz 2-channel
		Resistance to external forces	IS 616: 2017 IEC 60065: 2014 Cl. 9.1.7	0.1 N to 500N
		Surge	IS 616: 2017 IEC-60065: 2014 Cl. 10.1	0.5 V to 10kV
		Humidity Treatment	IS 616: 2017 IEC 60065: 2014 Cl. 10.2	0.1 °C to 70 °C 10 % to 99 % RH
			IS 616: 2017 IEC 60065: 2014 Cl. 10.3	0.1 kV to 5 kV 1 mA to 250mA 50 V _{dc} to 1000V _{dc} 10 kΩ to 2 GΩ
	Fault Conditions	IS 616: 2017	0.1 °C to 400°C	

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		Mechanical Strength	IEC 60065: 2014 Cl. 11	20 mΩ to 2 kΩ
		- Vibration	IS 616: 2017	24.5 mm
			IEC 60065: 2014 Cl. 12.1.2	5 Hz to 4000 Hz
			IS 616: 2017	0.5 J
		- Impact	IEC 60065: 2014 Cl. 12.1.3	500 g
			IEC 60068-2-75	49 mm to 51 mm
			IS 616: 2017	20 °C to 300 °C
		- Spring hammer	IEC 60065: 2014 Cl. 12.1.5	
			IS 616: 2017	0.01 Nm to 2 Nm
			IEC 60065: 2014 Cl. 12.2	0.1 Nm to 135 Nm
				0.1 N to 500 N
			IS 616: 2017	0.01 mm to 300 mm
			IEC 60065: 2014 Cl. 12.4	0.1 N to 500 N
			IS 616: 2017	0.1 N to 500 N
			IEC 60065: 2014 Cl. 12.5 & 12.6	
		Clearances in circuits conductively connected to the mains	IS 616: 2017	0.01 mm to 300 mm
			IEC 60065: 2014 Cl. 13.3.2	
		Transient Voltages	IS 616: 2017	1.2/50 μs
			IEC 60065: 2014 Cl. 13.3.4	10/700 μs
				0.1 kV to 12 kV
				0.1 kV to 5 kV
		Creepage Distances	IS 616: 2017	20 V _{rms} to 600V _{rms}
			IEC 60065: 2014 Cl. 13.4	0.05 A _{rms} to 2.0 A _{rms}
				0.01 s to 99.99 min
		Terminals	IS 616: 2017	0.1 N to 500 N
			IEC 60065: 2014 Cl. 15	0.01 Nm to 2 Nm
				0.1 Nm to 135 Nm
				0.01 mm to 300mm

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				Up to 75°C 0.1 A to 150 A 0.1 V to 12 V
		External Flexible cords	IS 616: 2017 IEC 60065: 2014 Cl. 16	0.01 mm to 300 mm Up to 25mm 0.1 N to 500 N Up to 0.25 Nm
		Stability and mechanical hazards - Impact Energy - Spring hammer	IS 616: 2017 IEC 60065: 2014 Cl. 19.1 to 19.4	1×1 mm 0.01° to 20° 0.1 N to 500 N
			IS 616: 2017 IEC 60065: 2014 Cl. 19.5.1	0.5 J 500 g 49 mm to 51 mm
V.	POWER SUPPLIES & STABILIZERS			
1.	Uninterruptible Power Systems (UPS) UPS (Upto 5 kVA Single Phase)	Power interfaces	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 4.6 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 1.6	1 mA to 20 A 0.15 V to 600 V 0.2 mV to 5000 W 1 Hz to 70 Hz
		Power Rating	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 4.7.2 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 1.7.1	Qualitative
		High leakage current	IS 16242 (Part 1): 2014 IEC 62040-1: (2008)	0.1 µA to 20 mA

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			Cl. 4.7.13 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 5.1	
		Durability of markings	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 4.7.16 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 1.7.11	Qualitative
		Energy hazards	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 4.7.20 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.1.1.5	Qualitative
		Protection against electric shock and energy Hazards	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.1.1, 2.10.3.3	Qualitative
		Limited current circuits	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 5.2.3 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.4	0.1 mA to 20 mA
		Limited Power source	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 5.2.5 IS 13252 (Part 1)	0.1 VA to 800 VA

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		Protective earthing	IEC 60950-1: 2005 Cl. 2.5 IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 5.3.2/IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.10,4.2,2.6.1,5.2)	1 A to 150 A 0.1 V to 12 V 0.001 Ω to 0.600 Ω
		Clearances, Creepage distances and distance through insulation - Tracking Index	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 5.7 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.10	0.1N to 500N 0.001 mm to 25 mm 0.01 mm to 300mm 20 V _{rms} to 600 V _{rms} 0.05 A _{rms} to 2.0 A _{rms} 0.01 s to 99.59 min
		General provisions for connection to power	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 6.2.1/IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 3.2.2, 3.2.3, 3.2.4 , 3.2.5, 3.2.6, 3.2.7, 3.2.8	0.01 mm to 300mm 0.001 mm to 25mm
		Stability	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 7.2 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 4.1	0.01 mm to 300 mm 0.01° to 20°
		Mechanical strength	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 7.3 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 4.2	0.01 mm to 300mm 0.1 N to 500 N 20 °C to 300°C
		Verification of Construction	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 7.4 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 4.3	0.1 N to 500 N 0.01 mm to 300mm
		Resistance to fire	IS 16242 (Part 1): 2014	9.5 mm

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		- Horizontal Burning - Needle Flame - Glow wire test	IEC 62040-1: (2008) Cl. 7.5 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 4.7, 4.7.2, 1.2.12	0.01 s to 99.59 min 0.5 mm 0.01 s to 99.59 min 500 °C to 960 °C 1 s to 99.59 min
		Temperature rise	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 7.7 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 4.5	20 °C to 400 °C 2 mΩ to 2 kΩ
		General provision for earth leakage	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 8.1 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 5.1.1, 1.4.10, 5.1.7	0.1 μA to 20 mA
		Electric strength	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 8.2 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 5.2	0.1 kV to 5 kV 1 mA to 250 mA
		Abnormal Operating and fault Condition	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 8.3 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 5.3	20 °C to 400 °C 2 mΩ to 2 kΩ
		Connection to telecommunication networks - Impulse 10 μs /700μs	IS 16242 (Part 1): 2014 IEC 62040-1: (2008) Cl. 9 IS 13252 (Part 1) IEC 60950-1: 2005 Cl. 2.3, 2.1.3, 2.10, 2.6.5.8	1.2/50 μs 0.1 kV to 12 kV
VI.	ENVIRONMENTAL TEST FACILITY			
1.	Electronic &	Dry Heat Test	IS 9000 (Part 3):2016	-25 °C to 200 °C, L.C. 0.1 °C,

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	Electrical Equipment's, Sub-Assemblies		IEC 60068-2-2:2007 JSS 50101:2012 REV 1S	Temp. Accuracy: $\pm 0.5^{\circ}\text{C}$ Time 99:99:99 s Chamber inner size: 600X500X500 mm Volume: 0.15 m ³
		High Temperature Test	MIL-STD 810G: 2014 Method 501.6 (Procedure I & II) JSS-55555:2000 Rev 2 QM 333 MARCH 2010	-25 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$, L.C: 0.01 $^{\circ}\text{C}$, Temp. Accuracy: $\pm 0.5^{\circ}\text{C}$ Time 99:99:99 s 40 to 98% RH, L.C. 0.1%RH Accuracy: $\pm 2\%$ RH Chamber inner size: 600X500X500 mm Volume: 0.15 m ³
		Low Temperature Test	MIL-STD 810G: 2014 Method 502.6 (Procedure I & II) JSS-55555:2000 Rev 2 QM 333 MARCH 2010	-70 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$, L.C: 0.01 $^{\circ}\text{C}$, Temp. Accuracy: $\pm 0.5^{\circ}\text{C}$ Time 99:99:99 s 40 to 98% RH, L.C=0.1%RH, RH Accuracy: $\pm 2\%$ Chamber inner size: 600X500X500 mm Volume: 0.15 m ³
		Cold Test	IS 9000 (Part 2):2016 IEC 60068-2-1:2007 JSS 50101:2012 REV 1	-70 $^{\circ}\text{C}$ to 15 $^{\circ}\text{C}$, L.C: 0.01 $^{\circ}\text{C}$, Temp. Accuracy: $\pm 0.5^{\circ}\text{C}$ Time 99:99:99 s 40 to 98% RH, L.C. 0.1%RH,

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				Accuracy: ±2%RH Chamber inner size: 600X500X500 mm Volume:0.15 m ³
		Altitude Test (Restricted to simulation of low pressure only without variation of temperature & humidity)	MIL-STD 810G: 2014 Method 500.6 (Procedure I & II) QM 333 MARCH 2010 IS 9000 part13:2016	0 to 100 kPa, L.C: 0.1 kPa, Time 99:99:99 s, Chamber inner size: 600X600X00 mm Volume:0.15 m ³
		Damp Heat Test (Steady State)	IS 9000 (Part 4): 2015 IEC 60068-2-78: 2012 JSS 50101:2012 REV 1 JSS-55555:2000 Rev 2 QM 333 MARCH 2010	+10°C to 150°C, L.C: 0.01°C, Temp. Accuracy: ±0.5°C Time 99:99:99 s 40 to 98% RH, L.C. 0.1%RH, Accuracy: ±2%RH Chamber inner size: 600X500X500 mm Volume: 0.15 m ³
		Damp Heat Test (Cycle)	IS 9000 (Part 5): 2016 IEC 60068-2-30: 2005 JSS 50101: 2012 REV 1 JSS-55555:2000 Rev 2 QM 333 MARCH 2010 IEC 60571:2012	-70°C to 80°C, L.C: 0.01°C, Temp. Accuracy: ±0.5°C Time 99:99:99 s 40 to 98% RH ±2%RH, L.C. 0.1%RH, Accuracy: ±2%RH Chamber inner size: 600X500X500 mm Volume: 0.15 m ³

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		Temperature Cycling/ Change Of Temperature	IS 9000 Part 14/sec 1:2015 IEC 60068-2-14:2009 JSS 50101:2012 REV 1 JSS-55555:2000 Rev 2 QM 333 MARCH 2010 MIL-STD 810G: 2014 Method 501.6 (Procedure I & II)	-70°C to 150°C, L.C: 0.01°C, Temp. Accuracy: ±0.5°C Time 99:99:99 s 40 to 98% RH ±2%RH, L.C. 0.1%RH, Accuracy: ±2%RH Chamber inner size: 600X500X500 mm Volume: 0.15 m ³
		Shock Test	IS 9000 (Part 7/Sec I):2016 IEC 60068-2-27:2008 JSS 50101:2012 REV 1 JSS-55555:2000 Rev 2	Peak Acceleration 150 to 20000 m/s ² , Drop height 1500mm, acc. Pulse duration 0.6 ms to 12ms, Table size 200mmX200mm
		Degree Of Protections against water	IS/ IEC 60529:2001 IS 12063: 1987	IP X5 & IP X6 (Cat. II)
		Constant Acceleration	IEC 60068-2-7:1983/ Amd 1:1986 JSS 50101:1996 REV 1	Peak Acceleration 150 to 20000m/s ²
		Vibration Test Sinusoidal (Vibration Integrity)	IS 9000 (Part 8):2015 IEC 60068-2-6:2007 JSS 50101:2012 REV 1 JSS-55555:2000 Rev 2 QM 333 MARCH 2010 IEC 60571:2012 IEC 60068-2-64:1993 MIL-STD 810G: 2014 Method 514.7 (Category 24)	300 kgf, displacement 0.5mm to 25mm, frequency: 5 to 2000Hz, Acceleration 50g, Shaker bench size 400 mmX400 mm

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		Transit Drop Topple & Free Fall	IS 9000 (Part 7/Sec III &IV): 2016, MIL-STD 810G: 2014 Method 516.7 Procedure IV JSS-55555:2000 Rev 2	Drop height 25 mm to 1500 mm Test Bed size 590 mmX370 mm
2.	Mobile Phone Handsets Indian Language support for Mobile Phones	Inputting and display of all the characters in English, Hindi and additional (third) Indian official language	IS 16333 (Part 3): 2016 , CI 5.1	Qualitative
		Message Readability (22 Indian official languages)	IS 16333 (Part 3): 2016 CI 5.2	Qualitative
3.	Household Electrical Appliances- Measurement Of standby Power (Laptop/ Notebook Computers, Scanners, Printers, copiers, Fax Machine and Multi Function Devices)	Average Reading Method	IEC 62301 (2 nd Edition): 2011 CI.5.3.3	0.2 W to 5000 W 10 Hz to 50 Hz 0.15 V to 600 V 1 mA to 20 A 0.01 s to 99.59 minute
4.	Audio Video and related Equipment e.g. (Television)	Measuring conditions for television sets on average mode.	IEC 62087(3 rd Edition): 2011, CI.11	0.2 W to 5000 W 10 Hz to 50 Hz 0.15 V to 600 V 1 mA to 20 A 0.01 s to 99.59 minute

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