

Laboratory **Total Testing Centre Private Limited, L-83, Sector 1, DSIIIDC Industrial Area Bawana, Delhi**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6690**

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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.	<b>LAMPS, LUMINAIRES AND ACCESSORIES</b>			
1.	<b>D.C. or A.C. supplied electronic control gear for LED module</b>	Verification of Classification	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012, Cl. 6	Qualitative
		Verification of Marking	IS 15885(Part 1):2011/ IS 15885 :P2/Sec13: 2012, Cl. 7	Qualitative
		Protection against accidental contact with live parts	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012, Cl. 8	0.1V to 75V
		Terminals	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 9	Qualitative
		Provisions for Protecting Earthing	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 10	0.1A to 50A 0.01V to 19.99V
		Moisture Resistance and Insulation	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 11	Upto 100.0°C 20 % RH to 100% RH Upto 2GΩ
		Electric Strength	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 12	Upto 5kV
		Thermal Endurance test for windings of Ballasts	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 13	Upto 400°C
		Fault Conditions	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 14	Upto 1000V
		Transformer Heating	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 15	Upto 400°C

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		Verification of Construction	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 16	Qualitative
		Creepage distances and clearances	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 17	0.05 mm to 1 mm 0.01 mm to 200mm
		Screw current carrying parts and connections	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 18	0.1Nm to 10Nm
		Resistance to corrosion	IS 15885(Part 1):2011/ IS 15885 :Part 2/Sec13: 2012,Cl. 20	Qualitative
2.	<b>Self-ballasted LED lamps for General Lighting Services</b>	Verification of Marking	IS 16102(Part 1):2012,Cl.5	Qualitative
		Interchangeability	IS 16102(Part 1):2012,Cl.6	Qualitative
		Protection against Accidental Contact with live part	IS 16102(Part 1): 2012,Cl.7	40V to75V
		Insulation Resistance and Electric Strength after humidity treatment	IS 16102(Part 1):2012,Cl.8	1 MΩ to 2000MΩ at 500V <sub>dc</sub>
		Mechanical Strength	IS 16102(Part 1):2012,Cl.9	0.01 Nm to10 Nm
		Cap temperature rise	IS 16102(Part 1):2012, Cl.10	0.1 °C to 400°C
		Resistance to Heat	IS 16102(Part 1):2012, Cl.11	1°C to 400°C
		Resistance to flame and ignition	IS 16102(Part 1):2012, Cl.12	1°C to 1350°C
		Fault Condition	IS 16102(Part 1):2012, Cl.13	1V to 700V 1 MΩ to 2000MΩ at 1000V <sub>dc</sub>
		Creepage distance	IS 16102(Part 1):2012, Cl.14	0.1mm to 200mm

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3.	Fixed General Purpose Luminaires, Recessed Luminaires, Luminaires for Road & Street Lighting, Portable General Purpose Luminaires, Flood- Light Luminaires, Hand Lamps Lighting Chains, Emergency Lighting	Verification of Marking	IS 10322 (Part 5/Sec-1): 2012 IS 10322 (Part 5/Sec 2): 2012 IS 10322 (Part 5/Sec-3): 2012 IS 10322 (Part 5/Sec-5): 2013 IS 10322 (Part 5/Sec-6): 2013 IS 10322 (Part 5/Sec-7): 2013 IS 10322 (Part 5/Sec-8): 2013, Cl.6 IS 10322 (Part 5/Sec-4): 1987, Cl. 5	Qualitative
		Verification of Construction	IS 10322 (Part 5/Sec-1): 2012 IS 10322 (Part 5/Sec 2): 2012 IS 10322 (Part 5/Sec-6): 2013 IS 10322 (Part 5/Sec-7): 2013 IS 10322 (Part 5/Sec-8): 2013, Cl.7 IS 10322 (Part 5/Sec-4): 1987, Cl.6 IS: 10322 Part-1: 2014 Cl. 4.1 to Cl.4.8, Cl.4.10, Cl.4.11.1 to Cl.4.11.5, Cl.4.12, Cl.4.13.1 to Cl.4.13.3, Cl.4.13.5 & 6, Cl.4.14.1 & 2, Cl.4.14.4 to Cl.4.14.6, Cl.4.15 to	Qualitative 0.1kV to 5kV 0.01Nm to 10Nm 0.5mm to 200mm 0.35Nm, 50N

**Nand Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

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		Terminals	Cl.4.17, Cl.4.18.1 & 3, Cl.4.19 to Cl.4.23, Cl.4.25 IS 10322 (Part 5/Sec-1): 2012 IS 10322 (Part 5/Sec 2): 2012 IS 10322 (Part 5/Sec-3): 2012 IS 10322 (Part 5/Sec-5): 2013 IS 10322 (Part 5/Sec-6): 2013 IS 10322 (Part 5/Sec-7): 2013 IS 10322 (Part 5/Sec-8): 2013, Cl.10 IS 10322 (Part 5/Sec-4): 1987, Cl.9	0.01Nm to 1.2 Nm 0.1Nm to 6Nm
		External & Internal Wiring	IS 10322 (Part 5/Sec-1): 2012	Qualitative
		Provision for Earthing	IS 10322 (Part 5/Sec 2): 2012	Qualitative
		Creepage distances and Clearances	IS 10322 (Part 5/Sec-3): 2012	0.05mm to 1mm 0.01 mm to 200mm
		Protection against electric shock	IS 10322 (Part 5/Sec-5): 2013	40V to 75V
		Endurance test & Thermal Test	IS 10322 (Part 5/Sec-6): 2013 IS 10322 (Part 5/Sec-7): 2013	1V to 300V 25°C to 200°C 1°C to 200°C 1h to 200h
		Insulation Resistance & Electric Strength	IS 10322 (Part 5/Sec-8): 2013, Cl.11, 9, 8, 12, 13 & 15 IS 10322 (Part 5/Sec-4): 1987, Cl.10, 8, 7, 11, 13.4 & 13.6	0.01MΩ to 2000 MΩ 0.1kV to 5kV

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4.	<b>Emergency Lighting</b>	Functional Safety	IS 10322(Part 5/Sec8): 2013,Cl.17.1,17.2	1s to 200s 0.001A to 10A 0.1V to 18V
		Changeover Operation	IS 10322(Part 5/Sec8): 2013,Cl. 18	1s to 200s 0.001A to 10A 0.1V to 18V
		High Temperature Operation	IS 10322(Part 5/Sec8): 2013 ,Cl. 19	20°C to 199.9 °C
		Battery Charger for Self-Contained Emergency Luminaries	IS 10322(Part 5/Sec8): 2013,Cl. 20	20°C to 199.9°C 0.001A to 10A 0.1V to 18V
		Test Devices for Emergency Operation	IS 10322(Part 5/Sec8): 2013 ,Cl. 21	0.001A to 10A 0.1V to 18V
		Rest Model and Inhibition Model Facilities	IS 10322(Part 5/Sec8): 2013 ,Cl. 22	Qualitative
<b>II.</b>	<b>DOMESTIC ELECTRICAL APPLIANCES</b>			
1.	<b>Microwave Oven</b>	Verification of Marking and Instructions	IS 302-2-25:2014 IS 302-1:2008,,Cl. 7	Qualitative
		Protection Against access to live parts	IS 302-2-25:2014 IS 302-1:2008,Cl. 8	40V to 75V Upto 75 N
		Power input and Current	IS 302-2-25:2014 IS 302-1:2008,Cl. 10	Upto 12.0 kW
		Heating	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 11	Upto 400°C
		Leakage current and electric strength at operating temperature	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 13	Upto 1999µA Upto 199.9mA Upto 5kV Upto 200mA
		Moisture Resistance	IS 302-2-25:2014 IS 302-1:2008,Cl. 15	20°C to 80°C 20% RH to 99% RH

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		Overload Protection of transformers and associated circuits	IS 302-2-25:2014 IS 302-1:2008, Cl. 17	Upto 400°C Upto 300V Upto 30A Upto 7.5kW
		Endurance	IS 302-2-25:2014 IS 302-1:2008, Cl. 18	Upto 7.50kW, Upto 9999 Hrs Upto 100000 cycles
		Abnormal Operation	IS 302-2-25:2014 IS 302-1:2008, Cl. 19	Upto 400°C
		Stability and Mechanical Hazards	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 20	Upto 20° 22.5kg, 7kg, 3.5kg
		Mechanical Strength	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 21	0to 9999 Counts 10g to 20 kg,0 to 200 mm, 0to 25mm Up to 6.0Nm & 1.0 Nm for
		Verification of Construction	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 22	Upto 19.99mW/cm <sup>2</sup>
		Internal Wiring	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 23	Qualitative
		Components	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 24	Qualitative
		Supply Connection And External Flexible Cords	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 25	Upto 99999 Counts
		Terminal For External Conductor	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 26	Upto 6Nm 0.01 mm to 200mm
		Provision For Earthing	IS 302-2-25:2014 IS 302-1:2008, Cl. 27	Upto 19.99V Upto 50A
		Screws and Connections	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 28	Upto 6Nm
		Clearances, Creepage distance and Solid insulation	IS 302-2-25:2014 IS 302-1:2008, Cl. 29	0.05mm to 1mm 0.01 mm to 200mm

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		Resistance to heat, Fire	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 30	Upto 1350°C
		Resistance to Rusting	IS 302-2-25:2014 IS 302-1:2008 ,Cl. 31	Upto 400°C Upto 100°C 20% RH to 99% RH
		Radiation and similar Hazards	IS 302-2-25:2014 IS 302-1:2008,Cl. 32	Upto 19.99 mW/cm <sup>2</sup>
<b>III.</b>	<b>BATTERIES</b>			
<b>1.</b>	<b>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</b>	Parameter measurement tolerances	IS 16046:2015 IEC 62133:2012,Cl.4	Qualitative
		General safety consideration	IS 16046:2015 IEC 62133:2012,Cl.5	Qualitative
		Type Test condition	IS 16046:2015 IEC 62133:2012,Cl. 6	Qualitative
		Charging (Nickel system)	IS 16046:2015 IEC 62133:2012,Cl. 7.1	0.0001 V to 5V 0.0001 A to 6A
		Continuous low rate charging (cells) (Nickel system)	IS 16046:2015 IEC 62133:2012,Cl. 7.2.1	0.0001 V to 5V 0.0001 A to 6A
		Vibration (Nickel system)	IS 16046:2015 IEC 62133:2012,Cl. 7.2.2	Frequency range: Upto 3200Hz, Acceleration 75g, Velocity 700mm/sec, Displacement (p-p): 38mm
		Moulded case stress at high ambient temperature (batteries) (Nickel system)	IS 16046:2015 IEC 62133:2012,Cl. 7.2.3	Upto 99.9°C

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		Temperature cycling (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.2.4	(-)40°C to 100°C
		Incorrect installation (cells) (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.1	1°C to 400°C 1Ω
		External short circuit (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.2	Upto 99.9°C Upto 20Ω 1to 400°C
		Free fall (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.3	1m
		Mechanical Shock (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.4	Upto 200g <sub>n</sub>
		Thermal abuse (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.5	Upto 199.9°C
		Crushing of cells (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.6	1 kN to 20 kN 0.1 V to 199.9V 150mm
		Low Pressure (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.7	1 bar Upto 100°C
		Overcharge (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.8	0.0001 V to 5V 0.0001 A to 6A
		Forced discharge (cells) (Nickel system)	IS 16046:2015 IEC 62133:2012, Cl. 7.3.9	0.01 V to 30V 0.01 A to 20A 120V, 30A
		Charging (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.1	0.01 A to 20A 0.1 V to 32V
		Continuous charging at constant voltage (cells) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.2.1	0.0001 V to 5V 0.0001 A to 6A
		Moulded case stress at high ambient temperature (battery) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.2.2	Upto 99.9°C



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		External short circuit (cell) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.1	Upto 400°C Upto 20Ω
		External short circuit (battery) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.2	Upto 99.9°C 1°C to 600°C
		Free fall (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.3	Qualitative (1m)
		Thermal abuse (cells) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.4	Upto 199.9°C
		Crush (cells) (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.5	1 kN to 20kN 0.1V to 199.9V 150mm
		Over-charging of battery (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.6	0.01V to 30V 0.01A to 20A 1°C to 400°C
		Forced discharge (Lithium system)	IS 16046:2015 IEC 62133:2012, Cl. 8.3.7	0.01V to 30V 0.01A to 20A 120V, 30A, 150W
		Verification of Information for safety	IS 16046:2015 IEC 62133:2012, Cl. 9	Qualitative
		Verification of Marking	IS 16046:2015 IEC 62133:2012, Cl. 10	Qualitative
		Verification of Packaging	IS 16046:2015 IEC 62133:2012, Cl. 11	Qualitative

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<b><u>ELECTRONICS TESTING</u></b>				
<b>I. DOMESTIC ELECTRONIC APPLIANCES &amp; ACCESSORIES</b>				
1.	<b>Audio-Video, Electronics Apparatus</b>	Verification of Marking and Instructions	IS 616:2017 IEC 60065:2014 ,Cl.5	Qualitative
		Heating under Normal Operating Condition	IS 616:2017 IEC 60065:2014 ,Cl.7.1	Upto 400°C 0.001MΩ to 11.11x10 <sup>6</sup> MΩ
		Protection against electric shock	IS 616:2017 IEC 60065:2014 ,Cl. 8.1 to 16 & Cl.8.19 to 21	Upto 100°C 20% RH to 99% RH 0.01mm to 200 mm 10Hz to 55Hz 0.35 mm
		Electric Shock Hazards under normal operating Conditions	IS 616:2017 IEC 60065:2014 ,Cl. 9	40 V to 75 V Upto 75N 0.01 V <sub>ac/dc</sub> to 1000V <sub>ac/dc</sub> 1μA to 20 mA Upto 5kV <sub>ac/dc</sub>
		Insulation Resistance and Dielectric Strength After humidity treatment	IS 616:2017 IEC 60065:2014 ,Cl.10.1, 10.3 & 10.4	0.015kV <sub>ac/dc</sub> to 5kV <sub>ac/dc</sub> 100kΩ to 2GΩ Upto 100°C 20% RH to 99% RH
		Fault Condition	IS 616:2017 IEC 60065:2014 ,Cl. 11	Upto 400°C Upto 300 V
		Mechanical Strength	IS 616:2017/ IEC 60065:2014, Cl.12.1 & 2, Cl.12.4 to 7	10g to 20kg 0.01 mm to 200 mm Upto 6.0Nm Torque & 1.0 Nm for 10Hz to 55Hz to 10Hz 0.35mm, Upto 199.9°C
		Clearances and Creepage Distances	IS 616:2017 IEC 60065:2014,Cl. 13.1& 2, Cl.13.3.1 to 3,Cl.13.4, Cl.13.6 & 7	0.05 mm to 1mm 0.01 mm to 200mm

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		Components	IS 616:2017 IEC 60065:2014 ,Cl.14.8 to11	0.01 <sub>ac/dc</sub> to 100V <sub>ac/dc</sub> 1µA to 10A
		Terminals	IS 616:2017 IEC 60065:2014,Cl. 15.2 to 4	Upto 6Nm 0.01 mm to 200mm
		External flexible Cords	IS 616:2017 IEC 60065:2014 ,Cl. 16.1 & 2, Cl.16.4 to 7	0.001 mm to 25 mm 0.01 mm o 200 mm
		Electrical Connection and Mechanical Fixings	IS 616:2017 IEC 60065:2014 ,Cl. 17	Upto 6Nm
		Stability and Mechanical Hazards	IS 616:2017 IEC 60065:2014,Cl. 19	Upto 20° Upto 250 N
<b>II.</b>	<b>IT EQUIPMENT</b>			
<b>1.</b>	<b>Information technology equipment including electrical business equipment</b>	Components	IS 13252:2010+A1+A2 IEC 60950-1:2005,Cl. 1.5.1& 2, Cl.1.5.4&5, Cl. 1.5.8, Cl.1.5.9.2 to 5	Qualitative
		Power Interface	IS 13252:2010+A1+A2 IEC 60950-1:2005,Cl.1.6	AC: 0.05 V to 500V DC: 0.01 V to 300V AC: 0.001 A to 20A DC: 0.001 A to 5A 0.1 W to 2000 W
		Verification of Markings and Instructions	IS 13252:2010+A1+A2 IEC 60950-1:2005,Cl. 1.7	Qualitative
		Protection from Electric shock and Energy Hazards	IS 13252:2010+A1+A2 IEC 60950-1:2005,Cl. 2.1	40 V to 75 V Upto 75 N 0.01kV <sub>ac/dc</sub> to 5 kV <sub>ac/dc</sub> 100kΩ to 2GΩ 0.05mm to 1mm 0.01 mm to 200mm

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		SELV Circuits	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.2	0.01 V to 1000V 0.001 A to 10A
		TNV Circuits	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.3.1 to 4	0.01 V to 1000V 0.001 A to 10A 0.01kV <sub>ac/dc</sub> to 5 kV <sub>ac/dc</sub>
		Limited Current Circuits	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.4	0.001 A to 10A
		Limited Power Sources	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.5	0.01 V to 1000V 0.001 A to 10A
		Provision for Earthing and Bonding	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.6	Upto 50A 19.99V
		Over-current and earth fault protection in primary circuits	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.7	Qualitative
		Safety interlocks	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.8.1 to 4, Cl.2.8.6, Cl.2.8.8	0.05 mm to 1 mm 0.01 mm to 200 mm
		Electrical Insulation	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 2.9	Upto 100°C 20% RH to 99% RH Upto 5 kV
		Clearances, Creepage distances and distances through insulation	IS 13252:2010+A1+A2 IEC 60950-1:2005 , Cl. 2.10.1 & 2, Cl. 2.10.3.1 to 8, Cl.2.10.4.1, Cl.2.10.4.3, Cl.2.10.5.1 to 3, Cl.2.10.5.5 & 6, Cl.2.10.5.9 to 11, Cl.2.10.5.13 & 14, Cl.2.10.6.1, Cl.2.10.6.3 & 4	0.05 mm to 1 mm 0.01mm to 200 mm 0.01 kV to 10kV 0.01kV <sub>ac/dc</sub> to 5 kV <sub>ac/dc</sub> Upto 100°C, 20% RH to 99% RH
		Wiring Connection and Supply	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 3.1	Qualitative
		Connections to mains supply	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 3.2.1 to 3, Cl.3.2.6 to 9	0.01V <sub>ac/dc</sub> to 100V <sub>ac/dc</sub> 0.01 mm to 200 mm 0.01kV <sub>ac/dc</sub> to 5 kV <sub>ac/dc</sub> Upto 100 N

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		Wiring Terminals for external conductors	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 3.3	Upto 400°C 0.001 mm to 25 mm 0.01 mm to 200 mm
		Disconnections from the Mains Supply	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 3.4	Qualitative
		Interconnection of equipment	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 3.5	Qualitative
		Stability	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.1	Upto 20° Upto 1000N
		Mechanical Strength	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.2.1 to 4.2.7, Cl.4.2.10	Upto 250 N Upto 1000 N
		Verification of Design and construction	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.3.1 to 7	0.01V <sub>ac/dc</sub> to 100V <sub>ac/dc</sub> 1µA to 10A
		Protection against hazardous moving parts	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.4 (Except Wedge probe test of Annex –EE, As per amendment No.1	Upto 100 N
		Thermal Requirements	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.5	Upto 199.9°C Upto 400°C 10 mΩ to 1 MΩ 20 N Ball dia: 5 mm
		Opening in Enclosure	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.6.1, Cl.4.6.3 to 5	(-)50°C to 100°C 0.01 mm to 200 mm
		Resistance to fire	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 4.7.1 & 2, Cl.4.7.3.1 to 5,	Upto 1350°C Upto 500 V <sub>ac</sub> 9.5 mm 1ms to 99.99 minutes
		Electrical requirements and simulated abnormal conditions	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 5.1	1µA to 20 mA

**Nand Kumar**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory **Total Testing Centre Private Limited, L-83, Sector 1, DSIIIDC Industrial Area Bawana, Delhi**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6690**

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Validity **03.01.2018 to 02.01.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Touch current and protective conductor current		
		Electric Strength	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 5.2	0.01 kV <sub>ac/dc</sub> to 5 kV <sub>ac/dc</sub>
		Abnormal operating and fault conditions	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 5.3	Upto 400°C 10mΩ to 1MΩ 1μA to 20 mA
		Connections to telecommunication network	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 6.1, Cl. 6.3	0.01kV <sub>ac/dc</sub> to 5kV <sub>ac/dc</sub> 100kΩ to 2GΩ
		Connection to Cable Distribution Systems	IS 13252:2010+A1+A2 IEC 60950-1:2005, Cl. 7.1 to 3, Cl.7.4.1	0.01kV <sub>ac/dc</sub> to 5kV <sub>ac/dc</sub> 0.01 kV to 10 kV
<b>III.</b>	<b>ELECTRONIC COMPONENTS &amp; EQUIPMENT SUB ASSEMBLIES</b>			
<b>1.</b>	<b>Mobile Phone Handsets</b>	Inputting and Readability test	IS 16333 (Part-3):2016 IS 16350:2016, Cl.5.2 & Cl. 5.6	Qualitative
		Verification of Marking	IS 16333 (Part-3):2016 IS 16350:2016 , Cl. 6.0	Qualitative