Laboratory	**Institute of Testing and Certification (India) Pvt. Ltd., 146, JLPL Industrial Area, Sector-82, Mohali, Punjab**		
Accreditation Standard	**ISO/IEC 17025: 2017**		
Certificate Number	**TC-6601**	**Page 1 of 55**	
Validity	**22.04.2019 to 28.11.2019**	**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

ELECTRICAL TESTING

I.	**DOMESTIC ELECTRICAL APPLIANCES**			
1.	**Electric Iron, Washing Machine, Warming plates, Electric Kitchen Machines, Refrigerators, Food-Freezers and Ice-Makers Room Heaters, Electric Immersion Water, Heater Electric Stoves, Vacuum Cleaners and Water-Suction Cleaning Appliances, Milking Machines**	Classification	IEC 60335-1: 2013 (Cl.6) IS:302-1: 2008 (Cl.6) IS 302-2-3: 2007 (Cl.6) IS 302-2-7:2010 (Cl.6) IS 302-2-12: 1993 (Cl.6) IS 302-2-14: 2009 (Cl.6) IS 302-2-24: 1994 (Cl.6) IS 302-2-30: 2007 (Cl.6) IS 302-2-201:2008 (Cl.6) IS 302-2-202:1992 (Cl.6) EN 60335-1:2010 (Cl.6) IS 4250:1980 (Cl.6) IEC/EN 60335-2-3: Ed.6.1: 2015-07 Cl. 6, IEC/EN 60335-2-7:Ed.7.2:2016-04 Cl.6, IEC/EN 60335-2-12: Ed 5.1: 2008-07 Cl.6 IEC/EN 60335-2-14: Ed 6.0: 2016-06 Cl.6 IEC/EN 60335-2-24: Ed 7.1: 2012-05 Cl.6 IEC/EN 60335-2-30: Ed.5.1: 2016-11 Cl.6 IEC/EN 60335-2-76: Ed.2.2: 2013 IS 302-2-76:2009 Cl.6 IEC/EN 60335-2-89: Ed.2.1: 2012-07 Cl.6 IEC/EN 60335-2-95:Ed 3.1: 2015-01 (Cl.6)	Qualitative 0.1 kV to 5 kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Verification of Marking & Instruction	IS 302-1: 2008 IEC 60335-1: Ed.5.1: 2013-12 (Cl.7) IS 302-1: 2008 (Cl.7) IS 4250: 1980 (Cl.7) IEC 60335-2-89:Ed.2.1: 2010+A1:2012 (Cl.7)	Qualitative
		Protection Against Electric Shocks	IS 302-1:2008 (Cl.8) IEC 60335-1: Ed.5.1 2013-12) (Cl.8) IS 4250:1980 (Cl.8) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.8)	10 V to 65 V
		Power input Current	IS 302-1: 2008 (Cl.10) IEC 60335-1: Ed.5.1 2013-12 (Cl.10) IS 4250: 1980 (Cl.10) IEC 60335-2-89: Ed.2.1: 2010+A1: 2012 (Cl.10)	10 V to 300 V AC (at 50 Hz) 0.01 A to 19 A
		Heating Temperature Rise	IS 302-1:2008 (Cl.11) IEC 60335-1: Ed.5.1 :2013-12 (Cl.11) IS 4250:1980 (Cl.11) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.11)	0.1 °C to 550 °C
		Leakage Current and electric strength at operating temperature	IS 302-1:2008 (Cl.13) IEC 60335-1: Ed.5.1 :2013-12 (Cl.13) IS 4250:1980 (Cl.13) &IEC 60335-2-89: Ed.2.1 : 2010+A1:2012 (Cl.13)	0.1 kV to 5 kV 50 µA to 19 mA
		Transient over voltages	IS 302-1:2008 (Cl. 14) IEC 60335-1: Ed.5.1: 2013-12 (Cl. 14) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl. 14)	1 kV to10 kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Moisture Resistance	IS 302-1:2008 (Cl.15) IEC 60335-1: Ed.5.12013-12 (Cl.15) IS 4250:1980 (Cl.15) IEC 60335-2-89: Ed.2.1:2010+A1:2012 (Cl.15)	20 LPM to 120 LPM 20 °C to 30 °C 10 % to 95 % R.H 2100 mm X 1500 mm X 1950 mm
		Leakage current Electric strength & Insulation	IS 302-1:2008 (Cl.16) IEC 60335-1: Ed.5.12013-12 (Cl.16) IEC 60335-2-89: Ed.2.1:2010+A1:2012 (Cl.16) IS 4250:1980 (Cl.16)	0.1 kV to 5 kV 50 µA to 19 mA
		Overload protection of transformers and associated circuits	IS 302-1:2008 (Cl.17) IEC 60335-1: Ed.5.12013-12 (Cl.17) IS 4250:1980 (Cl.17) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.17)	10 V to 300 V_{ac} at 50 Hz 0.01 A to 19 A (-) 50 °C to 540 °C
		Endurance	IS 302-1:2008 (Cl.18) IEC 60335-1: Ed.5.12013-12 (Cl.18) IS 4250:1980 (Cl.18) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.18)	10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A
		Abnormal Operation	IS 302-1:2008 (Cl.19) IEC 60335-1: Ed.5.12013-12 (Cl.19) IS 4250:1980 (Cl.19) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.19)	10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A (-) 50 °C to 540 °C
		Stability & Mechanical Hazards	IS 302-1:2008 (Cl. 20) IEC 60335-1: Ed.5.1 2013-12 (Cl. 20)	Angle measuring device: 1°-80°

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS 4250:1980 (Cl. 20) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl. 20)	
		Mechanical strength	IS 302-1:2008 (Cl. 21) IEC 60335-1: Ed.5.1 2013-12 (Cl. 21) IS 4250:1980 (Cl. 21) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl. 21)	0.5 J 10 N to 50 N 0.1 kV to 5 kV
		Verification of Construction	IS 302-1:2008 (Cl.22) IEC 60335-1: Ed.5.1 2013-12 (Cl.22) IS 4250:1980 (Cl.22) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.22)	10 N to 50 N 1 Nm to 4 Nm
		Supply connection and external flexible cords	IS 302-1:2008 (Cl.25) IEC 60335-1: Ed.5.1 2013-12 (Cl.25) IS 4250:1980 (Cl.25) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.25)	0.1 kV to 5 kV
		Terminals for external conductors	IS 302-1:2008 (Cl.26) IEC 60335-1: Ed.5.12013-12 (Cl.26) IS 4250:1980 (Cl.26) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.26)	5 N to 50 N
		Provision for Earthing	IS 302-1:2008 (Cl.27) IEC 60335-1: Ed.5.1 2013-12 (Cl.27) IS 4250:1980 (Cl.27) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.27)	1 A to 30 A 1 V to 19 V
		Screws and connections	IS 302-1:2008 (Cl.28) IEC 60335-1:Ed.5.12013-	0.2 Nm to 2.5 Nm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			12 (Cl.28) IS 4250:1980 (Cl.28) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.28)	
		Creepage & Clearance	IS 302-1:2008 (Cl.29) IEC 60335-1: Ed.5.1 2013-12 (Cl.29) IS 4250:1980 (Cl.29) IEC 60335-2-89: Ed.2.1: 2010+A1:2012 (Cl.29)	1 mm to 200 mm
		Resistance to Heat & Fire - Needle Flame Apparatus - Ball Pressure Apparatus	IS 302-1: 2008 (Cl.30) IEC 60335-1: Ed.5.1 2013-12 (Cl.30) IS 4250: 1980 Cl. 30 IEC 60335-2-89: Ed.2.1: 2010+A1: 2012 Cl. 30	50 °C to 1000 °C 50 °C to 250 °C 1 mm to 200 mm
		Resistance to rusting	IS 302-1:2008 Cl. 31 IEC 60335-1: Ed.5.12013-12 Cl. 31 IS 4250:1980 Cl. 31 IEC 60335-2-89: Ed.2.1: 2010+A1:2012 Cl. 31	Qualitative
		Operational tests - Seive	IS 4250:1980 Cl. 34	710 µm 500 µm 355 µm 1.40 mm 1 mm 500 µm 0.25 mm Upto 30 kg
		Temperature withstand for bowl	IS 4250:1980 Cl. 35	(-) 50 °C to 540 °C
		Verification of Controls	IS 4250:1980 Cl. 36	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
II.	**SAFETY TESTING FACILITY**			
1.	**Machinery Control Panels, Metalworking Machinery, Food Machinery, Plastic and Rubber Machinery, Printing Paper and Board Machinery**	Incoming supply conductor terminations and devices for disconnecting and switching off	IEC 60204-1 Ed.6.0: 2016-10 Cl. 5 IEC 60204-31:Ed.4.0:2013-04 Cl. 5 EN 60204-1:2009 Cl. 5 IEC/EN 60204-32 Ed.2.0:2008-03 Cl. 5 IEC/EN 60204-11 Ed1:2000-07 Cl. 5	1 mm to 200 mm
		Protection against electric shock	IEC 60204-1 Ed.6.0: 2016-10) Cl. 6	Qualitative 10 V to 65 V
		Protection of equipment	IEC 60204-1: Ed.6.0: 2016-10 Cl. 7	Qualitative
		Phase sequence protection	IEC 60204-1: Ed.6.0: 2016-10 Cl. 7	Qualitative
		Equipotential Bonding	IEC 60204-1: Ed.6.0: 2016-10 Cl. 8	Qualitative
		Control circuits and control functions	IEC 60204-1: Ed.6.0: 2016-10 Cl. 9	Qualitative
		Operator interface and machine mounted control devices	IEC 60204-1: Ed.6.0: 2016-10 Cl. 10	Qualitative
		Conductors and cables	IEC 60204-1: Ed.6.0: 2016-10) Cl. 12	Qualitative 1 mm to 200mm
		Verification of Wiring	IEC 60204-1: Ed.6.0: 2016-10) Cl. 13	Qualitative
		Electric motors and associated equipment	IEC 60204-1: Ed.6.0: 2016-10) Cl. 14	Qualitative 1 mm to 200mm
		Protection by automatic disconnection of Supply	IEC 60204-1: Ed.6.0: 2016-10) Cl. 15	Qualitative
		Accessories and lighting	IEC 60204-1: Ed.6.0: 2016-10) Cl. 15	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Verification of Marking	IEC 60204-1: Ed.6.0: 2016-10) Cl. 16	Qualitative
		Technical documentation Verification	IEC 60204-1: Ed.6.0: 2016-10) Cl. 17 IEC 60204-1: Ed.6.0: 2016-10 Cl. 18	Qualitative 0.1 kV - 5 kV 150 KΩ to 450 GΩ at 500 V 1 A to 30 A, 1 V to 19 V
2.	**Instruments for Measurement and laboratory use, Electrical control equipment, Electrical microscopes, Power supply, Auto transformer Electrical laboratory equipment, Signal generators, Transducers,Transmitters**	Single Fault condition	IEC 61010-1 Ed.3: 2010-06) Cl. 4.4	Qualitative
		Verification of Marking and documentation	IEC 61010-1 Ed.3: 2010-06) Cl. 5.1	Qualitative
		Durability of Markings	(Cl 5.3) IEC 61010-1 Ed.3: 2010-06) Cl. 5.3	Qualitative
		Protection against electric shock	IEC 61010-1 Ed.3: 2010-06 Cl. 6	Qualitative 10 V to 65 V
		Determination of Accessible Parts	IEC 61010-1 Ed.3: 2010-06) Cl. 6.2	Qualitative 10 V to 65 V
		Protective Bonding	IEC 61010-1 Ed.3: 2010-06 Cl. 6.5.2	1 A to 30 A 1 V to 19 V
		Insulation requirements	IEC 61010-1 Ed.3: 2010-06 Cl. 6.7	Qualitative 10 V to 600 V at 50 Hz 0.1 kV to 5 kV
		Voltage Dielectric strength Insulation Resistance	IEC 61010-1 Ed.3: 2010-06) Cl. 6.8 Table H.1 under Annexure H	(-) 40 °C to 180 °C 30% to 95% R.H 0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V
		Protection against mechanical hazards	IEC 61010-1 Ed.3: 2010-06 Cl. 7	Qualitative
		Resistance to mechanical stress	IEC 61010-1 Ed.3: 2010-06 Cl. 8	Qualitative
		Drop - Wooden Studs	IEC 61010-1 Ed.3: 2010-06 Cl. 8.3	10 mm & 20 mm
		Protection against the spread of fire	IEC 61010-1 Ed.3: 2010-06 Cl. 9	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Equipment temperature limits and Resistance to heat	IEC 61010-1 Ed.3: 2010-06 Cl. 10	50 ºC to 250 ºC 1 mm to 200 mm
		Clearance & creepage distances	IEC 61010-1 Ed.3: 2010-06 Cl. 10.5.1	1 mm to 200 mm
		Protection against hazards from fluids	IEC 61010-1 Ed.3: 2010-06 Cl. 11	20 LPM to 120 LPM
		Specially protected equipment	IEC 61010-1 Ed.3: 2010-06 Cl. 11.6	Qualitative
		Motor components and subassemblies	IEC 61010-1 Ed.3: 2010-06 Cl. 14.2	1 kV to 10 kV 10 V to 300 V 0.01 A to 19 A
		Transient overvoltage limiting device	IEC 61010-1 Ed.3: 2010-06 Cl. 14.8	1 kV to 10 kV
		Protection by interlocks	IEC 61010-1 Ed.3: 2010-06 (Cl 15)	Qualitative
		Hazards resulting from application	IEC 61010-1 Ed.3: 2010-06 (Cl 16)	Qualitative
III.	**LAMPS, LUMINAIRES AND ACCESSORIES**			
1.	**General Purpose Luminaires Fixed general-purpose Luminaires, Luminaires for road and street lighting, Portable general purposes Luminaires, Floodlights, Luminaires with built-in**	Classification of Luminaires	IEC 60598-1:Ed.8.0:2014-05 (Sec. 2) IS: 10322-1:2014 (Sec. 2) IEC 60598-2-1:Ed.1:1979 (Sec 1.4) IS 10322 Part 5 sec 1:2012 (Sec 5) IEC 60598-2-2: Ed.3.0: 2011-11 (Sec 2.5) IS 10322 Part 5 sec 2:2012 (Sec 5) IEC 60598-2-3:Ed.3.12011-11 (Sec 3.4)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	transformers for tungsten filaments lamps, Portable Luminaires for garden use, Aquarium Luminaires, Ground recessed Luminaires, Luminaires for stage lighting, television and film studios (outdoor and indoor), Luminaires for swimming-pools applications, Lighting chains, Luminaires for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led modules & Lamp Control gear		IS 10322 Part 5 sec 3:2012 (Sec 5) IEC 60598-2-4:Ed.2:1997-04 (Sec 4.5) IS 10322 Part 5 sec 4:1987 (Sec 4) IEC 60598-2-5:Ed.3.02015-08(Sec 5.4) IS 10322 Part 5 sec 5:2013 (Sec 5)	
		Verification of Marking	IEC 60598-1:Ed.8.0: 2014-05) (Sec. 3) IS 10322-1:2014 (Sec. 3)	Qualitative
		Verification of Construction	IEC 60598-1:Ed.8.0:2014-05) (Sec. 4) IS 10322-1:2014 (Sec. 4)	Qualitative
		External and internal wiring	IEC 60598-1: Ed.8.0:2014-05) (Sec. 5) IS 10322-1:2014) (Sec. 5)	Qualitative
		Provision for earthing	IEC 60598-1: Ed.8.0:2014-05) (Sec. 7) IS 10322-1:2014) (Sec. 7)	1 A to 30 A 1 V to 19 V
		Protection against electric shock	IEC 60598-1: Ed.8.0:2014-05) (Sec. 8) IS 10322-1:2014) (Sec. 8)	Qualitative 10 V to 65 V
		Resistance to dust, solid objects & moisture	IEC 60598-1:Ed.8.0:2014-05) (Sec. 9.2) IS 10322-1:2014) (Sec. 9.2)	20 LPM to 120 LPM
		Humidity	IEC 60598-1:Ed.8.0:2014-05) Cl. 9.3 IS 10322-1:2014 Cl. 9.3	15 °C to 85 °C 20% to 95% R.H
		Insulation resistance and electric strength, touch current and	IEC 60598-1:Ed.8.0:2014-05) (Sec. 10) IS 10322-1:2014 (Sec. 10)	0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		protective conductor current		50 µA to 19 mA
		Creepage Distances & Clearances	IEC 60598-1:Ed.8.0:2014-05 (Sec. 11) IS 10322-1:2014) (Sec. 11)	1 mm to 200mm
		Endurance thermal	IEC 60598-1:Ed.8.0:2014-05) (Sec. 12) IS 10322-1:2014) (Sec. 12)	10 V_{ac} to 300 V_{ac} at 50Hz 0.01 A to 19 A 10 °C to 300 °C
		Resistance to heat, fire and tracking - Glow wire apparatus - Ball pressure apparatus	IEC 60598-1: Ed.8.0: 2014-05) (Sec. 13) IS 10322-1:2014) (Sec. 13)	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 V_{ac} to 600 V_{ac} at 50 Hz
		Screw terminals	IEC 60598-1:Ed.8.0:2014-05 (Sec. 14) IS 10322-1:2014 (Sec. 14)	0.2 Nm to 10 Nm 30 N to 100 N
		Screw less terminals and electrical connections	IEC 60598-1:Ed.8.0: 2014-05 (Sec. 15) IS 10322-1:2014(Sec. 15)	5 N to 50 N
		Verification of Marking	IEC 60968:Ed.3.0:2015-02 Cl.5 IS 15687 Cl.4.2	Qualitative
		Protection against electric shock - Parts which can Become Accidentally Live	IEC 60968:Ed.3.0:2015-02 Cl.7 IS 15687 Cl.7 & Cl.4.6	Qualitative 10 V to 65 V
		Insulation resistance and electric Strength after humidity treatment	IEC 60968: Ed.3.0:2015-02 Cl.8 IS 15687 Cl.4.4 & 4.5 4.10.1	15 °C to 85 °C: 20 % to 95 % R.H 0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V
		Lamp Cap Temperature rise	IEC 60968: Ed.3.0:2015-02 Cl.10, IS 15687 Cl.4.9	(-) 0.1 °C to 540 °C

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Resistance to Heat and Fire, flame and ignition - Glow Wire Apparatus - Ball Pressure Apparatus	IEC 60968: Ed.3.0:2015-02 Cl.11 12 IS 15687 Cl. 4.7	50 °C to 960 °C 50 °C to 250 °C 1 mm to 200 mm
		Creepage Distance for Caps	IEC 60968: Ed.3.0:2015-02 Cl. 14 IS 15687 Cl. 4.8	1 mm to 200 mm
		Verification of Marking	IEC 62560: Ed.1.1 2015-04 Cl. 5 IS 16102-1 Part1: 2012 Cl.5	Qualitative
		Creepage Distances & Clearances	IEC 62560: Ed. 1.1 2015-04 (Cl.14) IS16102-1(Cl.14)	1 mm to 200 mm
		Resistance to heat: fire and tracking - Glow Wire Test Apparatus - Ball Pressure Test Apparatus	IEC 62560: Ed. 1.1 2015-04 (Cl.11 12) IS16102-1(Cl.11 12)	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 V_{ac} to 600 V_{ac} at 50 Hz
		Insulation resistance and electric Strength after humidity treatment	IEC 62560 Ed.1.1 2015-04 Cl. 8 IS 16102-1 Cl. 8	15 °C to 85 °C 20 % to 95 % R.H 0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V
		Cap temperature rise	IEC 62560 Ed. 1.1 2015-04 Cl.10 IS16102-1 Cl.10	0.1 °C to 540 °C
		Protection against accidental contact with live Parts	IEC 62560 Ed. 1.1 2015-04 Cl.7 IS16102-1 Cl.7	Qualitative 10 V to 65 V
		Verification of Marking	IEC 62031:Ed 1.2:2014-09 Cl.7 IS 16103 (Part 1): 2012	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			Cl.7 IEC 61347-1:Ed 3.0:2015-02 Cl.7 IS 15885 (Part 1): 2011 Cl.7 IEC 61347-2-13:Ed 2.1:2016-07 Cl.7 IS 15885 (Part 2/SEC 13): 2012 Cl.7	
		Creepage Distances & Clearances	IEC 62031:Ed 1.2:2014-09 Cl.16 IS 16103 Cl.16 IEC 61347-1:Ed 3.0:2015-02 Cl.16 IS 15885-1 Cl.16	1 mm to 200 mm
		Resistance To heat: fire and tracking - Glow Wire Test apparatus - Needle Flame test Apparatus	IEC 62031:Ed 1.2:2014-09 Cl.18 IS 16103 Cl.18 IEC 61347-1:Ed 3.0:2015-02 Cl.18 IS 15885-1 Cl.18	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 Vac to 600 Vac at 50 Hz
		Screw terminals	IEC 62031:Ed 1.2:2014-09 Cl. 8, IS 16103 Cl. 8 IEC 61347-1:Ed 3.0:2015-02 Cl. 8 IS 15885-1 Cl.8	0.2 Nm to 10 Nm 30 N to 100 N
		Screw less terminals and electrical connections	IEC 62031:Ed 1.2:2014-09 Cl. 8 IS 16103 Cl.8 IEC 61347-1:Ed 3.0:2015-02 Cl. 8 IS 15885-1 Cl. 8	5 N to 50 N
		Provisions for protective earthing	IEC 62031:Ed 1.2:2014-09 Cl. 9 IS 16103 Cl.9	1 A to 30 A 1 V to 19 V

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IEC 61347-1:Ed 3.0:2015-02 Cl. 9 IS 15885-1 Cl. 9	
		Protection against accidental contact with live Parts	IEC 62031:Ed 1.2:2014-09 Cl. 10 IS 16103 Cl. 10 IEC 61347-1:Ed 3.0:2015-02 Cl.10 IS 15885-1 Cl.10	Qualitative 10 V to 65 V
		Moisture resistance and insulation	IEC 62031:Ed 1.2: 2014-09 Cl.11 IS 16103 Cl.11 IEC61347-1:Ed 3.0:2015-02 Cl. 11 IS 15885-1 Cl.11	15 °C to 85 °C: 20 % to 95 % R.H 150 kΩ to 450 GΩ at 500 V
		Electrical strength	IEC 62031:Ed 1.2: 2014-09 Cl.12 IS16103 Cl.12 IEC 61347-1:Ed 3.0:2015-02 Cl. 12 IS 15885-1 Cl.12	0.1 kV to 5 kV
		Classification	IEC 62384 Ed.1.1 2011-03 Cl. 5 IS 16104:2012 Cl.5	Qualitative
		Verification of Marking	IEC 62384 Ed.1.1 2011-03 Cl. 6 IS 16104:2012 Cl.6	Qualitative
		Output voltage and current	IEC 62384 Ed.1.1 2011-03 Cl. 7 IS16104:2012 Cl. 7	3 V_{ac} to 300 V_{ac} 5 mA to 2.7 A 5 mA to 8 A
		Total Circuit Power	IEC 62384 Ed.1.1 2011-03 Cl. 8 IS 16104:2012 Cl. 8	810 W 4000 W

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Power factor	IEC 62384 Ed.1.1 2011-03 Cl. 9 IS 16104:2012 Cl. 9	0-1
		Supply Current	IEC 62384 Ed.1.1 2011-03 Cl.10 IS 16104:2012 Cl.10	5 mA to 2.7 A 5 mA to 8 A
IV.	**CABLES AND ACCESSORIES**			
1.	**Cable Glands Armored Cable Glands, Metallic Cable Gland, Non Metallic Glands**	Classification	EN 50262: 1999 Cl. 6	Qualitative
		Verification of Marking & Documentation	EN 50262: 1999 Cl. 7	Qualitative
		Verification of Construction	EN 50262: 1999 Cl. 8	Qualitative
		Mechanical Properties	EN 50262: 1999 Cl. 9	1 N to 100N
		Resistance to Impact	EN 50262: 1999 Cl. 9.4	0.2 kg to 2 kg
		Electrical Properties	EN 50262: 1999 Cl. 10	1 A to 30 A 0.1 kV to 5 kV 20 °C to 30 °C 91 % to 95 % 100 A to 3000 A
		IP code in accordance with EN 60529	EN 50262: 1999 Cl. 12.1	Qualitative 20 LPM to 120 LPM
		Resistance to abnormal heat	EN 50262: 1999 Cl. 12.2	Qualitative
		Electrical Current	EN 50262: 1999 Cl. 10.4.2	100 A to 3000 A 1 A to 30 A 1 V to 19 V
		Requirements for sample conditions and schedule	BS 6121: 2005 Cl. 4 BS 6121: 2005 Cl. 5	640 N Qualitative
		Verification of Marking and information	BS 6121: 2005 Cl.6	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Classification	IEC 62444: Ed.1.0: 2010-08 Cl. 6	Qualitative
		Verification of Marking and documentation	IEC 62444: Ed.1.0:2010-08 Cl. 7	Qualitative
		Verification of Construction	IEC 62444: Ed.1.0: 2010-08 Cl. 8	Qualitative
		Mechanical properties	IEC 62444: Ed.1.0: 2010-08 Cl. 9	1 N to 100N 0.2 kg to 2 kg
		Electrical properties	IEC 62444: Ed.1.0: 2010-08 Cl. 10	1 A to 30 A 0.1 kV to 5 kV 20 °C to 30 °C 91 % to 95 % 100 A to 3000 A
		Degree of protection	IEC 62444: Ed.1.0: 2010-08 Cl. 12.1	Qualitative 20 to 120 LPM
		Fire hazard - Glow Wire Apparatus	IEC 62444: Ed.1.0: 2010-08 Cl. 13	50 ºC to 960 ºC
V.	**ENVIRONMENTAL TEST FACILITY**			
1.	**Any Electrical: Electronic & Process Control Items/Products**	Dry heat	IS 9000 (Part 3): 1977 IS 9000 (Part 3): 2001 IS 1248 (Part 1): 2003 IS 13779: 1999 IEC 60068-2-2: Ed.5.0: 2007-07	Ambient to 130 °C 2100 mm X 1500 mm X 1950 mm
		Dry Cold	IS 9000 (Part 2): 1977 IS 1248 (Part 1): 2003 IS 13779: 1999 IEC 60068-2-1:Ed 6.0: 2007-03	(-) 30 °C to 130°C 2100 mm X 1500 mm X 1950 mm
		Damp heat (Steady state)	IS 9000 (Part 4): 2008 IS 1248 (Part 1): 2003	20 °C to 85 °C 25 % to 95 % R.H

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS 13779: 1999 IS 13021 IS 1534 IEC 60068-2-78:Ed2.0: 2012	
		Damp heat (Cyclic)	IS 9000 (Part 5):1981 IEC 60068-2-30:Ed 3.0: 2005	20 °C to 50 °C 25 % to 95 % R.H
		Damp heat (Composite)	IS 9001-4: 1979	20 °C to 85 °C 25 % to 95 % R.H
		Composite temperature Humidity Cyclic test	IEC 60068-2-38:Ed 2.0: 2009-01	20 °C to 85 °C 25 % to 95 % R.H
		Temperature cycling change of temperature	IS 9000 (Part 14):1981 IEC 60068-2-14:Ed6.0: 2009-01	(-) 30 °C to 130 °C 25 % to 95 % R.H
		Impact (IK01: IK02: IK03: IK04: Ik05: IK06: IK07: IK08: IK09: IK10) - Pendulum length - Hammer Weight	IEC 62262:Ed1.0: 2002-02 IEC 60068-2-75: Ed 2.0: 2014-09 IEC 62208:Ed 2.0:2011-08 IEC 62275:Ed 2.0:2013-11 IS 8828: 1996 IS/IEC 60898-2:Ed 2.0: 2016-08 IEC 60898-1:Ed 2.0:2015-03 IS 12640 (Part 1) : 2008 IEC 61008-1:Ed 3.2: 2013-09 IS 12640 (Part 2) : 2008 IEC 61009-1:Ed 3.2: 2013-09 IEC 61008-2-1:Ed 1.0 1990-12 IEC 61009-2-1: Ed 1.0:1991-07	1 m 100 N & 500 N 20 J 5 kg

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Vibration (Sinusoidal) - Table top	IEC 60068-2-6:Ed 7.0: 2007-12	10 Hz to 70 Hz Up to 6000 microns 1000 mm X 1000 mm
		Drop and topple	IEC 60068-2-31:2008 Cl. 5.1 & 5.2	Qualitative
		Free fall	IEC 60068-2-31:2008 Cl. 5.3	Tumbling Barrel
		Fire resistance - Needle Flame Test Apparatus	EN 14986:2007 Cl. 4.23	50 ºC to 960 ºC
		Protection against foreign Particles	EN 14986:2007 Cl. 4.24	Qualitative
		Verification of Information for use	EN 14986:2007 Cl. 7	Qualitative
		Impact - Ball with Hemisphere - Diameter	EN 60079-0:2007 Cl. 26.4.2	1 kg 25 mm
		Drop	EN 60079-0:2007 Cl. 26.4.3	Qualitative
		Degree of protection (IP) by enclosure (IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8)	EN 60079-0:2007 Cl. 26.4.4	Qualitative
		Dust	IS 9000 (Part 12):1981	Qualitative
		Ingress protection -Degrees (IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8)	IS/IEC 60529:Ed 2.2: 2013-08	Qualitative
		Low Temperature (Cold Cycle)	QM-333 March: 2010, Release 02 (Sec 3 Test No. 1)	-40 to +140°C R.H 10% to 95% R.H
		High Temperature (Dry Heat Cycle)	QM-333 March: 2010, Release 02 (Sec 3 Test No. 2)	-40 to +140°C R.H 10% to 95% R.H

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Tropical Exposure Damp heat test (Cyclic)	QM-333 March: 2010, Release 02 (Sec 3 Test No. 3)	-40 to +140°C R.H 10% to 95% R.H
		Rapid Temperature Cycle	QM-333 March: 2010, Release 02 (Sec 3 Test No. 4)	-40 to +140°C R.H 10% to 95% R.H
		Damp Heat test (Steady state)	QM-333 March: 2010, Release 02(Sec 3 Test No. 5)	-40 to +140°C R.H 10% to 95% R.H
		Water Immersion	QM-333 March: 2010, Release 02(Sec 3 Test No. 8)	Qualitative
		Corrosion - Salt	QM-333 March: 2010, Release 02 (Sec 3 Test No. 9)	Qualitative
		Drop Test	QM-333 March: 2010, Release 02 (Sec 3 Test No. 10)	Qualitative
		Topple Test	QM-333 March: 2010, Release 02 (Sec 3 Test No. 11)	Qualitative
		Fall Test	QM-333 March: 2010, Release 02 (Sec 3 Test No. 12)	Qualitative
		Rain Test	QM-333 March: 2010, Release 02 (Sec 3 Test No. 14)	Qualitative
		Dust Test	QM-333 March: 2010, Release 02 (Sec 3 Test No. 15)	Qualitative
2.	**House Hold Adaptor**	Internal Wiring	IS 302-1:2008 (upto A-4:2014) (Cl.23) IEC 60335-1: Ed.5.2, 2016-05 Cl.23)	1 to 50,000 Flexing 0.1 kV to 5 kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	**Cable Tray Systems and Cable Ladder Systems**	Classification	IEC 61537: 2006 (Cl 6)	Qualitative Test
		Marking & Documentation	IEC 61537: 2006 (Cl 7)	Qualitative Test
		Dimensions	IEC 61537: 2006 (Cl 8)	Qualitative Test
		Construction	IEC 61537: 2006 (Cl 9)	Qualitative Test
		Fire Hazards - Glow Wire Test apparatus	IEC 61537: 2006 (Cl 13)	50 °C to 960 °C
				10 to 600 Volt AC, 50 Hz
		Needle Flame tester		50 °C to 250 °C / 1 mm to 200 mm
VI.	**BATTERIES**			
1.	**Secondary cells and batteries for photovoltaic energy systems (Secondary cells and batteries) Lead acid batteries Including traction Batteries Sealed LEAD Acid (SMF) Batteries, Tubular Batteries, valve Regulated Lead-Acid batteries**	Cycle Endurance	IEC 61427: Ed1.0: 2013-04 Cl. 8.4 & Cl.8.1 & Cl. 8.2 IEC 60896-21:Ed 1.0 2004-02 Cl. 8.4 IEC 60896-22:Ed:1.0 2004-02 Cl. 8.4 IEC 60896-11:Ed 1.0:2002-12 Cl. 8.4 IS 13369:1992 Cl. 11.7 JIS 8702-1:2003 Cl.7.3 IS 1651: 2013 Cl.12.8	18 V_{dc} /25 A_{dc} 3 V_{dc} to 18 V_{dc} Charging : 1 A_{dc} to 25 A_{dc} Discharging: 1 A_{dc} to 50 A
		Capacity		
		Endurance in Cycle		
		Rating	IS 5154:1980 Cl. 4	18V_{dc} /25 A_{dc} 3 V_{dc} to 18 V_{dc} Charging: 1 A_{dc} to 25 A_{dc} Discharging: 1 A_{dc} to 50 A_{dc}
		Marking	IS 5154:1980 Cl. 6	Qualitative
		First charge	IS 5154:1980 Cl. 7.5	Qualitative
		Visual examination	IS 5154:1980 Cl. 7.6	Qualitative
		Checking of	IS 5154:1980 Cl. 7.7	1 mm to 200 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		dimensions		
		Capacity	IS 5154:1980 Cl. 7.10	$18V_{dc}/25A_{dc}$, 3 V_{dc} to 18 V_{dc} Charging: 1 A_{dc} to 25 A_{dc} Discharging: 1 A_{dc} to 50 A_{dc}
		Rating and designation Ampere Hour rate	IS 13369: 1992 Cl. 4 JIS 8702-1: 2003 Cl. 4.3 2003 IS 1651: 2013 Cl.12.9	C 20 – Up to 500 Ah C 10 – Up to 250 Ah C 1 – Up to 25 Ah
		Verification of Constructional Requirements	IS 13369:1992 Cl. 6 JIS 8702-1: 2003 Cl.1 IS 1651:2013 Cl. 12.2	Qualitative
		Verification of Capacity and dimensions	IS 13369:1992 Cl. 7 JIS 8702-1:2003 Cl. 7.1 IS 1651:2013 Cl.12.4 &12.5	Qualitative
		Verification of Marking and Packing	IS 13369:1992 Cl. 8 JIS 8702-1:2003 Cl. 4.4 IS 1651: 2013 Cl. 12.3	Qualitative
		Verification of Manual of instructions	IS 13369:1992 Cl. 9	Qualitative
		Verification of Capacity	IS 13369:1992 Cl. 11.5	$18V_{dc}/25A_{dc}$ 3 V_{dc} to 18 V_{dc} Charging: 1 A_{dc} to 25 A_{dc} Discharging: 1 A_{dc} to 50 A_{dc}
		Verification of Charge Retention (Loss of capacity on storage)	IS 13369:1992 Cl. 11.6 JIS 8702-1:2003 Cl. 7.4 IS 1651: 2013 Cl. 12.7	$18V_{dc}/25A_{dc}$ 3 V_{dc} to 18 V_{dc} Charging: $1A_{dc}$ to $25A_{dc}$ Discharging: 1 A_{dc} to 50 A_{dc}
		Verification of Ampere-hour and Watt-hour Efficiency	IS 13369:1992 Cl. 11.8	$18V_{dc}/25A_{dc}$ 3 V_{dc} to 18 V_{dc} Charging: $1A_{dc}$ to $25A_{dc}$ Discharging: 1 A_{dc} to 50 A_{dc}

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
VII.	**LAMPS & LUMINAIRES**			
1.	**General Purpose Luminaires Fixed General-Purpose Luminaires Handlamps**	Classification of Luminaires	IEC 60598-2-8: Ed.3.0 2015-08(Sec 8.5) IS 10322-part 5 sec 6:2018 (Sec 5)	Qualitative
		Verification of Marking	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.6) IS 10322-part 5 sec 6:2018 (Sec 6)	Qualitative
		Verification of Construction	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.7) IS 10322-part 5 sec 6:2018 (Sec 7)	Qualitative
		Creepage Distances & Clearances	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.8) IS 10322-part 5 sec 6:2018(Sec 8)	1 mm to 200mm
		Provision for earthing	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.9) IS 10322-part 5 sec 6:2018 (Sec 9)	1 A to 30 A 1 V to 19 V
		Terminals	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.10) IS 10322-part 5 sec 6:2018 (Sec10)	0.2 Nm to 10 Nm 30 N to 100 N
		External and internal wiring	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.11) IS 10322-part 5 sec 6:2018 (Sec 11)	Qualitative
		Protection against electric shock	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.12) IS 10322 part 5 sec 6:2018 (Sec 12)	Qualitative 10 V to 65 V

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Endurance & Thermal	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.13) IS 10322 part 5 sec 6:2018 (Sec 13)	10 Vac to 300 Vac at 50Hz 0.01 A to 19 A 10 °C to 300 °C
		Resistance to dust, solid objects & moisture & Humidity Test	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.14) IS 10322 part 5 sec 6:2018 (Sec 14)	20 LPM to 120 LPM 15 °C to 85 °C 20% to 95% R.H
		Insulation resistance and electric strength, touch current and protective conductor current	IEC 60598-2-8: Ed.3.0 2015-08 (Sec 8.15) IS 10322-part 5 sec 6:2018 (Sec 15)	0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V 50 µA to 19 mA
		Resistance to heat, fire and tracking - Glow wire apparatus - Ball pressure apparatus	IEC 60598-2-8: Ed.3.0 2015-08(Sec 8.16) IS 10322-part 5 sec 6:2018 (Sec 16)	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 Vac to 600 Vac at 50 Hz
2.	**Lighting Chains**	Classification of Luminaires	IEC 60598-2-20: Ed.3.0 2015 -08 (Sec 20.5) IS 10322-part 5 sec 7:2017 (Sec 20.5)	Qualitative
		Verification of Marking	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.6) IS 10322-part 5 sec 7:2017 (Sec 20.6)	Qualitative
		Verification of Construction	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.7) IS 10322-part 5 sec 7:2017 (Sec 20.7)	Qualitative
		Creepage Distances & Clearances	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.8) IS 10322-part 5 sec 7:2017 (Sec 20.8)	1 mm to 200mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Provision for earthing	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.9) IS 10322-part 5 sec 7:2017 (Sec 20.9)	1 A to 30 A 1 V to 19 V
		Terminals	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.10) IS 10322-part 5 sec 7:2017 (Sec 20.10)	0.2 Nm to 10 Nm 30 N to 100 N
		External and internal wiring	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.11) IS 10322-part 5 sec 7:2017 (Sec 20.11)	Qualitative
		Protection against electric shock	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.12) IS 10322-part 5 sec 7:2017 (Sec 20.12)	Qualitative 10 V to 65 V
		Endurance & Thermal Test	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.13) IS 10322-part 5 sec 7:2017 (Sec 20.13)	10 V_{ac} to 300 V_{ac} at 50Hz 0.01 A to 19 A 10 °C to 300 °C
		Resistance to dust, solid objects & moisture & Humidity Test	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.14) IS 10322-part 5 sec 7:2017 (Sec 20.14)	20 LPM to 120 LPM 15 °C to 85 °C 20% to 95% R.H
		Insulation resistance and electric strength, touch current and protective conductor current	IEC 60598-2-20: Ed.3.0 2015-08(Sec 20.15) IS 10322-part 5 sec 7:2017 (Sec 20.15)	0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V 50 µA to 19 mA
		Resistance to heat, fire and tracking - Glow wire apparatus - Ball pressure apparatus	IEC 60598-2-20: Ed.3.0 2015-08 (Sec 20.16) IS 10322-part 5 sec 7:2017 (Sec 20.16)	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 Vac to 600 Vac at 50 Hz

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	**Luminaires for emergency lighting**	Classification of Luminaires	IEC 60598-2-22:2014+AMD1: 2017 Sec 22.5 IS 10322-part 5 sec 8: 2018 (Sec 5)	Qualitative
		Verification of Marking	IEC 60598-2-22:2014 +AMD1: 2017 (Sec 22.6) IS 10322 Part 5 sec 8:2018 (Sec 6)	Qualitative
		Verification of Construction	IEC 60598-2-22:2014+AMD1: 2017(Sec 22.7) IS 10322-part 5 sec 8: 2018 (Sec 7)	Qualitative
		Creepage Distances & Clearances	IEC 60598-2-22:2014+AMD1: 2017 (Sec 22.8) IS 10322-part 5 sec 8: 2018 (Sec 8)	1 mm to 200mm
		Provision for earthing	IEC 60598-2-22:2014+AMD1: 2017 (Sec 22.9) IS 10322-part 5 sec 8: 2018 (Sec 9)	1 A to 30 A 1 V to 19 V
		Terminals	IEC 60598-2-22:2014+AMD1: 2017 (Sec22.10) IS 10322-part 5 Sec 8 (Sec 10)	0.2 Nm to 10 Nm 30 N to 100 N
		External and internal wiring	IEC 60598-2-22:2014+AMD1: 2017 (Sec 22.11) IS 10322-part 5 sec 8: 2018 (Sec 11)	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Protection against electric shock	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec22.12) IS 10322-part 5 sec 8: 2018 (Sec 12)	Qualitative 10 V to 65 V
		Endurance & Thermal Test	IEC 60598-2-22:2014+AMD1: 2017 (Sec22.13) IS 10322-part 5 sec 8: 2018 (Sec 13)	10 Vac to 300 Vac at 50Hz 0.01 A to 19 A 10 °C to 300 °C
		Resistance to dust, solid objects & moisture & Humidity Test	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec22.14) IS 10322-part 5 sec 8: 2018 (Sec 14)	20 LPM to 120 LPM 15 °C to 85 °C 20% to 95% R.H
		Insulation resistance and electric strength, touch current and protective conductor current	IEC 60598-2-22:2014+AMD1: 2017 (Sec22.15) IS 10322-part 5 sec 8: 2018 (Sec 15)	0.1 kV to 5 kV 150 kΩ to 450 GΩ at 500 V 50 µA to 19 mA
		Resistance to heat, fire and tracking - Glow wire apparatus - Ball pressure apparatus	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.16) IS 10322 part 5 sec 8:2018 (Sec 16)	50 ºC to 960 ºC 50 °C to 250 °C 1 mm to 200 mm 10 Vac to 600 Vac at 50 Hz
		Functional Testing: Photometric Data	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.17) IS 10322 part 5 sec 8:2018 (Sec 17)	0.1 cd to 1,00,000 cd ~0.001 lx to ~ 99,999 lx 2500 K to 8500K x =0 to 1 y =0 to 1 0.1 to 100
		Changeover Operation	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.18) IS 10322 part 5 sec 8:2018 (Sec 18)	0-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		High Operation Temperature	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.19) IS 10322 part 5 sec 8:2018 (Sec 19)	50 °C to 250 °C
		Battery chargers for self-contained emergency luminaries	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.20) IS 10322 part 5 sec 8:2018 (Sec 20)	18Vdc /25 Adc 3 Vdc to 18 Vdc Charging: 1 Adc to 25 Adc Discharging: 1 Adc to 50 Adc
		Test devices for emergency operation.	IEC 60598-2-22: 2014+ AMD1: 2017 (Sec 22.21) IS 10322 part 5 sec 8:2018 (Sec 21)	Qualitative
4.	**Self-Ballasted LED-lamps**	Interchangeability	IEC 62560: Ed.1.1 2015-04 (Cl.6) IS16102-1 Part1): 2012(Cl.6)	Qualitative Test
		Mechanical Strength	IEC 62560: Ed.1.1 2015-04 (Cl.9) IS16102-1 Part1): 2012 (Cl.9)	Qualitative Test
		Fault conditions	IEC 62560: Ed.1.1 2015-04 (Cl.13) IS16102-1 Part1): 2012(Cl.13)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Abnormal operation	IEC 62560: Ed.1.1 2015-04 (Cl.15) IS 16102-1 Part1): 2012 (Cl.15)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Test conditions for dimmable lamps	IEC 62560: Ed.1.1 2015-04 (Cl.16) IS16102-1 Part1): 2012 (Cl.16)	Qualitative Test

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Ingress protection	IEC 62560: Ed.1.1 2015-04 (Cl.18) IS16102-1 Part1): 2012 (Cl.18)	20-120LPM 0-120°C 0-999 min 10-100 Kpa
5.	**LED Module**	Classification	IEC 62031:Ed 1.2:2014-09 Cl.6 IS 16103 (Part 1): 2012 Cl.6	Qualitative
		Fault conditions	IEC 62031:Ed 1.2: 2014-09 Cl.13 IS16103 Cl.13	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Construction	IEC 62031:Ed 1.2: 2014-09 Cl.15 IS16103 Cl.15	Qualitative
		Screws, current-carrying parts and connections	IEC 62031:Ed 1.2:2014-09 Cl.17 IS 16103 Cl.17	1.0-13.6 n.m
		Resistance to Corrosion	IEC 62031:Ed 1.2:2014-09 Cl.19 IS 16103 Cl.19	0°C-250°C
6.	**Lamp Control gear, AC/DC Electronic Control gear of LED Module**	Classification	IEC 61347-1: Ed 3.0,2015-02 (Cl.6) IS 15885 (Part 1): 2011 (Cl.6) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.6) IS15885 (Part 2 /SEC 13): (Cl.6)	Qualitative Test
		Moisture resistance and insulation	IEC 61347-1:Ed 3.0:2015-02 (Cl. 11) IS 15885-1 (Cl.11) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.11)	15 °C to 85 °C: 20 % to 95 % R.H 150 kΩ to 450 GΩ at 500V

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IS15885 (Part 2 /SEC 13): 2012 (Cl.11)	
		Thermal endurance test for windings of ballasts	IEC 61347-1: Ed 3.0,2015-02 (Cl.13) IS 15885 (Part 1): 2011 (Cl.13) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.13) IS15885 (Part 2 /SEC 13):2012 (Cl.13)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Fault conditions	IEC 61347-1: Ed 3.0, 2015-02 (Cl.14) IS 15885 (Part 1): 2011 (Cl.14) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.14) IS 15885 (Part 2 /SEC 13):2012 (Cl.14)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Construction	IEC 61347-1: Ed 3.0, 2015-02 (Cl.15) IS 15885 (Part 1): 2011 (Cl.15) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.16) IS 15885 (Part 2 /SEC 13):2012 (Cl.16)	Qualitative
		Transformer Heating	IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.15) IS 15885 (Part 2 /SEC 13):2012 (Cl.15)	Up to 550 °C
		Screws, current-carrying parts and connections	IEC 61347-1: Ed 3.0, 2015-02 (Cl.17) IS 15885 (Part 1): 2011 (Cl.17) IEC 61347-2-13: Ed 2.1,	1.0-13.6 n.m

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			2016-07(Cl.18) IS 15885 (Part 2 /SEC 13):2012(Cl.18)	
		Resistance to corrosion	IEC 61347-1: Ed 3.0, 2015-02 (Cl.19) IS 15885 (Part 1): 2011 (Cl.19) IEC 61347-2-13: Ed 2.1, 2016-07 (Cl.20) IS 15885 (Part 2 /SEC 13):2012 (Cl.20)	0°C-250°C
		No Load Output Voltage	IEC 61347-1:Ed 3.0:2015-02 (Cl.20) IS 15885-1 (Cl.20)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp
7.	**Lamp Control Gear, AC/DC Electronic Control gear of LED Module**	Operation Tests for abnormal conditions	IEC 62384 Ed.1.1 2011-03 & (Cl.12) IS16104:2012 (Cl.12)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C
		Endurance	IEC 62384 Ed.1.1 2011-03 & (Cl.13) IS16104:2012 (Cl.13)	10-300 Volt AC (at 50 Hz), 0.01-19.00 Amp, 100 to 1300°C LC: 0.1 °C

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

ELECTRONICS TESTING

I.	**SAFETY TESTING FACILITY**			
1.	**Medical Equipments" (Nerve and Muscle Stimulators, Infant Incubators, Infant Radiant Warmers: Surgical Luminaires and Luminaires for Diagnosis, Medical Beds and Infant Phototherapy Equipment)**	Power Input	IEC 60601-1 Ed.3.1: 2012-08 Cl.4.11 IS 13450-1:2008 IEC 60601-2-10:Ed.2.1 2016-04 Cl. 201.4 IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A
		Humidity pre-conditioning treatment	IEC 60601-1 Ed.3.1: 2012-08 Cl.5.7 IS 13450-1:2008 IEC 60601-2-10:Ed.2.1 2016-04 Cl. 201.5 IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	15 °C to 85 °C 20 % to 95 % R.H

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Determination of Applied Parts and Accessible Part - Diameter - Length	IEC 60601-1 Ed.3.1: 2012-08 Cl.5.9 IS 13450-1:2008 IEC 60601-2 10:Ed.2.1 2016-04 Cl. 201.5 IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	10 V to 65 V 4mm Up to 100mm 30 N
		Classification of Medical Equipment and Medical Equipment Systems	IEC 60601-1 Ed.3.1: 2012-08 Cl.6 IS 13450-1:2008 IEC 60601-2 10:Ed.2.1 2016-04 Cl. 201.6 IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	Qualitative
		Verification of Marking & Instruction	IEC 60601-1Ed.3.1: 2012-08 Cl.7 IS 13450-1:2008 IEC 60601-2-10: Ed.2.1 2016-04 Cl. 201.7	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	
		Protective earthing functional earthing and potential equalization of Medical Equipment	IEC 60601-1 Ed.3.1 2012-08 Cl.8.6 IS 13450-1: 2008 IEC 60601-2-10: Ed.2.1 2016-04 Cl. 201.8 IEC 60601-2 19:Ed.2.1 2016-04 IEC 60601-2-21:Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	Qualitative 1 A to 30A 1 V to 19V 1 mΩ to 200 mΩ
		Leakage currents and patient auxiliary currents	IEC 60601-1 Ed.3.1: 2012-08 Cl.8.7 IS:13450-1:2008	50 µA to 19 mA
		Distance through solid insulation or use of thin sheet material	IEC 60601-1 Ed.3.1: 2012-08 Cl. 8.8.2 IS:13450-1:2008	Qualitative 0.1kV to 5 kV
		Dielectric Strength	IEC 60601-1 Ed.3.1: 2012-08 Cl. 8.8.3 IS:13450-1:2008	Qualitative 0.1kV to 5 kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Resistance to environmental stress	IEC 60601-1 Ed.3.1: 2012-08 Cl.8.8.4.2 IS:13450-1:2008	50 °C to 250 °C 1 mm to 200 mm
		Creepage distances and air clearances	IEC 60601-1 Ed.3.1 2012-08 Cl.8.9 IS:13450-1:2008	1 mm to 200 mm
		Mechanical hazards associated with moving Parts	IEC 60601-1 Ed.3.1 2012-08 Cl.9.2 IS:13450-1:2008 IEC 60601-2-10: Ed.2.1 2016-04 Cl. 201.9 IEC 60601-2 19: Ed.2.1 2016-04 IEC 60601-2-21: Ed.2.1 2016-04 IEC 60601-2-41: Ed.2.1 2013-10 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	Qualitative
		Mechanical hazards associated with Surfaces, corners and edges	IEC 60601-1 Ed.3.1: 2012-08 Cl. 9.3 IS 13450-1:2008	Qualitative
		Instability hazards - Angle measuring device	IEC 60601-1 Ed.3.1: 2012-08 Cl.9.4 IS 13450-1:2008	5° to 180°
		Excessive temperatures in ME Equipment	IEC 60601-1 Ed.3.1 2012-08 Cl.11.1 IS 13450-1:2008 IEC 60601-2-10: Ed.2.1 2016-04 Cl. 201.11 IEC 60601-2 19: Ed.2.1 2016-04	Ambient to 200 °C

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IEC 60601-2-21: Ed.2.1 2016-04 IEC 60601-2-41:Ed.2.1 2013 IEC 60601-2-50:Ed 2.1 2016-04 IEC 60601-2-52: Ed 1.1 2015-03	
		Constructional Requirement for fire Enclosures of Medical equipment	IEC 60601-1 Ed.3.1 2012-08 Cl.11.3 IS 13450-1:2008	Ambient to 960℃ 0.1 mm to 200mm
		Spillage on Medical Equipment and Medical system	IEC 60601-1 Ed.3.1 2012-08 Cl.11.6.3 IS:13450-1:2008	Qualitative
		Ingress of water or water or Particular matter into Medical Equipment and Medical Equipment System	IEC 60601-1 Ed.3.1 2012-08 Cl.11.6.5 IS 13450-1:2008	IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8
		Interruption of the power supply Supply Mains to Medical Equipment	IEC 60601-1 Ed.3.1 2012-08 Cl.11.8 IS 13450-1:2008	Qualitative
		Accuracy of controls and Instrument	IEC 60601-1 Ed.3.1: 2012-08 Cl.12.1 IS 13450-1:2008 IEC 60601-2-10: Ed.2.1: 2016-04 Cl. 201.12 IEC 60601-2 19: Ed.2.1: 2016-04 Cl. 201.12 IEC 60601-2-21: Ed.2.1 2016-04 IEC 60601-2-41: Ed.2.1 2013-10	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			IEC 60601-2-50: Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	
		Usability of Medical Equipment	IEC 60601-1 Ed.3.1 2012-08 Cl.12.2/IS 13450-1:2008 IEC 60601-2-10 Ed.2.1: 2016-04 Cl. 201.12	Qualitative
		Alarm System	IEC 60601-1 Ed.3.1: 2012-08 Cl.12.3 , IS 13450-1:2008 IEC 60601-2-10 Ed.2.1:2016-04 Cl. 201.12	Qualitative
		Emissions with deformation of Enclosure or exceeding maximum temperature	IEC 60601-1 Ed.3.1: 2012-08 Cl.13.1.2 IS 13450-1:2008 IEC 60601-2-10: Ed.2.1:2016-04 Cl. 201.13 IEC 60601-2 19: Ed.2.1:2016-04 IEC 60601-2-21: Ed.2.1:2016-04 IEC 60601-2-41: Ed.2.1:2013-10 IEC 60601-2-50: Ed 2.1 2016-04 IEC 60601-2-52:Ed 1.1 2015-03	(-) 50 °C to 540 °C 10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A
		Exceeding Leakage current & Voltage limit	IEC 60601-1 Ed.3.1: 2012-08 Cl.13.1.3 IS 13450-1:2008	50 µA to 19 mA 10 V to 65 V 4 mm Up to 100 mm 30 N
		Specific Mechanical Hazards	IEC 60601-1 Ed.3.1: 2012-08 Cl.13.1.4 IS 13450-1:2008	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Single Fault Conditions	IEC 60601-1 Ed.3.1: 2012-08 Cl.13.2 IS 13450-1:2008	(-) 50 °C to 540 °C 10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A
		Mechanical Strength - Push - Impact - Drop - Mould relief	IEC 60601-1 Ed.3.1: 2012-08 Cl.15.3 IS 13450-1: 2008 IEC 60601-2-10: Ed.2.1:2016-04 Cl. 201.15 IEC 60601-2 19: Ed.2.1:2016-04 IEC 60601-2-21: Ed.2.1:2016-04 IEC 60601-2-41: Ed.2.1:2013-10 IEC 60601-2-50:Ed 2.1:2016-04 IEC 60601-2-52:Ed 1.1:2015-03	50 N to 500 N 1 mm to 1.3 m 475 g to 525 g (-) 30 °C to 130 °C
2.	**Medical Equipments" (Nerve and Muscle Stimulators, Infant Incubators, Infant Radiant Warmers: Surgical Luminaries and Luminaries for Diagnosis, Infant Phototherapy Equipment & Opthalmic Scope)**	Single Fault Condition for ME Equipments	Cl 4.7 of IEC 60601-1	50 µA to 19m A
		Components of ME Equipments	Cl 4.8 of IEC 60601-1	Qualitative Test
		Fundamental rules of Protection against Electric Shock	Cl 8.1 of IEC 60601-1	50 µA to 19m A 1-200 mm
		Requirements related to power sources	Cl 8.2 of IEC 60601-1	Qualitative
		Classification of Applied Parts	Cl 8.3 of IEC 60601-1	Qualitative
		Limitation of Voltage Current and Energy	Cl 8.4 of IEC 60601-1	50 µA to 19m A
		Means of Patient Protection (MOPP)	Cl 8.5.1.2 of IEC 60601-1	Qualitative 0.1 kV to 5 kV 1 mm to 200 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Means of Operator Protection (MOPP)	Cl.8.5.1.3 of IEC 60601-1 Ed.3.1, 2012-08	1A to 30A 100V to 5KV 1mm to 2000mm
		F-type applied parts	Cl.8.5.2.1 of IEC 60601-1 Ed.3.1, 2012-08	50 µA to 19 mA 0.1 kV to 5 kV 1mm to 2000mm
		Type b applied parts	Cl.8.5.2.2 of IEC 60601-1 Ed.3.1, 2012-08	50 µA to 19mA 0.1 kV to 5 kV
		Patient leads or patient cables	Cl.8.5.2.3 of IEC 60601-1 Ed.3.1, 2012-08	0.1 kV to 5 kV 1mm to 2000mm Straight un jointed finger
		Maximum mains voltage	Cl.8.5.3 of IEC 60601-1 Ed.3.1, 2012-08	10 to 300Volt AC/DC
		Distance through solid insulation or use of thin sheet material	IEC 60601-1 Ed.3.1: 2012-08 Cl. 8.8.2 IS:13450-1:2008	0.1kV to 5 kV 1mm to 2000mm
		Components and wiring	Cl.8.10 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		MAINS PARTS, components and layout	Cl.8.11 of IEC 60601-1 Ed.3.1, 2012-08	50µA to 19m A
		Static forces due to Loading from persons	Cl.9.8 3.2 of IEC 60601-1 Ed.3.1, 2012-08	100 to 300 kg
		Dynamic forces due to Loading from persons	Cl.9.8 3.2 of IEC 60601-1 Ed.3.1, 2012-08	1to 150mm
		Overflow of ME Equipment	Cl.11.6 .2 of IEC 60601-1 Ed.3.1, 2012-08	0° to 20° Qualitative
		Cleaning and disinfection of ME Equipment and ME systems	Cl.11.6 .6 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Compatibility with substances used with the ME Equipment	Cl.11.6 .8 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bio-compatibility of ME with equipment and ME systems	Cl.11.7 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Intentional exceeding of safety limits	Cl.12.4.1 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Housing	Cl.15.4.3.1 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Connection	Cl.15.4.3.2 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Excessive current and voltage protection	Cl.15.4.3.5 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Pre-set controls	Cl.15.4.5 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Internal wiring of ME Equipment	Cl.15.4.8 of IEC 60601-1 Ed.3.1, 2012-08	0.1 mm to 150 mm
		Oil Containers	Cl.15.4.9 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		General requirements for the ME SYSTEMS	Cl.16.1 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
		Accompanying Documents Of An ME system	Cl.16.2 of IEC 60601-1 Ed.3.1, 2012-08	Qualitative
II.	**INFORMATION TECHNOLOGY EQUIPMENT**			
1.	**Monitor, SMPS, Network card, UPS, Computer, Modem, Cable Tester, Balance, Refrigerated Enclosure**	Input Current	IEC 60950-1:Ed 2.2 2013-05 Cl.1.6.2 IS 13252 Part 1: 2010	10 V_{ac} to 300 V_{ac} at 50Hz 0.01 A to 19 A
		Verification of Durability	IEC 60950-1: Ed 2.2 2013-05 Cl.1.7.11 IS 13252 Part 1: 2010	Qualitative
		Access to energized Parts	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.1.1.1 IS 13252 Part 1:2010	30N 1 mm to 80 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Energy Hazards - long jointed and rigid Finger	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.1.1.5 IS 13252 Part 1:2010	79.8 mm to 80.2 mm
		Protection by basic insulation	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.3.2.2 IS 13252 Part 1:2010	0.1 kV to 5 kV
		Limited power source	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.5 IS 13252 Part 1:2010	10 V to 300 V 0.01 A to 19 A
		Protective Earthing	IEC 60950-1 Ed 2.2 2013-05 Cl. 2.6.1 IS 13252 Part 1:2010	1 A to 30 A 1 V to 19 V
		Earthing conductor	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.6.3.2 IS 13252 Part 1:2010	1 mm to 200 mm
		Bonding conductor	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.6.3.3 IS 13252 Part 1:2010	1 mm to 200 mm
		Resistance to earthing conductors & their Terminations	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.6.3.4 IS 13252 Part 1:2010	1 A to 30 A 1 V to 19 V
		Protective Earthing and bonding terminal	IEC 60950-1: Ed 2.2 2013-05 Cl.2.6.4.2 IS 13252 Part 1:2010	1 mm to 200 mm
		Verification of Protection Requirement	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.8.2 IS 13252 Part 1:2010	Qualitative
		Inadvertent reactivation - long jointed and rigid Finger	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.8.3 IS 13252 Part 1:2010	Qualitative 79.8 mm to 80.2 mm
		Contact Gaps	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.8.7.1 IS 13252 Part 1:2010	1 mm to 200 mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Electric Strength	IEC 60950-1: Ed 2.2 2013-05 Cl.2.8.7.4 IS 13252 Part 1:2010	0.1 kV to 5 kV
		Humidity conditioning	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.9.2 IS 13252 Part 1:2010	20 °C to 30 °C 91 % to 95 % R.H
		Clearances, Creepage distances and distances through insulation	IEC 60950-1: Ed 2.2 2013-05 Cl. 2.10 IS 13252 Part 1:2010	1 mm to 200 mm 1 kV to 10 kV
		Insulation of Conductors	IEC 60950-1: Ed 2.2 2013-05 Cl. 3.1.4 IS 13252 Part 1:2010	0.1 kV to 5 kV
		Stability - Angle measuring device	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.1 IS 13252 Part 1:2010	5° to 180°
		Steady Force	IEC 60950-1: Ed 2.2 2013-05 Cl.4.2.2: 4.2.3 & 4.2.4 IS 13252 Part 1:2010	1 N to 500 N
		Impact	IEC 60950-1: Ed 2.2 2013-05 Cl.4.2.5 IS 13252 Part 1:2010	475 g to 525 g Up to 1.3 m
		Drop	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.2.6 IS 13252 Part 1:2010	Qualitative
		Stress relief	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.2.7 IS 13252 Part 1:2010	50 °C to 250 °C
		Design and Construction	IEC 60950-1: Ed 2.2 2013-05 Cl.4.3 IS 13252 Part 1:2010 Except Cl. 4.3.10 & 4.3.11 4.3.12	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Protection against hazardous moving Parts	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.4 IS 13252 Part 1:2010	30 N
		Verification of Temperature	IEC 60950-1: Ed 2.2 2013-05 Cl.4.5.2 IS 13252 Part 1:2010	Ambient to 150 °C
		Temperature limits for material	IEC 60950-1: Ed 2.2 2013-05 Cl.4.5.3 IS 13252 Part 1:2010	Ambient to 150 °C
		Touch temperature limit	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.5.3 IS 13252 Part 1:2010	Ambient to 150 °C
		Material (Resistance to fire)	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.7.3 IS 13252 Part 1:2010	Ambient to 960 °C
		Resistance to abnormal heat	IEC 60950-1: Ed 2.2 2013-05 Cl. 4.5.5 IS 13252 Part 1:2010	50 °C to 250 °C 1 mm to 200mm
		Enclosure openings	IEC 60950-1: Ed 2.2 2013-05 Cl.4.6.1 & 4.6.2 IS 13252 Part 1:2010	Qualitative
		Touch current and protective conductor current	IEC 60950-1: Ed 2.2 2013-05 Cl. 5.1 IS 13252 Part 1:2010	50 µA to 19 mA
		Electric strength	IEC 60950-1: Ed 2.2 2013-05 Cl. 5.2 IS 13252 Part 1:2010	0.1 kV to 5 kV
		Fault conditions	IEC 60950-1: Ed 2.2 2013-05 IS 13252 Part 1:2010	Qualitative
		Impulse Steady-state	IEC 60950-1: Ed 2.2 2013-05 Cl. 6.2.2.1 & 6.2.2.2 IS 13252 Part 1:2010	1 kV to 10 kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Components	Cl.1.5 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Marking and Instructions	(Cl.1.7 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Discharge of capacitors in equipment	(Cl.2.1.1.7 of IEC 60950-1:2005+AMD1:2009+AMD2:2013) IS 13252 Part 1:2010	1V to 100 V AC/DC
		Energy Hazards DC Main Supply	Cl.2.1.1.8 of IEC 60950-1:2005+AMD1:2009+AMD2:2013) IS 13252 Part 1:2010	0 to 100 V AC/DC
		SELV Circuits	(Cl.2.2 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 V to 100 V AC/DC
		TNV Circuits	(Cl.2.3 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 V to 100 V AC/DC
		Basic requirement	(Cl.2.7.1 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Safety Interlocks general principles	(Cl.2.8.1 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Overriding	(Cl. 2.8.6 of IEC 60950-1:2005+AMD1:2009+	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			AMD 2:2013 IS 13252 Part 1:2010	
		Current rating and over-current protection	(Cl. 3.1.1 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Ambient to 150 °C
		Protection against mechanical damage	(Cl. 3.1.2 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Securing of internal wiring	(Cl. 3.1.3 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Beads and ceramic insulators	(Cl. 3.1.5 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 to 500 N
		Screws for Electrical Contact Pressure	(Cl. 3.1.6 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Insulating Material in Electrical Connection	(Cl. 3.1.7 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Self Tapping and Spaced Thread Screws	(Cl. 3.1.8 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Termination of conductors	(Cl. 3.1.9 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 N to 500 N

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sleevings on wiring	(Cl. 3.1.10 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Connection to an AC main supply and connection to an DC mains supply	(Cl. 3.2.1 & 3.2.2of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Multiple supply connections	(Cl. 3.2.2 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Permanently connected equipment	(Cl. 3.2.3 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 mm to 200 mm
		Appliance inlets	(Cl. 3.2.4 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	12 mm to 80 mm
		AC Power supply cords	(Cl. 3.2.5.1 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1 mm to 200 mm 1 kV to 10 kV
		DC Power supply	Cl. 3.2.5.1 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	Qualitative
		Cord Anchorage and strain relief	(Cl. 3.2.6 of IEC 60950-1:2005+AMD1:2009+AMD2:2013 IS 13252 Part 1:2010	1N to 500N 100V to 5kV

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Protection against mechanical damage	(Cl. 3.2.7 of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	Qualitative
		Supply wiring space	(Cl. 3.2.9 of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	1-200mm
		Wiring Terminals	(Cl. 3.3.1 of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	Qualitative
		Connection of non-detachable power supply cords	Cl. 3.3.2 of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	1 to 200mm Ambient to 150
		Disconnection form the main supply	(Cl. 3.4 of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	Qualitative
		Types of Interconnections Circuits	(Cl. 3.5.2of IEC 60950-1:2005+AMD1:2009+AMD2 :2013 IS 13252 Part 1:2010	Qualitative
		Wall or ceiling mounted equipment	(Cl. 4.2.10 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	1 to 500 N
		Doors and covers in Fire Enclosure	(Cl.4.6.3 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	Wedge probe 2mm to 49.2 mm
		Opening in Transportable Equipment	(Cl.4.6.4 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	1 to 200mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Adhesives for constructional purposes	(Cl.4.6.5 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	0 °C to 140°C
		Resistance to fire	(Cl.4.7 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	Ambient to 960 °C
		Protection from Hazardous Voltage	(Cl. 6.1.1 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	1 to 100v AC/DC
		Protection of cable distribution system service persons and user of other equipment connected to the system from hazardous voltage to the equipment	(Cl. 7.2 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	1 to 100v AC/DC
		Protection of equipments users from over voltages on the cable distribution system	(Cl. 7.3 of IEC 60950-1: Ed 2.2 2013-05) IS 13252 Part 1:2010	1 to 100v AC/DC
III.	**POWER SUPPLIES AND STABILIZERS**			
1.	**Uninterruptible Power Systems (UPS)**	Power Interface	IEC 62040: Ed 1.1 2013-01 Cl. 4.6 & 1.6.1/RD:1.6.2/ 1.6.4/RD IS 16242 Part1: 2014	10 V to 300 V 0.100 A to 1.9 A 0.01 A to 19 A 10 W to 400 W 10 W to 2000 W
		Power Rating	IEC 62040: Ed 1.1 2013-01 Cl. 4.7.2 & 1.7.1/RD IS 16242 Part1: 2014	10 V to 300 V 0.100 A to 1.9 A 0.01 A to 19 A 10 W to 400 W 10 W to 2000 W

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		High leakage current - Touch current and protective conductor current	IEC 62040: Ed 1.1 2013-01 Cl. 4.7.13 & 5.1/RD IS 16242 Part1: 2014	50 µA to19 mA
		Durability of markings	IEC 62040: Ed 1.1 2013-01 Cl. 4.7.16 & 1.7.11/RD IS 16242 Part1: 2014	Qualitative
		Protection for UPS intended to be used in operator access areas	IEC 62040: Ed 1.1 2013-01 Cl. 5.1.1 & 2.1.1.7/RD IS 16242 Part1: 2014	Up to 600 V_{ac} Up to 600 V_{dc} Up to 600 kΩ 95 MΩ to 105 MΩ Up to 5000 V_{ac} at 50 MHz
		Protection for UPS intended to be used in restricted access areas	IEC 62040: Ed 1.1 2013-01 Cl. 5.1.3 & 2.1.1.1/RD IS 16242 Part1: 2014	12 mm X 80 mm Ø4mm/Ø3mm/15 mm long Ø50mm/80mm
		Back feed protection	IEC 62040: Ed 1.1 2013-01 Cl. 5.1.4 IS 16242 Part1: 2014	10 V_{ac} to 300 V_{ac} at 50 Hz 0.01 A to 19 A
		Protective Earthing and bonding	IEC 62040: Ed 1.1 2013-01 Cl. 5.3 & 2.6/RD: 5.2/RD IS 16242 Part1: 2014	1 A to 30 A 1 V to 19 V
		Operator protection	IEC 62040: Ed 1.1 2013-01 Cl. 5.6.1 2.8/RD IS 16242 Part1: 2014	12 mm X 80 mm Up to 600 V_{ac} Up to 600 V_{dc} Up to 60 MΩ 1 nF to 10 mF, Upto 10 A
		Service person protection	IEC 62040: Ed 1.1 2013-01 Cl. 5.6.2 2.8/RD IS 16242 Part1: 2014	12 mm X 80 mm
		Clearances, Creepage distances and distances through insulation	IEC 62040: Ed 1.1 2013-01 Cl. 5.7 2.10/RD IS 16242 Part1: 2014	Up to 5000 V_{ac} Up to 600 V Up to 1 A 15 s to 100 s 1 mm to 200mm

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				1 kV to 10 kV (-) 30 °C to 130 °C 20 % to 95 % R.H 10 V to 300 V 0.100 A to 1.9 A 0.01 A to 19 A 10 W to 400 W 10 W to 2000 W 50Hz
		Stability	IEC 62040: Ed 1.1 2013-01 Cl. 7.2 & 4.1/RD IS 16242 Part1: 2014	5° to 180° 1 N to 100 N
		Mechanical strength	IEC 62040: Ed 1.1 2013-01) Cl. 7.3 & 4.2/RD IS 16242 Part1: 2014	Up to 30 N 50 N to 500 N 500 g 10 mm to 5 m 50 °C to 250 °C
		Resistance to fire	IEC 62040: Ed 1.1 2013-01) Cl. 7.5 & 4.7/RD IS 16242 Part1: 2014	50 °C to 960 °C 1 s to 99 s 1 mm to 200 mm 50 °C to 960 °C 1 s to 90 s
		Case insulation	IEC 62040: Ed 1.1 2013-01 Cl. 7.6.4 5.2/RD IS 16242 Part1: 2014	Up to 5000 V_{ac}
		General provisions for earth leakage	IEC 62040: Ed 1.1 2013-01 Cl. 8.1 5.1.1/RD 5.1.7/RD IS 16242 Part1: 2014	50 µA to 19 mA
		Electric strength	IEC 62040: Ed 1.1 2013 Cl. 8.2 & 5.2/RD IS 16242 Part1: 2014	Up to 5000 V_{ac}
2.	**Uninterruptable Power Supply UPS Upto 5 KVA**	AC input current	(Cl. no 4.3.101 .of IEC 62040-1:2017 IS 16242 Part1:2014	10-300 Volt AC (at 50Hz), 0.01-19 Amp

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Transformer protection	(Cl.no. 4.3.102 of IEC 62040-1:2017 IS 16242 Part1:2014	Ambient to 150°C
		AC input short-circuit current	(Cl.no. 4.3.103 of IEC 62040-1:2017 IS 16242 Part1:2014	10-300Volt AC (at 50Hz), 0.01-19 Amp
		Protection of the energy storage device	(Cl. no 4.3.104 .of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 0 to 600 kΩ
		Unsynchronized load transfer	(Cl. no 4.3.105 .of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC
		Protection against electric shock	(Cl. no 4.4 .of IEC 62040-1:2017 IS 16242 Part1:2014	12mm*80mm 0 to 65Volt
		Decisive voltage class	(Cl. no 4.4.2 .of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC
		Provision for basic protection	(Cl. no 4.4.3 .of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative Test IP 60529 50µA to 19 mA
		Provision for fault protection	(Cl. no 4.4.4 .of IEC 62040-1:2017 IS 16242 Part1:2014	1to 200mm 2MΩto 0.5 GΩ
		Enhanced protection	(Cl. no 4.4.5 .of IEC 62040-1:2017 IS 16242 Part1:2014	1 to 200mm
		Protective measures	(Cl. no 4.4.6 .of IEC 62040-1:2017 IS 16242 Part1:2014	1to 200mm 2MΩto 0.5 GΩ
		Insulation	(Cl. no 4.4.7 .of IEC 62040-1:2017 IS 16242 Part1:2014	1kV to 10kV 2MΩto 0.5 GΩ

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Clearance distances	(Cl. no 4.4.7.4 of IEC 62040-1:2017 IS 16242 Part1:2014	1 mm to 200 mm
		Creepage distances	(Cl. no 4.4.7.5 of IEC 62040-1:2017 IS 16242 Part1:2014	1 mm to 200 mm
		Compatibility with residual current-operated protective devices (RCD)	(Cl. no 4.4.8 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC
		Capacitor discharge	(Cl. no 4.4.9 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC
		Protection against electrical energy hazards	(Cl. no 4.5 of IEC 62040-1:2017 IS 16242 Part1:2014	Test Probe 13 Test Pin
		Protection against fire and thermal hazards	(Cl. no 4.6 of IEC 62040-1:2017 IS 16242 Part1:2014	960 ^{0}C 10 - 90 Sec
		Fire enclosures	(Cl. no 4.6.3 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Temperature limits	(Cl. no 4.6.4 of IEC 62040-1:2017 IS 16242 Part1:2014	Ambient to 550 °C
		Limited power sources	(Cl. no 4.6.5 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC
		Protection in service access area	(Cl.no. 4.7.101 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Equipment with multiple sources of supply	(Cl. no 4.8 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Back feed protection	(Cl. no. 4.8.102 of IEC 62040-1:2017 IS 16242 Part1:2014	10 to 300V AC (at 50 Hz) 0.01 To 19 Amp
		Protection against environmental stresses	(Cl. no 4.9 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Wiring and connections	(Cl. no 4.11 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC 1to 200mm
		Cord Anchorages and strain relief	(Cl. no 4.11.101.2 of IEC 62040-1:2017 IS 16242 Part1:2014	30N to 100N 1to 200mm
		Enclosure Handles and manual controls	(Cl. no 4.12.2 of IEC 62040-1:2017 IS 16242 Part1:2014	1to 200mm
		Stability test for enclosure	(Cl. no 4.12.5 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 180°C 0 to 500 N
		Ingress protection test (IP rating)	(Cl. no 5.2.2.3 of IEC 62040-1:2017 IS 16242 Part1:2014	IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8
		Steady force test,	(Cl. no 5.2.2.4.2.2 & 5.2.2.4.2.3 of IEC 62040-1:2017 IS 16242 Part1:2014	1-500 N
		Impact test	(Cl. no 5.2.2.4.3 of IEC 62040-1:2017 IS 16242 Part1:2014	500 g (±) 25g Height up to 1.3m
		Drop test	(Cl. no 5.2.2.4.4 of IEC 62040-1:2017 IS 16242 Part1:2014	Drop board
		Stress relief test	(Cl. no 5.2.2.4.5 of IEC 62040-1:2017 IS 16242 Part1:2014	0 °C to 250 °C

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Stability test	(Cl. no 5.2.2.5 of IEC 62040-1:2017 IS 16242 Part1:2014	0-180°C
		Wall, ceiling or rack mounted equipment test	(Cl. no 5.2.2.6.101 of IEC 62040-1:2017 IS 16242 Part1:2014	1-500 N
		Rack mounted equipment test	(Cl. no 5.2.2.6.102 of IEC 62040-1:2017 IS 16242 Part1:2014	1-500 N
		Cord guard test	(Cl. no 5.2.2.101 of IEC 62040-1:2017 IS 16242 Part1:2014	1-500 N 1to 200mm
		Back-feed protection test	(Cl. no 5.2.3.101 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC 1.5 A to 10A AC/DC
		Input current test	(Cl. no 5.2.3.102 of IEC 62040-1:2017 IS 16242 Part1:2014	10-300Volt AC 0.01-19 Amp
		Transformer protection test	(Cl. no 5.2.3.104 of IEC 62040-1:2017 IS 16242 Part1:2014	Ambient to 550°C
		Unsynchronised load transfer test	(Cl. no 5.2.3.105 of IEC 62040-1:2017 IS 16242 Part1:2014	0 to 600 V AC/DC
		Abnormal operation and simulated faults tests	(Cl. no 5.2.4 of IEC 62040-1:2017 IS 16242 Part1:2014	10-300Volt AC (at 50Hz) 0.01to 19 Amp 0 to -600 V AC/DC 50µA to 19mA
		Glow wire	(Cl. no 5.2.5 .3of IEC 62040-1:2017 IS 16242 Part1:2014	50°C to 960 °C 10 to 99 sec 1 to 200mm
		Flammability test	Cl. no 5.2.5 .3of IEC 62040-1:2017 IS 16242 Part1:2014	50°C to 1180 °C 10 to 90 sec

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Durability (Information and marking requirements)	(Cl. no 6.1.101 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Information for selection	(Cl. no 6.2 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Information for Installation and commissioning	(Cl. no 6.3 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative
		Information for maintenance	(Cl. no 6.5 of IEC 62040-1:2017 IS 16242 Part1:2014	Qualitative

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

PHOTOMETRY TESTING

I.	**LIGHT SOURCES (ELECTRIC LAMP)**			
1.	**Electrical and Photometric Measurements of SSL (LED) Products**	Electrical parameters	LM 79-08 Cl. 8 IS 16106: 2012 Cl. 10	5 W to 800 W 10 V_{ac} to 300 V_{ac} 0.1 A_{ac} to 4.5 A_{ac} 1 V_{dc} to 28 V_{dc} 0.01 A_{dc} to 4.5 A_{dc} 45 Hz to 70 Hz
		Total Luminous Flux (Lumen)	LM79-08 Cl. 9 IS 16106: 2012 Cl. 11	0.1 lm to 50,000 lm
		Luminous Efficacy	LM79-08 Cl. 11 IS 16106: 2012 Cl.13	1 lm/W to 200 lm/W
		Color characteristics of SSL product (Chromaticity Coordinates: Correlated Color Temperature & Color Rendering Index)	LM79-08 Cl. 12 IS 16106: 2012 Cl. 14	2500 K to 8500K x =0 to 1 y =0 to 1 0.1 to 100
		Light Intensity Distribution - At test distance of 15.775 m	IES LM-79-08 Cl. 10 IS 16106: 2012 Cl. 12	0.1 cd to 1,00,000 cd ~0.001 lx to ~ 99,999 lx
2.	**Portable General Purpose Luminaries**	Photometric Requirements Light Intensity Distribution - at test distance of 15.775 m	IS 10322 (Part 5/Sec IV): 2015 Cl. 12	0.1 cd to 10,00,00,000 cd ~0.001lx ~ 99:999 lx

Laboratory	**Institute of Testing and Certification (India) Pvt. Ltd., 146, JLPL Industrial Area, Sector-82, Mohali, Punjab**	
Accreditation Standard	**ISO/IEC 17025: 2017**	
Certificate Number	**TC-6601**	**Page 55 of 55**
Validity	**22.04.2019 to 28.11.2019**	**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
3.	**Luminaries Performance-Led Luminaries Particular Requirement**	Luminous Flux	IS 16107 (Part 2/Sec I): Cl. 8.1 IS 16103 (Part 2): 2012 Cl. 8.1	0.1 lm to 50000 lm
4.	**Lamp**	Luminous Flux	IS 15111 Part 2: 2002 Cl. 10 IEC 60969 Cl. 7 and Cl. 4	0.1 lm to 50000 lm

Nitin Gupta
Convenor

Alok Jain
Program Manager