NABL

National Accreditation Board for Testing and Calibration Laboratories

(An Autonomous Body under Department of Science & Technology, Govt. of India)

CERTIFICATE OF ACCREDITATION

INSTITUTE OF TESTING AND CERTIFICATION (INDIA) PVT. LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

362, Industrial Area, Phase-II, Panchkula, Haryana

in the discipline of

ELECTRICAL TESTING

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Certificate Number T-1811

Issue Date 06/05/2015

Valid Until 05/05/2017

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

N. Venkateswaran	Anil Relia	Prof. Ashutosh Sharma
Program Manager	Director	Chairman

रा.प्र.प्र.बो.

राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड

(विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार के अधीन स्वायत्तशासी निकाय)

प्रत्यायन प्रमाण-पत्र

इंस्टिट्यूट ऑफ टेस्टिंग एंड सर्टिफिकेशन (इंडिया) प्रा. लि.

का मूल्यांकन और प्रत्यायन निम्न मानक के अनुसार

आई.एस.ओ./आई.ई.सी. 17025:2005

"परीक्षण एवं अंशशोधन प्रयोगशालाओं की सक्षमता की सामान्य अपेक्षाएँ"

पंचकुला, हरियाणा

में स्थित इसकी सुविधाओं के लिए

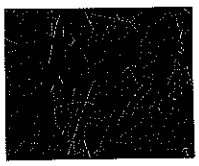
विद्युत परीक्षण

के विषय क्षेत्र में किया गया।

(इस प्रयोगशाला के प्रत्यायन के विषय क्षेत्र की जानकारी एन ए बी एल वेबसाइट www.nabl-india.org से भी प्राप्त कर सकते हैं)

प्रमाण-पत्र संख्या प्र -1811

जारी करने की तिथि 06/05/2015



वैधता की तिथि 05/05/2017

यह प्रमाण-पत्र उपर्युक्त मानक तथा राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड की अतिरिक्त अपेक्षाओं का निरंतर संतोषप्रद अनुपालन किए जाने पर अनुबंध में निर्दिष्टानुसार प्रत्यायन के क्षेत्र के लिए वैध रहेगा।

रा.प्र.प्र.बो. की ओर से हस्ताक्षरित

एन. वेंकटेस्वरन
कार्यक्रम प्रबन्धक

अनिल रेलिया
निदेशक

आशुतोष शर्मा
प्रो. आशुतोष शर्मा
अध्यक्ष

NABL

SCOPE OF ACCREDITATION

Laboratory	**Institute of Testing and Certification (India) Pvt. Ltd, 362, Industrial Area, Phase-II, Panchkula, Haryana**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Electrical Testing**	**Issue Date**	**06.05.2015**
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	**DOMESTIC ELECTRICAL APPLIANCES**			
1.	**Household and Similar Electrical Appliances Electric Iron, Warming Plates, Electric Kitchen Machines, Refrigerators, Food-Room Heaters, Electric Immersion, Water Heater, Electric Stoves, Vacuum Cleaners and Water-Suction Cleaning Appliances**	Classification	IEC 60335-1:2010-05 IS 302-1: 2008 IS 302-2-12: 1993 IS 302-2-14: 1994 IS 302-2-24: 1994 IS 302-2-30: 2007 IS 302-2-201:2008 IS 302-2-202:1992 EN 60335-1:2010 IS 4250:1980 IEC/EN 60335-2-2 IEC/EN 60335-2-3 IEC/EN 60335-2-12 IEC/EN 60335-2-14 IEC/EN 60335-2-30 IEC/EN 60335-2-89, Cl.6	Qualitative Upto 5 kV IP 1X, 2X, 3X, 4X, 5X, 6X; IP X3, X4, X5, X6, X7, X8
		Marking & Instruction	Cl.7 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative
		Protection Against Electric Shocks	Cl.8 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative Upto 60 V
		Power I/P & Current	Cl.10 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	50 to 300 V AC (50 Hz), 0 to 19.99 A
		Heating/ Temperature Rise	Cl.11 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	(-) 100 to 550 °C

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	Household and Similar Electrical Appliances Electric Iron, Warming Plates, Electric Kitchen Machines, Refrigerators, Food-Room Heaters, Electric Immersion, Water Heater, Electric Stoves, Vacuum Cleaners and Water-Suction Cleaning Appliances	Leakage Current and electric strength at operating temp.	Cl.13 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 5 kV 50 µA to 20 mA
		Transient overvoltages	Cl. 14 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 10 kV
		Leakage current and Electric strength	Cl.16 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 5 kV 50 µA to 20 mA
		Overload protection of transformers and associated circuits	Cl.17 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	50 V to 300 V AC (at 50 Hz), Upto 20 A (-) 100 to 550 °C
		Endurance	Cl.18 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	50 V to 300 V AC (at 50 Hz), Upto 19.99 A
		Stability & Mechanical Hazards	Cl. 20 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	0 to 90 °
		Mechanical strength	Cl. 21 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative 0.5 joules 10 N to 50 N Upto 5 kV

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	Household and Similar Electrical Appliances Electric Iron, Warming Plates, Electric Kitchen Machines, Refrigerators, Food-Room Heaters, Electric Immersion, Water Heater, Electric Stoves, Vacuum Cleaners and Water-Suction Cleaning Appliances	Construction	Cl.22 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative IP X3,X4,X5,X6,X7, X8; Test Probes/Force Gauge: 10N to 50N Torque Upto 4Nm
		Internal Wiring	Cl.23 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	(Qualitative) 0-999999 rotations 0 to 5 kV
		Components	Cl.24 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative
		Supply connection and external flexible cords	Cl.25 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 5 kV
		Terminals for external conductors	Cl.26 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 50N
		Provision for Earthing	Cl.27 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	1A to 30A, Upto 19.99 V
		Screws and connections	Cl.28 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	0.2 Nm to 2.5 Nm
		Creepage & Clearance	Cl.29 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Upto 150 mm

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	Household and Similar Electrical Appliances Electric Iron, Warming Plates, Electric Kitchen Machines, Refrigerators, Food-Room Heaters, Electric Immersion, Water Heater, Electric Stoves, Vacuum Cleaners and Water-Suction Cleaning Appliances	Resistance to heat and fire	Cl.30 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Ambient to 850 °C / No flame or burning drops Ambient to 25 °C / Diameter impression Upto10 mm
		Resistance to rusting	Cl.31 of IS 302-1: 2008 & IEC 60335-1: 2010 & IS 4250: 1980	Qualitative
		Operational tests	Cl.34 of IS 4250: 1980	Sieve: 710µm, 500µm, 355µm, 1.40mm, 1mm, 500µm & 0.25mm Upto 30 kg
		Temperature withstand test for bowl	Cl.35 of IS 4250: 1980	(-)100 to 550 °C
		Test for controls	Cl.36 of IS 4250: 1980	Qualitative
		Strength of assembly	Cl.37 of IS 4250: 1980	Qualitative 25 kgf force and 25 kgf.cm

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II.	**Safety Testing**			
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	Cl 6 of IEC 60204-:2005, Amd. 1: 2008 IEC 60204-1 Ed.5, Amd. 1 2009-02 IEC 60204-31:2001 EN 60204-1:2009 IEC/EN 60204-32	Upto 150 mm
		Protection against electric shock	Cl. 6 of IEC 60204-1:2005, Amd 1: 2008	Qualitative Upto 60 V
		Protection of equipment	Cl. 7 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Phase sequence protection	Cl. 7 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Equipotential Bonding	Cl. 8 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		control circuits and control functions	Cl. 9 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Operator interface and machine-mounted control devices	Cl. 10 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Controlgear: location, mounting, and enclosures	Cl. 11 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Conductors and cables	Cl. 12 of IEC 60204-1:2005, Amd 1: 2008	Qualitative

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	Machinery (Control Panels, Metalworking Machinery, Food Machinery, Plastic and Rubber Machinery, Printing Paper and Board Machinery)	Conductor wires, conductor bars and slip-ring assemblies	Cl. 12.07 of IEC 60204-1:2005, Amd 1: 2008	Qualitative Upto 150 mm
		Wiring practices	Cl. 13 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Electric motors and associated equipment	Cl. 14 of IEC 60204-1:2005, Amd 1: 2008	Qualitative Upto 150 mm
		Protection by automatic disconnection of Supply	Cl. 15 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Accessories and lighting	Cl. 15 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Marking, warning signs and reference designations	Cl. 16 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Technical documentation	Cl. 17 of IEC 60204-1:2005, Amd 1: 2008	Qualitative
		Verification	Cl. 18 of IEC 60204-1:2005, Amd 1: 2008	Upto 5 kV 500 V / (150 KΩ to 450 GΩ) 1A to 30A, Upto 19.99V

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III.	**MEASURING INSTRUMENTS - ELECTRICAL & ELECTRONIC INSTRUMENTS & TRANSDUCERS**			
1.	**Instruments for Measurement and Laboratory Use (Electrical Control Equipment, Electrical Microscopes, Power Supply, Auto Transformer Electrical Laboratory Equipment, Signal Generators, Transducers, Transmitters)**	Testing in Single Fault condition	Cl. 4.4 IEC 61010-1 Ed.3, 2010-06	Qualitative Ambient to 750 °C
		Marking and documentation	Cl. 5.1 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Durability of Markings	Cl. 5.3 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Protection against electric shock	Cl. 6 IEC 61010-1 Ed.3, 2010-06	Qualitative 0 to 60 V
		Determination of Accessible parts	Cl. 6.2 IEC 61010-1 Ed.3, 2010-06	Qualitative Upto 60
		Protective Bonding	Cl. 6.5.2 IEC 61010-1 Ed.3, 2010-06	1A to 30A, Upto 19.99V
		Insulation requirements	Cl. 6.7 IEC 61010-1 Ed.3, 2010-06	Qualitative 50 V to 700 V AC, 50 Hz Upto 5 kV
		Procedure for voltage test (dielectric strength test)	Cl. 6.8 IEC 61010-1 Ed.3, 2010-06	-40 °C to +180 °C, 30 % R.H to 95 % R.H Upto 5 kV
		Measurement of Insulation Resistance (Table H.1 under Annexure H)	Cl. 6.8 IEC 61010-1 Ed.3, 2010-06	500 V / (150 kΩ to 450 GΩ)
		Protection against mechanical hazards	Cl. 7 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Resistance to mechanical stresses	Cl. 8 IEC 61010-1 Ed.3, 2010-06	Qualitative

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	Instruments for Measurement and Laboratory Use (Electrical Control Equipment, Electrical Microscopes, Power Supply, Auto Transformer Electrical Laboratory Equipment, Signal Generators, Transducers, Transmitters)	Drop test	Cl. 8.3 IEC 61010-1 Ed.3, 2010-06	1 m & 2 m
		Protection against the spread of fire	Cl. 9 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Equipment temperature limits and Resistance to heat	Cl. 10 IEC 61010-1 Ed.3, 2010-06	Ambient to 250 °C Upto 150mm
		Clearance & creepage distances	Cl. 10.5.1 IEC 61010-1 Ed.3, 2010-06	Upto 150mm
		Protection against hazards from fluids	Cl. 11 IEC 61010-1 Ed.3, 2010-06	IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8
		Specially protected equipment	Cl. 11.6 IEC 61010-1 Ed.3, 2010-06	IP 1X, 2X, 3X, 4X,
		Components and subassemblies Motors	Cl. 14.2 IEC 61010-1 Ed.3, 2010-06	Upto 10kV Upto 360V Upto 19.9A
		Transient overvoltage limiting device	Cl. 14.8 IEC 61010-1 Ed.3, 2010-06	0 to 10 kV
		Protection by interlocks	Cl. 15 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Hazards resulting from application	Cl. 16 IEC 61010-1 Ed.3, 2010-06	Qualitative
		Risk assessment	Cl. 17 IEC 61010-1 Ed.3, 2010-06	Qualitative

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IV.	**LAMPS, LUMINAIRES AND ACCESSORIES**			
1.	**General Purpose Luminaries (Fixed General Purpose Luminaries, Luminaries for Road and Street Lighting, Portable General Purposes Luminaries, Floodlights, Luminaries with Built-In Transformers for Tungsten Filaments Lamps, Portable Luminaries for Garden Use, Aquarium Luminaries, Ground Recessed Luminaries, Luminaries for Stage Lighting, Television and Film Studios (Outdoor and Indoor), Luminaries for Swimming-Pools and Similar Applications, Lighting Chains, Luminaries for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led Modules & Lamp Controlgear)**	Classification of luminaires	Sec. 2 of IEC 60598-1:2008 & IS 10322-1, IEC 60598-1:2008 IEC 60598-2-1:1979 IEC 60598-2-2:1997 IEC 60598-2-3:2002 IEC 60598-2-4:1997 IEC 60598-2-5:1998 IS: 10322-1:1982	Qualitative
		Marking	Sec. 3 of IEC 60598-1:2008 & IS 10322-1	Qualitative
		Construction	Sec. 4 of IEC 60598-1:2008 & IS 10322-1	Qualitative
		External and internal wiring	Sec. 5 of IEC 60598-1:2008 & IS 10322-1	Qualitative
		Provision for earthing	Sec. 7 of IEC 60598-1:2008 & IS 10322-1	1 A to 30 A, Upto 19.99V
		Protection against electric shock	Sec. 8 of IEC 60598-1:2008 & IS 10322-1	Qualitative 1 V to 60 V
		Resistance to dust, solid objects & moisture	Sec. 9.2 of IEC 60598-1:2008 & IS 10322-1	IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8
		Humidity Test	Cl. 9.3 of IEC 60598-1:2008 & IS 10322-1	15 °C to 85 °C, 20 % R.H to 95 % R.H
		Insulation resistance and electric strength, touch current and protective conductor current	Sec. 10 of IEC 60598-1:2008 & IS 10322-1	Upto 5 kV 500 V / (150 kΩ to 450 GΩ) 50 μA to 20 mA

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	General Purpose Luminaries (Fixed General Purpose Luminaries, Luminaries for Road and Street Lighting, Portable General Purposes Luminaries, Floodlights, Luminaries with Built-In Transformers for Tungsten Filaments Lamps, Portable Luminaries for Garden Use, Aquarium Luminaries, Ground Recessed Luminaries, Luminaries for Stage Lighting, Television and Film Studios (Outdoor and Indoor), Luminaries for Swimming-Pools and Similar Applications, Lighting Chains, Luminaries for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led Modules & Lamp Controlgear)	Creepage Distances & Clearances	Sec. 11 of IEC 60598-1:2008 & IS 10322-1	Upto 150 mm
		Endurance test and thermal test	Sec. 12 of IEC 60598-1:2008 & IS 10322-1	50 V to 300V AC, 50 Hz Upto 19.99 A Ambient to 300 °C
		Resistance To heat, fire and tracking	Sec. 13 of IEC 60598-1:2008 & IS 10322-1	0 to 850 °C / No flame or burning drops 0 to 250 °C Upto 10 mm 50 V to 700 V AC, 50 Hz
		Screw terminals	Sec. 14 of IEC 60598-1:2008 & IS 10322-1	0.2 Nm to 10 Nm 30 N to 100 N
		Screw less terminals and electrical connections	Sec.15 of IEC60598-1:2008 & IS 10322-1	4 N to 50 N
		Marking	Cl.4 of IEC 60968 & Cl.4.2 of IS 15687 IEC 60968:1988, Amd. 1: 1991, Amd. 2: 1999 IS 15687 (Part 1) : 2006	Qualitative
		Protection against electric shock	Cl.6 of IEC 60968 & Cl.4.6 of IS 15687	Qualitative 1 V to 60 V
		Insulation resistance and electric Strength after humidity treatment	Cl.7 of IEC 60968 & Cl.4.4 & 4.5 & 4.10.1 of IS 15687	15 °C to 85 °C, 20 % R.H to 95 % R.H Upto 5 kV 500 V / (150 KΩ to 450 GΩ)

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	General Purpose Luminaries (Fixed General Purpose Luminaries, Luminaries for Road and Street Lighting, Portable General Purposes Luminaries, Floodlights, Luminaries with Built-In Transformers for Tungsten Filaments Lamps, Portable Luminaries for Garden Use, Aquarium Luminaries, Ground Recessed Luminaries, Luminaries for Stage Lighting, Television and Film Studios (Outdoor and Indoor), Luminaries for Swimming-Pools and Similar Applications, Lighting Chains, Luminaries for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led Modules & Lamp Controlgear)	Lamp Cap Temperature rise	Cl.9 of IEC 60968 & Cl.4.9 of IS 15687	(-) 100 °C to 550 °C
		Resistance to Heat and Fire/ flame and ignition	Cl.10 &11 of IEC 60968 & Cl.4.7 of IS 15687	Qualitative Ambient to 850 °C / No flame or burning drops Ambient to 250 °C 1 mm to 10 mm
		Creepage Distance for Caps	Cl.9 of IEC 60968 & Cl.4.8 of IS 15687	Digital Vernier Upto150mm
		Marking	Cl.5 of IEC 62560/ IS16102-1 IEC 62560:2011 IS 16102 (Part 1): 2012	Qualitative Test
		Creepage Distances & Clearances	Cl.14 of IEC 62560 & IS16102-1	Digital Vernier Upto 150mm
		Resistance To heat, fire and tracking	Cl.11 & 12 of IEC 62560 & IS16102-1	Qualitative Ambient to 850 °C / No flame or burning drops Ambient to 250 °C Upto 10 mm 50 V to 700 V AC 50 Hz
		Insulation resistance and electric Strength after humidity treatment	Cl.8 of IEC 62560 & IS16102-1	15 °C to 85 °C, 20% R.H to 95% R.H Upto 5 kV 500 V /(150 KΩ to 450 GΩ)
		Cap temperature rise	Cl.10 of IEC 62560 & IS16102-1	(-)100 °C to 550 °C
		Protection against accidental contact with live parts	Cl.7 of IEC 62560 & IS16102-1	Qualitative 1 V to 60 V

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SCOPE OF ACCREDITATION

Laboratory	**Institute of Testing and Certification (India) Pvt. Ltd, 362, Industrial Area, Phase-II, Panchkula, Haryana**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Electrical Testing**	**Issue Date**	**06.05.2015**
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	General Purpose Luminaries (Fixed General Purpose Luminaries, Luminaries for Road and Street Lighting, Portable General Purposes Luminaries, Floodlights, Luminaries with Built-In Transformers for Tungsten Filaments Lamps, Portable Luminaries for Garden Use, Aquarium Luminaries, Ground Recessed Luminaries, Luminaries for Stage Lighting, Television and Film Studios (Outdoor and Indoor), Luminaries for Swimming-Pools and Similar Applications, Lighting Chains, Luminaries for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led Modules & Lamp Controlgear)	Marking	Cl.7 of IEC 62031& IS16103 & IEC 61347-1 & IS 15885-1 IEC 62031:2012 IS 16103 (Part 1):2012 IEC 61347-1:2010 IS 15885 (Part 1):2011 IEC 61347-2-13:2006 IS15885 (Part 2/SEC 13):2012	Qualitative
		Creepage Distances & Clearances	Cl.16 of IEC 62031/ IS16103/ IEC 61347-1/IS 15885-1	Upto 150mm
		Resistance To heat, fire and tracking	Cl.18 of IEC 62031/IS16103/ IEC 61347-1/IS 15885-1	Qualitative Ambient to 850 °C / No flame or burning drops 0 to 250°C/ Upto 10mm 50 V to 700 V AC, 50 Hz
		Screw terminals	Cl.8 of IEC 62031 & IS16103& IEC 61347-1 & IS 15885-1	0. 2 Nm to 10 Nm 30 N to 100 N
		Screw less terminals and electrical connections	Cl.8 of IEC 62031 & IS16103 & IEC 61347-1 & IS 15885-1	4N to 50N
		Insulation resistance and electric Strength after humidity treatment	Cl.11 & 12 of IEC 62031/IS16103	15°C to 85°C, 20% R.H to 95% R.H Upto 5 kV 500 V / (150 KΩ to 450 GΩ)
		Provisions for protective earthing	Cl.9 of IEC 62031/IS16103/ IEC 61347-1/15885-1	1A to 30 A, Upto 19.99 V

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	General Purpose Luminaries (Fixed General Purpose Luminaries, Luminaries for Road and Street Lighting, Portable General Purposes Luminaries, Floodlights, Luminaries with Built-In Transformers for Tungsten Filaments Lamps, Portable Luminaries for Garden Use, Aquarium Luminaries, Ground Recessed Luminaries, Luminaries for Stage Lighting, Television and Film Studios (Outdoor and Indoor), Luminaries for Swimming-Pools and Similar Applications, Lighting Chains, Luminaries for Emergency Lighting) & Self-Ballasted Lamps, Single Capped Fluorescent Lamps, LED Lamps, Led Modules & Lamp Controlgear)	Protection against accidental contact with live parts	Cl.10 of IEC 62031/IS16103/ IEC 61347-1/15885-1	Qualitative 1 V to 60 V
		Moisture resistance and insulation	Cl.11 of IEC 62031/IS16103/ IEC 61347-1/15885-1	15 °C to 85 °C, 20 % R.H to 95 % R.H 500 V (150 KΩ to 450 GΩ)
		Electric strength	Cl.12 of IEC 62031/IS16103/ IEC 61347-1/15885-1	Upto 5 kV

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
V.	**CABLES AND ACCESSORIES**			
1.	**Cable Glands (Armoured Cable Glands)**	Classification	Cl.6 of EN 50262 BS EN 6121: 2005 EN 50262: 1999	Qualitative
		Marking & Documentation	Cl.7 of EN 50262	Qualitative
		Construction	Cl.8 of EN 50262	Qualitative
		Mechanical Properties	Cl.9 of EN 50262	Upto100N
		Resistance to Impact	Cl.9.4 of EN 50262	0.2 kg, 1 kg, 2 kg
		Electrical Properties	Cl.10 of EN 50262	1 to 30, 20 V to 5 kV 20 °C to 30 °C 91 % to 95 % Upto 3000 A
		IP code in accordance with EN 60529	Cl.12.1 of EN 50262	Qualitative Test IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8
		Resistance to abnormal heat	Cl.12.2 of EN 50262	Qualitative
		Electrical Current Test		Upto 3000 am 1 A to 30 A, Upto 19.99 V
		Requirements	Cl.4 of BS 6121	640 N
		Test samples, test conditions and test schedule	Cl.5 of BS 6121	Qualitative
		Marking and information	Cl.6 of BS 6121	Qualitative

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
VI.	**ENVIRONMENTAL TEST FACILITY**			
1.	**Any Electrical, Electronic & Process Control Items / Products**	Dry heat test	IS 9000 (Part III): 1977 IS 9000 (Part 3): 2001 IS 1248: 2003 IS 13779: 1999 IEC 60068-2-2:2007	Ambient to 140 °C
		Dry Cold test	IS 9000 (Part II): 1977 IS 1248: 2003 IS 13779: 1999 IEC 60068-2-1:2007	Ambient to (-)40 °C / (-)40 °C to 10 °C
		Damp heat test (Steady state)	IS 9000 (Part IV): 1981 IS 1248: 2003 IS 13779: 1999 IS 13021 IS 1534 IEC 60068-2-78:2001	20 °C to 85 °C 25 % R.H to 95 % R.H
		Damp heat test (Cyclic)	IS 9000 (Part V): 1981 IEC 60068-2-30:2005	20 °C to 50 °C 25 % R.H to 95 % R.H
		Damp heat test (Composite)	IS 9001:4 (1979)	20 °C to 85 °C 25 % R.H to 95 % R.H
		Composite temperature/Humidity Cyclic test	IEC 60068-2-38	20 °C to 85 °C 25 % R.H to 95 % R.H
		Temperature cycling/change of temperature	IS 9000 (Part XIV): 1981 EC 60068-2-14:1984	-40°C to 140°C 25% R.H to 95% R.H

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Any Electrical, Electronic & Process Control Items / Products	Impact test (IK01, IK02, IK03, IK04, Ik05, IK06, IK07, IK08, IK09, IK10)	IEC 62262: 2002 IEC 60068-2-75 : 1997 IEC 62208:2002 IEC 62275: 2006 IS 8828: 1996 IS/IEC 60898-2: 2003 IEC 60898-1: 2003 IS 12640 (Part 1): 2008/ IEC 61008-1: 2006 IS 12640 (Part 2): 2008/ IEC 61009-1: 2006 IEC 61008-2-1: 1990 IEC 61009-2-1: 2004 IEC 61330: 1995	Pendulum length 1 m, Hammer weight – 100 N & 500 N 20 J, 5 kg
		Dust test Ingress of protections (Degrees) (IP 1X, 2X, 3X, 4X, 5X, 6X IP X3, X4, X5, X6, X7, X8)	IS 9000 (Part XII): 1981 IS/IEC 60529	Qualitative

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