

<b>Laboratory</b>	<b>Shri Krishna Test House, B-70/1, Gali No. 8, New Modern Shahdara, Mansarover Park, Delhi</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Electrical Testing</b>	<b>Issue Date</b>	<b>19.10.2014</b>
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<b>S.No.</b>	<b>Product / Material of Test</b>	<b>Specific Test Performed</b>	<b>Test Method Specification against which tests are performed</b>	<b>Range of Testing / Limits of Detection</b>
<b>I. DOMESTIC ELECTRICAL APPLIANCES</b>				
<b>1.</b>	<b>Safety of household and similar electrical appliances. Electric Iron, Electric immersion water heater, Stationary storage type electric water heater, Instantaneous electric water heater, Electric room heater, Heating element</b>	Protection against access to live parts	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	0.1-200.0 V
		Power input and current	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	1-4000W 0.1-25.0 A 1-250V
		Heating	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992,	1-200 °C

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		Leakage current and electric strength	IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	1-210 $\mu$ A 0.01- 3.00 kV 0.5-250.0 mA
		Transient Over Voltage	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	0.01-10.00 kV, 1-12 $\mu$ s Rise & 1-50 $\mu$ s Half Width 0.1-99.0sec 1-9999count

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		Moisture Resistance	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	20-99% RH
		Leakage current & Electric Strength (After Humidity Treatment)	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	1-210 $\mu$ A, 0.01- 3.00 kV 0.5-250.0 mA
		Overload protection of transformer and associated circuit	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008,	Qualitative

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		Abnormal operation	IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	1-200°C
		Stability and mechanical hazards	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	1-180°C

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		Mechanical strength	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	Qualitative
		Construction	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	Qualitative
		Internal wiring	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008	Qualitative

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		Components	IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS:2082(Part-1):1993,	1-200 °C
		Supply connection and external flexible cord	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	0.001-25.000 mm, Pull 30 to 100 N Torque 0.1 to 0.35Nm

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		Terminal for external conductors	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	Qualitative
		Provision for earthing	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	0.01-20.00V 0.1-30.0A

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		Screws and connections	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	0.1-1.5Nm 0.01-200.00 mm
		Clearances, creepage distances and solid insulation	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993,	0.01-200.00 mm
		Resistance to heat & fire	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008,	0.01-200.00 mm 1-60 s 0.1-25.0A 1-1200 °C



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		Resistance to rusting	IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	Qualitative
		Radiation, Toxicity and Similar Hazards	IS 302-1:2008, IS 302-2-3:2007, IS 366:1991, IS 302-2-21, IS 4159:2002, IS 368:1992, IS 302-2-201:2008, IS 302-2-30:2007, IS 8978:1992, IS 302-2-35:1993, IS 2082(Part-1):1993	Qualitative

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		Verification of the Rated Capacity	IS 2082(Part-1):1993	10ml-1l, 20ml-2l & 250ml-5l
		Standing Loss per 24 Hours	IS 2082(Part-1):1993	0.1-99999.9kwh
		Hot Water Output	IS 2082(Part-1):1993	(-)10-110°C
		Re-heating Time	IS 2082(Part-1):1993	99hr, 99min., 99s, 1-200°C
		Mixing Factor	IS 2082(Part-1):1993	1-200°C
		Deviation of Dial Calibration	IS 2082(Part-1):1993	1-200°C
		Cycle Temp. Variation	IS 2082(Part-1):1993	1-200°C
		Finish	IS 2082(Part-1):1993	Qualitative
		Endurance	IS 2082(Part-1):1993	Qualitative
		Measurement of heating up time	IS 366:1991	0.01-60.00 min.
		Measurement of sole plate temperature	IS 366:1991	1-1200°C
		Measurement of temperature distribution	IS 366:1991	1-1200°C

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		Measurement of over-swing temperature and heating up access temperature	IS 366:1991	1-1200°C
		Measurement of cyclic fluctuation of temperature of hottest point.	IS 366:1991	1-1200°C
		Measurement of Temperature Drop Under Load	IS 366:1991	1-1200°C
		Measurement of thermostatic stability	IS 366:1991	1-300V,0.01-30.00A 1-999999 digit
		Finish	IS 366:1991	Qualitative
		Endurance test	IS 368:1991	Qualitative
		Finish	IS 368:1991	Qualitative
		Finish	IS 8978:1992	Qualitative
		Operation of flow switch	IS 8978:1992	Qualitative
		Endurance test	IS 8978:1992	Qualitative
		Leakage and hydrostatic strength tests	IS 4159:2002	0.5-14.0 kg/cm <sup>2</sup>

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<b>II. CABLES &amp; ACCESSORIES</b>				
<b>1.</b>	<b>PVC Insulated Cable for Working Voltage Up to &amp; Including 1100 V as per IS : 694:1990</b>	Conductor Tensile Strength (For Aluminium)	IS 694:1990, IS 8130:1984, IS 10810 (Pt- 2) :1984	1 - 300N/ mm <sup>2</sup>
		Conductor Annealing (For copper)	IS 694:1990, IS 8130:1984, IS 10810 (Pt- 1) :1984	1-2500N, 0.5-300.0 mm
		Conductor Wrapping (For Aluminium)	IS 694:1990, IS 8130:1984, IS 10810 (Pt- 3) :1984	Qualitative
		Conductor Diameter (For Aluminium & copper)	IS 694:1990, IS 8130:1984, IS 10810 (Pt- 5) :1984	0.01-25.00 mm
		Thickness of insulation	IS 694:1990, IS 10810 (Pt- 6) :1984	0.02- 150.00 mm
		Thickness of sheath	IS 694:1990, IS 10810 (Pt- 6) :1984	0.02- 150.00 mm
		Thickness of sheath	IS 694:1990, IS 10810 (Pt- 6) :1984	0.02- 150.00 mm
		Overall dimensions	IS 694:1990, IS 10810 (Pt- 6) :1984	0.02- 150.00 mm
		Identification	IS 694:1990	Qualitative

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		Core Identification	IS 694:1990	Qualitative
		Cable code	IS 694:1990	Qualitative
2.	<b>PVC Insulated (Heavy Duty) Cable for Working Voltage Upto &amp; Including 1100 V</b>	Conductor Tensile Strength (For Aluminium)	IS 1554(Pt-1):1988, IS 8130:1984, IS 10810 (Pt- 2) :1984	1 – 300 N/mm <sup>2</sup>
		Conductor Annealing (For copper)	IS 1554(Pt-1):1988, IS 8130:1984, IS 10810 (Pt- 1) :1984	1-2500N, 0.5-300.0mm
		Conductor Wrapping (For Aluminium)	IS 1554(Pt-1):1988, IS 8130:1984, IS 10810 (Pt- 3) :1984	Qualitative
		Conductor Diameter (For Aluminium & copper)	IS 1554(Pt-1):1988, IS 8130:1984, IS 10810 (Pt- 5) :1984	0.01-25.00 mm
		Thickness of insulation	IS 1554(Pt-1):1988, IS 10810 (Pt- 6) :1984	0.02- 150.00 mm
		Core Identification	IS 1554(Pt-1):1988	Qualitative
		Thickness of outer sheath	IS 1554(Pt-1):1988, IS 10810 (P- 6) :1984	0.02- 150.00 mm
		Identification	IS 1554(Pt-1):1988	Qualitative

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