

Laboratory	Raicon Labs Pvt. Ltd., Plot No. 140, HSIIDC, Rai Industrial Area, Sonapat, Haryana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	11.09.2015
Certificate Number	T-2604	Valid Until	06.08.2017
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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. WIRING ACCESSORIES				
1.	Plug and socket outlet of rated voltage upto and including 250 volts and rated current upto and including 16 Amperes (Excluding Plugs with sleeved pins and sockets with shutter and membrane)	Electrical strength	IS 1293: 2005 Cl. No. 17.1 Cl. No. 17.2 Cl. No. 17.3	Qualitative (Upto 5 kV AC)
		Insulation resistance	IS 1293: 2005 Cl. No. 17.1 Cl. No. 17.2 Cl. No. 17.3	2 MΩ to 100 MΩ Upto 500 V DC
		Making & breaking capacity	IS 1293: 2005 Cl. No. 20	Qualitative (pf: Upto 1 & Current: Upto 63A)
		Verification of Marking	IS 1293: 2005 Cl. No. 8	Qualitative
		Mechanical strength	IS 1293: 2005 Cl. No. 24	Qualitative
		Temperature rise test	IS 1293: 2005 Cl. No. 19.1 and table 15	Upto 99.99 A Upto 300 °C
		Checking of dimensions	IS 1293: 2005 Cl. No. 9	Upto 150 mm
		Classification	IS 1293: 2005 Cl. No. 7.1 & Cl. No. 7.3	Qualitative
	Construction of plugs and portable socket outlets	IS 1293: 2005 Cl. No. 14.1 to Clause No. 14.25	Qualitative	

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	Plug and socket outlet of rated voltage upto and including 250 volts and rated current upto and including 16 Amperes (Excluding Plugs with sleeved pins and sockets with shutter and membrane)	Constructional requirements of fixed socket outlets	IS 1293: 2005 Cl. No. 13.1 to Cl. No. 13.23	Qualitative
		Creepage distances, clearances and distance through sealing compound	IS 1293: 2005 Cl. No. 27.1 to Cl. No. 27.3 and Table 23	Upto 150 mm
		Force necessary to withdraw the plug	IS 1293: 2005 Cl. No. 22 & Table 16	1.5 N to 49 N
		Normal operation	IS 1293: 2005 Cl. No. 21	Qualitative (pf: Upto 1 & Current: Upto 63A)
		Operation of earthing contacts	IS 1293: 2005 Cl. No. 18	Upto 150 mm
		Protection against electric shock	IS 1293: 2005 Cl. No. 10.1 to 10.6	Qualitative (Upto 70 V)
		Provision for earthing	IS 1293: 2005 Cl. No. 11.1, Cl. No. 11.2 Cl. No. 11.3, Cl. No. 11.4 Cl. No. 11.5	Upto 5 V Upto 30 A
		Rating	IS 1293: 2005 Cl. No. 6.1 & 6.2 & table 1	Qualitative (Upto 16 A/ 250 V)
		Resistance to heat	IS 1293: 2005 Cl. No. 25	Upto 199.9 °C Upto 150 mm

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	Plug and socket outlet of rated voltage upto and including 250 volts and rated current upto and including 16 Amperes (Excluding Plugs with sleeved pins and sockets with shutter and membrane)	Resistance of insulating material to abnormal heat	IS 1293: 2005 Cl. No. 28.1.1	Upto 1000 °C Upto 99.9 s
		Resistance to rusting	IS 1293: 2005 Cl. No. 29	Upto 199.9 °C, (-) 5 °C to 60 °C RH: Upto 99 %
		Screws, current carrying parts and connections	IS 1293: 2005 Cl. No. 26.1 to Clause No. 26.7	Upto 50 kgf
		Terminals	IS 1293: 2005 Cl. No. 12.1 to Cl. No. 12.3.12 and Table 3 to 10	Upto 150 mm
		Flexible cables and their connection	IS 1293: 2005 Cl. No. 23.1 to 23.3 Table no. 17 to 20	Upto 999999 count
		Resistance to ageing	IS 1293: 2005 Cl. No. 16.1	Upto 199.9 °C
		Resistance to Humidity	IS 1295: 2005 Cl. No. 16.3	(-)25 °C to 60 °C
2.	Switch For Domestic and Similar Purposes (Excluding Rotary Switch, Push Buttons Switch & Cord Operated Switches)	Electrical strength	IS 3854: 1997 Cl. No. 16	Qualitative (Upto 5 kV AC)
		Insulation resistance test	IS 3854: 1997 Cl. No. 16	2 MΩ to 100 MΩ
		Verification of Marking	IS 3854: 1997 Cl. No. 8	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
	Switch For Domestic and Similar Purposes (Excluding Rotary Switch, Push Buttons Switch & Cord Operated Switches)	Making & breaking capacity	IS 3854: 1997 Cl. No. 18	Qualitative (pf: Upto 1 & Current: Upto 63A)
		Mechanical strength	IS 3854: 1997 Cl. No. 20	Qualitative
		Temperature rise test	IS 3854: 1997 Cl. No. 17	Upto 99.99 A Upto 300 °C
		Checking of dimensions	IS 3854: 1997 Cl. No. 9	Upto 150 mm, LC: 0.01 mm
		Classification	IS 3854: 1997 Cl. No. 7	Qualitative
		Constructional requirements	IS 3854: 1997 Cl. No. 13	Upto 150 mm
		Creepage distances, clearances and distance through sealing compound	IS 3854: 1997 Cl. No. 23	Upto 150 mm
		Normal operation	IS 3854: 1997 Cl. No. 19.1 & 19.2	Qualitative (pf: Upto 1 & Current: Upto 63A)
		Protection against electric shock	IS 3854: 1997 Cl. No. 10	Qualitative (Upto 70 V)
		Rating	IS 3854: 1997 Cl. No. 6	Qualitative
	Resistance to abnormal heat & fire	IS 3854: 1997 Cl. No. 24.1	Upto 100 °C Upto 99.9 s	

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	Switch For Domestic and Similar Purposes (Excluding Rotary Switch, Push Buttons Switch & Cord Operated Switches)	Resistance to heat	IS 3854: 1997 Cl. No. 21	Qualitative (Upto 199.9 °C Upto 150 mm)
		Resistance to rusting	IS 3854: 1997 Cl. No. 25	Qualitative (Upto 199.9 °C (-) 5 °C to 60 °C R.H. Upto 99 %)
		Screws, current carrying parts and connections	IS 3854: 1997 Cl. No. 22	Upto 50 kgf
		Terminals	IS 3854: 1997 Cl. No. 12	Upto 150 mm
		Resistance to Ageing & humidity	IS 3854: 1997 Cl. No. 15	(-) 5 °C to 60 °C R.H. Upto 95 %
II.	SWITCHGEAR EQUIPMENTS			
1.	Circuit breakers for over current protection for household and similar installations (Single Pole upto 63 A 240 V only)	Clearance & creepage distance	IS/IEC 60898-1: 2002 Cl. No. 8.1.3	Upto 150 mm
		Dielectric strength Insulation resistance	IS/IEC 60898-1: 2002 Cl. No. 9.7.1 to 9.7.5	Upto 100 MΩ LC: 2 MΩ
		Electrical strength		Qualitative Upto 5 kV AC, LC: 0.01 kV
		Indelibility of marking	IS/IEC 60898-1: 2002 Cl. No. 9.3	Qualitative
		Protection against electric shock	IS/IEC 60898-1: 2002 Cl. No. 9.6	Upto 70 V

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	Circuit breakers for over current protection for household and similar installations (Single Pole upto 63 A 240 V only)	Resistance to abnormal heat and fire	IS/IEC 60898-1: 2002 Cl. No. 9.15	Upto 1000 °C Upto 99.9 s
		Resistance to heat	IS/IEC 60898-1: 2002 Cl. No. 9.14	Upto 199.9 °C Upto 150 mm
		Resistance to rusting	IS/IEC 60898-1: 2002 Cl. No. 9.16	Upto 199.9 °C RH: Upto 99 %
		Screws current carrying parts and connection	IS/IEC 60898-1: 2002 Cl. No. 9.4	Upto 50 kgf
		Terminals for external conductor	IS/IEC 60898-1: 2002 Cl. No. 9.5	Qualitative
		Temperature rise and power loss test	IS/IEC 60898-1: 2002 Cl. No. 9.8	Upto 65 A Upto 600 °C Upto 1.999 V
		Tripping characteristic test	IS/IEC 60898-1: 2002 Cl. No. 9.10.1 to 9.10.2.2 & 9.10.4	Upto 300 A Upto 999.9 s
		28 days test	IS/IEC 60898-1: 2002 Cl. No. 9.9	Qualitative (Upto 40 V Upto 65 A, Upto 600 °C)

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