



TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING
IEC 60320-1:2001-06+A1:2007-08, Edition 2.0
Appliance couplers for household and similar general purposes –
Part 1: General requirements

R = Required to be at Lab
S = May be subcontracted
W = May be witnessed at MTL
SF = Specialized Facility
3PPS = Three Phase Power Supply required

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
8	Check of markings	Water, petroleum spirit, piece of cloth	R
9	Check of dimensions	Figures 2; 4; 5; 5A; 6; 7; 8; 9 to 9T; 27: GO- and NOT-GO gauges, Caliper	R
10	Protection against electrical shock	Figure 10: Standard test finger, Heating cabinet, measuring instruments (time, temperature)	R
12	Test of screw-type terminals	Test equipment according to IEC 60999-1	R
13.4	Construction: Test for non-solid pins	Figure 11: Device for testing non-solid pins Heating cabinet, measuring instruments (time, temperature), weights or dynamometer	R
14	Humidity treatment	Humidity chamber	R
15.2	Insulation resistance	Insulation test equipment, measuring instruments (time), metal rod with appropriate diameter, metal foil	R
15.3	Electric strength	High voltage test equipment (output current >200mA), measuring instruments (time), metal rod with appropriate diameter, metal foil	R

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
16	Withdrawal force test	Figure 12: Apparatus for checking the withdrawal force Gauges for maximum withdrawal force (multi pin gauges) Gauges for minimum withdrawal force (single pin gauges)	R
18	Resistance to heating of appliance couplers for hot or very hot conditions	Figure 13: Apparatus for heating test, Heating cabinet, measuring instruments (temperature, time)	R
19 20	Breaking capacity Normal operation	Appropriate test apparatus for making and breaking test, AC source, adjustable load (resistors and inductors), measuring instruments (voltage, current, power factor, time), cycle-counter	R
21	Temperature rise	AC source, measuring instruments (current, time, temperature), Screw-driver or spanner with torque meter	R
22.3	Torque test	Apparatus for torque test Caliper, Screw-driver or spanner with torque meter	R
22.4	Flexing test	Figure 17: Apparatus for flexing test Weights, AC source, adjustable load (resistive), cycle-counter	R
23.2	Tumbling barrel test	Tumbling barrel according to IEC 60068-2-32 Scale	R
23.3	Pulling test	Figure 19: Apparatus for pulling test Weights	R
23.4	Pressure test	Figure 20: Apparatus for pressure test Weights, measuring instruments (time)	R
23.5	Impact test	Figure 21: Apparatus for impact test	R
23.6	Deformation test	Figure 22: Blades for checking of the resistance against deformation, Heating cabinet, measuring instruments (time, temperature), microscope	R
23.7	Separation of parts	Apparatus for torque test, weights or dynamometer	R
23.8	Pressure test	Figure 24: Apparatus for pressure test on connectors Measuring instruments (time)	R
24.1.1	Resistance to heat	Heating cabinet Measuring instrument (time, temperature)	R
24.1.2	Ball pressure test	Figure 23: Apparatus for ball pressure test, Heating cabinet, measuring instruments (time, temperature), microscope	R



IEC System for Conformity Testing and Certification of Electrotechnical equipment and Components

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24.1.3	Pressure test	Figure 24: Apparatus for pressure test on connectors, Heating cabinet, measuring instruments (time, temperature)	R
24.2.	Resistance to ageing	Heating cabinet, measuring instruments (temperature), rough cloth	R
25	Screws, current carrying parts and connections	Screw-driver or spanner with torque meter	R
26	Creepage distances, clearances	Caliper, appropriate gauges	R
27.1	Glow-wire test	Glow-wire test apparatus according to IEC 60695-2-10 Pine-wood board, tissue paper	R
27.2	Resistance to tracking	Tracking test apparatus according to IEC 60112	R
28	Resistance to rusting	Chemicals, humidity cabinet, heating cabinet, measuring instrument (time, temperature)	R