

TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING

IEC 60838-1:2016+AMD1:2017+AMD2:2020 Edition 5.2

Miscellaneous lampholders – Part 1: General requirements and tests

“R”	Required
“S”	May be subcontracted, see OD 2012
“SP”	Specialized Facility, see IECEE 02-2
“W”	Witness testing in the categories “MED” and “MEAS”
“3PPS”	Three Phase Power Supply required

Clause	Measurement/testing	Testing / measuring equipment / material needed	Equipment Classification
7.4	Marking shall be durable and easily legible	Petroleum spirit, water, cloth	
8.1	Protection against electric shock	Standard test finger (IEC 60529), force gauge	SMT-02T10
8.2	Protection against electric shock of lampholders for double-ended lamps	Digital calliper (or equivalent) or standard test finger (IEC 60529)	
9.2	Terminals (screw terminals)	Digital calliper (or equivalent), torque screw driver/spanner, pull test apparatus and various weights	
9.2	Terminals (screwless terminals)	Digital calliper (or equivalent), pull test apparatus, various weights, A-meter, mV-meter, heating cabinet	
9.3	Connecting leads	Pull test device	
10.2	Earth continuity test	AC/DC source ≥ 10 A (max. 12 V), A-meter and mV-meter	
10.3	Earthing terminals	See clause 8.2 (screw terminals and screwless terminals)	
11.3	Contact area dimensions	Digital calliper (or equivalent)	
11.4	Contact temperature rise	Testcaps (having nominal dimensions), A-meter, thermocouples or melting particles, micrometer, variable current supply, dummy double ended lamps	
12.1	Humidity test	Climate chamber	GDJS-015B

Clause	Measurement/testing	Testing / measuring equipment / material needed	Equipment Classification
12.2.1	Insulation resistance test	DC source 500 V, Megohm meter	
12.2.2	Electric strength test	Electric strength test equipment (output current > 200 mA, overcurrent relay <100 mA not cut off)	
13	Mechanical strength test	Pendulum hammer (specified in IEC 60068-2-75).	IK07-10
14	Mechanical connections and gland testing	Equipment for chemical analysis, digital calliper (or equivalent), torque test screwdriver/spanner, test rods	
15	Creepage distances and clearances	Digital calliper (or equivalent), feeler gauges	CK-1
16	Endurance	Testcaps, heating cabinet, A-meter, resistance meter, dummy double ended lamps	GW-500
17.1	Ball pressure test	Ball pressure test apparatus to figure 1 (see also CTL DSH 391 D), heating cabinet	ZBP-T
17.3	Glow-wire test	Glow wire test apparatus (IEC 60695-2-11)	ZRS-3H
17.4	Needle flame test	Needle flame test apparatus (IEC 60695-11-5)	ZY-3
17.5	Proof-tracking test	Proof-tracking test apparatus (IEC 60112)	TTC-1
17.6	Resistance to heat of insulating material	Test caps or dummy lamps, heating cabinet, gauges of IEC 60061-3 as far as they exist	
18.1	Season tracking test	Acetone and petrol spirit (or the like), ammonium chloride solution, test cabinet (closeable glass vessel)	
18.2	Rust protection test	Degreasing agent, glass bowls, 10% solution of ammonium chloride in water, test solution, heating cabinet	YWX/Q-010