

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	R
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	R
9.2	Terminals (screwless terminals)	Digital calliper (or equivalent), pull test apparatus, various weights, A-meter, mV-meter, heating cabinet	R
9.3	Connecting leads	Pull test device	R
10.2	Earth continuity test	AC/DC source ≥ 10 A (max. 12 V), A-meter and mV-meter	R
10.3	Earthing terminals	See clause 8.2 (screw terminals and screwless terminals)	R
11.3	Contact area dimensions	Digital calliper (or equivalent)	R
11.4	Contact temperature rise	Testcaps (having nominal dimensions), A-meter, thermocouples or melting particles, micrometer, variable current supply, dummy double ended lamps	R
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	WB2681A
12.2.2	Electric strength test	Electric strength test equipment (output current > 200 mA, overcurrent relay <100 mA not cut off)	R
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	R
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	GW-500
18.1	Season tracking test	Acetone and petrol spirit (or the like), ammonium chloride solution, test cabinet (closeable glass vessel)	YWX/Q-010
18.2	Rust protection test	Degreasing agent, glass bowls, 10% solution of ammonium chloride in water, test solution, heating cabinet	