



## IEC 60238 Edition 8 (2004) – A1 (2008)

### TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING

#### Edison screw lampholders

**R** = Required by Lab

**S** = May be subcontracted

**W** = Witness testing

**3PPS** = Three Phase Power Supply required

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
7.5	Marking shall be durable and easily legible.	Petroleum spirit hexane, water, cloth, timer	R
8.1	Dimensions	Standard Sheet and gauges according to IEC 60061-3, sheet 7006-25, 7006-25A, 7006-26, IEC 60399 Relevant lamps where gauges are not available E5 / E10	R S
8.2	Dimensions	Gauges according to IEC 60061-3, sheets 7006-21, 7006-22A, 7006-23, 7006-24, 7006-30, 7006-30A, 7006-31 Relevant lamps where gauges are not available E5 / E10	R S
8.3	Thickness	Micrometer with pointed noses and ratchet screw.	R
8.4	Screws length	Digital calliper (or equivalent)	R
8.5	Screw threads	Gauges according to figures 2a or 2b. Torque tester 0,5 Nm	R
8.6	Dimensions of threaded entries and set screws	Calliper	R
8.7	Lampholder dimensions	E27, gauge according to IEC 60061-3 sheet 7006-22B.	R



**IEC SYSTEM FOR CONFIRMITY TESTING  
AND CERTIFICATION OF ELECTRICAL  
EQUIPMENT**

**COMMITTEE OF TESTING LABORATORIES**

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9.1 – 9.2	Protection against electric shock	Gauges according to IEC 60061-3: – 7006-31 for lampholders E14; – 7006-22A for lampholders E27; – 7006-24 for lampholders E40. Relevant lamps where gauges are not available E5 / E10 Test finger with indicating device and with force meter and indicating device	R  S  R
9.3	Torque test	Test caps according to Figures 13 & 14 Torque tester	R
10.2.2	Screwless terminals	Screwless terminals test apparatus (according to Section 15 of IEC 60598-1)	R
10.3	Terminals	Torque meter, torque screw driver	R
10.5 – 10.6	Dimensions of screw type terminals	Calliper	R
10.7	Escaped conductor test	Calliper	R
10.8, 10.9	Dimensions or pillar terminals	Calliper	R
10.10	Connecting lead pull test	Force gauge (N)	R
11	Provision for earthing	Earth continuity tester 10A, torque tester, voltmeter	R
12	Construction	Length of thread according to IEC 60061-2, sheet 7005-20 Feeler gauges	R
12.2	Space for the supply wires	Torque meter 1,0 to 1,6 Nm, test cables	R
12.6	Strain and twist relief	Pull test apparatus 30N – 120N, torque tester, test cables	R
12.8	Backplate lampholders recess	Calliper	R
12.9	Back plate lampholders	Gauge according to figure 3.	R
12.14	Unscrewing torque	Torque meter 0,5 Nm to 4,0 Nm	R
13	Switched lampholders	Switch test apparatus for 20 000 cycles and load current cos (phi) = 0,6	R



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14	Moisture resistance, insulation resistance and electric strength	Drip proof tester Fig. 13 of IEC 60529	R
14.3	Humidity conditions	Climatic chamber	R
14.4	Insulation resistance / electric strength	Insulation resistance meter, electric strength tester with 200 mA short circuit current, test cap to figure 11	R
15.2	Mechanical strength of the outer shell	Test caps and torque meter 0,3 Nm – 4 Nm, test apparatus to figure 6	R
15.3	Shell to dome connection	Torque tester	R
15.4	Locking screw	Torque tester	R
15.5	Strength of the connection between dome and threaded entry	Bending apparatus to figure 12	R
15.6	Mechanical strength of the outer shell	Pendulum test hammer according to IEC 60068-2-75 / For E5 – E10 Free fall test apparatus according to IEC 60068-2-32	R
15.6.1	Snap-on outer shell	Mass of 5 kg for push and pull force test	R
15.7	Metal lampholders	Test apparatus to figure 9	R
15.8	Entry spouts and glands	Cylindrical metal rod with different diameters	R
15.9	Backplate lampholders	Steel plate and torque screw driver 0,5 Nm to 1,2 Nm	R
16	Screws, current-carrying parts and connections	Torque meter 0,2 Nm to 114,0 Nm, calliper	R
17	Creepage distances and clearances	Digital calliper (or equivalent), gauges	R
18	Normal operation	Test apparatus to figure 4 and test cap to figure 5	R
19	General resistance to heat	Gauges according to IEC 60061-3, sheets 7006-22C - 7006-22D – 7006-25 and 7006-25A, Test cap to figure 13 – 14 – 15 Resistance meter, heating cabinet	R



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19.3	<i>Contacts and all other current-carrying parts</i>	<i>Thermo couplers, temperature recorder, test cap according to figure 11 Torque meter</i>	<b>R</b>
20	<i>Resistance to heat, fire and tracking</i>	<i>Ball pressure test apparatus to figure 10, heating cabinet (see also CTL D.S. N. 391.mod), Glow wire test apparatus, Needle flame test apparatus, CTI test apparatus</i>	<b>R</b>
21	<i>Resistance to excessive residual stresses (season cracking) and to rusting</i>	<i>Acetone and petroleum spirit, test cabinet, optical 8x magnifier, heating cabinet, timer, humidity cabinet</i>	<b>R</b>
Annex A	<i>Season cracking/Corrosion test</i>	<i>Glass bowls, test solution, heating chamber 30°C +/- 1°C</i>	<b>R</b>