



**TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING**  
**IEC 60155, Edition 4 (1993) - A1(1995) – A2(2006)**  
**Glow-starters for fluorescent lamps**

- “R” Required
- “S” May be subcontracted, see OD 2012
- “SF” 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	Subcontracting
7.4	Insulation resistance under humidity conditions	Humidity cabinet, insulation tester	R
7.5	Dielectric strength	High voltage transformer	R
7.6	Dimensions	Gauges	R
7.7	Torsion test	Torque test apparatus	R
7.8	Mechanical strength	Tumbling barrel 500 mm	R
7.10.1	Resistance to heat	Heating cabinet	R
7.10.2	Ball pressure test	Heating cabinet, ball pressure apparatus (see also CTL D.S. N. 391.mod), digital calliper (or equivalent)	R
7.10.3	Glow wire test	Glow wire apparatus, tissue paper	R
7.11	Marking durability	Soft cloths soaked with water and petroleum spirit, timer	R
7.12.1	Suppression capacitor value	Capacitance meter	R
7.12.2	Capacitor resistance to moisture	Humidity cabinet, electric strength tester (dc 2000V)	R
7.12.3	Capacitor resistance to flame and ignition	High voltage transformer, tissue paper, 40W inductive ballast	R
7.13	Heating of starters with time limitation	Deactivated lamp, ballast, voltmeter	R
8.4/5	Speed of operation/ Closed time	Variable power supply, voltmeter, timer, Digital oscilloscope	R



<b>Clause</b>	<b>Measurement/testing</b>	<b>Testing / measuring equipment / material needed</b>	<b>Subcontracting</b>
8.6	Non-reclosure voltage	Variable power supply, voltmeter, timer	<b>R</b>
8.7	Pulse voltage	Static voltmeter or Digital oscilloscope	<b>R</b>
9	Endurance test	Variable power supply, voltmeter, test cycle controller	<b>R</b>
10.3	Deactivated lamp test: Starters without time limitation	Test circuit according to figure 4 or 5, lamps, timer, Variable power supply, voltmeter	<b>R</b>
10.5	Deactivated lamp test: Starters with time limitation	Lamp, ballast, Variable power supply, voltmeter, timer, heating cabinet, freezer, test cycle controller	<b>R</b>