

TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING

Electronic switches

IEC 60669-2-1 3. Edition (1996) + Am.1 (1997)

R=Required by Lab

S=May be subcontracted

Clause (new tests in relation to IEC 60669-1)	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
10.2	Switches with sensing surfaces	mA-Meter	R
10.102	Electronic switches provided with a hole for adjusting	Specified test-gauge	R
10.103	Ventilation-openings	Specified test-gauge	R
13.103	Electronic switches for the control of the voltage of iron core transformers	Oscilloscope	R
18.102	Electronic switches for low voltage incandescent lamps	Specified test equipment switching 10 times the rated current for one half-cycle	R
26	EMC requirements		
26.1	Immunity	Load circuit	S
26.1.1	Voltage dips and short interruptions	Test equipment according to IEC 1000-4-11	S
26.1.2	Surge immunity test for 1,2/50 μ s wave impulses	Test according to IEC 1000-4-5	S
26.1.3	Electrical fast transient/burst test	Test according to IEC 1000-4-4	S
26.1.4	Electrostatic discharge test	Test according to IEC 1000-4-2	S
26.1.5	Radiated electromagnetic field test	Test according to IEC 1000-4-3	S

Clause (new tests in relation to IEC 60669-1)	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
26.2	Emission		
26.2.1	Low-frequency emission	Test according to IEC 1000-3-2	S
26.2.2	Radiofrequency emission	Test according to CISPR14	S
101	Fault conditions, short circuit tests according to abnormal conditions	Prospective short circuit of the supply shall be 1500A r.m.s. Prospective let-through I^2t shall be 15000A ² s	R
102	Components		
102.1	Judgement of fuses	Not required	R
102.2	Judgement of capacitors	In general, not required (when needed, additional tests according to IEC 65 or IEC 161 can be made)	R
102.3	Judgement of resistors	In general, not required (when needed, additional tests according to IEC 65 can be made)	R
102.4	Judgement of automatic protective devices	Heating cabinet, appropriate test circuit, adjustable high voltage test equipment	R

Note: The presence of equipment alone does not indicate a satisfactory situation. Assessors must evaluate the equipment design, calibration, uncertainty and documentation to ensure compliance with the directions of the standard. The requirements of ISO Guide 25 regarding validation are applicable, as the tests of this standard are not standardised tests.