

**IEC 60923:1995 + A1:2001**  
**TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING**  
**Ballasts for discharge lamps – Performance requirements**

R=Required by Lab  
S=May be subcontracted

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
5	Circuit power factor	Supply, amperometer, voltmeter, wattmeter	R
6	Supply current	Supply, voltmeter, reference lamp, amperometer	R
7	Supply current waveform	Supply, reference lamp, spectrum analyser, oscilloscope	R
8	Magnetic screening	Supply, voltmeter, steel plate, amperometer	R
11	Ballast setting (Q ballasts)	Test circuit according to fig. 2: supply, reference ballast, reference lamp, voltmeter, amperometer, wattmeter	R
12	Short circuit current (Q ballasts)	Test circuit according to fig. 2: supply, reference lamp, amperometer, voltmeter	R
13	Open circuit voltage (Q ballasts)	Supply, voltmeter	R
14	Ballast setting (SD ballasts)	Test circuit according to fig. 2: supply, reference ballast, reference lamp, voltmeter, amperometer, wattmeter	R
15	Short circuit current and run-up conditions (SD ballasts)	Test circuit according to fig. 2: supply, reference lamp, amperometer, voltmeter	R
16	Open circuit voltage (SD ballasts)	Supply, voltmeter	R
18	Short circuit current and run-up conditions (M ballasts)	Test circuit according to fig. 6: supply, rectifier, shunt, oscilloscope, voltmeter	R
20	Ballast setting (S ballasts)	Supply, reference ballast, reference lamp, voltmeter, amperometer, wattmeter	R



<b>Clause</b>	<b>Measurement/testing</b>	<b>Testing / measuring equipment / material needed</b>	<b>Subcontracting</b>
21	Short circuit current and run-up conditions (S ballasts)	Test circuit according to fig. 2: supply, reference lamp, amperometer, voltmeter	R
22	Open circuit voltage (S ballasts)	Supply, voltmeter	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.