

ELECTRICAL SAFETY TESTER

DEFINITION

THE SAFETY TESTER IS THE GENERIC TERM TO COVER THE 3 OR 4 TESTS OF THE ELECTRICAL SAFETY STANDARDS, FROM THE INTERNATIONAL STANDARDS

- ground bond test (also called bonding test, ground continuity test)
- insulation test (also called high resistance test, megger test)
- hipot test to make a high voltage test (also called dielectric strength test, hipot test, hi-pot test, breakdown test or flash test)
- leakage current measurement (also called line leakage test)

The final purpose of those tests is to validate that the product under test is safe for the end user, and complies with the quality requirements from the Low Voltage Directive (LVD), applicable to the corresponding standards (IEC335, IEC950, IEC601, IEC1010, IEC598, IEC990, IEC204...)

APPLICATION

MANUFACTURER, LABORATORY, HIGH SPEED PRODUCTION, MAINTENANCE, IN ORDER TO COMPLY WITH THE LOW VOLTAGE DIRECTIVE



- ▶ IEC 335 household manufacturer (washing machines, coffee machines, fridges, heaters, boilers, ...)
- ▶ IEC 204 industrial equipment (compressor, electrical tools, ...)
- ▶ IEC 598 lighting industry (street lights, professional lighting, medical lighting, bulbs, ...)
- ▶ IEC 601 medical industry (scanners, surgery equipments, X-ray, electrical beds, ...)
- ▶ IEC 950 information technology industry (modems, satellite receivers, servers, printers, cash dispensers, ...)
- ▶ IEC 1010 measurement, control and laboratories industry (electrical meters, test & measurement equipment, ...)
- ▶ IEC 990 technical report on leakage current measurement (many standards will refer to tis report for leakage current measurement)

SPECIFICATION OVERVIEW

FROM LABORATORY TO PRODUCTION TESTING,
OUR RANGE COVERS THE FOLLOWING SPECIFICATIONS

- ▶ ground bond test up to 40A AC with resistance measurement up to 1,5 Ω
- ▶ insulation test with DC Voltage from 1V up to 1000 VDC (1V steps)
- ▶ hipot test with our "delta I" exclusive detection type for non destructive testing, up to 5 kVAC, 6 kVDC
- ▶ possible destructive hipot test (for investigation and laboratory use) but also hipot test at operating temperature
- ▶ leakage current measurement in single or three phases, according to all current international standards
- ▶ power measurement and cos ϕ measurement
- ▶ GPIB, RS232, Ethernet, 0-10V, PLC available
- ▶ SXS Pro software for quality purposes, traceability and professional reporting



SELECTOR GUIDE

From the below board select the right product according to your application

Sefelec electrical safety tester range	Ground continuity test (Ground bond test)	AC/DC Dielectric strength test (Hipot test)	Insulation test (High resistance test)	Leakage current (Line leakage test)	Power measurement P, U, I cosφ	Interface	Software (in option)
SXS50 safety tester	5-30A AC 40A option 1 mΩ - 1,5 Ω	0-5 kVAC - 10mA	50 kΩ - 200 GΩ / 500 VDC 2TΩ option 1000VDC option	FXS501	FXS501	RS232 included, GPIB, PLC, Ethernet in option	SXS Pro
SXS56 safety tester	5-30A AC 40A option 1 mΩ - 1,5 Ω	0-5 kV AC - 10mA 0-6 kV DC - 4mA	50 kΩ - 200 GΩ / 500 VDC 2TΩ option 1000VDC option	FXS501	FXS501	RS232 included, GPIB, PLC, Ethernet in option	SXS Pro
SXS500 safety tester	5-30A AC 40A option 1 mΩ - 1,5 Ω	0-5 kV AC - 110mA	50 kΩ - 200 GΩ / 500 VDC 2TΩ option 1000VDC option	FXS501	FXS501	RS232 included, GPIB, PLC, Ethernet in option	SXS Pro
SXS506 safety tester	5-30A AC 40A option 1 mΩ - 1,5 Ω	0-5 kV AC - 110mA 0-6 kV DC - 40mA	50 kΩ - 200 GΩ / 500 VDC 2TΩ option 1000VDC option	FXS501	FXS501	RS232 included, GPIB, PLC, Ethernet in option	SXS Pro
PREMIER 2745A safety tester	3-40A DC up to 600 mΩ	0-5 kV AC - 40mA 0-6 kV DC - 10mA	0 - 10 GΩ 50/100/500/1000 VDC	-	-	RS232 in option	No
FXS501 (slave) line leakage tester single or three phases	XS Series	XS Series	XS Series	IEC335, IEC950, IEC598, IEC601, IEC1010, IEC990	Up to 63 A single phase or three phases	RS232 included, GPIB, PLC, Ethernet in option	SXS Pro
FMG500 (master) line leakage tester single or three phases	-	-	-	IEC335, IEC950, IEC598, IEC601, IEC1010, IEC990	Up to 63 A single phase or three phases	RS232 included, GPIB, PLC in option	SMG Pro

For product detailed datasheet, options and accessory details, or for more technical information about leakage current measurement test, go to our website

In order to know the requirement from the Low Voltage Directive, for the most common standards, go to our website

All our equipment are delivered with data measurement, calibration certificate, CE mark certificate and user manual

SEFELEC ADDED VALUES

- ▶ 5 functions in 1 single tester
- ▶ leakage current measurement up to 63A in single and three phases
- ▶ automatic testing + ethernet communication for production use
- ▶ a wide range of professional accessories in order to fit most of our customer needs

For more information on Sefelec products, applications or services, please contact your local Sefelec office.

The complete list is available at :

http://www.sefelec.com/carte_en.html



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