ISO 9001 Certified

FXS501

Line leakage tester

- automatically performs the 8 most common line leakage tests with 1 single button
- Current measurement from 0.001 to 20 mA (60 mA option)
- power measurement up to 63 A single phase and three phases (option), cos φ (option), and functional test (option)
- 8 available measurement circuits in order to comply with most of the international standards
- ETHERNET, RS232C, PLC or IEEE488-2 interfaces

The FXS501 line leakage tester (also called leakage current measurement tester) complies with the electrical safety testing requirements according to the VDE, UL, CSA standards and to the main EN European standards involved in the LOW VOLTAGE DIRECTIVE (LVD).
The FXS501 can be coupled to the XS series in order to cover the 4 tests required by the electrical safety testing standards. (dielectric strength test, insulation test and ground bond test). Those 4 electrical safety tests can automatically be performed with 1 single action : “one button check-up”.

IEC1010-1, IEC335-1, IEC950, IEC598-1, IEC601-1, IEC204-1, IEC990 standards

TECHNICAL CHARACTERISTICS

LINE LEAKAGE TEST FUNCTION

External voltage
- 0 to 260V single phase
- 0 to 440V three phases

Maximum power (option)
- 63A, 14000 VA in single phase
- 63A, 14000 VA per phase in three phases

External frequency
- 50 – 60 Hz

Leakage current measurement
- Measured current from 0.005 mA, up to 120 mA depending on the standards
- Accuracy from +/- (2%+5µA) depending on the standards
- Resolution from 0,1 µA depending on the standards

Voltage measurement
- Measured voltage from 10V to 300V
- Accuracy from +/- (2,5%+0.5V)
- Resolution : 4000 points digital display

Measurement circuit
- 2000Ω for the most of standards except for EN61010-1 (1000Ω)

AUTOMATIC SWITCHING
- Phase/Neutral reversed
- Neutral open
- Earth/ ground equipment open
- Internal/external voltage

OPERATING MODE
- With insulation transformer (compulsory according to the standards)

PROTECTIONS
- Breaker

OUTPUTS
- Customized single or three phases front plug, depending on the country

SEQUENCE FUNCTION
- 8 test steps automatically sequenced among: Dielectric strength test, Insulation, Ground continuity, Leakage, Pause, Multiple continuity (when FXS connected to othr XS unit)
- Each test function is linked to a parameter memory number.

10 sequence setups storage
- Example of a sequence performing a Ground bond continuity test with parameters stored in memory number 1, followed by an insulation test with parameters stored in memory number 0, followed by a hipot test with parameters stored in memory number 2, followed by a line leakage test with parameters stored in memory number 6, followed by a power measurement test with parameters stored in memory number 3

L1: CONTINUITY 1
L2: MEGOHM 0
L3: HIPOT 2
L4: LEAKAGE 6
L6: POWER 3

SXSPRO software on a PC computer makes possible to perform as many tests as wished

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REMOTE CONTROL SOFTWARE

National Instruments Labview Drivers

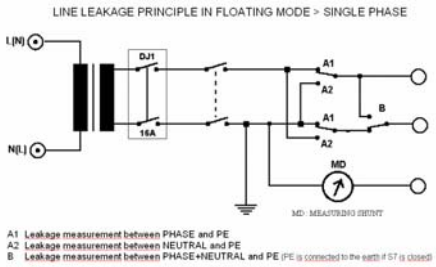
- Software drivers which can be used in a Labview application to remote control the XS series unit through RS232C or IEEE488-2 interface
- Remote control of all the unit functions
- CD-R including install and uninstall files
- Measurement results in Excel format

Application software

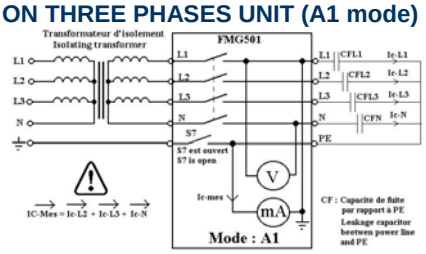
- SXSPRO: powerful software controlling the XS series according to your application (Access & Excel results, bar code management, customized test reports, customized user guidance through the test, user level management, production line oriented features, …)
- Specific software on request

DRAWING FOR LEAKAGE CURRENT MEASUREMENT TO GROUND

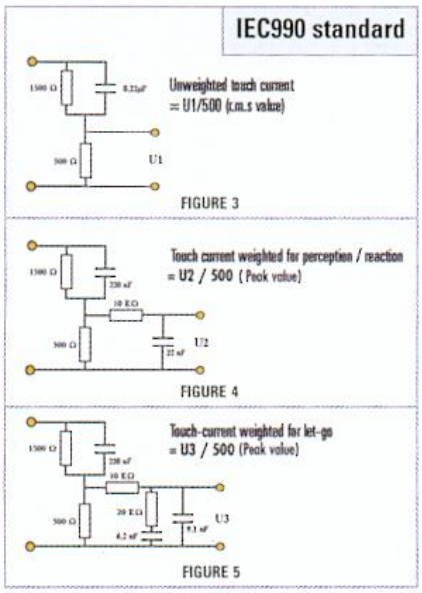
ON SINGLE PHASE UNIT

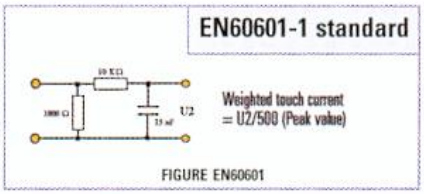


ON THREE PHASES UNIT (A1 mode)

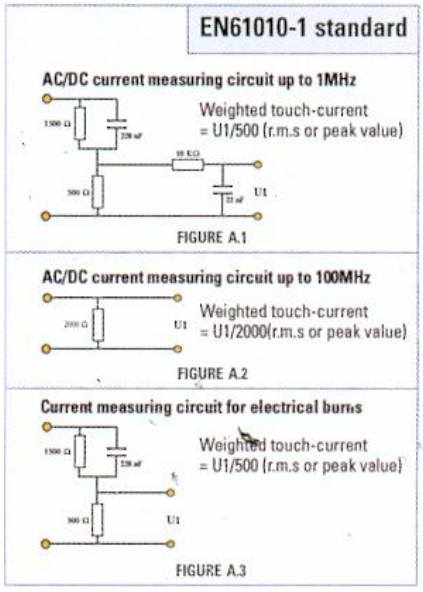


STANDARD	APPLICATION FIELD	APPLIED VOLATGE	MEASUREMENT CIRCUIT
EN61010-1	Electrical equipment for measurement, control and laboratory use	Un x 1.10	Figure A.1, A.2, A.3
EN60335-1	Household and similar electrical appliances	Un, or Un x 1.06	Figure 4 of IEC990
EN60950	Information technology equipment	Unominal	Figure 4 of IEC990
EN60598-1	Lighting	Unominal	Figure 4 & 5 of IEC990
EN60065	Mains operated electronic and related apparatus for household and similar general use	Un, Un x 1.06, Un x 1.09	50 kΩ or 2 kΩ
EN60601-1	Medical electrical equipment	Un x 1.10	Figure EN60601-1
IEC990	Technical report (methods of measurement of touch-current and protective conductor earth)	-	IEC990 standard





EXAMPLE > **SXS506** + **FXS501** THREE PHASES



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GENERAL CHARACTERISTICS

Presentation
- Table top unit
- Metal case

Dimensions
- Height: 131 mm
- Width: 440 mm
- Depth: 450 mm

Weight
- depends on configuration

Power
- 230V or 115V +/-15% single phase, 47-63 Hz
- Consumption: 70 to 600VA depending on test

Operating temperature
0°C to +45°C

Storage temperature
-10°C to +60° C

Over-voltage category
CATII

Pollution degree
2

Safety class
Class I (earth connection)

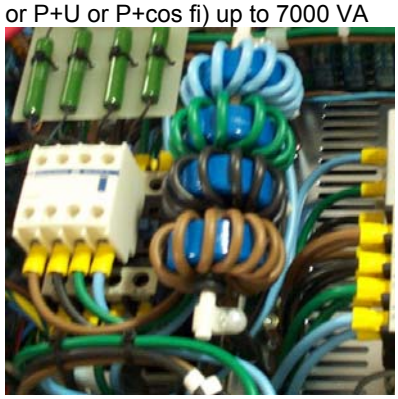
OPTIONS

XS43, XS44, XS45, ...
single phase or three phases isolation transformer up to 7000 VA

XS42, XS48A, XS41, ...
manual or automatic single phase or three phases variac up to 7000 VA

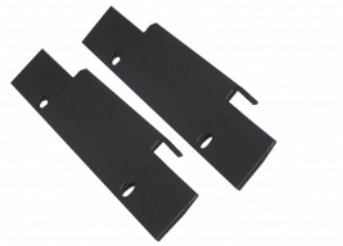
XS53, XS55, XS57, ...
single phase or three phases switching up to 7000 VA

XS52-MONO16, XS52-TRI32, ...
single phase or three phases power measurement / cos φ (P+I or P+U or P+cos fi) up to 7000 VA



OPTIONNAL ACCESSORIES

KRMG4U
19" rack mount kit



MG68-EUR
Schuko european front plug, for single phase leakage and power measurement

MG68-USA
USA front plug, for single phase leakage and power measurement

MG68-CH
Swiss front plug, for single phase leakage and power measurement

MG68-GB
English front plug, for single phase leakage and power measurement

CALIBRATION KITS & DUMMY BOXES

XS91-LEAK
Calibration box for Leakage current Measurement

SD1000
Dummy box for Leakage current Measurement

Specifications subject to change without notice

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