Dielectric strength testers

RXS50 - 50VA RXS500 - 500VA



Dielectric strength tester from 0 to 5 kVAC and 0 to 6 kVDC (RXS56, RXS506 models)

- □ 8 test step sequences
- 50 parameter sets storage
- Built in RS232C interface
- ETHERNET, PLC or IEEE488-2 interfaces on option

The RXS series dielectric strength testers perform easily and simply hipot test according to the VDE, UL, CSA standards and to the main EN European standards involved in the LOW VOLTAGE DIRECTIVE (LVD).

The RXS is a dielectric strength tester with AC only and DC for the RXS56 and RXS506 versions. Together with the FMG rack, the RXS performs also leakage current measurement under nominal voltage, and power measurement, for single phase equipment as well as three phases equipment.

EN 61010-1, EN 60065, EN 60335-1, EN 60950, EN 60598-1, EN 60601-1 standards

TECHNICAL CHARACTERISTICS

DIELECTRIC STRENGHT TEST FUNCTION

Output voltage

- •0 to 5 kV AC (50 or 60 Hz). Limited to 4.2 kV AC with FMG501
- •0 to 6 kV DC (RXS56, RXS506)
 •Accuracy: ± (2%+50 V) (RXS50) and ± (3%+50 V) (RXS500) of the preset value between 100 to 5000 V and for a current < 100 μA (RXS50) and < 1 mA (RXS500) with the detection modes: ΔI, IMAX or ΔI+IMAX

Voltage reading

- •On a digital kilovoltmeter connected on the output terminals
- •Accuracy: ± (1.5% + 20 V)
- •Display: 600 digits

Stability

- Less than 1% for a mains variation of ± 10% (RXS50)
- •Less than 3% for a mains variation of ± 10% (RXS500)

Current

- Short circuit < 13 mA AC (RXS50/56) and < 9 mA DC (RXS56) for the max. voltage adjustment
- Short circuit > 200 mA AC (RXS500/506) and >20 mA DC (RXS506) for the max. voltage adjustment
- •Short circuit duration limited to 5 seconds
- •Nominal current : 10 mA AC (RXS50/56) and 4 mA DC (RXS56)
- •Nominal current : 10 mA DC (RXS506) and 110 mA AC (RXS500/506)

Current reading

- •On a shunt resistor inserted in the test circuit
- •Accuracy: ± (2.5% + 2U)
- 1U = 0.01 mA (RXS50)
- 1U = 0.1 mA (RXS500) •Display: 1000 digits

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- **Breakdown detection** • "DELTATEST" detector adjusted for $\Delta I = 1 \text{ mA} \pm 10\%$ (RXS50) and $\Delta I = 10 \text{ mA} \pm 10\%$ (RXS500) with 10 µsec. $\pm 20\%$. Total insensitivity to current due to the resistance and the capacitance of the device under test
- "IMAX" detection by maximum current adjustable from 0.01 to 10 mA, by 0.01 mA steps (RXS50) and from 0.1 to 110 mA by 0.1 mA steps (RXS500)
- •DELTATEST and IMAX mode combination

IMIN threshold function

- •Detects whether the probe is properly connected to the specimen under test
- •Adjustable from 0.01 to 10 mA (RXS50) and from 0.1 to 110 mA (RXS500)

DC voltage (RXS56, RXS506 models)

- Positive pole grounded
- •Ripple < 1% for I < 100 µA (RXS56) and I < 1 mA (RXS506)

Breakdown indication

- •By visual (LCD screen and LED) and sound signal
- •Breakdown voltage and current are stored on the LCD display
- •HV primary transformer shorted when the output voltage is switched off

Timer

- •Rise, hold and fall time adjustment between 0 and 999 sec.
- •Fast mode : (rise + hold) < 900msec.

Storage

•10 test parameter (voltage, threshold, time,...) sets can be stored



Dielectric strength testers RXS50/56 - RXS500/506

GENERAL CHARACTERISTICS

Presentation

•Table top unit •Metal case

Dimensions

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

Weight

27 kg

Power

230 V or 115 V ± 15% single phase, 47-63 Hz
Consumption: 70 to 600 VA 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

XS02

PLC interface : •START contact •FAULT contact

•PASS / FAIL contacts •END OF TEST contact

XS03

0-10 Volts input/output :0-10 Volts inputs to control the High Voltage0-10 Volts outputs for voltage and current

XS05 Rear panel outputs

XS06 IEEE488-2 (Talker - Listener) interface

XS80 Ethernet interface

XS08 Option 02 + 03

XS10 Hipot – 6kV DC voltage for 50VA

XS13 Hipot – 6kV DC voltage for 500V XS14 3 mA hardware limitation for 50 VA

XS27 Addition of insulation function

SOFTWARES

XS95

EasyScan software for driving XS Series equipped with Switching matrix

XS96 SXSPro software for driving XS Series instruments

XS99 Delphi & C++ program examples



Dielectric strength testers RXS50/56 - RXS500/506

OPTIONNAL ACCESSORIES

TE54 (RXS50/56) - TE65 (RXS500/506) Test probe for hipot



TE58-XS (RXS50/56) Test probe with remote control for hipot



TE86 (RXS50/56) - TE83 (RXS500/506) Test pistol with remote control for hipot



TE84 (RXS50/56) Test pistol without remote control for hipot

CO177 (RXS50/56) - C0180 (RXS500/506) Test lead without probe for test system connection (not removable)



CO210 Pistol for return earth for hipot



CO175 black ground return lead



CO193 (RXS50/56) - C0192 (RXS500/506) Test box with 6 international female sockets



CO200 (RXS50/56) - C0201 (RXS500/506) Test box equipped with 1 schücko female socket



CO202 (RXS50/56) - C0203 (RXS500/506) Test box equipped with 1 UK female socket

CO204 (RXS50/56) - C0205 (RXS500/506) Test box equipped with 1 Swiss female socket

CO206 (RXS50/56) - C0207 (RXS500/506) Test box equipped with 1 Italian female socket

CO208 (RXS50/56) - C0209 (RXS500/506) Test box equipped with 1 US female socket

CO160-xx Red-Green lamp for HV indication



AO10-XS Two user hands occupied with safety user buttons



AO11-XS Remote control foot switch



KRXS 19" rack mount kit



REMA0 to REMA8 High value Standard resistors (from 1 M Ω up to 1 T Ω)





Specifications subject to change without notice

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