

Product Datasheet - Technical Specifications



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Dielectric strength tester RMG12AC-DC



- ▶ Dielectric strength tester (also called hipot test, flash test, breakdown test) from 0 to 12kVAC and DC
- ▶ 8 test step sequences
- ▶ PLC, RS232, IEEE488-2 or 0-10 V interfaces in option
- ▶ Multilingual software

The MG series electrical safety testers perform easily and simply all the electrical tests according to the VDE, UL, CSA standards and to the main EN European standards involved in the LOW VOLTAGE DIRECTIVE (LVD). The RMG12AC-DC is an AC and DC only dielectric strength tester, with a very good ratio price/quality, according to its specs.

Technical Characteristics

DIELECTRIC STRENGTH TEST FUNCTION

Output voltage

- 0 to 12kV AC
- Accuracy in AC : $\pm (3\% + 50V)$ of the preset value between 100 to 12000V and for a current $< 1mA$ with the detection modes : ΔI , IMAX or $\Delta I + IMAX$
- 0 to 12kV DC
- Accuracy in DC : $\pm (3\% + 100V)$ of the preset value between 100 to 12000V and for a current $< 0.5mA$ with the detection modes : ΔI , IMAX or $\Delta I + IMAX$

Voltage reading

- On a digital kilovoltmeter connected on the output terminals
- Accuracy : $\pm (1.5\% + 20V)$
- Display : 1200 digits

Stability

- Less than 1% for a mains variation of $\pm 10\%$

Current

- Short-circuit current : 50mA AC
- Short-circuit current : 10mA DC

Current reading

- On a shunt resistor inserted in the test circuit
- Accuracy : $\pm (2.5\% + 20U)$ with $1U = 0.01mA$
- Display : 1000 digits

Breakdown detection in AC

- "DELTATEST" detector adjusted for $\Delta I = 1mA \pm 10\%$ with $10 \mu sec. \pm 20\%$.

- Total insensitivity to current due to the resistance and the capacitance of the device under test

- "IMAX" detection by maximum current adjustable from 0.1mA to 40mA by 0.1mA steps

- DELTATEST and IMAX mode combination

Breakdown detection in DC

- "DELTATEST" detector adjusted for $\Delta I = 1mA \pm 10\%$ with $10 \mu sec. \pm 20\%$.

- Total insensitivity to current due to the resistance and the capacitance of the device under test

- "IMAX" detection by maximum current adjustable from 0.1mA to 10mA by 0.01mA steps

- DELTATEST and IMAX mode combination

IMIN threshold function

- Adjustable from 00.0mA to 10.0mA in DC

- Adjustable from 00.0mA to 40.0mA in AC

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.

Storage

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

REMOTE CONTROL SOFTWARE

Application software

- SMGPRO: powerful software controlling the MG series according to your application

PROTECTIONS

Instrument

- By slow blow fuse

Operator

- No HV or current on the outputs as long as the safety interlock is open
- Red green lamp to indicate HV presence
- Double safety loop which can be used with safety bloc devices

Device under test

- Fast breakdown detection
- HV primary cut off
- Output terminal shorted and capacitors discharged

General Characteristics

Presentation

- Table top unit
- Metal case

Dimensions

- Height : 180 mm
- Width : 430 mm
- Depth : 470 mm

Weight

- 28kg

Power

- 230V or 115V \pm 15% single phase, from 47 to 63Hz
- Consumption : 70 to 600VA depending on test

Operating temperature

- 0°C to +45°C

Storage temperature

- -10°C to +60°C

Pollution Degree

- 2

Over-voltage category

- CAT II

Safety Class

- Class I (earth connection)

Options

MG-01

RS232 interface (listener-talker) ; provided with RS232 cable

MG-02

PLC interface

- START contact
- PASS and FAIL contacts
- FAULT contact
- ENDOFTEST contact

MG-03

0-10 Volts input and output

- 0-10 V input to control the high voltage
- 0-10 V output for the voltage and the current

MG-09-15ACPL

Disconnectable rear panel outputs

MG-06

- IEEE488-2 (talker-listener) interface
- Cable not included

SOFTWARE

MG-96

- SMGPro Software

Available accessories

TE89

- Hipot test probe



C0245

- HV test lead without probe for test system connection (not removable)



C0175

- Black ground return lead



KRXS4U

- 19» rack mount kit



C0160+C0160-02

- Red-green lamp to indicate the high voltage presence



A010

- Two user hands occupied with safety user buttons



A011

- Remote control foot switch

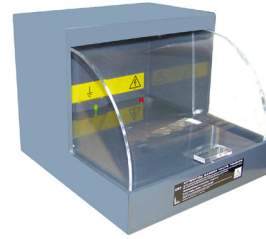


SAFETY CAGE

- Security chamber 15kV, with or without adaptation cable. HV and ground outputs on 4mm banana sockets on the inside of the cage

CS1+CS1-15

- h220 x w380 x d320, 28dm³, 15kg



CS2+CS2-15

- h300 x w500 x d600, 180dm³, 70kg



CS3+CS3-15

- h300 x w1000 x d600, 180dm³, 100kg



Calibration

MG-91-12AC-DC

- Calibration box for hipot (calibration user manual comes with the calibration box)

