



**Testing system for testing electrical safety in accordance to
IEC 60601 / IEC 62353 / IEC 61010 / EN 50678 / EN 50699
MPBetreibV / BetrSichV / DGUV Vorschrift 3**

- ☒ touchscreen or PC operation
- ☒ USB for external PC-keyboard or barcode scanner
- ☒ internal memory for 50 test instructions and 150 test protocols
- ☒ 25 A PE measure in according to IEC 60601
- ☒ robust light metal case
- ☒ user specific language setting

Technical Data

Line voltage: 230 V / 115 V ac, $\pm 10\%$, 50/60 Hz
Output power: maximum 3,5 kW
Protection class: 1
Overvoltage category: II
Environmental temperature: +5 - +40 °C
Storage temperature: -10 - +50 °C

Measurement range
Voltages measurement: 0 - 300 V ac
(input resistance: 10 MOhm)
Discrimination: 0.3 V
Earth conductor resistance: (test voltage 6 V ac, max. 25 A / max. 5 A)
Discrimination: 10 MOhm
Insulation resistance: 0.2 - 100 MOhm
(test voltage 500 V dc, max. 3.5 mA)
Discrimination: 0.1 - 2 MOhm
Leakage current: 0.02 - 10 mA or 0.02 - 20 mA
Resistance: 1000 Ohm $\pm 1\%$ or 2000 Ohm $\pm 1\%$
Discrimination: 1 μ A or 0.2 μ A
Differential current: 10 μ A - 20000 μ A
Discrimination: 1 μ A or 0.2 μ A
Output power: 1 - 3.5 kW
Discrimination: 1 W
current: 0 - 16 A
Discrimination: 10 mA

Mechanical data: light weight metal case IP20,
343 x 88 x 220 mm (W x H x D),
approx. 5.5 kg

Selectable languages: german, english, polish

Display: 4,3" TFT-Display
Operation: Touchscreen

Intrinsic uncertainty
Measurement
Voltage: Range 0 - 300 V ac
Error ± 0.3 V or $\pm 1\%$ of measurement value

Earth conductor resistance: 0.01 - 4.9 Ohm
5 - 40 Ohm ± 0.03 Ohm or $\pm 5\%$ of measurement value

Insulation resistance: 0.2 - 4.9 MOhm or 5 - 100 MOhm ± 0.2 MOhm or $\pm 5\%$ of measurement value

Leakage current: 20 - 99 μ A ± 2 μ A or $\pm 1\%$ of measurement value
100 - 20000 μ A
Differential current: 10 - 20000 μ A ± 2 μ A or $\pm 1\%$ of measurement value

Output power: 1 - 3.5 kW ± 2 W or $\pm 5\%$ of measurement value

Current: 0 - 16 A ± 50 mA or $\pm 2.5\%$ of measurement value

The specified intrinsic uncertainties relate to the respective measuring circuit. The operating uncertainty at the test object connections is $\pm 5\%$. The displayed value is normalized according to the documentation / standard requirement, if required.

Interface: 1 x USB-B for PC connection
1 x USB-A for external PC-keyboard or Barcode scanner

Test object connections: 1 x protected ground VDE test socket
12 x sockets 4mm for applied part, groupable into 3 groups
1 x safety socket 4mm for test probe
1 x safety socket 4mm for PE

Accessories: 1 x measurement line with test probe, 1 m length
1 x test adapter PA-X for self-diagnosis test
1 x USB cable
1 x power cord 16 A

GM-800 is a measurement and test device for testing the electrical safety of medical technical and other technical appliances. The measurements and tests correspond to the conditions of IEC 60601, IEC 62353, IEC 61010, EN 50678 and EN 50699.

GM-800 can be operated as a stand-alone or PC-controlled testing system. You can use the device to perform individual single measurements or even run automatic tests.

The operation of the equipment is touch-controlled and with a few decisions various functions of the equipment can be activated. In the stand-alone mode, operation is done by the touch panel which is integrated into the front panel. In addition to that, an alphanumeric keyboard or a scanner can be connected/added. Adding one of them will make the input of texts,

like tester name and equipment description, much easier.

The GM-800 can be used to perform separate measurement of direct- and alternating currents (ac/dc measurement, RMS) of the patient leakage current and patient auxiliary current in accordance to IEC 60601.

A non-volatile memory allows up to 150 test protocols to be stored. These test protocols can be output to the appropriate PC software via the USB interface. To control the GM-800 as PC-controlled testing system a 100% compatible IBM computer with industrial standards is required. The communication between the PC and the GM-800 is done via the USB interface.

(Technical modifications and errors reserved. 01/2026)

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