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Find the *Megger MIT1020/2* at our website: ***Click HERE***

MIT520 and MIT1020
5 kV and 10 kV Insulation Resistance Testers



- **Mains or battery powered**
- **Digital/analogue backlit display**
- **Variable test voltage from 50 to 5000 or 10,000 V**
- **Automatic IR, PI, DAR, SV and DD tests**
- **Measures to 15 TΩ (5 kV) and 35 TΩ (10 kV)**
- **RS232 and USB download of results to Megger Download Manager**
- **On board memory for results storage**

DESCRIPTION

The new 5 and 10 kV insulation resistance testers from Megger are designed specifically to assist you with the testing and maintenance of high voltage electrical equipment. IEEE 43-2000 recommends the use of 10 kV for motor windings rated above 12 kV and the Megger MIT1020 facilitates this. The case is incredibly rugged and easy to carry, being made of tough polypropylene and achieving an ingress protection rating of IP65. In addition, the model number is marked on both sides of the case for ease of identification in stores or vehicles.

The instruments have a large easy to read backlit LCD display making it equally suitable for use in both bright sunlight and poorly lit environments. Information displayed includes resistance, voltage, leakage current, capacitance, battery status and time constant. In addition, the elapsed time of the test is displayed constantly, removing the need for separate timers. Adjustable timers and limit alarms are included.

The instrument can test when being powered by the mains or its internal rechargeable battery, a great benefit when site conditions are unknown or long term testing is required.

The controls of the instrument are clear and unambiguous and a "quick start" guide is included in the lid of the instrument removing the need to carry bulky manuals under site conditions.

The instrument is fitted with a guard terminal to enhance accuracy. The guard test lead is included as standard with the instrument.

To further enhance the flexibility of the instruments both have the facility to set the test voltage in steps from 50 V to the maximum output voltage avoiding the expense of several insulation resistance testers to meet your application needs.

These IR instruments are designed to meet the highest safety standards and meet the requirements of EN61010. In addition, the instrument measures the voltage at the terminals and if this is above 50 V then the instrument will display the high voltage warning and inhibit testing. At the end of the test the instrument will automatically discharge the energy transferred to the equipment during the test phase.

The MIT520 and MIT1020 are equally suited to routine testing and diagnostic regimes being pre-programmed with IR, PI, DAR, SV and DD profiles.

SPECIFICATION

Voltage input range
85-265 V rms, 50/60 Hz, 60 VA

MIT520 battery life
Typical capacity is 6 hours continuous testing at 5 kV with a 100 MΩ load

MIT1020 battery life
Typical capacity is 4 hours continuous testing at 10 kV with a 100 MΩ load

MIT520 test voltages
50 V to 1 kV in 10 V steps, 1 kV to 5 kV in 25 V steps

MIT1020 test voltages
50 V to 1 kV in 10 V steps, 1 kV to 10 kV in 25 V steps

MIT520 accuracy (23 °C, 5 kV)
±5% 1 MΩ to 1 TΩ
±20% to 10 TΩ

MIT1020 accuracy (23 °C, 10 kV)
±5% 1 MΩ to 2 TΩ
±20% to 20 TΩ

Guard
2% error guarding 500 kΩ leakage with 100 MΩ load

Display range
Digital display (3 digits) 10 kΩ to 15 TΩ (MIT520)
to 35 TΩ (MIT1020)
Analogue display 100 kΩ to 1 TΩ

Short circuit/charge current
3 mA @ 5 kV (MIT520) or 10 kV (MIT1020)

Capacitor charge time
<3 seconds per µF at 3mA to 5 kV (MIT520)
<5 seconds per µF at 3mA to 10 kV (MIT1020)

Capacitor discharge time
<120ms per µF to discharge from 5000 V to 50 V (MIT520)
<250ms per µF to discharge from 10000 V to 50 V (MIT1020)

Capacitance measurement (above 500 V)
10 nF to 50 µF (dependent on measurement voltage)

Capacitance measurement accuracy (23 °C)
±5% ±5 nF

Voltage output accuracy (0 °C to 30 °C)
+4%, -0%, ±10 V of nominal test voltage at 1 GΩ load

Current measurement range
0.01 nA to 5 mA

Current measurement accuracy (23 °C)
±5% ±0.2 nA at all voltages

Interference rejection
MIT520 1 mA per 250 V up to a maximum of 2 mA
MIT1020 1 mA per 600 V up a maximum of 2 mA

Timer range
Up to 99 minutes and 59 seconds from start of test
15 second minimum setting for test voltage ≥1000 V
30 second minimum setting for test voltage <1000 V

Memory capacity
32 kB

Test regimes
Auto IR, PI, DAR, SV and DD.

Interface
RS232 and USB

Data store
Voltage, test time, leakage current, resistance, PI, DAR, DD, capacitance and time constant

Real time output
Serial, once per second of test voltage, current and resistance

Operating temperature
-10 °C to 50 °C

Storage temperature
-25 °C to 65 °C

Ingress protection (lid closed)
IP65

Humidity
90% RH non-condensing at 40 °C

Safety
Meets the requirements of IEC61010-1 : 2001 CATIII 300 V

EMC
Meets the requirements of IEC61326-1 : 1998 for use in heavy industrial areas.

Dimensions
305 x 194 x 360 mm (12.7 x 6 x 14.2 inches)

Weight
7.1 kg (16lb) approx.

ORDERING INFORMATION

Item (Qty)	Order Code
5 kV insulation resistance tester	MIT520
10 kV insulation resistance tester	MIT1020
Included Accessories	
3 m lead set	8101-181
RS232 cable	25955-025
USB cable	25970-041
User guide on CD-ROM	6172-960

Item (Qty)	Order Code
Optional Accessories	
3 m lead set with straight jaw clamps	6220-797
15 m lead set (5 kV only)	8101-183
3 m lead set 1 kV insulated clips	6220-822
3 m lead set 6 kV insulated clips	6220-820
3 m lead set 10 kV insulated clips	6220-811
3 m screened lead set (5 kV)	6220-835
3 m screened lead set (10 kV)	6220-834
15 m screened lead set (5 kV)	6311-080
15 m screened lead set (10 kV)	6220-833

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ISO STATEMENT
Registered to ISO 9001:2008 Cert. no. Q 09250

MIT520--MIT1020_DS_en_V08
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