

MOM600A

Micro-ohmmeter



- **Compact and rugged**
- **Easy-to-use**
- **600 A output current**

Description

Switchgear breakdowns are frequently caused by excessively high contact resistance at breakpoints and busbar joints. Moreover, overheating risks are becoming more serious due to the fact that today's distribution networks have to carry heavier loads. Checking contact resistances at regular intervals detects faults before they cause overheating. And here, an ounce of prevention is worth a pound of cure.

Micro-ohmmeters are used to measure contact resistances in high-voltage breakers, disconnecting switches (isolators), knife-contact fuses, bus joints, line joints etc.

The MOM600A™ is in a class apart on world markets. Designed for use from the arctic to the tropics, this rugged, compact micro-ohmmeter is ideal for field work.

A complete set of equipment includes a set of highly flexible cables (including separate measurement cables) and a sturdy transport case.

Application examples

IMPORTANT!

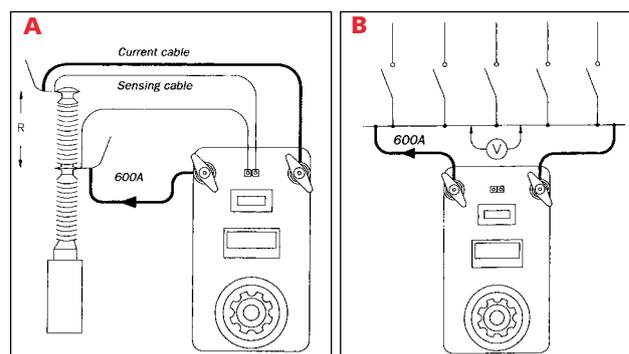
Read the User's manual before using the instrument.

A. Measuring the resistance of a circuit breaker element

1. Connect the micro-ohmmeter to the circuit breaker.
2. Set the current (100 A in this example).
3. Press the resistance pushbutton.
4. Read the result.

B. Measuring the resistance of busbar joints

1. Connect the micro-ohmmeter's current cables to the object being tested. Do not connect the sensing cables since measurements will be taken using an external movable voltmeter.
1. Set the current (100 A in this example).
2. Connect an external voltmeter to the bus.
3. Read the voltmeter ($0.1 \text{ mV} = 1 \mu\Omega$ in this example).
4. Move the voltmeter to the next joint.
5. Repeat step 4.



Specifications

Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

Environment

Application field The instrument is intended for use in high-voltage substations and industrial environments.

Temperature

Operating 115 V 0°C to +50°C (32°F to +122°F)

Operating 230 V 0°C to +40°C (32°F to +104°F)

Storage & transport -40°C to +70°C (-40°F to +158°F)

Humidity

5% – 95% RH, non-condensing

CE-marking

EMC 2004/108/EC

LVD 2006/95/EC

General

Mains voltage 115/230 V AC, 50/60 Hz

Power consumption (max) 115 V, 4370 VA
230 V, 7360 VA

Protection Miniature circuit breakers, thermal cut-outs

Dimensions

Instrument 356 x 203 x 241 mm
(14" x 8" x 9,5")

Transport case 610 x 290 x 360 mm
(24.0" x 11.4" x 14.2")

Weight, 115 V model

25 kg (55.1 lbs)
43.1 kg (95 lbs) with accessories and transport case

Weight, 230 V model

24.7 kg (54.5 lbs), 42.8 kg (94.4 lbs) with accessories and transport case

Current cables 2 x 5 m (16 ft), 50 mm²

Sensing cables 2 x 5 m (16 ft), 2.5 mm²

Measurement section

Resistance

Range 0 – 1999 μΩ

Resolution 1 μΩ

Inaccuracy ±1% of reading + 1 digit
(at 100 – 600 A test current)

Output, 115 V model

Current 0 – 600 A DC

Open circuit voltage 5.2 V DC

Current shunt output 10 mV/100 A ±0.5%, max 60 mV out, max 10 V to protective earth (ground)

Output, 230 V model

Current 0 – 600 A DC

Open circuit voltage 9 V DC

Current shunt output 10 mV/100 A ±0.5%, max 60 mV out, max 10 V to protective earth (ground)

Max. load capacity, 115 V model

Current adjustment set to 100%

Output current	Min. output voltage	Max. load time	Rest time	Input current
100 A DC	4.6 V	-	-	8 A
300 A DC	3.8 V	1.5 min.	15 min.	20 A
600 A DC	2.6 V	10 s	5 min.	38 A

Max. load capacity, 230 V model

Current adjustment set to 100%

Output current	Min. output voltage	Max. load time	Rest time	Input current
100 A DC	8.3 V	-	-	6 A
300 A DC	7.2 V	2.5 min.	15 min.	16 A
600 A DC	5.6 V	15 s	5 min.	32 A

Ordering information

Item	Art. No.
MOM600A Complete with: Cable set GA-05053 Ground cable GA-00200 Transport case GD-00010	
115 V Mains voltage	BB-11190
230 V Mains voltage	BB-12290
Optional	
Cable set 10 m 2 x 10 m (33 ft), 70 mm ² (current cables). 2 x 10 m (33 ft), 2.5 mm ² (sensing cables) Weight: 16.8 kg (37 lbs)	GA-07103
Cable set 15 m 2 x 15 m (49 ft), 95 mm ² (current cables). 2 x 15 m (49 ft), 2.5 mm ² (sensing cables) Weight: 29.4 kg (65 lbs)	GA-09153
Calibration shunt 600 A/60 mV	BB-90020

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