

## Megger Micro-Ohmmeter comparison

### Introduction

This technical comparison document provides an overview of various micro-ohmmeters offered by Megger, highlighting their features, capabilities, and applications. Though, there are several micro-ohmmeter models produced by Megger. But all of those aren't covered in this application note.

The following micro-ohmmeter models are included in this comparison:

- MOM3
- MJÖLNER 200
- MJÖLNER 600
- MOM200A
- MOM600A
- MOM690

These micro-ohmmeters are designed for versatile low-resistance measurements, suitable for applications like circuit breakers, bus bar joints, and high-current links. The purpose of this document is to help users understand the differences between these models and choose the most suitable one for their specific needs.

### General Comparison

- **Current Output Capability:** The micro-ohmmeters vary in current output capability, ranging from 5 A to 800 A. The choice of model should be based on the required current for the specific application.
- **Accuracy:** Accuracy levels differ slightly between the models, and the intended application should dictate the choice based on accuracy requirements.
- **Clamps and Accessories:** Different micro-ohmmeter models come with varying types of clamps and accessories, providing users with flexibility in terms of measuring techniques and accessories.

## Micro-Ohmmeter Models

### MOM3

- **Description:** MOM3 is handheld and the smallest micro-ohmmeter model in this comparison.
- **Unique Features:** Battery-powered and handheld, with ultracapacitors to generate high current levels.
- **Cable Options:** Offers Kelvin measurements with combined current and sense cables.
- **Measurement Storage:** Capable of storing up to 2000 measurements.
- **Current Output:** Maximum current output 300 A, with a minimum current output of 5A.
- **Measurement Range:** Up to 3  $\Omega$ , with a maximum voltage output of 5 VDC.



### MJÖLNER 200/600

- **Description:** MJÖLNER 200 and MJÖLNER 600 operate similarly, with different current output ranges.
- **Current Output:** MJÖLNER 200 ranges from 5 A to 200 A, while MJÖLNER 600 ranges from 5 A to 600 A.
- **Current Control Modes:** Continuous mode or ramp-up and down options to improve measurement precision.
- **Max Voltage Output:** 5.25 V at maximum current.
- **Measurement Range:** Up to 1  $\Omega$ .
- **Measurement Storage:** Can store up to 100 measurements.
- **Accessories:** Optional remote control, temperature probe, and Mjölner Win software for report generation and remote control.



### MOM200A/MOM600A

**Description:** Both units operate on 115/230 V AC and are intended for standalone use.

**Current Output:** MOM200A offers currents up to 200 A DC at 3 V, with a measurement range up to 20 mΩ. MOM600A offers currents up to 600 A DC at 5.6 V, with a measurement range up to 2 mΩ.



#### Rectified output current

**Standard Cable:** Comes with standard cable lengths of 5 m, equipped with clamps and sensing leads.

### MOM690

**Description:** Operates on 115/230 V AC, suitable for standalone use.

**Current Output:** Offers a high current DC output of up to 800 A at 3.6 V, with a measurement range up to 200 mΩ.

**Measurement Storage:** Capable of storing up to 30 measurements.

**Test Modes:** Features manual and automatic test modes.

#### Rectified output current

**Demagnetization:** Offers a high current AC output for demagnetization.

**Standard Cable:** Comes with a 5 m standard cable equipped with clamps and sensing leads.



## Summary Comparison Table

Model	Description	Current Output	Measurement Range	Special Features
<b>MOM3</b>	Handheld, lightweight, battery-operated micro-ohm meter	5A to 300A	Up to 3 $\Omega$	Ultracapacitor, 2000 measurement storage, Kelvin clamps/probes.
<b>MJÖLNER 200/600</b>	High accuracy and fully automatic testing micro-ohm meter.	5A to 600A	Up to 1 $\Omega$	Operates on 115/230 V AC. Dual ground measurements, ramp function, remote control options.
<b>MOM200A/MOM600A</b>	Easy to operate, designed for rugged field use micro-ohm meter.	Up to 200A / 600A	Up to 20m $\Omega$ / 2m $\Omega$	Operates on 115/230 V AC. Easy current control, standard cable length of 5m.
<b>MOM690</b>	AC output, Automatic range settings, manual/automatic output, demagnetization function.	Up to 800A	Up to 200m $\Omega$	Operates on 115/230 V AC. High current AC output, standard cable length of 5m.

This table provides a summarized comparison of the key features and specifications of the different micro-ohmmeter models offered by Megger. Users can refer to this table to make an informed decision based on their specific measurement needs and requirements.