

# DLRO 600

## Digital Microhmmeter



- **Small and weighs less than 15kg**
- **Test currents from 10A to 600 A d.c.**
- **0.1  $\mu\Omega$  best resolution**
- **On board memory for up to 300 test results and notes**
- **RS232 port to download stored results or for real time output to a printer**
- **Supplied complete with 5m test leads and download software**

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### DESCRIPTION

Megger DLRO600 measures resistances between 0.1  $\mu\Omega$  and 1  $\Omega$ , at high currents.

This versatile instrument can provide test currents from 10 amps up to 600 amps subject to the load resistance and supply voltage. A large liquid crystal display provides all the information needed to perform a test; all test parameters and measurement results are displayed.

The unique design allows the weight and size of DLRO600 to be kept to a minimum; the instrument weighs less than 15kg. This small size makes DLRO600 equally at home in the workshop, on the production floor or in the field. The high current capability and compact design make DLRO600 suitable for testing circuit breaker contacts, switch contacts, busbar joints or other applications where high current is needed.

300 sets of results may be stored in DLRO600's on board memory for later download to a PC or may be output directly to a printer via the RS232 port. You may also add notes to any stored result by using the on board alphanumeric keypad, thereby making later identification of results straightforward.

As well as adding notes to stored results, the alphanumeric keypad allows you to set the test current directly by typing in the value required. DLRO600 will check the continuity of the test circuit, and will quickly ramp the test current up to the desired level. The keyboard is also used to set upper and lower limits for the result and to prevent the use of excessive currents by setting an upper limit to the allowable test current.

DLRO600 uses a four terminal measurement technique to cancel

the resistance of the test leads from the measurement.

DLRO600 operates in one of three modes, which are simply selected from the on screen menu.

CONTINUOUS mode is provided for users who wish to monitor a resistance over a period of time. Connect the test leads, select the test current and press the TEST button. DLRO600 will pass a current continuously, and measure the resulting voltage at 2-second intervals, until the test button is pressed to stop the test or the test circuit is interrupted.

In NORMAL mode you connect the leads, select the test current and press the TEST button. The test current will ramp up to the desired level, hold for 2 seconds and then ramp down. The whole process takes approximately 7 seconds.

In AUTO mode select the desired current, connect the current leads and press the TEST button. The TEST lamp will flash to show that the DLRO600 is ready to carry out a test. As soon as the potential leads are connected, a test will start. To repeat a test, simply break contact with the voltage probes and remake contact.

Measuring individual joints in a busbar is a good example of the convenience to be gained by using AUTO mode. The two current leads are connected to the ends of the busbar. They will remain connected here until all tests have been completed. When the voltage leads make contact across a joint, DLRO600 detects that all four leads are connected, carries out a test and stops. When you move to the next joint DLRO detects the new completed circuit automatically and carries out the next test, and so on until all joints have been tested. The results may be stored

automatically and may be recalled to the display or downloaded for review.

**SPECIFICATIONS**

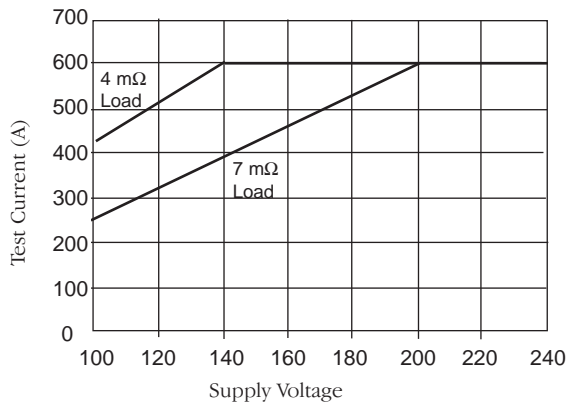
**Measurement:**

**Range:** 0.1  $\mu\Omega$  to 999.9 m $\Omega$

(Subject to supply voltage and leads used)

**Accuracy:**

Voltage	$\pm 0.5\% \pm 0.1$ mV
Current	$\pm 0.5\% \pm 0.1$ A
Resistance:	Better than 1% from 100 $\mu\Omega$ to 100 m $\Omega$



**Output Current:**

The chart above shows the maximum output current available at different supply voltages with a 4 m $\Omega$  load (i.e. standard 5 m current leads only) and with a 7 m $\Omega$  load

**Current Lead Resistance (Megger supplied leads)**

2 x 5 m 50 mm <sup>2</sup> current leads	4 m $\Omega$
2 x 10 m 70 mm <sup>2</sup> current leads	5.4 m $\Omega$
2 x 15 m 95 mm <sup>2</sup> current leads	6 m $\Omega$

**Maximum Continuous Test Time**

More than 60 seconds at 600 A @ 20°C ambient.

**Power Supply for:** See chart.

**full output:** 207 to 265 V 50/60 Hz with a load less than 7 m $\Omega$  including current leads

**reduced output:** Down to 100 V 50/60 Hz.

**Test Modes:** Manual, Auto, Continuous.

**Test Time:** 7 seconds NORMAL /AUTO mode.

Refreshed every 2 seconds in CONTINUOUS mode

**Display:** Large, high resolution backlit liquid crystal display

**Warnings** Current flowing; - LED. Other warnings are shown on the lcd display.

**Data Transfer** Real time or batch download via RS232 using Download Manager.

**Storage Capacity:** 300 result sets and memo, battery backed for 10 years.

**Memo field:** 200 characters max.

**Test Current**

**Range:** 10 A to 600 A unsmoothed d.c. in 1 A steps

**Accuracy:**  $\pm 2\% \pm 2$  A

**Voltmeter input impedance:** >200 k $\Omega$

**Hum rejection:** 5 V rms 50 Hz/60 Hz

**Temperature**

**Operation:** -10 to +50°C

**Storage:** -25 to +65°C

**Calibration:** 20 $\pm$ C

**Co-efficient:** <0.05% per °C

**Max. Humidity:** 95% RH non-condensing

**Maxi Altitude:** 2000 m

**Safety:** IEC61010 – (1995) Category II, 300 V phase to earth.

**EMC:** EN61326 annex A (heavy industrial)

**Dimensions:** 410 x 250 x 270 mm

**Weight:** 14.5 kg (excluding test leads)

**ORDERING INFORMATION**

Item (Qty)	Order No.	Item (Qty)	Order No.
Megger DLRO600 High Current Digital Low Resistance Ohmmeter (English QWERTY keyboard)	DLRO600 E	Quick Start Guide (French)	6172-783
Megger DLRO600 High Current Digital Low Resistance Ohmmeter (French AZERTY keyboard)	DLRO600 F	Warranty card.	6170-618
Complete with		<b>Optional Accessories at extra cost</b>	
5m Lead set in bag comprising:	6220-755	15m Lead set comprising 2 x 95mm	
2 x 50mm		2 current leads with clamps and	
2 current leads with clamps and		2 x potential leads with clips.	6220-757
2 x potential leads with clips.		10m Lead set comprising 2 x 95mm	
Download Manager	6111-442	2 current leads with clamps and	
User Guide on CD-ROM	6172-763	2 x potential leads with clips.	6220-756
RS232 download cable	25955-025		
Quick Start Guide (English)	6172-782		

**UK**  
Archcliffe Road Dover  
CT17 9EN England  
T +44 (0) 1304 502101  
F +44 (0) 1304 207342

**UNITED STATES**  
4271 Bronze Way  
Dallas TX 75237-1088 USA  
T 800 723 2861 (USA only)  
T +1 214 333 3201  
F +1 214 331 7399

**OTHER TECHNICAL SALES OFFICES**  
Norristown USA, Toronto CANADA,  
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**DLRO600\_DS\_en\_V10**

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