



- Current 8 mA ... 120 A (AC/DC)
- Frequency 15 Hz ... 1 kHz
- Best accuracy 0.035 %
- Simulated current and transconductance amplifier
- Built-in process multimeter
- Output capability 8 Vpk
- RS232, IEEE488 (SCPI)

Model MC151 is a stable high current calibrator up to 120 A. Basic accuracy is 0.035 %. Instrument can be controlled via RS232 or GPIB interface. Calibrator can work in a simulated amplifier mode to increase current ranges of any multifunction calibrator. It is suitable for power meter's calibration because MC151 can be synchronized with the input signal not only in amplitude but also in frequency and phase. Current terminals are isolated up to 450 Vpk against case (protective earth).

MC151 is a sophisticated instrument with its own recalibration procedure. The procedure enables to adjust any deviation directly from the front panel.

Calibrator is designed for checking parameters of amp meters. With current coil it can be used for calibration of clamp meters.

MC151 Specification (1 year accuracy, reference temperature)

Range	% of value + % of range	Maximal voltage	% of value + % of range	% of value + % of range	Maximal voltage	Maximal voltage
			15 - 40 Hz 70 - 1000 Hz	40 - 70 Hz	15 - 400 Hz	400 - 1000 Hz
0.008000 - 0.300000 A	0.025 + 0.01	8 V	0.03 + 0.02	0.025 + 0.01	5.5 V	3.5 V
0.300001 - 1.000000 A	0.025 + 0.01	8 V	0.03 + 0.02	0.025 + 0.01	5.5 V	3.5 V
1.000001 - 2.000000 A	0.025 + 0.01	8 V	0.03 + 0.02	0.025 + 0.01	5.5 V	3.5 V
2.000001 - 5.000000 A	0.025 + 0.01	5 V	0.03 + 0.02	0.025 + 0.01	3.5 V	3.5 V
5.000001 - 10.000000 A	0.03 + 0.015	5 V	0.04 + 0.02	0.03 + 0.015	3.5 V	3.5 V
10.000001 - 30.000000 A	0.035 + 0.015	5 V	0.05 + 0.02	0.035 + 0.015	3.5 V	3.5 V
30.000001 - 60.000000 A	0.035 + 0.015	5 V	0.05 + 0.02	0.035 + 0.015	3.5 V	3.5 V
60.000001 - 120.000000 A	0.035 + 0.015	5 V	0.05 + 0.02	0.035 + 0.015	3.5 V	3.5 V

Multimeter

Function	Range	% of value + % of range
AC voltage < 1 kHz	0 - 20 V	0.02 % + 0.02 %
AC voltage > 1 kHz	0 - 20 V	0.05 % + 0.05 %
DC voltage	±20 V	0.01 % + 0.01 %
AC current < 1 kHz	0 - 200 mA	0.02 % + 0.02 %
AC current > 1 kHz	0 - 200 mA	0.05 % + 0.05 %
DC Current	±200 mA	0.01 % + 0.01 %
Frequency	1 Hz - 10 kHz	0.005 % + 0.00 %

General specification

Warm-up time:	15 min
Output terminals isolation:	up to 450 Vpk against GND (protective earth)
Distortion of output signal:	< 0.1 %
Frequency accuracy:	0.005 %
Frequency resolution:	0.001 Hz below 500 Hz 0.01 Hz above 500 Hz
Frequency synchronization:	internal, external, power supply
Simulated amplifier gain:	0.5 ... 10 A/V (transconductance amplifier) 50 ... 1000 A/A (current amplifier)
Remote control:	RS232, IEEE488 (SCPI)
Power supply:	115/230 Vac, 50/60 Hz
Reference temperatures:	+20 °C ... +26 °C
Working temperatures:	+5 °C ... +40 °C
Storage temperatures:	-10 °C ... +55 °C
Dimensions:	W 538 mm, H 283 mm, D 540 mm
Weight:	42 kg


Content of delivery

Current Calibrator M151
Cable RS 232
User's manual
Power supply cable


Options (extra ordered)

<i>Option 151-25</i>	<i>25 turns current coil</i>
<i>IEEE488/IEEE488</i>	<i> GPIB cable 2m</i>
<i>Caliber</i>	<i>SW for calibration of meters</i>

AC current source

Source AC	14:35 21. 9.2012	Local
102.000 A 		
Frequency	50.000 Hz	0.053 %
Gnd Off Coil Off Sync Int.		
Input A meter		
Amplitude	99.990 mA	
Frequency	50.000 Hz	
AC/DC	Freq	Setup

Simulated transconductance amplifier

Amplifier AC	14:43 21. 9.2012	Local
● 117.000 A 		
Frequency	1000.00 Hz	0.053 %
Gain	10.00 A/V	
Step	1.0 A	
Gnd Off Coil Off Sync Int.		
Input U meter		
Amplitude	11.7069 U	
Frequency	1000.00 Hz	
AC/DC	Freq	Gain Step Setup

Recalibration

Current AC	Setup
Range 300mAac low (300mA)	
Range 300mAac high (300mA)	
Range 1Aac low (0.3A)	
Range 1Aac high (1A)	
Range 2Aac low (1A)	
Range 2Aac high (2A)	
Range 5Aac low (2A)	
Range 5Aac high (5A)	
Range 10Aac low (5A)	
Range 10Aac high (10A)	
Range 120Aac low 1 (10A)	
Range 120Aac high 1 (30A)	
Range 120Aac low 2 (10A)	
Select	Exit

For UK sales, support, service and deliveries:
Powertek UK 19 Cornwallis Road, Bilton, Rugby CV22 7HL UK
New Tel: 01788 519911 Fax: 0870 0940135
Int'l Tel: +44 1788 519911 Int'l Fax: +44 870 0940135
Email: info@powertekuk.com www.powertekuk.com

For USA sales, support, service and deliveries:
Powertek US Inc. 7 Third Street, Holbrook NY 11741 USA
Tel: +1 631 615 6279 Fax: +1 973 273 5893
Email: info@powertekus.com www.powertekus.com