DET10C DET20C
Earth Resistance Clamp Testers

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35 Vantage Point Drive // Rochester, NY 14624 // Call 1.800.800.5001



- **Measures Ground Resistance from 25 Ω to 1550 Ω**
- **Measures Ground Leakage current from 0.2 mA to 35 A**
- **Automatic self calibration**
- **Auto ranging**
- **High and low alarms**
- **Memory and download to Megger Download Manager**

DESCRIPTION

The Megger DET10C and 20C are highly sophisticated instruments that measure earth resistance and current flow using clamp technology. The instruments induce a test current into the system without the need to disturb existing connections. The Earth Resistance Clamp meter is a useful addition to the more traditional methods of earth resistance measurement that may require disconnection or additional stakes. The DET10C and DET20C earth resistance clamp meters are used to measure ground resistance in multiple loop installations without disconnecting the earth. This technique offers fast earth testing in total safety with the added convenience of having a single point of measurement to read earth resistance. The instruments also include a true RMS current measurement facility to allow measurement of earth currents, giving an indication of potential measurement problems and a useful overview of the general earth system dynamics. The units are rugged, compact and have configurable audible alarms. They also feature auto shutdown (configurable), data storage, self-calibration on power up and are supplied with a calibration loop - all contained in a rugged carry case. In addition, the DET20C has an RS232 download facility and is compatible with Megger Download Manager software (supplied) allowing further analysis and storage of data.

APPLICATION

The Earth Resistance Clamp meters are particularly suitable for measuring earth resistance in various installations such as buildings, pylons and RF transmitter sites. In addition, they can be used for the inspection and verification of lightening protection systems.

FEATURES AND BENEFITS

- Clear LCD
- Indication of high noise content that may effect readings
- Hold function for difficult to reach installations
- Over current protected
- Warning of jaws open to ensure accuracy
- Large conductor size up to approximately 35mm O.D.
- Configurable high and low alarms with audible indication
- On-board storage of test results
- Calibration check loop for piece of mind
- Sturdy carry/storage case contains complete kit
- Auto power off (configurable)
- RS-232 output of data via isolated pluggable interface (DET20C)

ELECTRICAL SPECIFICATIONS

Ground resistance range[2]	Resolution	Accuracy[1]
0.025 - 0.25 Ω	0.002 Ω	± 1.5% ± 0.05 Ω
0.25 - 9.999 Ω	0.02 Ω	± 1.5% ± 0.1 Ω
10 - 99.99 Ω	0.04 Ω	± 2.0% ± 0.3 Ω
100 - 199.9 Ω	0.4 Ω	± 3.0% ± 1.0 Ω
200 - 400 Ω	2 Ω	± 5.0% ± 5
400 - 600 Ω	5 Ω	± 10% ± 10 Ω
600 - 1500 Ω	20 Ω	± 20%

[1] Loop resistance non-inductive, external field <50 A/m, external electrical field <1 V/m, conductor centred in jaws.

[2] Resistance measurement frequency 1.667KHz

Alarm type	Range	Resolution
High Alarm	0 - 1550 Ω	1 Ω
Low alarm	0 - 1550 Ω	1 Ω

Leakage current range[3]	Resolution	Accuracy
0.200 – 1.000 mA	0.001 mA	± 2.0% ± 0.05 mA
1.00 – 10.00 mA	0.01 mA	± 2.0% ± 0.03 mA
10.0 – 100.0 mA	0.1 mA	± 2.0% ± 0.3 mA
100 – 1000 mA	1 mA	± 2.0% ± 3 mA
0.20 – 35 A	0.01 A	± 2.0% ± 0.03 A

[3] Auto range, 50/60Hz, true RMS to crest factor <3.5

GENERAL SPECIFICATION

Conductor size	35mm Ø approx
Battery type	9V IEC 6 LR61 alkaline
Display type	4 digits 9999 counts LCD
Range selection	Automatic within function
Overload indication	OL
Power consumption	40 mA
Battery life	3000 measurements approx
Auto power down	5 minutes approx
Sampling time	0.5 seconds
Operating temperature	0 to 50ºC
Storage temperature	-20ºC to 60ºC
Operating humidity	Less than 85% RH
Storage humidity	Less than 75% RH
Dimensions	276 L X 100 W X 47 H (mm)
Weight	750g
Data logging capacity DET10C	116 records
Data logging capacity DET20C	8180 records

ORDERING INFORMATION

Item (Qty)	Order Code
Digital Earth Test Clampmeter	DET10C
Digital Earth Test Clampmeter	DET20C
Included Accessories (DET10C and DET20C)	
Carry case	
Calibration loop	
Battery (fitted)	
Included Accessories (DET 20C)	
RS 232 interface unit	
Download Manager Software	

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