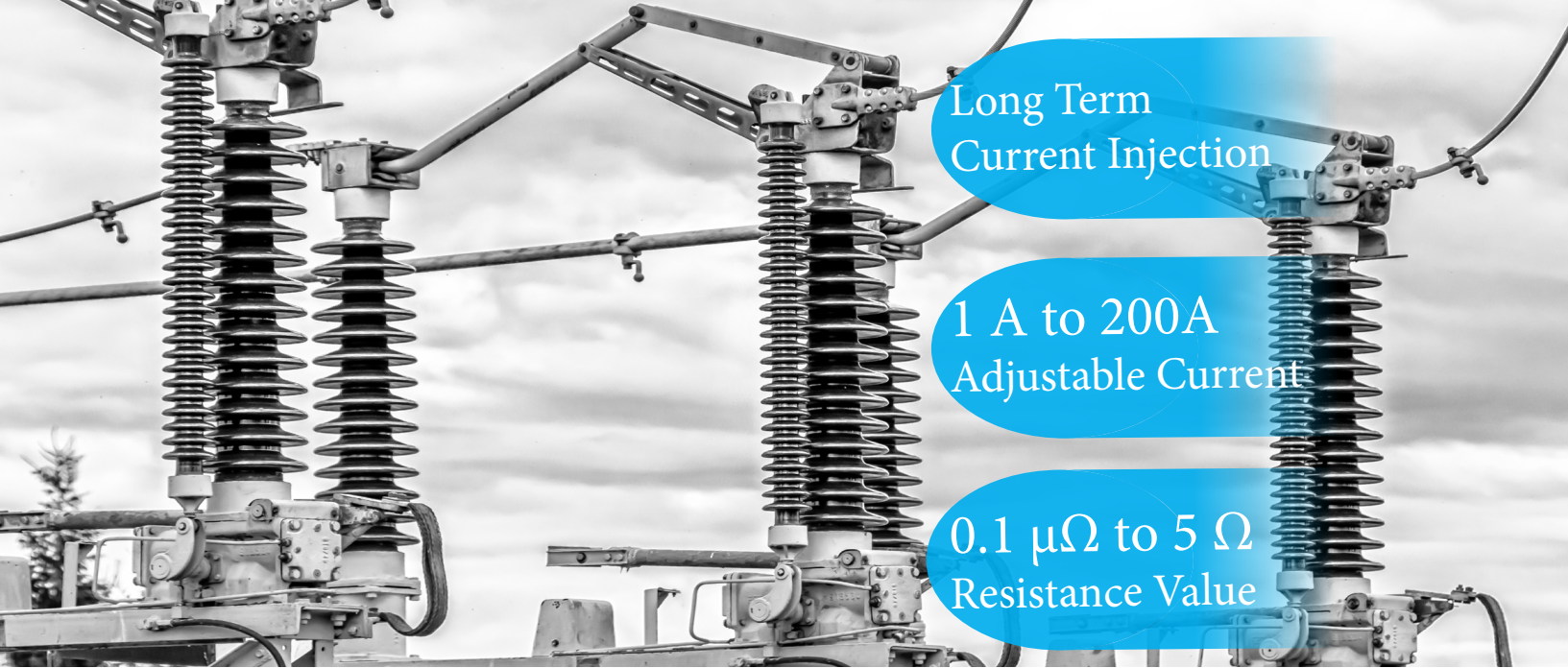




Static, Dynamic & Dual Ground Measurement

# ARES-200D 200 A DC Micro-Ohm Meter



Long Term  
Current Injection

1 A to 200A  
Adjustable Current

0.1  $\mu\Omega$  to 5  $\Omega$   
Resistance Value

## ARES-200D

### 200 A DC Micro-ohm Meter with Built-in Printer

ARES-200D is a micro-ohmmeter produced using advanced engineering technologies which can apply up to 200 A current. With its easy-to-use software, ARES-200D can easily measure contact resistances of circuit breaker, shunt, disconnect by applying adjustable current from 1A to 200A.

It can calculate the real values of the resistors by providing penetration with the feature of the continuous current application. ARES-200D can measure from 0.1  $\mu\Omega$  to 5  $\Omega$ . ARES-200D is capable of measuring static and dynamic resistance of the contact points of the circuit breaker.

ARES-200D can measure idle circuit breakers as well as dual grounded circuit breakers. The optional current clamp will be able to measure the part of the current going through the ground line during the test and make the calculations considering this component.

The frequently used test models can be saved as templates and the tests can be performed more rapidly and quickly. Thanks to the quick test feature of the ARES-200D user interface, the test can be performed in barely 15 seconds.

The 4.3-inch touch colour display shows all measurement results manifest on a single screen. With an easy-to-use user-friendly interface, the ARES-200D guides operators to perform tests quickly.

ARES-200D's flash memory feature allows controlling, recording and storing measurement results (up to 200 Test Records). And also the user can copy test records using a USB drive. Operators can easily print the measurement results with the 2.25-inch built-in printer of ARES-200D and can prepare on-field reports easily.

The HighTest data management platform (DMP Software) can also be used to control ARES-200D remotely by a PC and the measurement results can be easily analysed and stored in the PC.

With the ARES-200D's Bluetooth option, tests can be started remotely via DMP software and the results can be transferred to the PC. Thus, on-field tests can be performed even by a single person.

With ARES-200D's temperature measurement channel, the temperature values of the measured sample can be taken and calculated according to the desired temperature value. ARES-200D is a compact, rugged device with IP67 protection class (case closed) which weighs 9 kg.

#### Why do we measure contact transition resistance at breakers?

When high current passes over the switchyard, circuit breakers open the circuits or at the points where high current passes it acts as closing switches. Resistance value measured in periodic control of circuit breaker should be the same as the resistance value in the closed position which is very important for system safety.

High resistance values may cause local hotspots, voltage drops, fire risk, unplanned power failure, and extra energy loss in the system. Maximum accuracy measurement with the 4-wire method (kelvin method) will indicate whether the breaker contacts are properly contacted, if there is any corrosion on the contacts, or it shows if there is an effect that increases the resistance.

ARES-200D can apply up to 200 A current through its current cable and measure the voltage drop on both sides of the resistance with the sense terminal. Thus the calculated resistance value displayed on ARES-200D is not affected by the resistance of the measuring cable.

#### Why Dynamic Resistance Meter?

In the circuit breakers, the time-dependent graph of the measured resistance when the breaker is switched from closed to open can be obtained to determine whether the contacts are deformed. This cannot be detected by measuring the circuit breaker only in the closed position. For this reason, dynamic resistance measurement is done on circuit breakers.



## FEATURES

- Contact Resistance Measurement
- Adjustable Current: 1 A to 200 A
- Measurement Range from 0.1  $\mu\Omega$  to 5  $\Omega$
- Typical Accuracy 0.1%
- Static Resistance Measurement
- Dynamic Resistance Measurement
- Dual Ground Test mode
- Built-in Printer
- Optional Current Clamp
- Internal Memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth control & communication
- 4.3-inch TFT touch Display
- Protection Class: IP67 (case closed)

## Technical Specifications

Measurement Parameter	Contact Resistance
Measurement Modes	Static Resistance, Dynamic Resistance & Dual ground
Test Current	1 A to 200 A
Measurement Range	0.1 $\mu\Omega$ to 5 $\Omega$
Accuracy	Typical: 0.1% $\pm$ 0.1% Fs Guaranteed: 0.5% $\pm$ 0.1% Fs
Display	4.3-inch TFT touch Display (visible under sunlight)
Memory	Up to 200 records with 25 intervals for each
Communication	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Bluetooth (factory installed option)
PC Software	DMP Software
Printer	2.25-inch Built-in Printer
Test Plan	Up to 6 plans
Current Clamp	Yes, Optional
Power Supply	100-240 V 47/63 Hz
Dimensions	16.7" x 13.4" x 6.8" (424 mm x 340 mm x 173 mm )
Weight	9 kg
Operating and Storage temperature	Working: -10 $^{\circ}\text{C}$ to + 60 $^{\circ}\text{C}$ Storage: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$
Humidity	95% RH non-condensing
Protection Class	IP67 (case closed)
Set of Package	ARES-200D, Power Cable, Ground Cable , 33 feet Standard Test Cable Set, USB Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), DMP Software, Cable Bag
Options	Hard Carrying Case, Length Customised Cables, Bluetooth (factory installed option), Current Clamp

4.3-inch TFT  
Touch Display

Built-in Printer

Specifications are valid under 25  $^{\circ}\text{C}$  temperature. \*Contents subject to change without notice.

Version V09.07/2020

HighTest Technology Ltd. is a leading manufacturing company based in the UK which produces highly precise test equipment. We mainly focus on the development, manufacture, and marketing of Transformer test systems.

We have several years of experience in the field of developing and producing high-end test equipment. Customer satisfaction is our prime motto. We supply our test equipment worldwide to Transformer manufacturers, Electrical utilities, general contractors and service companies. Our test equipment is designed and produced according to the most widely adopted international standards. As we value our customers the most, our well-experienced team always provide excellent after-sales support and technical assistance.



HIGHTEST TECHNOLOGY LIMITED  
4F Great Northern Works, Hartham Lane  
Hertford, Hertfordshire, SG14 1QN, U.K  
Tel: +44 203 900 2710, +44 203 287 2302  
info@hightest.co.uk  
www.hightest.co.uk

• Distributor / Representative