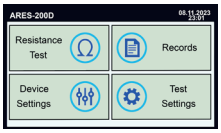
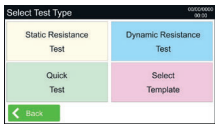
ARES-200D SERIES 200A CONTACT RESISTANCE TESTER





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 the circuit breaker, shunt, and disconnector 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 μ Ω to 5 Ω. ARES-200D can measure 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, users can complete a test in barely 15 seconds.

The 4.3-inch touch colour display shows all measurement results manifest on a single screen. The ARES-200D guides operators to perform tests quickly with an easy-to-use, user-friendly interface. ARES-200D's flash memory feature allows controlling, recording, and storing of measurement results (up to 200 Test Records). And also, users 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 and analyse the test reports produced by ARES-200D on a PC, and the measurement results can be easily exported and stored on the PC.

With the ARES-200D's Bluetooth option, users can start tests remotely via DMP software and transfer the test results 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 an IP67 protection class (case lid closed), weighing 9 kg.

Why do we need measure contact transition resistance on circuit 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.

The resistance value measured in periodic control of the 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 µ Ω to 5 Ω
- Typical Accuracy: 0.1%
- Dynamic Resistance Measurement
- Static Resistance Measurement
- Dual Ground Test Mode
- Auto Test Mode
- Built-in Printer
- Optional Current Clamp
- Internal Memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth Communication
- 4.3-inch TFT touch Display

TECHNICAL SPECIFICATIONS

Measurement Parameter	Contact Resistance Circuit breakers, Shunts and Disconnectors			
Measurement Modes	Static, Dynamic & Dual ground Resistance Measurement			
Auto Test Mode	Yes			
Test Current	1 A to 200 A			
Measurement Range	0.1 µΩ to 5 Ω			
Accuracy	Nominal Resistance	Resolution	Recommended Test Current	Typical Accuracy
	Up to 25 mΩ	0.1 µΩ	100 A – 200 A	± 0.10% rdg ± 0.01% FS
	Up to 100 mΩ	0.1 µΩ	50 A – 100 A	± 0.10% rdg ± 0.01% FS
	Up to 250 mΩ	0.001 mΩ	20 A – 50 A	± 0.10% rdg ± 0.01% FS
	Up to 500 mΩ	0.01 mΩ	10 A – 20 A	± 0.10% rdg ± 0.01% FS
	Up to 1 Ω	0.1 mΩ	5 A – 10 A	± 0.10% rdg ± 0.01% FS
	Up to 5 Ω	0.001 Ω	1 A – 5 A	± 0.10% rdg ± 0.01% FS
Power Supply	100-240 V 47/63 Hz			
Memory	Up to 200 records with 25 intervals for each			
Test Plan	Up to 6 plans			
Printer	2.25-inch Built-in Printer			
Current Clamp	Yes (Optional)			
Communication	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Bluetooth (Model: ARES-200D BLUE)			
PC Software	DMP Software			
Display	4.3-inch TFT touch display			
Dimensions	16.7" x 13.4" x 6.8" (424 mm x 340 mm x 173 mm)			
Weight	9 kg			
Working Temperature	-10 °C to + 60 °C			
Storage Temperature	-30 °C to + 70 °C			
Humidity	95% RH non condensing			
Protection Class	IP67 (case lid closed)			
Set of Package	Power Cable, Ground Cable , 10m 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 install option), Current Clamp			

*Specifications are valid at/under 25 °C temperature. *Content subject to change without notice.*

ORDERING INFORMATION

ARES-200D 200A Contact Reistance Tester with Built-in Printer

ARES-200D BLUE 200A Contact Resistance Tester with Built-in Printer & Bluetooth