



Baker ST103A, ST106A, ST112A



The ST103, ST106A and ST112A bring you innovations in testing of electrical insulation systems. This tester features the proven accuracy and reliability of over 45 years of experience.

Specifically designed for shop or field performance, these analog instruments provide a cost effective solution for motor testing. The ST103A, ST106A and ST112A represent Baker Instrument Company on-going commitment to quality in the design of high performance test equipment.

The ST112A, ST106A and ST103A were designed to diagnose faults in electrical windings. With these easy-to-use instruments perform High Potential and Surge tests.

DC High Potential testing detects faults in groundwall/earth ground and also provides a complete Polarization Index test. The groundwall/earth insulation system consists of the wire insulation, slot liner insulation, wedges, varnish and sometimes phase paper.

Surge testing detects faults in both inter-turn winding and phase-to-phase insulation systems. Comparisons of leads can be done visually on the screen.

Total tester control from the front panel with easily accessible connectors make this instrument simple to use. The zero start interlock provides safe operation for both operator and equipment.

Applications

Versatility makes this instrument an essential component for both preventative and predictive maintenance programs. The capability to test all insulation systems of coils and windings make this unit ideal for use on motors, generators, transformers, chokes, solenoids and a variety of other coils.





With the ST112A, ST106A and ST103A testers, you can verify the quality of new or rewound windings before you have to depend on their performance. Whether you're in the shop, in the plant or in the field, these analog testers are capable of troubleshooting, diagnosing and predicting motor failures, prior to them happening.

Additional features

- QRR high voltage component design
- Autoranging overcurrent trip setting
- Overcurrent warning indicator light

- Leakage current displayed on CRT gives quick indication of faults and provides a real-time visual reference for controlling high voltage testing.
- Specially designed CRT displays circuits for maximum reliability
- Test lead insulation rated to 40 kV
- Leads energized warning indicator
- All leads ground test switch position
- 3-phase test select switch

| | ST112A | ST106A | ST103A |
|---|--------------------------------------|------------------------|------------------------|
| Surge test | | | |
| Maximum output voltage | 12,000 V | 6,000 V | 3,000 V |
| Maximum output current | 800 A peak | 380 A peak | 200 A peak |
| Maximum pulse energy | 2.88 J | 0.72 J | 0.18 J |
| Minimum test inductance | 30 to 40 μ H | 30 to 40 μ H | 30 to 40 μ H |
| DC high potential test | | | |
| Maximum output voltage | 12,000 V | 6,000 V | 3,000 V |
| Maximum output current | 1,000 μ A | 1,000 μ A | 1,000 μ A |
| Overcurrent trip | 1/10/100/1,000 μ A | 1/10/100/1,000 μ A | 1/10/100/1,000 μ A |
| Current resolution (per division) | 1/10/100 μ A | 1/10/100 μ A | 1/10/100 μ A |
| Physical characteristics | | | |
| Weight | 42 lbs (19 kg) | 42 lbs (19 kg) | 42 lbs (19 kg) |
| Dimensions (all units) | 19 x 8 x 16 in. (482 x 203 x 406 mm) | | |
| Power requirements (both units) | 120 V AC/333 W | 120 V AC/118 W | 120 V AC/118 W |
| Recommended maximum motor size | 1,000 HP/4 160 V | 500 HP/2 400 V | 200 HP/600 V |
| Option: FS-12 Footswitch for push to test hands-free operation. | | | |

Baker Instrument Company, an SKF Group Company
 4812 McMurry Avenue, Fort Collins, CO 80525, USA
 T: +1 970/282-1200 – 800/752-8272 F: +1 970/282-1010
www.bakerinst.com

® SKF is a registered trademark of the SKF Group.

® Baker is a trademark of the SKF Group.

© SKF Group 2010

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

Publication 6794 EN February 2010

Printed in USA on environmentally friendly paper.

