

JABBALS

10KV, 12 KV & 15KV Surge Comparison Tester

Model 7010K, 7012K & 7015K

The latest Surge Comparison Tester is advanced and a comprehensive electrical winding tester.



The Latest 7000 Series Surge Tester has added a new dimension to the testing of Insulation strength of large electric motors.

Surge Test With High Pulse Energy

This Surge tester has high pulse energy that is required to test large electrical windings with low impedance and high capacitance. This Surge Tester is highly reliable, accurate and cost-effective. It is extremely versatile and a valuable tool to test the motors in the motor shop or field. As with a new enhanced feature of DSO interface it can easily store the test results that can be printed when required. This Tester has been widely appreciated by motor manufacturers and re-winders worldwide and has immensely improved the quality of the HT motors in the industry.

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Principle of Surge Comparison Tester

The Surge Comparison tester checks the strength of ground insulation that consists of enameled insulation. It detects the insulation failures such as turn-to-turn shorts, layer-to-layer shorts, coil-to-coil shorts, winding-to-winding shorts, and phase-to-phase shorts. Open circuit and ground detection are other benefits of surge testing.

The Surge tester uses the principle of impedance balance to test the quality of electrical windings. The Surge tester works as a capacitive-discharge system. A capacitor is charged with high voltage and then discharged into the winding, through a solid state assembly. This sequence is repeated thus stressing the insulation of the winding with high voltage pulses.

The resulting voltage decay pattern of two winding is then displayed on the CRT. The waveform pattern will be perfectly superimposed for good windings but in case of a defective winding a double wave pattern will appear on the screen as one wave pattern from the good winding plus the erratic pattern from the faulty winding.

Surge Test Voltage to be applied = $\sqrt{2} \times (2 \times E + 1000)$
where E is the operating voltage of the rotating machine

Benefits

- User friendly front panel controls
- Zero state lock for operator safety
- Footswitch for hands free operation
- Highly sensitive fault detection capability - It detects even a single turn short in the coil
- Test leads insulated to 45KV rating
- Leads energized warning indicator
- Bright sharp CRT display to analyze the faults easily
- 1phase/3phase Test Select Switch

Applications

This tester is widely used for testing newly and rewound motors. It helps in finding and predicting the faults in motors before it actually happens. This tester is extremely portable that can be easily used in the motor shop and in field to test the following :

- 1φ & 3φ windings
- LT, HT coils
- AC, DC motors
- Stators
- Transformer coils
- Solenoids & Chokes

Test Specifications	7010 K	7012K	7015K
Max Surge Voltage	10,000V	12,000V	15,000V
Max Pulse Current	660A	800A	1000A
Max Pulse Energy	5.0J	5.88J	11.3J
Display	CRT (100x80mm)	CRT (100x80mm)	CRT (100x80mm)
CRT Vertical Sensitivity	250V/DIV 500V/DIV 1000V/DIV 2500V/DIV	500V/DIV 1000V/DIV 2000V/DIV 4000V/DIV	500V/DIV 1000V/DIV 2000V/DIV 4000V/DIV
Sweep	Variable	Variable	Variable
Surge Frequency	50Hz ± 3%	50Hz ± 3%	50Hz ± 3%
Operating Voltage	230V ± 10%	230V ± 10%	230V ± 10%
Power Consumption	250W	250W	300W
Weight	60lbs	60lbs	60lbs
Physical Dimensions (W X H X D)	435 X 250 X 540 (mm)	435 X 250 X 540 (mm)	435 X 250 X 540 (mm)

Optional Features

- Open Input source Ground indicator
- PC Compatible to store, recall and print waveforms

Related Products

- Surge Tester with DC Hi-Pot test
- Surge Tester with Bar-to-Bar test

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