



Surge Tester - Series SF

1. Description

The latest Surge Tester has an embedded Industrial PC with 8 inch touch screen display and also has automatic Pass/Fail and report generation features. The tester can be directly connected to a printer through an USB interface for the documentation of test reports.

2. Technique

a. Features

- Color coded waveforms for better analysis
- Graphical and numerical representation of error percentage between the waveforms
- Dual feature to either store and compare against master waveform or compare two windings simultaneously
- Store, print and recall surge test waveforms and reports
- Motor data reference database
- Target test voltage indication based on motor ratings
- Automatic report generation in MS Word

b. PC Specifications

- 8" touch screen display
- Industrial grade CPU (Intel Dual Core)
- 4 GB RAM / 500 GB hard disk
- Windows 7
- Dust proof, water resistant
- Temperature range 0 - 60 °C
- 2 USB ports
- Wireless keyboard and mouse

c. Operating Interface and Controls

- Adjustable Volts/div and Timebase
- Color coded waveform display
- Surge test peak voltage indicator
- Graphical and numerical error percentage display
- Test result (Good/Fail) lamp indicator
- Target voltage indicator based on motor rating
- Save, recall and print waveforms and test reports

d. User Interface and Controls

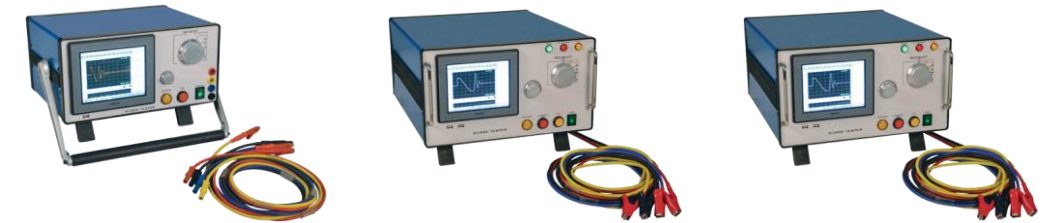
- Highly sensitive fault detection capability
- Test leads insulated up to 45 kV
- Single-phase and 3-phase test select switch
- Leads energized warning indicator
- Footswitch for hands free operation
- 8" touch screen color display
- Printer can be connected to tester via USB port for direct printouts

3. Applications

This tester is widely used for testing newly manufactured and rewind electric motors. It helps in finding and predicting the faults in motors before the failure actually happens. This tester is extremely portable so that it can be easily used in the manufacturing plant, in the motor repair shop and in the field for testing the windings as listed below.

The Tester can be used for the following windings:

- Single-phase motors and windings
- 3-phase motors and windings
- Low voltage coils
- AC motors
- DC motors
- Stators
- Transformer coils
- Magnet coils
- Choke coils
- HV motors and coils



Technical Data

Specifications	SF - 6 KHR	SF - 12 KHR	SF - 15 KHR
Impulse Test Voltage	6.000 V	12.000 V	15.000 V
Impulse Current	max. 400 A	max. 800 A	max. 1.000 A
Impulse Energy	1,44 J	7,2 J	11,3 J
Discharge Capacitor	0,04 µF	0,05 µF	
Min. Test Piece Inductance	24 µH		
Timebase	variable 10µs -10ms		
DC Hipot	6.000 V	12.000 V	15.000 V
Leakage Current	max. 2 mA		
Resistance Measurement 4-Wire-Technique	0,001 Ω - 60 Ω		
Display	8" Touch Screen		
Operating Voltage	230 V (50-60 Hz)		
Power Consumption	max. 240 W	max. 400 W	
Dimensions (WxHxD)	435 x 250 x 540 mm		
Weight	25 kg	30 kg	
Alternative	6 kV Surge Tester SF-6 with ONLY surge / impulse voltage NO DC high voltage NO resistance measurement Everything else identical with SF-6HR	12 kV Surge Tester SF-12 with ONLY surge / impulse voltage NO DC high voltage NO resistance measurement Everything else identical with SF-12HR	15 kV Surge Tester SF-15 with ONLY surge / impulse voltage NO DC high voltage NO resistance measurement Everything else identical with SF-15HR



Technical Data

Specifications	SF - 25 KHR	SF - 30 KHR	SF - 40 KHR
Impulse Test Voltage	25.000 V	30.000 V	40.000 V
Impulse Current	max. 1.600 A	max. 2.000 A	max. 2.500 A
Impulse Energy	40 J	56 J	100 J
Impulse Rise Time	0,1 µs		
Discharge Capacitor	0,125 µF		
Impulse Repetition Rate	1 pulse/sec		
Minimum Test Object Inductance	24 µH		
Display	8" Touch Screen		
DC Hipot	25.000 V	30.000 V	40.000 V
Leakage Current	max. 2 mA		
Resistance Measurement 4-Wire-Technique	0,001 Ω - 60 kΩ		
Operating Voltage	230 V (50/60 Hz)		
Power Consumption	max. 1000 W		
Dimensions (WxHxD)	570 x 1050 x 660 mm		
Weight	130 kg		