



SCR ELEKTRONIKS

SALES PRESENTATION FOR TESTING EQUIPMENTS FOR CABLES & CONNECTORS





LIST OF TEST EQUIPMENT

1. PC BASED TEMPERATURE RISE TEST BENCH 10KA (25KA 5SEC) FOR CABLES AND CONNECTORS
2. PC BASED TEMPERATURE RISE TEST BENCH WITH 2000 A / 10.5 V CURRENT SOURCE
3. HV INCLINED PLANE AND EROSION TESTER
4. HOT WIRE IGNITION TESTER
5. PC BASED TEST SETUP FOR 12 CORE CABLES
6. TEST SETUP FOR FLEXIBLE PERFORMANCE OF WIRES & CABLES



1. PC BASED TEMPERATURE RISE TEST BENCH 10KA (25KA 5SEC) FOR CABLES AND CONNECTORS

• What It Is?

- It is used to measure rise in temperature at various points as mentioned in standard at junctions.
- The set-up consists of a Thyristorized (Solid state controlled) Current Source (to maintain the Current even as impedance of the cable changes due to rapid temperature rise), a specially designed step down transformer system, PC based control system, Temperature data logging on PC, Servo-Controller and other indications. Digital voltmeter Primary Voltage indicates the position of auto transformer (variac).
- Servo controlled mechanism is used to maintain constant current throughout the test in manual mode. CR/AL('K' type) type thermocouples are used for temperature sensing.

• Models Available :

- The test bench can be customized as per the current rating desired for testing the maximum size of cable
- The open circuit voltage can also be dictated by the user
- The system comes in PC based as well as manual mode
- Temperature rise measurement system can be customized as per the number of channels, additionally we can integrate the existing temperature measurement system at clients end, thus acting as an add on / retrofit solution



• Features & Specifications :

- Input Supply: Three Phase 415 VAC, 300 Amps, 50 Hz Max.
- Output: Current Source 50A to 10KA Cont & 25KA 5Sec
- CT range selections: 200, 500, 1KA, 2KA, 5KA, 10KA, 20KA, 25KA.
- Selection of output voltages, the ranges are 1.25V, 2.5V, 3.75V, 5.0V, 6V, 7.5V selection through switches.
- Two operating modes are provided: PC & MANUAL.
- 12 Channels, Cr/Al type Thermocouple sensor for temperature sensing with PC data logging.
- Servo controlled mechanism for maintaining the Test Current at preset value in manual mode.



● Key Benefits :

- Huge current and voltage range in a single solution ensures one bench for the entire range of cables and connectors
- System can be customized for different values of continuous current rating and short time current rating for cables
- Can be used as a short circuit bench for cable connectors
- The current feedback system, which controls the current in the issue of impedance change is automatic and instantaneous without delay
- In built temperature rise measurement system
- Can be used for heavy duty testing of products apart from cables

● Key Photos :



PC BASED TEMPERATURE RISE TEST BENCH



2. PC BASED TEMPERATURE RISE TEST BENCH WITH 2000 A / 10.5 V CURRENT SOURCE

- **What It Is?**

- It is used to measure rise in temperature at various points as mentioned in standard at junctions for tests upto 2000 A.
- The set-up consists of a servo controlled motorized variac, a specially designed step down transformer system, PC based control system, Temperature data logging on PC and other indications . Digital voltmeter Primary Voltage indicates the position of auto transformer (variac).
- Servo controlled mechanism is used to maintain constant current throughout the test in manual mode. CR/AL('K' type) type thermocouples are used for temperature sensing.

- **Models Available :**

- The test bench can be customized as per the current rating desired for testing the maximum size of cable
- The open circuit voltage can also be dictated by the user
- The system comes in PC based as well as manual mode
- Temperature rise measurement system can be customized as per the number of channels, additionally we can integrate the existing temperature measurement system at clients end, thus acting as an add on / retrofit solution



● Features & Specifications :

- Input Supply: Three Phase 415 VAC, 300 Amps, 50 Hz Max.
- Output: Current Source 50A to 2000A
- CT range selections: 100A, 200A, 400A, 800A, 1200A, 1600A, 2000A.
- Selection of output voltages through switches.
- Two operating modes are provided: PC & MANUAL.
- 12 Channels, Cr/Al type Thermocouple sensor for temperature sensing with PC data logging.
- Servo controlled mechanism for maintaining the Test Current at preset value in manual mode.



- **Key Benefits :**

- Typical current and voltage range in a single solution ensures one bench for the low current cables and connectors
- System can be customized for different values of continuous current rating and short time current rating for cables
- In built temperature rise measurement system
- Can be used as an independent low voltage, high current source

● Key Photos :



PC BASED TEMPERATURE RISE TEST BENCH



3. HV INCLINED PLANE AND EROSION TESTER

- **What It Is?**

- SCR ELEKTRONIKS have developed HIGH VOLTAGE INCLINED PLANE AND EROSION TESTER to carry out test specified in many standard to cover test method for the evaluation of the relative tracking and erosion resistance of insulating solid using liquid contaminant (ASTM D2303).
- Perform the Initial Tracking Voltage Test, Time to track Test, And Erosion Test as per selection.

- **Models Available :**

- The product can be customized as per the number of stations: 1 and 5 stations.
- Additionally, the product can be microcontroller based with each microcontroller controlling an individual station, or a PC based wherein the PC controls all the stations simultaneously and independently of each other.



- **Salient Features :**

- “Microcontroller based programmable logic controller” to carry out test sequence having 20 *4 LCD and membrane keypad for display of set test parameters and test status.
- Specially designed electrodes as per product under test.
- Lighting arrangement in test chamber.
- Facility to easily calibrate the system for voltage as well as time calibration.
- Seven segment LED display for voltage and current indication.



- **Key Benefits :**

- The tester is used to test insulation testing of special purpose cables such as armoured cables.
- It can also be used for conventional cables.
- The tests covered are time to track method, initial tracking voltage test and erosion test



• Basic Specifications :

- **Input supply:** 1 phase 230 V AC, 50hz.
- **Output voltage:** Regulated 100 V to 7500 v AC programmable.
- **Series ballast selection:** 1 k, 10 k, 20 k and 50k with link.
- **Tripping current setting:** 60 mA.
- **Electrode system:** Stainless still material.
- **Angle of inclination:** 45 deg.
- **Fixture arrangement:** Made for flat test specimen as well as for various size cables.
- **Liquid deliver capacity:** 0.075 ml/ min to 0.900 ml/ min ,programmable.
- **Test chamber:** UV protected Glass door with door interlock.
- **Enclosure:** built with aluminium profile and MS covers with powder coating.
- **Dimensions:** 110 cm X 110 cm X 70 cm (L X H X D)

● Key Photos :



High Voltage Inclined Plane And Erosion Tester



4. HOT WIRE IGNITION TESTER

- **What It Is?**

- It is used to conduct the flammability test of the material as discussed in IS/IEC 60947-1:2004 Annexure M.
- The HWI test indicates a materials resistance to ignition when exposed to abnormally high temperatures resulting from a component failure such as a conductor carrying far more than its rated current.
- HWI performance is expressed as the mean number of seconds required to ignite a specimen when wrapped with an energized non-chrome resistive wire that dissipates a specified level of energy.

- **Models Available :**

- The tester can be customized with respect to PC based or otherwise, but is generally procured with the manual option (without PC)



● Why Flammability Test?

- A material's ability to resist ignition from electrical sources is an important factor that must be considered in the selection and evaluation of a material for use in electrical equipment.

● Advantages:

- This test ensures that your product meet high standards of quality & safety.
- This product is meant for all switchgears/insulator/polymer/electro plastic manufacturers and manufacturers who use insulators in their products e.g. wiring accessories, appliances, etc.
- The tester is used to test flame susceptibility when a current is passed through a hot wire wrapped around the specimen



- **Salient Features :**

- Designed to comply with the requirements of UL 746A & IS/IEC 60695-11-10.
- Dedicated PLC system for control of sequence and user friendly.
- Keyboard with soft keys for entering the testing parameter

- **Specifications:**

- Continuously displays the voltage and wattage in test mode
- Supply voltage of 230 V +/- 10 % supply
- Enclosure – elegant design with aluminium extruded profile.

● Key Photos :



Hot Wire Ignition Tester



5. PC BASED TEST SETUP FOR 12 CORE CABLES (HV TEST SETUP & RESISTANCE TEST)

- **What It Is?**

- To ensure that the isolation of the two sections i.e. Live & Earth is effected properly, the Apparatus is tested by subjecting it to a Voltage much higher than the normal working Voltage. If the insulation is good, it stands the test without breakdown otherwise high electrical stress punctures the insulation at its weakest spot foretelling a later calamity to unwary user.

- **Models Available :**

- The design can be custom-built as per the basic parameters desired by the user
- The equipment can be PC or PLC based as per customer requirement



- **Key Benefits :**

- It weeds out poor insulation. This test is stipulated in most I.S. and B.S specifications for electrical equipment.

- **Features & Specifications :**

- Input- 230 VAC, 16 Amps, Single Phase, 50Hz.
- HV Test measurements up to 3KV.
- Resistance Test measurement.
- PC BASED controlling & operating system.
- Safety Factors- Door Open, Emergency OFF.
- Indicator Lamps – HV TEST, RESISTANCE TEST, MAINS SUPPLY, PC SUPPLY .



6. TEST SETUP FOR FLEXIBLE PERFORMANCE OF WIRES & CABLES (BRIEFCASE MODEL)

- **What It Is?**

- SCR ELEKTRONIKS focuses on designing a solution around the end use at her customer.
- The equipment flows a current upto 100A through 2 cables and senses the temperature and millivolt reading of the two. The user can compare the difference between the two cables.

- **Models Available :**

- The test system is available in briefcase. It is light weight so engineer can carry this briefcase.



• Features & Specifications :

- Compact in size 450mm x 170mm x 380 mm.
- Accuracy of class 1.
- Operates on 230 V / 5A AC+/- 10 % Supply
- Digital Temperature Indicator : 0 to 200°C
- Digital Millivolt Meter : 0 to 2000mV
- Sensor "K" Type CR/AL for Temperature Measurement.



- **Key Benefits :**

- It is an Compact, Lighter and portable briefcase model for cable testing
- Ideal for sales engineer to show that their product is better than any of their competitor.
- The user friendly approach to design has made the set up very easy to work on.
- User can set a current up to 100 A DC.

● Key Photos :



TEST SETUP FOR FLEXIBLE PERFORMANCE OF WIRES & CABLES



- **Documentation That Will Be Provided With Product :**

- Layout (dimensions, etc.)
- Metering and PCB termination diagram
- Power wiring diagram
- Control wiring diagram
- User manual
- Data acquisition module details (for PC based variants)
- Signed warranty certificate
- Calibration certificates (NABL optional)



• Why SCR Elektroniks ?

- Since 1975: Rich Experience In Test And Measurement
- Customized Solution
- Dedicated After Sales Support Team
- Designed More Than 100 Different Products
- In- House Team Of Micro-controller Design, Electrical And Electronic Design, Micro Controller Development, Labview (PC) Software And PLC Logic, Production, Testing And Commissioning And Support
- In-house Development Of Critical Electronic And Electrical Meters, Modules And Components
- ISO 9001 : 2015 Certified By Bureau Veritas – Maintaining High Quality In Our Internal Process
- Listed By IEC In The Past
- Fair And Consistent Pricing
- Our Ultimate Prize: Customer Delight

- **Our Recent Clients List For Cables & Wire Testing :**

Sr. No	Customer Name
1	Apar Cable
2	Garg Associates
3	Anand International
4	Raychem RPG Pvt Ltd

SCR ELEKTRONIKS

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THANK YOU