

UTILITY TEST SOLUTIONS



RED PHASE INSTRUMENTS

INSTRUMENT TRANSFORMER TESTING PRODUCTS

CURRENT TRANSFORMER TESTERS
POTENTIAL AND CAPACITIVE TRANSFORMER TESTERS
LIVE / ON-LINE TESTERS
ADMITTANCE TESTER



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Delivering Test Solutions Reliably for 40 years.

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ince 1976 power companies have relied on test solutions from Red Phase Instruments to provide assessment data of vital electrical and utility infrastructure.

A trusted quality manufacturer, our equipment is built to withstand the rigours of continual field work and long term use by service personnel.

With some products still in service after 25+ years we are a constant and reliable utility partner that provides quality test equipment and engineering services at the most technical level.

With an approachable attitude, Red Phase Instrument's technical staff are easy to reach, providing utilities with the confidence that assistance and advice is a phone call away.

UNIQUE
CUSTOMIZED
RUGGED

INSTRUMENT TRANSFORMER TESTING



Instrument Transformers play an integral role in an electrical utility's infrastructure, from monitoring electrical supply, mitigating potential equipment and personnel hazards to revenue monitoring and billing facilitation.

Thus maintaining instrument transformers to within their manufactured specification is vital in securing a utility's operating integrity.

Red Phase Instruments is a pioneer in the design and manufacture of portable CT and PT test instruments. We are constantly innovating and developing an increasing product portfolio of instrument transformer test equipment that will assist field professionals with the health assessment of Instrument Transformers in both on-line and off-line situations.



INSTRUMENT TRANSFORMER TESTING

C.T. TESTING

Model : 590G-V2

Type : Metering CT Tester and PT ratio tester

Rating : 110 to 250Vac or 12Vdc, 50VA

The 590G-V2 is a CT test instrument which employs a secondary injection method, first pioneered by Red Phase Instruments, to test the ratio and phase accuracy of a Current or Potential Transformer under simulated burden conditions.

The 590G-V2 can also be used in conjunction with the 590F and / or the 590M to test a CT's ratio and phase error on line or "live" avoiding the need to shutdown a power network.

Also when used with the 590D-1 accessory the 590G-V2 is able to measure inductive PT ratio and phase error under under voltage load and burden based conditions in accordance with elements of IEC standards.

OFFLINE CT/PT TESTING



OFFLINE CT TESTING

C.T. & P.T. TESTING

Model : 590J-V2

Type : CT and Inductive PT tester

Supply : 220 to 240Vac

A truly portable instrument transformer test unit. Able to perform the following offline tests:

- Metering CT ratio and phase errors under burden conditions and in accordance with existing and / or user defined test points and international standards such as IEC 61869-2.
- Protection CT Testing.
- Inductive PT testing under burden and varying load voltage conditions as per IEC 61869-3.
- Live CT ratio and phase testing with 590F accessory

Metering CT Accuracy	0.1 Class
Protection CT	Standard and Transient
Inductive PT's	To 330KV



INSTRUMENT TRANSFORMER TESTING



LIVE C.T. TEST ACCESSORY

Model : 590F
Type : Online metering CT test accessory
Rating : 600V & 100kV
Supply : Battery, 590G-V2 or 590J-V2

CT CLAMP ON ACCESSORIES

Model 590F is a broad term used to describe the measurement abilities of a series of clamp on CT models used in conjunction with our popular offline CT tester called the 590G-V2 or the new 590J-V2.

Combined they are capable of testing a metering CT's ratio and phase accuracy on an active, "live" power network thus avoiding shutdowns and customer down time.



Type	Current Range
590F1 HV optically isolated including hotstick	75A to 1400A
590F2-50ID LV	150 to 2500 Amps
590F2-85ID LV	100 to 750 Amps
590F3 HV optically isolated including hotstick	5 to 100 Amps



INSTRUMENT TRANSFORMER TESTING

**CT CURRENT
SOURCE**

**CT ADMITTANCE
TESTING**



LIVE C.T. TESTING

Model : 590M
Type : Live CT test accessory - current injection source
Supply : 240Vac Rating : 200VA

The 590M is a current injection source that can be employed together with a 590F Clamp on CT and the 590G-V2 or 590J-V2 tester.

During a live CT test the 590M, controlled by the 590G-V2 or 590J-V2, automatically adjusts the primary current level through an in-circuit CT by adding or subtracting the current required to attain the desired test point current level. Once at the desired test point, the 590G-V2 and the 590F automatically calculate the ratio and phase error before adjusting the CT primary current to the next desired test point or current level.

Maximum Current	Up to 200 Amps
Operating Current	Up to 100 Amps
Auto Current Adjust	Via 590G-V2 or J-V2
Manual Current Adjust	Ampere Turns

LIVE C.T. TESTING

Model : 505B
Type : Online 1.6kHz CT Admittance Tester
Supply : Battery powered

The admittance of a current transformer or CT provides a direct indication of its core energy loss characteristic.

This core energy loss is a reflection of the CT's ability to translate current and phase information accurately. The field portable 505B instrument can measure these core losses quickly providing the operator with a picture of a live CT's operational status while in-circuit.

The Live VA burden of the CT's metering loop can also be measured from the test block or at the CT secondary terminals.

Max Admittance Range	Up to 50mS
50/60Hz current range	0 to 10 Amps
5 Amp burden range	0 to 100VA

INSTRUMENT TRANSFORMER TESTING



Bogota, Colombia

CVT Test Range	To 550KV
Ratio Accuracy Metering	From 0.05%
Ratio Accuracy Protection	From 0.15%
Output Voltage	0 - 3KV
Burden Range	To 500VA
Measurable Windings	Up to three

C.V.T. TESTING

Model : 590K

Type : Capacitor Voltage Transformer tester

Supply : 84 to 265Vac, 50 or 60Hz

OFFLINE CVT TESTING

Since 2007 the 590K has been used to determine a CVT's ratio and phase error under simulated test conditions which closely match its online performance.

With multiple test points to choose from the 590K offers a true look at a CVT's performance under varying burden and load voltage conditions in accordance with IEC 60044-5 and IEC 61869-5.

The 590K is not a simple ratio name plate comparator. It is a first in its class truly portable CVT trusted by field service and laboratory personnel.

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