

Zensol

Strongly built Strongly backed



GEN SERIES

Recloser Control Analyzer and
Recloser Simulator

Tel: +1 (514) 333-3488 | Montréal, Canada | www.zensol.com | e-mail: zensol@zensol.com



More than 20 years of experience in manufacturing portable instruments !

Strongly built

- Instruments with a life expectancy better than 15 years
- Thanks to a powerful design, our instrument is the only one that can sustain shocks and drops without damage.
- Casing made of reinforced polyethylene with molded-in ribs for extra protection.
- No fragile mechanical components inside as built-in printers, screens or keyboards.
- Easy and robust connections

Strongly backed

Zensol offers many kind of technical support

- Software included with unlimited upgrades
- Test assistance for field-testing
- Web support available anywhere at any time
- Training and support any time for our clients



GEN SERIES

Recloser Control Analyzer and Recloser Simulator

Features and benefits

The GEN-6 and GEN-12 are Recloser Control Analyzers and Recloser Simulators designed to test all types of Recloser Control Cabinets. They supply current programmable injection source of 6 amps rms for GEN-6 and 14 amps rms for GEN-12.

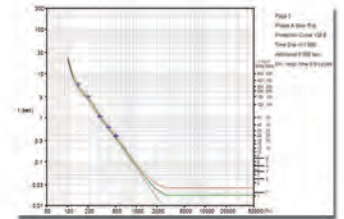
The GEN series offers a “plug and play” solution to most Recloser Controls cabinets with a simple connection interface.

Many specialised interfaces are available for different manufacturers as: Cooper (F3, F4, F5 & F6), ABB (PCD), Westinghouse (MTR type), Schneider Nu-Lec ADV2, Nu-Lec PTCC, Artech, Panacea, GE, W&B, G&W, etc...

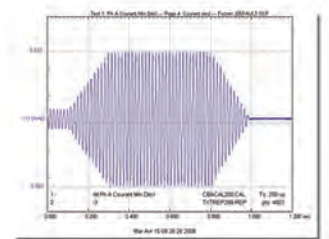
The GEN series is driven by GenWin, a specialized software that allows to test any kind of recloser controls.

Some of the major benefits and features are described below.

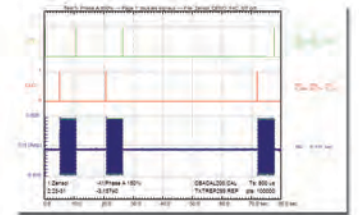
- Complete control of shape, timing and amplitude. (Fig.2)
- Control and execution of a complete test sequence (Trip, Reclose, Reset, Lockout, etc...) with instantaneous display of test results. (Fig.3)
- Quick visual comparison of test results. The controller's protection curve (TCC) along with the +/- 10% tolerance curves are plotted against the measured response time. (Fig.1)
- Numerous TCC curves (Time Current Curve) from different manufacturers (Cooper, ANSI, IEC etc.) are predefined and included in GenWin.
- Easy display of protection curves according to the recloser control cabinet programmed settings.
- GenWin is supplied with a test plan library, including a default test plan that fills most of the users needs.
- Batch tests capabilities: Execution of programmable long series of tests without user intervention.
- Up to 30 tests per file including minimum Trip, Reclose interval, reset time, cold load pickup, etc...
- Extensive export capabilities in Excel format.



1



2



3

Model	Manufacturer	Test Plan	Phase	Current (A)	Time (ms)	Reset (ms)	Lockout (ms)	Reclose (ms)	Test Result
A	Cooper	F3	A	10	100	100	100	100	Pass
B	ABB	PCD	B	10	100	100	100	100	Pass
C	Westinghouse	MTR	C	10	100	100	100	100	Pass
N	Schneider	ADV2	N	10	100	100	100	100	Pass

4

GEN SERIES

Recloser Control Analyzer and Recloser Simulator

GEN instrument replaces and simulates the mechanical parts of the recloser during the tests. Various types of adapters are available for a large range of reclosers, existing or future

CURRENT SOURCE

Number: 1 multiplexed (one per phase)
Current range: 6A rms for GEN-6
14 A rms for GEN-12
Frequency: 50/60 Hz (+/- 0.1 Hz)
Resolution: 1mA (GEN-6)
3.5mA (GEN-12)
Accuracy: +/- 0.1 %

CURRENT INPUTS

Number: 3 (one per phase)
Current range: +/- 1A, +/- 5A,
+/- 10A, +/- 20A
Resolution: 1mA (GEN-6)
3.5mA (GEN-12)
Accuracy: +/- 0.1 %

RELAY CONTACTS OUTPUTS (SPST)

Number: 6 with individual control
Electric contacts rating: 5A 250VAC, 5A 30VDC

TRIP AND CLOSE INPUTS (OPTICALLY ISOLATED)

Open (Trip) command input: 1
Close command input: 1
Close and open commands are:
• either software driven (GENWIN)
• or through control cabinet
• or through front panel push buttons

FRONT PANEL CONNECTOR

Number: 1
Type: Amphenol
Number of pins: 26
Specifications: MIL-5014

MEASUREMENTS

A 12 bits analog to digital conversion resolution
Sampling time: 44µs to 28 000µs
Sampling rate: 35.7 Hz - 22727Hz
Accuracy: +/-1 LSB
Resolution: 1µs
Recording time: 1ms to 35 minutes
Graphic representation resolution: unlimited zoom able to visualize time and amplitude for each sample.

GENERAL

Dimensions: 13"x13.5"x7"(33x35x18cm)
2 cases available 17"x16.5"x10"(43x42x25.4 cm)
Weight: GEN-6: 18.6 lb (8.45 kg)
GEN-12: 29 lb (13 kg)
Power supply: 220-240 VAC, 50/60 Hz
110-120 VAC, 60 Hz
Working temperature: 0°C (32°F) to 50°C (122°F)
Storage temperature: -20°C(-4°F) to 70°C(158°C)
Humidity: 0-95% Non Con.
Language: English, French and Spanish

THE SYSTEM INCLUDES:

GenWin software
USB communication module with 10 feet optic cable
2 years Warranty
GenWin Manual
Unlimited free software upgrades
Certificate of calibration and test reports

SPECIALISED INTERFACES (option)

Interface box for Cooper F3, F4, F5, F6
Interface box for ABB PCD, OVR-1, OVR-3
Interface box for SCHWEITZER SEL 351R, 651R
Interface box for ESV Westinghouse
Other interfaces available (Contact us)

INTERNATIONAL STANDARDS

Recloser testing per ANSI C37-61-1973
IEEE std.321-1973

2281 Rue Guenette
Saint-Laurent, QC H4R 2E9 Canada
Tel: +1 (514) 333-3488 - Fax: +1 (514) 333-3499
e-mail: zensol@zensol.com

ZENSOL.com