ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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Find the *SEL SEL-421* at our website: ***Click HERE***

SEL SCHWEITZER ENGINEERING LABORATORIES Online

Products for Protection, Control and Monitoring

SEL-421

High-Speed Line Protection, Automation, and Control System

Protect Transmission Lines With High-Speed Distance and Directional Functions



Key Features

- **Complete Subcycle Line Protection**
  Apply the SEL-421 Relay for single- and three-pole tripping schemes, compensated lines, or uncompensated lines. Protect transmission lines using five zones of phase and ground-distance elements in communications-assisted schemes, with directional overcurrent backup protection. Use optional high speed elements to achieve subcycle operating time for most fault types and source impedance ratios.
- **Bay Control for Two Breakers**
  Fully integrate complete breaker protection and control for two breakers. Use the reclosing, breaker failure protection, and complete monitoring to integrate protection and bay control for one or two breakers. Use configurable labels to customize relay controls to match your application.
- **Communications**
  Download event reports in seconds, instead of minutes, by using the optional SEL-2701 Ethernet Processor with Telnet, FTP, and UCA2 protocols. View data and reports from both line ends through one relay using Virtual Terminal over MIRRORED BITS™ Communications channels.
- **High-Accuracy Time Stamping**
  Time-tag binary COMTRADE event reports with real-time accuracy of better than 10 µs. View system state information at time of faults or with timed triggers, across the entire system. Use system state information to validate system models, improve transfer limits, and system stability.
- **Digital Fault Recording**
  Combine relaying reliability with true DFR functionality. The SEL-421 Relay's high-speed sampling (8 kHz) and COMTRADE output provide advanced oscillography. Use the ACSELERATOR® graphical user interface for harmonic analysis and easy report generation.

Options

- Rack- or panel-mount horizontal and vertical hardware packages.
- SEL-2701 Ethernet Processor.
- DNP 3.00 Level 2 Slave communications protocol.
- One or two additional I/O boards with standard, high-interrupting or high-speed/ high-interrupting outputs.

Applications

- Apply complete pilot protection for primary and backup, and single- or three-pole tripping schemes on transmission and subtransmission lines.
- Make settings for up to four shots of automatic breaker reclosing for one or two circuit breakers, with synchronism and voltage checks to optimize system restoration.
- Use the built-in fault locator to efficiently dispatch line inspection and repair personnel.
- Operate power systems with maximum stable loading using real-time voltage and current synchrophasors from any **SEL-421-0** Relay location.
- Implement breaker failure logic for one or two circuit breakers.
- Schedule as-needed circuit breaker maintenance and send alarms when the breaker monitor detects excess breaker contact wear from the number of operations and magnitude of interrupted current.
- Track average and last circuit breaker operate time. Alarm on slow circuit breaker.
- Alarm for low-voltage conditions on one or two station batteries.
- Track average and last circuit breaker operate time. Alarm on slow circuit breaker.

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- **Expanded SELOGIC® Control Equations**
  Use math and logic combinations of analog and digital values for customized applications. Adapt system control based on prefault conditions. Scale analog values and latch momentary inputs for SCADA retrieval.
- **ACSELERATOR Software**
  Helps speed relay application by allowing you to develop relay settings off-line, program SELOGIC® Control Equations, and analyze post-fault event reports.
- Use SEL-5601 Analytic Assistant Software to display oscillograms and vector diagrams to analyze event reports.

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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We're here to make your life easier. How can we help you today?

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