



SR Family

Comprehensive industrial and utility protective relay systems for motors, generators, transformers and feeders

KEY BENEFITS

- Large backlit display with 40 characters to view relay information and settings in direct sunlight, full numerical keypad, and setpoint navigation keys. (Except 735/737)
- Accurate metering under severe system disturbances (750, 745 & 489) - Power system frequency tracking and adjusting sampling rate accordingly
- Minimize replacement time - Draw-out construction
- Improve uptime of auxiliary equipment - Through I/O monitoring
- Ease of use and installation - same front panel programming, common cutout (Except 735/737)
- Reduce troubleshooting time and maintenance costs -IRIG-B time synchronization, event reports, waveform capture, data logger (Except 735/737)
- Simplify testing - Built in simulation features and unique waveform play back functionality in the 745
- Cost Effective Access information - Via Modbus RTU and DNP 3.0 Level 2 protocols, through standard RS232, RS485 & RS422 serial ports, and optional Modbus RTU over TCP/IP through embedded Ethernet Port to connect to 10MB Ethernet local or wide area networks.
- Complete asset monitoring - Analog I/O, metering including demand & energy (Except 735/737)
- Follow technology evolution - Flash memory for product field upgrade (Except 735/737 that requires an EEPROM replacement)
- Long lasting life - When exposed to chemically corrosive and humid environments with optional conformal coating (Except 735/737)

APPLICATIONS

- 735/737 - Feeder Protection
- 750/760 - Feeder Protection (comprehensive)
- 469 - Motor Protection
- 745 - Transformer Protection
- 489 - Generator Protection

FEATURES

Monitoring and Metering

- Event recorder
- Oscillography and Data Logger
- Self diagnostic
- Metering
- Demand

User Interface and Programming

- Front Panel LEDs, full key pad, and backlit LCD display
- RS232, RS485 and RS422 ports - up to 19,200 bps
- Ethernet port - 10 Mbps
- Multiple protocols - ModBus™ RTU, ModBus™ RTU over TCP/IP, DNP 3.0 Level 2, Optional Device Net on 469

EnerVista™ Software

- State of the art software for configuration and commissioning Multilin products
- Document and software archiving toolset to ensure reference material and device utilities are up-to-date
- EnerVista™ Integrator providing easy integration of data in the SR relays into new or existing monitoring and control systems

Overview

The SR Family of protection relays is a microprocessor based multi-functional line of products. By providing an economical system for protection, control, monitoring and metering, and both local and remote user interfaces in one assembly, the SR relays effectively eliminate the need for expensive discrete components.

In addition to traditional current and voltage inputs, the SR Family also offers several analog and digital inputs. These inputs provide the relay with vital information such as vibration, pressure, temperature, and breaker status. Several additional output relays are available for flexibility in creating custom protection schemes.

The SR Family offers analog outputs which eliminate the need for external transducers. When connected to a PLC for process control, the result is truly real time.

All SR relays, with the exception of the 735/737, have three independent communications ports: a rear RS485 port, a second rear RS485 or RS422 port and a front panel RS232 port for easy local PC access. An optional 10BaseT Ethernet port, mounted at the rear of the relay, can be provided with the 750/760, 469, 489 and 745 relays, allowing the connection to 10Mbps Ethernet networks. The rear

ports offer remote communications or connection to a DCS, SCADA, or PLC. All three serial ports support the ModBus® RTU protocol. When fitted with the optional 10BaseT Ethernet port, the communication protocol through that port is ModBus® RTU over TCP/IP. In addition, the 489, 745, 750 and 760 all support Distributed Network Protocol (DNP) 3.0 Level 2, while the 469 can be provided with optional DeviceNet protocol. All communications ports may be active simultaneously.

All relays, with the exception of the 735/737, utilize EnerVista™ setup software for communication, monitoring and metering. The software can also provide a simulation for training and testing. Actual values, setpoints, status, trending, and waveform capture information may all be

viewed via the software, and can be used for troubleshooting.

All units feature drawout construction. When removed, the CT secondaries will automatically be connected to prevent dangerous high voltages from open CTs.

EnerVista™ Launchpad

EnerVista™ Launchpad is a complete set of powerful device setup and configuration tools that is included at no extra charge with the SR Relays.

- Set up the SR Relays - and any other GE Multilin device - in minutes. Retrieve and view oscillography and event data at the click of a button.
- Build an instant archive on any of the latest GE Multilin manuals, service advisories, application notes, specifications or firmware for your SR Relay.
- Automatic document and software version updates via the Internet and detailed e-mail notification of new releases.

Product Upgrades

With the exception of the 735/737, Flash memory technology allows product upgrades without unit removal. Firmware upgrades may be downloaded to the unit through any of the communication ports.



Dimensions

Overall dimensions on 489, 745, 750/760, 735/737 and 469 are identical. Terminal configurations vary and are not as shown.

