



LPS-O™ GENERATOR BACKUP PROTECTION SYSTEM

The LPS-O™ is a digital protective relay system that provides backup protection for generators and transmission lines. It has been available for single or three phase tripping applications.

The UR product portfolio offered by GE Multilin has more options to meet your specific application needs. To take advantage of the latest in technology and the new developments on Transmission Line Protection, consider replacing the LPS-O™ with a UR product.

UR FAMILY

- D60 Line Distance Protection System
- G60 Generator Protection System

KEY BENEFITS

- Fitted with the features needed to provide secure operation during external faults
- Flash memory for product field upgrade
- Multiple breaker support
- Multiple communication options and protocols
- Exchange inputs and outputs between relays via high speed communications
- Incorporates protection and control functions, programmable pushbuttons, programmable status LEDs, and communication interfaces
- Modular construction simplifying and reducing the stock of spare parts
- Multiple I/O options
- Embedded IEC61850 Protocol - No external protocol converters required
- Rich Metering - current, voltage, power, energy, frequency
- Front panel display and keypad for local direct access, with an RS232 port for local PC access
- Customize protection and control functions with Programmable logic (FlexLogic™), custom time-current curves (FlexCurves™), and custom built protection and control functions (FlexElements™)
- Multi-language support - French, Chinese, Russian option
- Networking options - Ethernet-fiber (optional redundancy), RS485
- Pilot channel options - Direct fiber for up to 150 km, RS422, G.703, direct to multiplexer fiber C37.94
- Multiple protocols - IEC61850, DNP 3.0 Level 2, Modbus RTU, Modbus TCP/IP, IEC 60870-5-104
- Direct exchange of Inputs/Outputs - exchange of binary data between peer G60s via communication link

D60 Line Distance Protection System



- Overhead AC transmission lines of any voltage level, including series compensated lines, with single and three pole tripping.
- Up to four shots of single/three pole automatic breaker reclosing, with synchronism and voltage checks to optimize system restoration.

Key Benefits

- Full featured transmission line protection system with five zones of ground and phase protection, five standard pilot-aided schemes.
- Enhanced single-pole tripping applications using multi-bit communications schemes
- High speed single/three pole tripping and reclosing

G60 Generator Protection System



- Comprehensive generator protection for AC generators of any size, typically driven by steam, gas or hydraulic turbines
- Standard protection offering on GE generators, protecting machine up to 1000MW.
- Backup protection for Transmission lines

Key Benefits

- High speed Stator Differential protection is provided for fast clearance of stator phase faults.
- Advanced CT saturation detection algorithms as well as dual slope characteristic are incorporated for increased security during heavy external fault/disturbances.
- Backup protection for overhead AC Transmission lines, including dual power supply, three zones of phase distance protection with transformer compensation to ensure correct reach for faults on the high side of the step up transformer.
- Integrated out-of-step tripping and power swing blocking functions use either two or three characteristics to trace the positive sequence impedance trajectory for out-of-step detection. It incorporates an adaptive disturbance detector and the trip action is programmable (instantaneous or delayed).