Generator and Interconnection protection Relay

REG615

**Description:**

REG615 is a dedicated generator and interconnection protection relay designed for the different power generation applications. REG615 is available in three standard configurations denoted A, C and D. Standard configuration A is intended for the interconnection protection, control, measurement and supervision of the common point of coupling distributed power generation into the utility network. Standard configurations C and D are designed for the protection, control, measurement and supervision of small or medium size generators used in diesel, gas, hydroelectric, combined heat and power (CHP), and steam power plants. REG615 is a member of ABB’s Relion ® product family and part of its 615 protection and control product series. The 615 series protection relays are characterized by their compactness and withdrawable unit design.

Re-engineered from the ground up, the 615 series has been designed to unleash the full potential of the IEC 61850 standard for communication and interoperability between substation automation devices. Once the standard configuration relay has been given the application-specific settings, it can directly be put into service.

The generator protection relay provides main protection for small size power generators. The generator protection relay is also used as back-up protection for medium size generators in power applications, where an independent and redundant protection system is required. The interconnection protection relay provides main protection fulfilling the grid codes to connect distributed generation with the power grid.

**Product benefits:**

* Compact and versatile solution for utility and industrial power distribution systems with integration of protection, control, monitoring and supervision in one relay
* Extensive range of protection functionality for both synchronous generators and interconnection points of distributed generation units
* Ready-made standard configurations for fast and easy setup with tailoring capabilities
* Withdrawable plug-in unit design for swift installation and testing
* Large graphical display showing customizable SLDs, accessible either locally or through an easy-to-use web-browser-based HMI
* Extensive life-cycle services

**Product features:**

* Extensive generator protection with 100 percent stator earth-fault, generator differential and out-of-step protection
* Advanced interconnection protection fulfilling the latest grid codes for higher grid stability and reliability
* Optional arc protection and high-speed outputs
* Supports IEC 61850 Editions 1 and 2, including HSR and PRP, GOOSE messaging and IEC 61850-9-2 LE for less wiring and supervised communication
* IEEE 1588 V2 for high-accuracy time synchronization and maximum benefit of substation-level Ethernet communication
* Supports Modbus, DNP3 and IEC 60870-5-103 communication protocols