

Reliability, Flexibility, Efficiency, and Safety

GE Energy's GP2100R is designed to meet the generator protection and control needs of the power generation industry. Providing a range of comprehensive solutions, the GP2100R delivers a custom generator protection retrofit package that is custom designed to the needs of each unit.

The GP2100R provides reliable protection for a broad range of power generators, from small gas turbines, to large hydro, and steam units. It can be configured to meet protection and control requirements of your retrofit application. Cost-effective enhancements include:

- System modernization
- New protective and control function
- Improved sensitivity and protection
- Regulatory compliance capability
- Reduced maintenance cost

Scale with Ease of Integration

Suitable for integration with the full line of GE turbine control and power management products, GE's GP2100R retrofit panels are designed to help reduce downtime in increasingly competitive environments. Features include:

Scalability. The ability to select the protective, metering and control functions required by application, helping to control costs.

Flexible Packaging. Packaging customized to meet project needs, available in various IP/NEMA panel and cable entry configurations. A backplane parts kit for integration into existing enclosures is also available.

UR Family Connectivity Options. System interface provided by RS-232, RS-485, Ethernet ports, supporting ModBus* RTU and DNP 3.0 to optimize connectivity to plant control and monitoring systems.

Metering, Oscillography and Event Recording. Improved analytical tools to maximize system performance while capturing and diagnosing system events.

Advanced Digital Protective Systems. Enhanced protection algorithms, advanced function and software configuration to facilitate improved system management.

GE Field Service Network. A full range of study, design, engineering, installation and commissioning services to maximize system reliability.

Benefits

- Proven Protection and Metering
 - Leading provider of power generation protection, metering, and monitoring
- Innovative Control Options
 - Optional integration of GE Energy's EX2100 voltage regulator for a complete generator control and protection system
- GE Experience and Expertise
 - Experience in interfacing with GE and non-GE turbines and BOP equipment
 - Ability to incorporate third-party devices for system expansion and to meet customer requirements
- Expanded Scope Projects
 - Integration and construction engineering
 - System coordination
 - System studies
 - Installation and commissioning services



fact sheet

Customer-Engineered Product Packages

The GP2100R offers a full line of protection solutions. Each project is a customer-engineered solution based on the right level of product capabilities and features, maximizing the protection of your generating assets while managing the retrofit cost:

• Package I

Target Applications

- Fossil/Hydro Units with Transformer Protection
- Breaker Failure and Backup Distance

Base Package Components

- GE Multilin G60 Generator Management Relay with Advanced Protective Functions
- Generator Metering (1% kW, 0.5% V, I)
- Functions Include: 21, 25, 32, 40, 64, 78, 81, 87, etc.
- Communications: Ethernet
- HEA (86G) – Lockout Relay
- HGA (27BS-1, 2) – Synchronizing Undervoltage

• Package II

Target Applications

- Diesel/Gas Reciprocating, Small Gas/Steam Turbines
- CoGen Applications

Base Package Components

- GE Multilin SR489 Generator Management Relay
- Generator Metering (1% kW, 0.5% V, I)
- Draw Out Case
- Functions Include: 21, 24, 27, 32, 40, 64, 81, 87, etc.
- Communications: RS-485 (Modbus RTU)
- HEA (86G) – Lockout Relay
- HGA (27BS-1, 2) – Synchronizing Undervoltage

Optional Offerings

In addition to the GP2100R package, GE also offers these power protection products and services:

- Transformer Protection
- Bus/System Protection
- Metering/Switches/Auxiliary Relays
- Auxiliary Power Protection
- Customized Panels
- Power System Studies
- Installation Design Engineering
- Calibration and Testing



For more information, visit us at gepower.com/controlsystems or contact your GE Energy representative at:

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