



Grid Solutions Power & Auto Transformers

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Power & Auto Transformers

To utilities and industrials, Prolec GE power and auto transformers are the product of choice because they deliver the reliability and performance required due to their design, manufacturing and support characteristics. These characteristics aid our customers in offering the best level of energy supply.



Autotransformer



High voltage transmission networks must transfer large bulks of electrical energy from generating power plants to distribution substations. For those applications, autotransformers can be used to effectively lower or increase the different voltage levels across the interconnection system.

Prolec GE Autotransformers are used by utilities worldwide, confident that the advanced simulation tools we utilize for our designs result in outstanding quality and reliability.

Key Characteristics:

- Up to 1000 MVA
- Rated Voltage up to 550 kV AC
- OLTC, DETC or combination of both
- Mineral, vegetable or synthetic oil

Substation Transformer



Substation Transformers are designed for use in substations that typically reduce voltage to a level suitable for local distribution, with ratings matched to common transmission and sub transmission voltages like 138 kV. They can be designed either for SVC Substations or special applications.

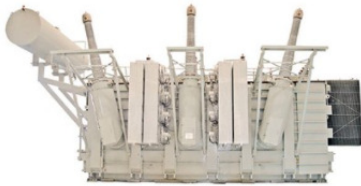
With the ability to understand these particular needs and design accordingly we rely on our manufacturing systems and advanced technology to deliver decades of reliable performance and service.

Our state-of-the-art facility gives us the capability to manufacture and test above industry standards using cutting-edge equipment so we can provide reliable products across the entire range of substation transformer applications.

Key Characteristics:

- Up to 500 MVA
- Rated Voltage up to 550 kV AC
- OLTC, DETC or combination of both
- Mineral, vegetable or synthetic oil

Generator Step up Transformer



GSU Transformers are used worldwide to raise voltages coming from power generation plants, including thermal, nuclear, and hydroelectric. Typical configurations require a Delta connected LV winding to induced currents in the Generator and Wye connected HV windings to connect to the transmission lines.

Prolec GE Generator Step-Up Transformers are manufactured under the most stringent standards that when combined with high quality materials and components surpass our customer's expectations.

Key Characteristics:

- Up to 1000 MVA
- Rated Voltage up to 550 kV AC
- OLTC, DETC or combination of both
- Mineral, vegetable or synthetic oil

Collector Step up Transformer



Typically, each wind turbine or solar panel is connected to a three phase step-up transformer (located at the base of the wind turbine or panel) which boosts the generating output to a collector bus. From there, all the power is then interconnected to a **Collector Step-Up Transformer** located in a substation where it is transported to the electricity grid.

Prolec GE CSU's are designed with the best practices to withstand any electronic noise coming from the inverter technology used in wind turbines or solar panels.

Key Characteristics:

- Up to 500 MVA
- Rated Voltage up to 345 kV AC
- OLTC, DETC or combination of both
- Mineral, vegetable or synthetic oil

Reactor



Shunt reactors are the most compact and cost efficient means of compensating capacitive generation in long transmission lines. They are placed permanently in service to stabilize power transmission, or switched in under light load conditions.

Neutral grounding reactors are designed to protect a system against phase-earth fault currents for a given fault time duration. Neutral-reactor grounding has a relatively low-impedance, somewhere between direct grounding an isolated neutral, limiting the failure current to a secure level without involving too high voltage on the healthy phases.

Prolec GE designs and manufactures both types of reactors to meet our customers' needs.

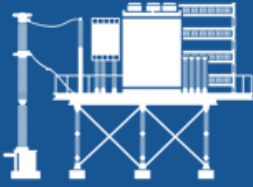
Shunt Reactor

- Up to 50 MVAR, 1Ø
- Voltage up to 400 kV AC
- 60 Hz

Neutral Reactor

- Up to 5 MVAR, 1Ø
- Voltage up to 75 kV AC

GE GRID SOLUTIONS



Power Electronics

High Voltage DC
Flexible AC Transmission Systems
Industrial DC Substations
Energy Storage



High Voltage Equipment

Transformers
Gas Insulated Substations
Air Insulated Substations
Capacitors & Reactors



Automation & Protection

Protection & Control
Substation Automation
Communications & Metering
Monitoring & Diagnostics



Software Solutions

Distribution & Outage Management
Energy Management Systems
Geospatial & Mobile Solutions
Gas & Pipeline Management



Projects & Services

Turnkey Projects & Consulting
Electrical Balance of Plant
High Voltage Substations
Maintenance & Asset Management

For more information about GE Grid solutions, please contact your local Chess Controls representative in the province of Ontario at 705-682-2828.

GE
Grid Solutions



Tel. 705-682-2828
Email sales@chesscontrols.com