

protec®



Collector Step-Up Power Transformer



Prolec GE transformers are used in a wide range of utilities, commercial and industrial applications. High-grade materials, combined with state-of-art technology in our design and manufacturing processes are key elements of a transformer that will deliver years of high reliability service.

With more than 300,000 MVA installed worldwide in more of 35 countries around the world; Prolec GE has the engineering and manufacturing expertise to design, build, optimize and deliver transformer solutions to the power industry.

At Prolec GE, we manufacture transformers for different types of renewable power generation, such as:

- Onshore wind energy.
- Offshore wind energy.
- Solar energy.
- Battery storage systems.

Our transformers are better-suited to your real-world needs since we rely on extensive customer input and feedback to determine the ideal product performance/features, service levels, efficiency, support procedures, testing and quality parameters.

We offer a complete line of liquid-filled collector step-up power transformers with:

- Up to 450 MVA Triphase.
- Up to 550 kV (1,550 kV BIL) for onshore wind & solar applications.
- 60 Hz.
- LTC in HV or LV or DETC in HV.
- Low noise level NEMA:
 - 25 dBA (onshore wind & solar applications).




Standard features

- Meets or exceeds current ANSI, IEEE, CSA and IEC standards.
- Load tap changers:
 - Reactive vacuum.
 - Resistive.
- Cooling classes:
 - ONAN
 - ONAF
 - ODAF
 - KNAN
 - KNAF
 - OFAF
- Cover mounted bushings (for offshore wind application cable connectors).
- Tank features:
 - Lifting lugs.
 - Pulling eyes.
 - Radiator header valves.
 - Jacking pads.
 - Painting system for offshore wind application in compliance with ISO-12944.
- Accessories:
 - Pressures relief device.
 - Magnetic liquid level gage.
 - Winding temperature indicator.
 - Pressure vacuum gage & bleed valve.
 - Drain valves – global type.
 - Nameplate.
 - Removable radiator.
 - Manholes in cover (2).
 - Transformer oil, ASTM type I.
 - Sealed tank oil preservation systems.
 - External core ground bushing.
 - HV tap changer, de-energized operation.
 - Special accessories for offshore wind application.

Optional features & accessories

- Low noise level NEMA:
 - 25 dBA (onshore wind & solar applications).
- Cooling fans.
- On load tap changer HV or LV, in tank or external.
- Multi-ratio current transformer.
- Automatic gas preservation systems:
- Insulating fluid.
 - Mineral oil and natural ester for onshore wind & solar application.
 - Mineral oil or synthetic ester for offshore wind application.
- Rapid pressure rise relay:
 - Under oil.
 - In gas space.
- Lighting arresters.
- Side mounted bushings ≤ 34.5 kV.
- Conservator oil system.
- Buchholz relay for conservator.
- Forced oil cooling equipment.
- Provisions only for safety rails.
- Provisions for lighting arresters.
- Schnabel preparation.
- Extra low gas generation during factory tests (over 75% lower than industry standards).



High materials quality,
combined with the latest
technology in our design
and manufacturing
systems.

Tests

Each transformer receives all standard commercial tests in accordance with ANSI, IEEE, CSA and IEC, with test reports available by serial number of the transformer:

- Polarity of windings & angular displacement.
- Ratio.
- No-load loss & exciting current.
- Load loss & impedance.
- Lightning impulse (Class II).
- Low-frequency dielectric tests:
 - Applied voltage tests on all windings.
- Insulation power factor (Class II).
- Induced tests.
- Partial discharge in micro volts (Class II).
- Partial discharge in pico coulombs (Class II).
- Dissolved gas analysis (Class I).
- Temperature rise.
- Zero phase sequence.
- Front of wave.
- Switching surge.

Wind energy

In Prolec GE, we have a serious commitment with the environment, and reducing CO² emissions is a priority to us. Wind & Solar energy is a very important source of power generation, able to achieve large reductions in power sector emissions and we are here to play a major role in this growing industry.

We have installed more than 150 wind farm Prolec GE's transformers in United States, Canada and Mexico, used to generate more than 17,000 MW of renewable energy.

Technology Development

Research and development is a key element in our business model. Our applied technology center boasts more than 80 engineers and specialists developing multi-generational product plans, design platforms, and continuous improvement processes. Their expertise and efforts make our customers' operations more reliable, efficient and environmentally friendly.

We also draw technology expertise and ideas from our partners, including GE and its worldwide technology resources, our suppliers, customers, consultants, and university centers.

Complete Range Of Turnkey Services

You can trust Prolec GE with every aspect of your transformer solution for accountability and continuity advantages. Your project team coordinates and orchestrates your entire transformer package, including:

- Rigging and mobilizations.
- Transportation.
- Installation.
- Storage preparation.
- Field services.
- Maintenance.
- Training.
- Condition assessment.
- Spare parts.



LOCATIONS

MEXICO

APODACA

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USA

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