EX2000 PRODUCT LINE

Overview Fact Sheet

The EX2000 product has evolved into a mature excitation product containing both complete systems and voltage regulators to meet the demand of the retrofit and new unit markets. The table below lists the eight different EX2000 models.

Common to all EX2000 models is the fact that all control and protective functions are implemented in the system software. Also, there are no moving parts, such as motor operated setpoint adjusters, as are found in the older excitation systems. Digital technology coupled with over 35 years of GE static exciter design experience allows the EX2000 to maintain 99.98% availability.

Benefits of EX2000
- 99.98% Availability
- Replaces Old and Failing Components
- Full Digital Design
- Improved Performance
- Meets IEEE 421 Guidelines
- Built-in Diagnostic System
- Built-in Control Simulator
- Faster System Checkout
- Reduced Maintenance
- High Degree of Accuracy, ± 0.25%
- Configurable with a PC

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Nominal Rated DC Amps</th>
<th>Nominal Rated DC Volts</th>
<th>New Unit or Retrofit</th>
<th>Redundancy (Control &amp; Power Conversion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX2000P</td>
<td>Potential Source Exciter</td>
<td>2,000</td>
<td>750</td>
<td>Both</td>
<td>✓</td>
</tr>
<tr>
<td>EX2000C</td>
<td>Compound Source Exciter</td>
<td>2,000</td>
<td>500</td>
<td>Both</td>
<td>✓</td>
</tr>
<tr>
<td>EX2000PC</td>
<td>Partial Compound Source Exciter (No Magnetics, i.e. PPT, SCT, LR)</td>
<td>2,000</td>
<td>500</td>
<td>Retrofit</td>
<td>✓</td>
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<tr>
<td>EX2000M</td>
<td>Multi-Bridge Potential Source Exciter</td>
<td>10,000</td>
<td>750</td>
<td>Both</td>
<td>✓</td>
</tr>
<tr>
<td>EX2000AR</td>
<td>Alterrex Voltage Regulator</td>
<td>250</td>
<td>250</td>
<td>Retrofit</td>
<td>✓</td>
</tr>
<tr>
<td>EX2000BR</td>
<td>Brushless Exciter Voltage Regulator</td>
<td>100</td>
<td>250</td>
<td>Both</td>
<td>✓</td>
</tr>
<tr>
<td>EX2000DR</td>
<td>DC Exciter Voltage Regulator</td>
<td>100</td>
<td>250</td>
<td>Retrofit</td>
<td>× ✗</td>
</tr>
<tr>
<td>EX2000SR</td>
<td>SCT-PPT Voltage Regulator</td>
<td>10</td>
<td>125</td>
<td>Retrofit</td>
<td>× ✗</td>
</tr>
</tbody>
</table>
Product History

The first EX2000 exciter was shipped in April 1993. Since that time an average of over 120 units per year have been shipped between retrofit and new unit applications. This unprecedented volume is a strong indicator of the products' market acceptance and dominance. Also, the EX2000 product has been successfully applied to both GE and non-GE generators.

In early 1996 the world's largest static exciter was successfully put in service for Tokyo Electric Power at the Kashiwazaki site in Japan. The exciter was an EX2000 multi-bridge unit rated 7150 DC amps. The exciter was equipped with the Master-Master Fault Tolerant and On-Line Maintenance options.

World Class GE Quality

The GE Drive Systems plant employs a quality management system certified in compliance with ISO-9001 guidelines. These internationally recognized standards signify that documented GE procedures achieve world class quality in design, development, and production.

In addition, GE is one of the first American manufacturers to meet ISO-9003 requirements for software. These standardized evaluation criteria known as TickIT assure consistent quality development, supply, and maintenance of system software.

Applications

- Steam Turbine Generators
- Gas Turbine Generators
- Hydro Turbine Generators
- Synchronous Condensers
- GE and Non-GE Units

Key to Symbols

- Yes, as an option
- The standard product does not contain this function. But call the factory for exceptions.

GE Motors & Industrial Systems