ANSI/IEC three-phase GridShield® recloser
Ready today for the grid of tomorrow

GridShield reclosers are designed to be maintenance-free while providing unparalleled reliability for smart grid initiatives in even the harshest of environments.

Key features
- Unparalleled HCEP (hydrophobic cycloaliphatic epoxy) embedded poles with reliable sensors and vacuum interrupter with mean time to failure of 27,667 years
- Highest accuracy, ±1%, embedded dual voltage sensors
- Single-phase and three-phase tripping capability in every unit (3P and 3SP)
- Flexible controller with ABB, Beckwith and SEL options
- Site-ready units for simple installation

Benefits
- Unparalleled reliability
  - Embedded sensors with highest accuracy (± 1%) on horizontal bushings and stability with respect to environmental changes
  - High voltage unit passed the most rigorous environmental testing at KIPTS with no signs of material erosion, tracking, cracks, or punctures of any insulation
  - Highest creep distance among the recloser poles globally for long-term performance in any environment
  - Peak switching performance with ABB’s industry leading vacuum interrupters and magnetic actuator
- Reduced maintenance
  - Maintenance-free high voltage compartment (interrupting unit) with no consumable components, eliminating the need for a bucket truck to isolate potentials to service electronics
  - HCEP (hydrophobic cycloaliphatic epoxy) material of the poles provides the best insulation for outdoor use, shedding water and debris, thus reducing the probability of flashovers even in heavily polluted areas
- Simple integration
  - Multiple controller options, including the RER620, RER615, SEL-651R, and Beckwith M-7679 to accommodate any grid modernization application
  - Full portfolio and numerous mounting options are available for added flexibility
  - Site-ready units with voltage sensors, voltage transformers, surge arresters and animal guards are available, minimizing any work to prepare the unit for installation
  - Streamlined components and design for simplified and safer interaction with the unit
Solutions
- **FDIR**
  - The GridShield® recloser is the ideal solution for any smart grid FDIR (Fault Detection Isolation Restoration) scheme with the ability for 3P and 1P tripping in every unit to ensure a future-proof flexible installation to support the reliability needs of today and tomorrow.
  - Flexibility to support any form of communication between devices and simple integration with a variety of controllers.

- **Volt/Var**
  - The high accuracy sensors in the GridShield support an accuracy of ±1% over a wide temperature range and do not drift with humidity to provide accurate data for Volt/Var application without the need for additional external equipment.

- **Substation installations**
  - With a high interrupting current of 16kA and a superior BIL rating of 170 kV BIL for the 38 kV unit, GridShield can be used in substation applications where traditional reclosers will not suffice.

### Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>15.5 kV</th>
<th>27 kV</th>
<th>38 kV</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated max voltage</td>
<td>15.5</td>
<td>27</td>
<td>38</td>
<td>kV</td>
</tr>
<tr>
<td>Rated continuous current</td>
<td>1250</td>
<td>1250</td>
<td>1250</td>
<td>A</td>
</tr>
<tr>
<td>Rated symmetrical interrupting current</td>
<td>12.5/16</td>
<td>12.5/16</td>
<td>16</td>
<td>kA</td>
</tr>
<tr>
<td>Rated lightning impulse withstand (BIL)</td>
<td>110</td>
<td>150*</td>
<td>170</td>
<td>kV</td>
</tr>
<tr>
<td>Embedded sensor accuracy</td>
<td>± 1</td>
<td>± 1</td>
<td>± 1</td>
<td>%</td>
</tr>
<tr>
<td>External creep distance H2-ground</td>
<td>38.0 (960)</td>
<td>38.0 (960)</td>
<td>50.7 (1288)</td>
<td>in (mm)</td>
</tr>
<tr>
<td>External creep distance H1-H2</td>
<td>45.0 (1160)</td>
<td>45.0 (1160)</td>
<td>49.80 (1260)</td>
<td>in (mm)</td>
</tr>
<tr>
<td>High voltage unit weight</td>
<td>333 (150)</td>
<td>333 (150)</td>
<td>430 (195)</td>
<td>lbs (kg)</td>
</tr>
</tbody>
</table>

*125 kV BIL for DVS poles

### Controller pin compatibility

<table>
<thead>
<tr>
<th>ABB ACM with ABB RER620</th>
<th>ABB ACM with ABB RER615</th>
<th>ABB ACM with Beckwith M7679</th>
<th>SEL-651R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller pin compatibility</td>
<td>24 pin compatible</td>
<td>32 pin compatible</td>
<td>42 pin compatible</td>
</tr>
<tr>
<td>ABB RER620</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ABB RER615</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Beckwith M7679</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SEL-651R</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Complete the recloser installation with world-class ABB switches and instrument transformers!

By-pass switch (RBD)  
Loadbreak insulator switch (LSID)  
Disconnect switch (DCD)  
27kV voltage transformer with ResiVolt™ technology (VOG-15R)

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