ANSI/IEC three-phase recloser GridShield®
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 embedded poles with reliable sensors and vacuum interrupter with mean time to failure of over 10 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, PTs, 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 3ph and 1ph 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 were traditional reclosers would not suffice

Technical data

<table>
<thead>
<tr>
<th>Rated max voltage</th>
<th>15.5</th>
<th>27</th>
<th>38</th>
<th>kV</th>
</tr>
</thead>
<tbody>
<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 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>24 pin compatible</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>32 pin compatible</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>42 pin compatible</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)
- 27 kV ResiVolt© PT