Instrument transformers with ResiVolt™ technology
Transient resistant portfolio for the modern grid

ABB transformers with ResiVolt technology offer enhanced withstand to very fast transient overvoltages, resulting in unparalleled performance for renewable and frequent line switching installations.

Key product features
- Optimized using advanced mechanical and electrical modeling for field performance
- Excellent withstand capability against steep wave transients
- Meets all applicable IEEE instrument transformer standards
- Meets IEC 61869-3, class 7.2.3 and CAN/CSA 411.1, class 6.6 requirements for basic impulse and fast impulse transient withstand
- Various ratios available
- Can be mounted in upright, cantilever, or upside-down positions

Benefits
- Increased safety
  - Designed with the ability to withstand very fast transient overvoltage (VFTO) events without insulation degradation, reducing the chance of catastrophic failure
  - Units with ResiVolt technology offer a leaner design with superior performance

- Unparalleled reliability
  - Cutting edge transient resistant technology provides unrivaled performance and minimizes failures at critical interconnection or metering points
  - Industry leading creep distance minimizes potential flashover, resulting in long-term performance even in harsh coastal and industrial environments
  - HCEP (hydrophobic cycloaliphatic epoxy) material provides the best insulation for outdoor use, shedding water and debris, and reduces the probability of flashover, even in heavily polluted areas

- Dependable delivery
  - Rapid support for urgent needs with complete manufacturing, R&D, and applications assistance in Pinetops, NC
  - Transformers with ABB ResiVolt technology are provided with a 3-year warranty.
Solutions
- Recloser installation
  - With reclosers being added to the grid, particularly for self-healing solutions, the frequency of line switching continuously increases and adds transients to the system. Transformers with ResiVolt technology are designed to withstand these transients.
- Solar and wind farm interconnections
  - The fast transient overvoltages at renewable energy interconnections can cause traditional voltage transformers to prematurely fail. With advanced ResiVolt technology, ABB voltage transformers provide unparalleled reliability at these critical connection points.
- Metering applications
  - The optimized design of products with ResiVolt technology provides a lightweight solution for compact metering applications.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>VOG-15R</th>
<th>VOG-20BR</th>
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</thead>
<tbody>
<tr>
<td>Rated max voltage</td>
<td>kV</td>
<td>27</td>
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<tr>
<td>Rated lightning impulse withstand (BIL)</td>
<td>kV</td>
<td>150</td>
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<tr>
<td>Advanced transient resistant technology</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Connection type</td>
<td>Line to ground (L-G)</td>
<td>Line to ground (L-G)</td>
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<tr>
<td>Metering accuracy</td>
<td>0.3Y</td>
<td>0.3Y</td>
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<td>Thermal rating at 30° C</td>
<td>VA</td>
<td>750</td>
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<tr>
<td>Rated voltage factor (RVF)</td>
<td>1.25</td>
<td>1.9</td>
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<tr>
<td>Creep distance</td>
<td>in/mm</td>
<td>38.47/977</td>
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<tr>
<td>Strike distance</td>
<td>in/mm</td>
<td>17.72/450</td>
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<tr>
<td>Weight</td>
<td>lbs/kg</td>
<td>85/38.6</td>
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ABB offers a complete apparatus portfolio:

Three-phase GridShield® recloser
By-pass switch (RBD)
Disconnect switch (DCD)
AccuRange® current transformers (high accuracy, extended range)