Power/Vac® Circuit Breakers

Circuit Breakers for 5kV to 15kV Applications using the ML-17 Mechanism

Features
- All vacuum interrupters now use the latest copper chromium technology which minimizes current chop. Surge suppressors are no longer required.
- All Power/Vac breakers are rated K Factor=1
- All Power/Vac breakers now use the more robust ML-17 or ML-17H operating mechanism.
- The ML-17 mechanism is used for both circuit breakers and ground & test devices, which means reduced maintenance costs, fewer spare parts requirements, and reduced operator training.
- Breakers can be easily retrofitted into existing lineups where older ML-18 breakers and/or MVA rated breakers were originally supplied.

Standards
The new Power/Vac series of circuit breakers have been tested to the latest ANSI C37.06-2009 standard. They are UL listed, and KEMA certified test reports are available. This latest design is based on the proven ML-17 mechanism, which has been in use for over 35 years. The reliability of Power/Vac has been demonstrated by its proven ability to handle 63kA high interrupting duty. Adding to our flexible design, all breaker ratings are now available with 5 cycle or 3 cycle interrupting times. Class C2 (formerly classified as definite purpose) capacitor switching capability is also now available, which incorporates faster TRV values than in the previous edition of the ANSI standards.
### Power/Vac® Circuit Breaker Characteristics

<table>
<thead>
<tr>
<th>Rated Maximum Voltage (kV)</th>
<th>Nominal ANSI Voltage Class (kV)</th>
<th>Typical System Operating Voltages (kV)</th>
<th>Rated Voltage Range Factor, K</th>
<th>Rated Withstand Test Voltages</th>
<th>Low Frequency rms Voltage (kV)</th>
<th>Crest Impulse Voltage (kV)</th>
<th>Rated Short Circuit Current (Maximum Interrupting Capability) (kA)</th>
<th>Rated Interrupting Time (cycles)</th>
<th>Rated Permissible Tripping Delay, Y (Seconds)</th>
<th>Maximum 2 Second Short Time Current Carrying Capability (kA)</th>
<th>Peak Close and Latch (2.7K times Short Circuit Rating) (kA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.76</td>
<td>4.16</td>
<td>2400 4160 4200</td>
<td>1.0</td>
<td>19</td>
<td>60</td>
<td>1200A 2000A 3000A 3500A 4000A</td>
<td>31.5</td>
<td>5 or 3</td>
<td>2</td>
<td>31.5</td>
<td>85</td>
</tr>
<tr>
<td>8.25</td>
<td>7.2</td>
<td>6600 6900 7200</td>
<td>1.0</td>
<td>36</td>
<td>95</td>
<td>1200A 2000A 3000A 3500A 4000A</td>
<td>40</td>
<td>5 or 3</td>
<td>2</td>
<td>40</td>
<td>108</td>
</tr>
<tr>
<td>15</td>
<td>13.8</td>
<td>12000 12470 13200 13800 14400</td>
<td>1.0</td>
<td>36</td>
<td>95</td>
<td>1200A 2000A 3000A 3500A 4000A</td>
<td>50</td>
<td>5 or 3</td>
<td>2</td>
<td>50</td>
<td>135</td>
</tr>
</tbody>
</table>

**Notes:**
1. Maximum voltage for which the breaker is designed and upper limit of operation.
2. 4000A rating is forced-air cooled, indoor construction only. 3500A is available in outdoor construction, but must be derated to 3250A.
3. At system operating voltages equal to or less than rated maximum voltage.
4. Available ratings in addition to the ANSI C37.06-2009 preferred ratings.