SBW low-voltage replacement circuit breakers

Replacement solutions for Siemens SB circuit breakers utilizing WL technology

Low-voltage replacement circuit breakers provide a cost-effective way to upgrade to current technology while increasing equipment reliability and minimizing downtime.

Siemens SBW circuit breakers utilize the reliable and flexible Siemens WL circuit breaker as the core operating mechanism and main contacts. Primaries and fingers are then redesigned to connect directly to the existing bus.

Why Siemens SBW Replacement Circuit Breakers?

- Maintain UL 489 and UL 891 ratings
- Primary current carrying path designed to utilize the original bus
- Utilizes the durable, market proven technology of Siemens WL type circuit breakers as the operating mechanism and main contacts
- Increased reliability and functionality with newer technology while maintaining investment in existing switchgear.

Robust Feature Set

- Graphical Display
- Dynamic Arc Sentry (DAS) Maintenance Mode
- Parameterization by communication or menu/keypad
- Wide range of parameter set points
- Remote operation and metering via Modbus/Profibus Communication
- Visible, ready-to-close indicator
- Customizable interlocking, and mechanical trip indication
- Available Remote Racking System
- Sm@rt Gear package options available.

Dynamic Arc Sentry (DAS)

Utilizes dual trip unit parameters that allow the operator to switch back and forth from a normal operating mode to a maintenance mode that allows personnel to operate in a lower category arc flash hazard zone. DAS can be operated via remote communication or direct control switch.

For each retrofitted breaker compartment, new breaker compartment panels are provided that incorporate the new cutout required for the WL breaker.

SBW 1200A Drawout

Standard Safety Options

Remote Racking

Sm@rt Gear Architecture

Push Button Control

usa.siemens.com/assetserices
Circuit Breaker Ratings and Type

<table>
<thead>
<tr>
<th>Example: Breaker Ratings</th>
<th>Breaker Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Size</td>
<td>FS3</td>
</tr>
<tr>
<td>Siemens Type</td>
<td>SBW-5000</td>
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<tr>
<td>Continuous Current (A)</td>
<td>5000</td>
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</table>

<table>
<thead>
<tr>
<th>Interruption Class</th>
<th>L</th>
<th>C</th>
<th>S</th>
<th>L</th>
<th>C</th>
<th>S</th>
<th>H</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>240VAC</td>
<td>N/A</td>
<td>150</td>
<td>150</td>
<td>85</td>
<td>100</td>
<td>150</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>480VAC</td>
<td>N/A</td>
<td>100</td>
<td>150</td>
<td>65</td>
<td>100</td>
<td>150</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>600VAC</td>
<td>N/A</td>
<td>85</td>
<td>100</td>
<td>50</td>
<td>65</td>
<td>100</td>
<td>42</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RMS Interrupting Rating (kA)</th>
<th>Rated Max. Volts (VAC)</th>
<th>Short Time Current (kA RMS)</th>
<th>Applicable Rating Plug Range</th>
<th>Mechanical Make Time (ms)</th>
<th>Mechanical Break Time (ms)</th>
<th>Electric Close Make Time (ms)</th>
<th>Electric Trip Break Time (ms)</th>
<th>Electric Trip and Reclose Interval (ms)</th>
<th>Mechanical Duty Cycles (no maint.)</th>
<th>Electrical Duty Cycles (no maint.)</th>
<th>Ambient Operating Temperature (°C)</th>
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<tbody>
<tr>
<td>240VAC</td>
<td>600</td>
<td>85-100</td>
<td>800-5000</td>
<td>35</td>
<td>34</td>
<td>50</td>
<td>40</td>
<td>80</td>
<td>5000</td>
<td>2000</td>
<td>-25-40</td>
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<tr>
<td>480VAC</td>
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<td>85-100</td>
<td>200-2000</td>
<td>35</td>
<td>34</td>
<td>50</td>
<td>40</td>
<td>80</td>
<td>5000-10000</td>
<td>4000</td>
<td>-25-40</td>
</tr>
<tr>
<td>600VAC</td>
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<td>200-1200</td>
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<td>34</td>
<td>50</td>
<td>40</td>
<td>80</td>
<td>7500</td>
<td>7500</td>
<td>-25-40</td>
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</table>

Three Design Philosophies:

- **Fixed Mount**
  
  Bus adapters are used to redirect the existing bus to match up to new primary stabs of the SBW.

- **Drawout – 1200A and below**
  
  Direct replacement, with new breaker doors supplied.

- **Drawout – 2000A and above**
  
  Retro-fill replacement, SB cradle and circuit breaker removed and new WL cradle and circuit breaker installed. Bus adapters used to connect WL cradle with original bus.

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