



## DIRECT CONNECTION TO THE PRIMARY BUS

# DirectRack™ SBW™ low-voltage replacement circuit breakers

Replacement solutions for Siemens SB circuit breakers utilizing WL technology  
[usa.siemens.com/lvreplacements](http://usa.siemens.com/lvreplacements)

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.



SBW 1,200 A Drawout

### 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.

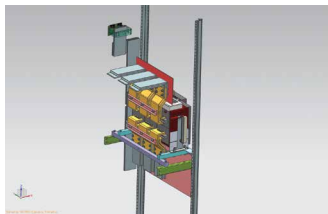
For each retrofitted breaker compartment, new breaker compartment panels are provided that incorporate the new cutout required for the WL breaker.

### Circuit Breaker Ratings and Type

Example: Breaker Ratings		Breaker Type								
Frame Size		FS3			FS2			FS1		
Siemens Type		SBW-5,000			SBW-2,000			SBW-1,200		
Continuous Current (A)		5,000			2,000			1,200		
Interruption Class		L	C	S	L	C	S	H	L	
RMS Interrupting Rating (kA)	240 VAC	N/A	150	150	85	100	150	65	100	N/A
	480 VAC	NA	100	150	65	100	150	65	100	N/A
	600 VAC	N/A	85	100	50	65	100	42	50	N/A
Rated Max. Volts (VAC)		600			600			600		
Short Time Current (kA RMS)		85-100			85-100			25		
Applicable Rating Plug Range		800-5,000			200-2,000			200-1,200		
Mechanical Make Time (ms)		35			35			35		
Mechanical Break Time (ms)		34			34			34		
Electric Close Make Time (ms)		50			50			50		
Electric Trip Break Time (ms)		40			40			40		
Mechanical Duty Cycles (no maintenance)		5,000			7,500			7,500		
Electrical Duty Cycles (no maintenance)		2,000			4,000			7,500		
Ambient Operating Temperature (°C)		-25-40			-25-40			-25-40		

### Three design philosophies

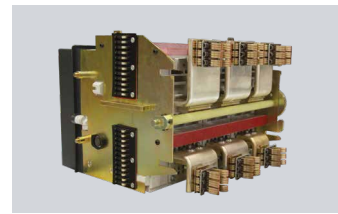
**Fixed mount** - Bus adapters are used to redirect the existing bus to match up to new primary stabs of the SBW.



**Drawout** - 2,000 A and below  
Direct replacement, with new breaker doors supplied.



**Drawout** - 2,000 A 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.



#### Legal Manufacturer

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