

Safety-Related Supplier of Siemens Low-Voltage Replacement Circuit Breakers



Increase equipment reliability and minimize downtime

Challenge

With vintage low-voltage circuit breakers, utilities face obsolescence, lack of availability of parts, increased maintenance costs, and reliability and performance issues.

Solution

Low-voltage replacement circuit breakers provide a cost-effective way to upgrade to current technology while increasing equipment reliability and minimizing downtime. Framatome is now the exclusive channel to the market for Siemens low-voltage replacement circuit breakers.

The fortitude of Framatome's Commercial Grade Dedication (CGD) program and seismic and environmental qualification capabilities translates into increased confidence that you will receive the safety and quality products you need. In addition, Framatome offers an analog trip unit, which minimizes the cost of modifications and the need for validation and verification (V-V) associated with microprocessor-based digital trip units.

Customer benefits

- Improved employee safety
- Increased reliability and performance
- Framatome's nuclear 1E-rated world-class CGD program, equipment qualification, application engineering and product management
- Preserved investment in cubicles
- Reduced downtime and minimal changeover time during upgrade

The following circuit breakers are available as pre-engineered designs:

Manufacturer	Model
Siemens	RL, SB
ABB/ITE	K Line
Westinghouse/Eaton	DB, DS
GE	AK

Other manufacturer's models and ratings can be engineered by customer request

Your performance
is **our** everyday **commitment**

Framatome's safety-related program including commercial grade dedication testing, seismic and environmental qualification

Framatome offers the best value, highest reliability and industry-leading quality in CGD services. Fully aligned with EPRI's latest "Guideline for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications" (2014), our CGD services give you the best value by doing it right, the first time. We have a Center of Excellence for Electrical Commercial Grade Dedication in Cranberry Township, Pennsylvania.

In addition, Framatome provides world-class seismic and environmental qualification. We have the experience and knowledge to provide high quality solutions in a cost-effective manner.

Get more out of your circuit breakers

Framatome's Maintenance Interval and Life Extension Solutions Program prolongs your maintenance intervals. This program is possible by addressing industry grease hardening concerns through extensive testing and incorporation of a new synthetic lubrication on the operating mechanism. The advanced lubricant can be supplied on new circuit breakers. It comes standard with our Framatome certification to ensure compliance with our qualification testing program.

Framatome has extended our program to simulate 25 years of circuit breaker aging. Framatome's circuit breakers lubricated with advanced synthetic grease maintained consistent and acceptable functional test results throughout 25 years of simulated aging. When supplied with our certification, circuit breakers carry justification for extending maintenance intervals and achieving related cost savings, while improving overall safety and equipment reliability.

Why Siemens breakers?

- Direct-connect to the primary contact mitigates heat generation
- A variety of trip modules for all applications
- Secondary contacts are mounted on the front for safe, easy access
- Remote operation and monitoring for safety

Low maintenance

This highly engineered reliable design offers significantly increased operations between maintenance intervals and for total cycle life. The operating mechanism is a sealed unit, which does not require service.

Easy-to-use

The breakers include integrated racking handles, pull-apart front mounted terminal blocks, and simple selection and application tools. These features reduce installation time and errors, add flexibility, and minimize training.

- Safety related features
- Visible, ready-to-close indicator
- Customizable interlocking, and mechanical trip indication
- Available Siemens Dynamic Arc Sentry (DAS) provides an arc flash mitigation mode to lower the possible arc flash energy
- Available Sarracs® Safety Remote Racking System

Modular and flexible

The modularity and flexibility of front-mounted common plug-in accessories, field changeable trip units, contacts and arc chutes reduce inventory, allow for last-minute adaptations, support quick-ship opportunities, forgive changes, and support most cost-effective configuration.

Solid-state trip units

Siemens utilizes solid-state trip units for circuit breakers requiring a safety qualification for use in harsh environments. These ruggedly constructed trip units are universally compatible with all Siemens low-voltage retrofit breakers designed for use in harsh environments. They have a function selector switch that allows the user to select between LSI, LI and LS trip functions making them versatile for use in coordination schemes. Pickup and time delays are set using rugged selection dials. Ground fault protection and an arc flash mitigating maintenance mode are available. A communications interface option is available that provides dry contacts for a number of outputs (short circuit, overload, ground fault, etc.) and inputs (remote reset, arc flash mode, etc.).

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