

Low-voltage replacement circuit breakers

Featuring Siemens WL operator

Low-voltage replacement circuit breakers provide a cost-effective way to upgrade to current technology while increasing equipment reliability and minimizing downtime. The following circuit breakers are available as pre-engineered designs. Other manufacturer's models and ratings can be engineered by Siemens by customer request.

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

Why replacement breakers?

- Preserved investment in cubicles
- Reduced downtime and minimal changeover time during upgrade
- Increased reliability and performance
- Improved employee safety

Why Siemens?

- Direct-connect to the primary contact mitigates heat generation
- WL operator is less prone to nuisance tripping

- 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
- 24/7 support line

Reliable

This highly engineered reliable design offers increased operations and the Extended Instantaneous Protection (pat. pending) function allowing 100% of the full withstand rating of the frame and still providing the ability of the breaker to be applied up to the maximum Interrupting Rating. Highly accurate internal Rogowski CTs allow for precision protection and metering – saving money on down time, field service, and increased customer satisfaction.

Easy-to-use

The ease-of-use – from integrated racking handles, pull-apart, front-mounted terminal blocks, and simple selection and application tools – reduces installation time and errors, adds flexibility, and minimizes training.



KLW 1600

Speed of delivery

Located in the United States, our production facility is positioned to deliver your retrofit breakers within your time frame needed.

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 upgradable trip units, and field changeable contacts and arc chutes reduce inventory, allow for last-minute adaptations, support quick-ship opportunities, forgive changes, and support the most cost-effective configuration. Electronic or solid-state trip units are available depending on your needs and application.

Electronic trip units (ETUs)

Power system protection is necessary to treat common types of abnormal occurrences such as overloads or faults that can lead to electrical power system failure. The methods for detecting and clearing such abnormalities and restore to normal operation is an engineered technique. Adequate protection requires constant measurements of certain

system quantities such as voltages and currents, comparing those system quantities, or some combination of the quantities to a threshold setting computed by a systems engineer and set into an electronic trip unit like those available on the WL breakers. It is equally important for power system protection to perform under normal operating conditions. If the above thresholds are set too low, the power may be interrupted unnecessarily causing loss of productivity or safety provisions. The WL circuit breaker offers a practical means of setting power system protection through vast selectivity available in its Electronic Trip Unit (ETU). WL ETUs have a wide range of protective settings for implementing simple or complex coordination schemes and configuring reliable system protection.

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.).

Electronic trip units

Features and Characteristics	Solid-State Trip Unit	ETU745	ETU748	ETU776
Long-time overcurrent protection (L)	✓	✓	✓	✓
Short-time delayed overcurrent protection (S)	✓	✓	✓	✓
Instantaneous overcurrent protection (I)	✓	✓		✓
Neutral conductor protection (N)		✓	✓	✓
Ground-fault protection	o		✓	o
Selectable neutral protection		✓	✓	✓
Defeatable short-time protection	✓	✓		✓
Defeatable instantaneous protection	✓	✓		✓
Selectable thermal memory		✓	✓	✓
Zone selective interlocking		✓	✓	✓
Selectable I2t or fixed short-time delay		✓	✓	✓
Adjustable instantaneous pick-up	✓	✓	✓	✓
Selectable I2t or I4t long-time delay		✓	✓	✓
Selectable and adjustable neutral protection		✓	✓	✓
Dual protective setting capability				✓
Dynamic Arc-Flash Sentry (DAS) or Arc Flash Mode				✓
Extended Instantaneous Protection (EIP)		✓	✓	✓
Parameterization by rotary switches	✓	✓	✓	
Parameterization by communication (absolute values)				✓
Parameterization by menu / keypad (absolute values)				✓
Remote parameterization of the alarm functions				✓
Remote parameterization of the relay functions				✓
Alphanumeric display		o	o	✓
Graphical display				✓
Power metering function		o	o	o
Communication via PROFIBUS-DP		o	o	o
Communication via MODBUS		o	o	o
Communication via Ethernet (BDA)		o	o	o
Communication via dry contacts	o			
Rated for harsh environment applications	✓			

(✓) = standard feature, (o) = optional

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