Circuit Protection

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Circuit Protection

Fuji Electric UL 489 Rated Molded Case Circuit Breakers (MCCBs)
BW Series Fuji Molded Case Circuit Breakers are more compact (especially 100A, 125A, 250A frames) than any breakers on the market, so control panels take up less space than ever before. This product group maintains conformity to all Worldwide standards, including cULus / IEC / CE Marking / JIS (Japan) / CCC (China).

- Suitable for branch circuit protection
- 5 frame sizes, rated current of 15 to 800A, max 600V
- Standard type and high interrupting capacities are available in identically sized breakers
- Shunt Trip, Undervoltage Release and other accessories are available
- Auxiliary Switch and Shunt Trip can be installed in the field

3P Series UL 489 Molded Case Circuit Breakers (MCCBs)
The 3P series provides branch and feeder circuit protection in industrial control panels.

- UL 489
- Up to 600 amps
- 65kA @ 240 VAC interrupting rating
- K-frame size 250 to 400 amps
- L-frame size 400 to 600 amps

Eaton FAZ-NA and FAZ-NA-L Series UL 489 Miniature Circuit Breakers
The FAZ-NA and FAZ-NA-L series are DIN-rail mountable and can be used in branch circuit applications up to 63 amps and are available with B, C or D trip characteristics.

- UL 489
- DIN-rail mounted
- Single-pole, two-pole and three-pole models
- B, C and D trip curves
- Trip-free design - breaker cannot be defeated by holding the handle in the "ON" position
- Captive screws cannot be lost
- Suitable for reverse feed

Socomec DIRIS A Power Measurement Devices
Socomec DIRIS A Power Monitors provide high accuracy readings of a system’s energy quality via a detailed breakdown of harmonics identifying: troughs, outages, overvoltages, and overcurrents. These measurements enable you to monitor energy quality and costs, reduce production losses, improve efficiency and enhance performance.

- Easy to use solution for industry, infrastructure and data centers
- Integrated temperature sensor (A10 model)
- Detects wiring errors
- Panel mount (A20) and DIN-rail mount (A10)
- Compact design
- Compliant with ANSI C12.20 and IEC 61557-12
- Revenue grade accuracy

Gladiator UL 489 Rated Miniature Circuit Breakers (MCBs)
Gladiator GMCBU series miniature circuit breakers are quality and affordable AC and DC rated DIN-rail mountable true branch circuit breakers and can be used in feeder and branch circuit applications up to 63 amps. These circuit breakers are available with B, C or D trip characteristics in accordance with UL 489.

- True branch circuit protection (UL 489)
- Up to 63 amps
- AC and DC rated
- Single-pole, two-pole and three-pole models
- B, C and D trip curves
- Trip-free design - breaker cannot be defeated by holding the handle in the "ON" position
- Captive screws cannot be lost
- Can also be used in applications for which UL 1077 or CSA C22.2 No.235 are also allowed
- Field installable shunt trip and auxiliary switches, side mountable shunt and undervoltage trip
- Contact position indicator (red / green)
- Small size and 35mm DIN-rail mountable
- Suitable for reverse feed

Gladiator UL 1077 Rated Miniature Supplementary Protectors
Gladiator UL 1077 rated GMCBS series miniature supplementary protectors provide overcurrent protection where branch protection is already provided or not required. The units can be installed as a component within or, as a part of, an appliance or a piece of electrical equipment and are ideal replacements for fuses that are applied as a supplementary protector. Their advantage over fuses is that it is resettable and the device’s status is easily and clearly identified by the position of the handle and the flag indicator.

- AC and DC rated
- Single-pole, two-pole and three-pole models
- Thermal magnetic overcurrent protection
- B, C and D trip curves
- Trip-free design - breaker cannot be defeated by holding the handle in the "ON" position
- Small size
- 35mm DIN-rail mountable
- Box terminals accept #14 to #8 wire
- Color coded status indicator window
- Red = ON or Green = OFF
- IP20 finger protection
- Captive screws cannot be lost
- Suitable for reverse feed applications

Gladiator GMCB and GMCBU Series Accessories
Auxiliary Contact
Auxiliary contacts are available for both series of MCCBs and supplementary protectors. Auxiliary contacts act as secondary switching devices that work together with a primary device, to serve as an interlock or to provide indication of its current operation status.

- UL 489
- DIN-rail mounted
- Single-pole, two-pole and three-pole models
- Panel mount (A20) and DIN-rail mount (A10)
- Compact design
- Compliant with ANSI C12.20 and IEC 61557-12
- Revenue grade accuracy

Undervoltage Trips
Undervoltage trips are available for the GMCBU series miniature circuit breakers. Undervoltage trips force the circuit breaker to trip when an unacceptable voltage drop is detected, preventing damage to equipment and devices from the voltage drop. In addition, prevents non-critical loads from energizing when power returns to normal.

- UL 489
- DIN-rail mounted
- Single-pole, two-pole and three-pole models
- Panel mount (A20) and DIN-rail mount (A10)
- Compact design
- Compliant with ANSI C12.20 and IEC 61557-12
- Revenue grade accuracy

Locking Device
The locking device is available for both series, GMCBU MCCBs and GMCBU supplementary protectors. This locking device prevents accidental or intentional manual flipping of the operating handle. This locking device also allows for a key padlock to be inserted to further ensure only an authorized individual can unlock the operating handle.

- UL 489
- DIN-rail mounted
- Single-pole, two-pole and three-pole models
- Panel mount (A20) and DIN-rail mount (A10)
- Compact design
- Compliant with ANSI C12.20 and IEC 61557-12
- Revenue grade accuracy

For the latest prices, please check AutomationDirect.com.
Gladiator CFS Series UL 98 and UL 508 Rated Fusible Disconnect Switches

- UL 98 version, Class CC fuse, 30A, DIN rail mount
- UL 508 version, Midget class fuse, 20A, DIN rail mount
- 1, 2 and 3-pole models
- Provide open fuse indication for faster troubleshooting and reduced downtime
- Lockout / Tagout capability and finger safe construction
- Positive visible circuit isolation via the disconnect switch
- Uses only 1/2 the space of a molded circuit breaker and 2/3 the space of a traditional fusible switch

For Control Circuit - Supplementary Protection

Which type of Circuit Protection are you looking for?

Circuit Protection Selection

<table>
<thead>
<tr>
<th>Model Case and DIN rail mounted UL508 Circuit Breakers</th>
<th>Current Limiting Fuses UL 248</th>
<th>Disconnect Switches UL 98</th>
<th>Manual Motor Starters (MMS) UL 508</th>
<th>Load Switches UL 508</th>
<th>Supplementary Protectors UL 1077</th>
<th>General Fuses UL 248</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short circuit and ground fault protection for feeder and branch circuits</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Motor disconnecting means (NEC 430.101-430.113)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
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<tr>
<td>Motor branch-circuit short circuit protection (NEC 430.1-430.58)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
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<tr>
<td>Motor controller (NEC 430.51-430.91)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
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<tr>
<td>Motor overload protection (NEC 430.21-430.44)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
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<tr>
<td>GSHM Locked-out/tagout disconnect (NEC 430.81-430.91)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

* Optional Feeder protection, required for Safety Interlock circuits NEC 670.6 (2017)

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Edison Single and Dual-element Fuses

Industry standard extremely fast-acting, single element Class T and dual element time delay Class RK5, RK1, and Class J current limiting short circuit protection is available up to 600 amps.

NEW! High-speed Class J (PHL) combines electronic and motor branch circuit protection in one fuse.

These fuses are recommended for AC power distribution feeder and branch circuits; they provide ideal protection for motors and all general purpose applications including lighting, heating, inductive and non-inductive loads.

New Class L, fast-acting current limiting fuses are particularly suited for protection of circuit breakers with lower interrupting ratings, non-inductive loads such as lighting and heating circuits and drive protection applications.

Edison Current-limiting Fuses

We carry industry standard current limiting class CC, general purpose class M (Midget) and small dimension glass and ceramic circuit protection, fuse holders and accessories.

They provide ideal supplementary protection up to 30 amps to branch circuits and end of line equipment.

Supplementary FAZ series Protectors UL1077

Supplementary protectors are UL 1077 recognized and are used in applications where branch circuit protection is not required or is already provided.

FAZ Series
- DIN rail mountable
- Full line of auxiliary switches, alarm switches and padlock lockout accessories
- 8 trip curves 1 to 63 amps
- C trip curve 0.5 to 63 amps
- D trip curve 0.5 to 60 amps

For the latest prices, please check AutomationDirect.com.
Merz UL 508 Non-Fusible Disconnect Switches

The Merz line of disconnect switches are designed to activate motor loads ON and OFF and isolate equipment from other loads as needed. Disconnects safely terminate circuit power to equipment for servicing, and are tested to withstand high fault short circuits to remain operational following overloads.

These disconnects are manual motor controllers (MMC) capable of across the line starting/stopping of a motor according to UL508.

The NEC requires each motor controller to have a disconnect within line of sight (article 430.102). The code also recognizes that a controller and disconnect can be the same unit (article 430.109). See Figure

Merz has designed and tested these devices as both a controller and disconnect into one switch. For the motor controller is a UL 508 listed motor controller “Suitable as Motor Disconnect” to comply with both the controller and disconnect requirements of the NEC. Merz disconnect switches start at just $17.00.

Socomec UL 98 and UL 508 Disconnects

Socomec rotary disconnect switches are available in many varieties to match any application. Socomec offers fused and non-fused switches in either small compact frames or larger heavy duty switches for more demanding uses. All of the Socomec rotary disconnects provide a high short circuit current rating, and are rated to make or break while under load to provide safe isolation.

FUSERBLOC Series Fused Disconnects (30-600 Amps)
- UL 98 and UL 489 ratings
- 30A to 600A compact and large heavy duty frame
- 100kA-200kA SCCR @ 600VAC
- Front or side operated UL 98 Class J fusible rotary switch

SIRCO and SIRCO M Series Non-Fused Disconnects (16-600 Amps)
- UL 98, UL 98B, and UL 508 ratings
- 65kA-200kA SCCR (AC switches)
- 20kA @ 600VDC (DC switches)
- 3 and 4-pole
- 16A to 600A ratings
- Enclosed, DIN rail, panel mount options

starting at $20.50

Socomec SIRCOVER UL 1008 Manual Transfer Switch

Socomec SIRCOVER family of switches are manual transfer switches rated UL 1008. These switches are extremely durable and are tested and approved for use in the most demanding applications, such as resistive load or total system applications.

- Transferring between normal and generator power supplies
- Bypass operations
- 3 Stable completely isolated positions
- Compact design

starting at $313.00

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