

Product Description

Product Description

- Used to open or close a circuit.
- Non-fusible safety switches provide a means to manually connect or disconnect the load from the source.
- Fusible safety switches provide a means to manually open and close a circuit and overcurrent protection by means of installed fuses.
- Also commonly referred to as a disconnect switch or disconnect.
- Available from 30 – 1200 amperes.

Application Description

8

General Duty



*Plug Fuse
General-Duty
Safety Switch*



*Cartridge Fuse
General-Duty
Safety Switch*

For residential and commercial applications. Suitable for light-duty motor circuits and service entrance.

- 30 – 600 amperes.
- Suitable for service entrance applications unless otherwise noted.
- Fusible and non-fusible switches are 100% load break and 100% load make rated.
- The continuous load current of fusible switches is not to exceed 80% of the rating of fuses employed in other than motor circuits. Non-fusible switches are 100% fully rated.
- 200 – 600 amperes features K-series design.
- Horsepower rated.
- Fusible and non-fusible switches. One-pole S/N through 4-wire; 120/240, and 240 Vac.
- Ample wire bending space provides for easier installation.
- With Class R fuses, switches may be used on systems capable of delivering 100,000 amperes rms symmetrical.

Note: Plug fuse switches are not service entrance rated.

Heavy Duty



Heavy-Duty Safety Switches

For heavy commercial and industrial applications where reliable performance and service continuity are critical.

- 30 – 1200 amperes.
- 600 Vac, 600 Vdc maximum.
- Horsepower rated.
- Fusible and non-fusible switches are 100% load break and 100% load make rated.
- The continuous load current of fusible switches is not to exceed 80% of the rating of fuses employed in other than motor circuits. Non-fusible switches are 100% fully rated.
- Suitable for service entrance applications unless otherwise noted.
- Visible double break quick-make, quick-break rotary blade mechanism. Two points of contact provide a positive open and close, easier operation, and also help prevent contact burning for longer contact life.
- Triple padlocking capability. Personnel safety feature since the large hasp can accommodate up to three 3/8-inch (9.5 mm) shank locks. Cabinet door can be further padlocked at the top and bottom.
- Interlocking mechanism. Door cannot be opened when the handle is in the ON position. Built-in defeater mechanism provides for user access when necessary.
- For the toughest heavy commercial and industrial applications, refer to **Page 8-47** for catalog information on our Mill-Duty Safety Switch.
- Deionizing arc chutes. Arc chutes confine and suppress the arcs produced by opening contacts under load.

6-Pole Switches



6-Pole Motor Circuit

A compact safety switch that's ideal for use in heavy industry...when an "in sight" disconnecting means is required for two-speed motors that are remote from their motor control devices.

- 600 Vac, 250 Vdc maximum.
- 30 – 200 amperes.
- Fusible or non-fusible.
- Trunk-type latches keep the cover tightly closed and a neoprene gasket seals out moisture and dust from the switch assembly.
- Visible double break quick-make, quick-break rotary blade mechanism. Two points of contact provide a positive open and close, easier operation, and also help prevent contact burning for longer contact life.
- Clear line shield protection.
- Built-in fuse pullers.
- Clearly visible handle.
- Triple padlocking capability. Cabinet door can be further padlocked at the top and bottom.
- Deionizing arc chutes. Arc chutes confine and suppress the arcs produced by opening contacts under load.

Double Throw Switches



Heavy-Duty Double Throw

Used to transfer service from a normal power source to an alternate source...or to switch from one load circuit to another.

- 30 – 800 ampere switches are horsepower rated.
- 600 Vac, 250 Vdc maximum.
- Fusible or non-fusible.
- Fusible and non-fusible switches are 100% load break and 100% load make rated.
- Suitable for service entrance applications unless otherwise noted.
- The continuous load current of fusible switches is not to exceed 80% of the rating of fuses employed in other than motor circuits. Non-fusible switches are 100% fully rated.
- Approved for service entrance with neutral or ground lug kit installed.
- Wiring configuration from factory allows a single load to be supplied by a normal or alternate source. Can be field modified to allow two loads to be alternately supplied by a single power source.
- Non-fusible double throw switch can be used to feed a single throw fusible switch, the normal method to provide manual transfer from one power source to another in 800 ampere and larger switches.
- Ample wire bending space provides for easier installation.
- Visible double break quick-make, quick-break rotary blade mechanism. Two points of contact provide a positive open and close, easier operation, and also help prevent contact burning for longer contact life.
- Triple padlocking capability. Personnel safety feature since the large hasp can accommodate up to three 3/8-inch (9.5 mm) shank locks.
- Clearly visible handle. The position (ON or OFF) can be clearly seen from a distance.

- Deionizing arc chutes. Arc chutes confine and suppress the arcs produced by opening contacts under load.
- Additional locking capability. Cabinet door can be further padlocked at the top and bottom.
- Clear line shield (provided on fusible double throw) protects against accidental contact with energized parts. Probe holes enable the user to test if the line side is energized without removing the shield.
- Tangential knockouts on sides, top and bottom. Enables any size of conduit to be mounted close to the wall, providing for cable installation closer to the wall and a neat appearance.
- UL® listed switching neutral capability is available on 3-pole and 4-pole non-fusible double throw switches with the installation of the proper bonding kit shown on Page 8-5.

Rotary Switches



Enclosed Rotary

Provide users with the ability to lock directly wired motor loads in the OFF position to comply with new OSHA lockout/tagout regulations. Also for machine applications that require compact, economical disconnect switches.

- Meets NEC® Article 430 requirements for a separate disconnect means within sight of all motor loads.
- Padlockable in the OFF position (up to three padlocks) to meet OSHA lockout requirements.
- Available in 16 – 125 ampere ratings.
- 600 Vac, 3- and 4-pole non-fusible device.
- Rated for making and breaking loads.
- Accepts auxiliary contacts. Capability to signal PLC controllers.
- Ground lug connection provided.

EnviroLine



EnviroLine

Eaton offers a line of Cutler-Hammer® safety switches designed for your special application and/or extreme environmental conditions.

- **EnviroLine Stainless Steel Switch** — Primarily for use in the meat packing and food processing industries or any application where water is frequently used to hose down equipment. In addition to the stainless steel NEMA® 4X enclosure, the interior mechanism, backpan, and springs are stainless steel. Ratings for these heavy-duty switches are 30 – 400 amperes, 240 – 600 Vac, available as fusible and non-fusible switches.
- **Window Switches** — The new enlarged window on 30 – 100 ampere ratings allows visual blade position verification and blown fuse indication without opening the door. Higher ampere ratings continue to use the Upper and Lower window design. The Upper window switch provides visual verification of ON/OFF status (blade position), while the Lower window design shows fuse status on fuses with blown fuse indicators. Overall ratings are 30 – 800 amperes, 240 – 600 Vac, fusible and non-fusible. Available in NEMA 12/3R, 4X stainless steel enclosures.

Product Description

- **Receptacle Switches** — These heavy-duty switches are pre-wired and interlocked to polarized receptacles for 3-phase, 3-wire, grounded type power plugs. These are used for portable power applications such as welders, infrared ovens, batch feeders, conveyors, truck and marine docks. Receptacles are interlocked to handle mechanisms so that power plugs may not be inserted or removed when the switch is in the ON position unless noted otherwise. Ratings are 30 – 100 amperes, 600 Vac, NEMA 12/3R, 4X stainless steel enclosures.
- **Non-Metallic Switch** — This switch has a Halyester or KRYDON™ enclosure. These are compression molded fiberglass reinforced polyester enclosure, which is capable of withstanding almost any corrosive environment. Ratings are 30 – 200 amperes, 240 – 600 Vac, fusible and non-fusible. Enclosure is NEMA 4X rated.
- **NEMA 7/9 Hazardous Location Disconnect Switch** — See Page 8-43 for information.

Features, Benefits and Functions

General-Duty (Cartridge Fuse)

- Visible double break quick-make, quick-break rotary blade mechanism.
- Side opening door on all enclosures.
- Mechanically interlocked cover to prevent easy access when the switch is in the ON position.
- With Class R fuses, switches may be used on systems capable of delivering 100,000 amperes rms symmetrical.
- Clearly visible and accessible neutral where applicable.
- Visible ON/OFF indication.
- Tangential knockouts on 30 – 60 ampere designs.
- Ample wiring space.
- Double padlocking capability on 30 – 100 amperes.
- Triple padlocking capability on 200 – 600 amperes.
- Additional door locking capability.
- Bilingual English/Spanish door label on 30 – 100 amperes.
- Tri-lingual nameplates.

Heavy-Duty

- Visible double break quick-make, quick-break rotary blade mechanism.
- Mechanically interlocked cover to prevent easy access when the switch is in the ON position.
- Clear line shield with probe holes.
- Clearly visible palm fitting red handle.
- Triple padlocking capability.
- Deionizing arc chutes to confine and suppress the arcs produced by opening contacts under load.
- Tangential knockouts on NEMA 1 and NEMA 3R enclosures through 200 amperes.
- Built-in fuse pullers on NEMA 4X and NEMA 12 enclosures through 200 amperes.
- Additional door locking capability.
- Complete accessory and renewal parts data shown on inner door label.
- 30 – 800 ampere NEMA 12 designs convertible to NEMA 3R by opening factory installed drain hole.
- 30 – 800 ampere switches are seismic qualified and exceed the requirements of the Uniform Building Code® (UBC) and California Code Title 24.
- Tri-lingual nameplates.

Standards and Certifications

- UL 98.
- UL 50.
- NEMA KS-1.

Elevator Control Switch



Elevator Control Switch

Features, Benefits and Functions

Standard Features

- 30 – 200 ampere 600 Vac 3-phase fused power switch.
- 200,000 ampere rms short-circuit current rating.
- Shunt trip 120 volts.
- Control power terminal block.
- Ground lug per NEC.
- Class J Fuse mounting only (Class J Fuses not included).
- Key to Test switch 120 volts.
- Mechanically interlocked auxiliary contact for hydraulic elevators with automatic recall (5 A, 120 Vac rated) 1NO, 1NC.

Optional Features

- Control power transformer with fuses and blocks.
- Fire safety interface relay.
- Pilot light — ON.
- Isolated neutral lug (oversized 200% rated neutral option available where required by excessive non-linear loads).
- Fire Alarm Voltage Monitoring Relay (to monitor Shunt Trip voltage).
- NEMA 3R, 4 and 12 enclosures available through 200 amperes.
- Phase failure and undervoltage relay available, consult factory.
- For added protection, use Eaton fuse covers to improve maintenance personnel protection, through 200 amperes (OSHA 1910.333, Paragraph C).

Standards and Certifications

- UL 98 Enclosed and Deadfront Switch Guide 96NK3917, File No. E182262.
- NEMA 1, UL 50, listed enclosure.
- cUL® per Canadian Standards C22.2, No. 0-M91-CAN/CSAT C22.2, No. 4-M89 Enclosed Switch.