# **Switching Devices**

Pringle Bolted Pressure Switches



CBC Type Switch



**QA Type Switch** 

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# **Pringle Bolted Pressure Switch**

### **Product Description**

Eaton Pringle<sup>®</sup> switches have helped pioneer development of high-quality electrical products for commercial and industrial applications since 1891. Eaton's commitment to engineering excellence and reputation for quality have made us a recolonized leader in the electrical industry, and today you'll find our electrical products in use throughout the U.S., Canada and most of the world's major markets. Eaton Pringle bolted contact switches were the first in the industry and are a worldwide standard in high-current switching applications. They are custom-built and used in many heavy-duty applications, and are suitable for use in UL 891 switchboards.

#### **Bolted Pressure Contacts**

All Pringle switches feature bolted pressure contacts. The result: blade contact surfaces are bolted closed at a pressure of 600 PSI—at both the hinge and jaw ends. The benefit: current conducting efficiency is the equivalent of a bolted bus bar connection.

### Features

- 480V UL
- 600V CSA
- 800-4000 Amperes
- 5000–6000 Amperes (not UL listed)
- 200 kAIC and 100% rated with Class "L" fuses
- Top or bottom feed
- Two, three- or four-pole
- Optional blown fuse detection and protection

- Quick-positive switching action
- Manual or electrically operated mechanism
- 6X Make/12X Break
   contact rating
- Pringle Flex Center can offer custom assemblies; for quotes, call 1-888-329-9272 option 2
- Many options available, see following page

### Spring Mechanism

All quick action switches use a unique spring mechanism for improved reliability over traditional coil springs. The unique spring design is created by a series of concave-convex washers. The paired-washer spring design provides a higher force/distance ratio, making it easier to operate the mechanism. Should any pair of washers become inoperable for any reason, the entire spring assembly will still be operable by means of the remaining pairs. This is unlike the situation if a coil spring were to fracture or fatigue.

Dago



#### Sample Spring Configuration

### **Standards and Certifications**

- 480V UL
- 600V CSA



Safety Switches

# **Catalog Number Selection**



## Pringle Mill Switch 2

### (NEMA 1/3R/12 Enclosed)



### Notes

- <sup>①</sup> Not UL listed. A separate control box may be required when adding accessories.
- <sup>(2)</sup> Does not carry UL listing.
- $\ensuremath{^{(3)}}$  Not an option with QA type switches. GF option includes control power transformer.
- $^{\textcircled{3}}$   $\,$  110 Vdc and 125 Vdc also available. Please contact the Cleveland, TN plant.
- <sup>®</sup> For different system voltage requirements, please contact the Cleveland, TN plant.
- (e) For QA switches, use 480V system catalog number when referencing a 208V system.
- <sup>⑦</sup> Only applicable if ordering a CPT only, without ground fault.
- <sup>®</sup> Only available with QA switches and in a top-feed configuration.
- 480 Vac.
- In Additional available accessories/options—door interlock, special nameplates, custom dimensions, special paint and auxiliary contacts. Please inquire with the Cleveland, TN plant.

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# **Switching Devices**

# Product Selection

### Manually Operated (OA)— UL Listed

Manually operated contact switch with quick positive switching action. Can be top or bottom fed.

# Electrical Trip (CBC)—UL Listed

Contact switch with chargebefore-close mechanism. Can be manually or electrically tripped. Optional blown fuse detector and phase failure relay with capacitor trip available.

### Fault Protector Electrical Trip (FP)—UL Listed

The FP combines the features of a CBC switch but includes an integrated zero-sequence sensor and ground fault.

### Electrically Operated Electric Trip (EO)—Not UL Listed

The EO combines the features of a CBC switch, but includes an operator with a linear motor that electrically closes the switch while charging the stored energy mechanism for stored energy trip.

### Pringle Mill Switch (PMS)— Not UL Listed

Manually operated contact switch with quick-positive switching action. Comes in a NEMA 1/3R/12 enclosure with a side-operated mechanism. Can be fusible or non-fusible, two- or threepole configurations.



## Service

Eaton's Pringle switches have always been manufactured with precisionmade parts, and, like any mechanical device, they do require routine maintenance in order to operate at the optimal level. Over time, contact surfaces may be exposed to dirt and other contaminants, which could result in improper mechanical and/or electrical operation of the switch.

Eaton maintains a dedicated service team that has over 100 years of combined experience in the exclusive service and repair of Pringle switches. A service call performed by a certified technician ensures that your equipment is cleaned, lubed, adjusted and repaired, and a one-year extended warranty is granted. General maintenance, repair/ refurbishment and troubleshooting are just some of the services provided.

### In-House Service

Eaton also offers in-house inspection, service and repair at our manufacturing facility in Cleveland, TN.

### Aftermarket Parts

Eaton has a full line of factoryspecified aftermarket parts for Pringle switches, as well as complete, form, fit, function, drop-in replacement switches. Aftermarket part information can be found in publication TD00808001E.

# 'Flex' Custom Capabilities

Custom solutions are standard throughout Eaton's switching device product line and bolted pressure contact switches are no exception. When a standard product will not meet the customer's need, Eaton's engineering and marketing teams can develop and offer solutions built to the customer's expectation.

Engineered-to-Order, or 'Flex', Non-Load-Break switch solutions with bolted pressure contact technology vary as noted below.

- Motor operated: 800 to 6000A
- High current: 6000 to 35,000A+
- Medium voltage: 5 kV, 15 kV+
- DC voltages: 250 Vdc to 3000 Vdc+
- Transit applications: single-, two-or three-pole DC rated
- Manual transfer switches
- Live front switches

### **Reference Information**

For service questions, or to schedule service: 1.888.329.9272, option 2 pringle@eaton.com

For aftermarket replacement parts: 1.877.ETN.CARE, option 2, option 1, 1.877.386.2273, option 2, option 1, TRC@eaton.com for existing in the field.

Product brochures available via Eaton.com

- Pringle Product Brochure— BR00808001E
- Pringle Mill Switch— PA00808001E
- Pringle Replacement Parts Guide—TD00808001E
- Pringle Service—
   DM00808002E

### Technical Data and Specifications

- 800-4000A
- 5000 and 6000A available (not UL listed)
- 200 kAIC and 100% rated with Class L fuses