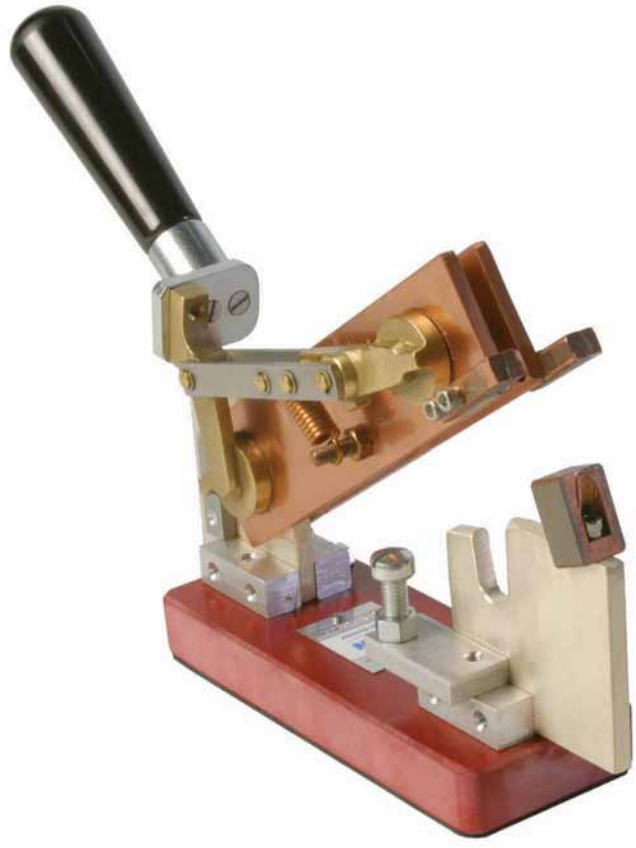
Eaton's Pringle bolted pressure contact switches

Eaton's Pringle® switches have helped pioneer the development of high-quality electrical products for commercial and industrial applications since 1891. Eaton's Pringle bolted contact switch was the first in the industry and is a standard in high-current switching applications. They are custom-built, are used in many heavy-duty applications and are suitable for use in UL® 891 switchboards.



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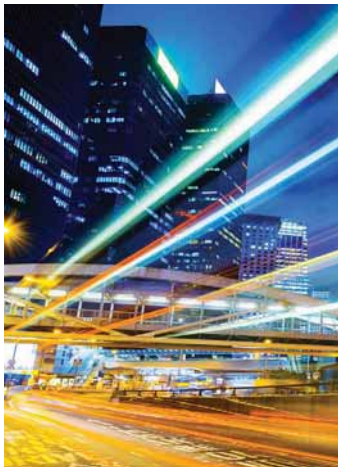
Powering Business Worldwide



Features and benefits

- Conducts high current with greater efficiency than knife spring or butt contact devices
- The operating mechanism closes the switch blades quickly and actuates a bolting mechanism that applies pressure to both the hinge and the jaw contacts, providing current-conducting efficiency equivalent to that of a bolted bus bar
- The entire switch bolting mechanism is non-magnetic to ensure that inductive heating cannot occur in any of the switch components, which ensures long-term switch reliability

Ratings/withstand ability

Pringle QA, CBC and FP switches

- Fusible and non-fusible switches are 100% load-break and 100% load-make rated
- Switches are capable of breaking 12X and making 6X overload currents
- Switches have a short circuit rating of 200,000 rms symmetrical amperes at rated voltage when protected by Class L fuses

Switch variations

Bolted contact switches

Enclosed switches (NEMA® 3R) ①②

- Type QA
- Type CBC
- 480 Vac
- 800–2000 A
- Fusible or non-fusible
- Top feed or bottom feed

① Not UL® listed.

② NEMA 12 enclosed switches are available in Pringle Mill Switch—see page 3 for details.

Spring mechanism

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.

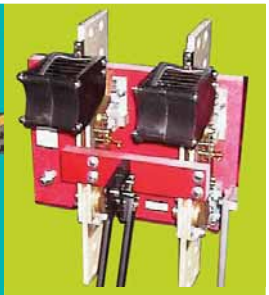
Should any pair of washers become inoperable for any reason, the entire spring assembly will still be operable by means of the remaining pairs. This is unlike what would happen if a coil spring were to fracture or fatigue.

Switch comparison matrix

QA
Quick Action

CBC
Charge-Before Close

FP
Fault Protector



PMS
Pringle Mill Switch ③

		QA Quick Action	CBC Charge-Before Close	FP Fault Protector	PMS Pringle Mill Switch ③
Ratings/ frame ①②	A—800 A	■	■	■	■
	B—1200 A–2000 A	■	■	■	■
	C—2500 A	■	■	■	■
	D—3000 A–4000 A	■	■	■	■
Features	Unique spring design	■	■	■	■
	Electrical trip/shunt trip		■	■	
	Manual operation only	■			■
	100% rated ④	■	■	■	■
	Provision for padlocking in open position	■	■	■	■
	Fusible	■	■	■	■
	Non-fusible	■			■
	Neutral			■	
	Front operating mechanism	■	■	■	
	Side operating mechanism				■
Options	Auxiliary contacts	■	■	■	■
	Ground fault protection		■	⑥	
	Phase failure relay		■	■	
	Blown fuse detection ⑤	■	■	■	
	Key interlock provisions	■	■	■	■
Enclosure options	Open (for installation in switchboard section)	■	■	■	
	NEMA Type 3R (Stand-alone unit)	③⑦	③⑦	③⑦	
	NEMA Type 12R (Stand-alone unit)				■ ③

① 5000 A and 6000 A available, non-UL listed.

② All ratings, when utilizing class L fuses, have a 200 kAIC rating.

③ Not UL listed.

④ QA and CBC switches will carry 100% of rated current without exceeding 60 °C rise at terminals. The maximum allowed ambient, when operating at 100% rated is 40 °C.

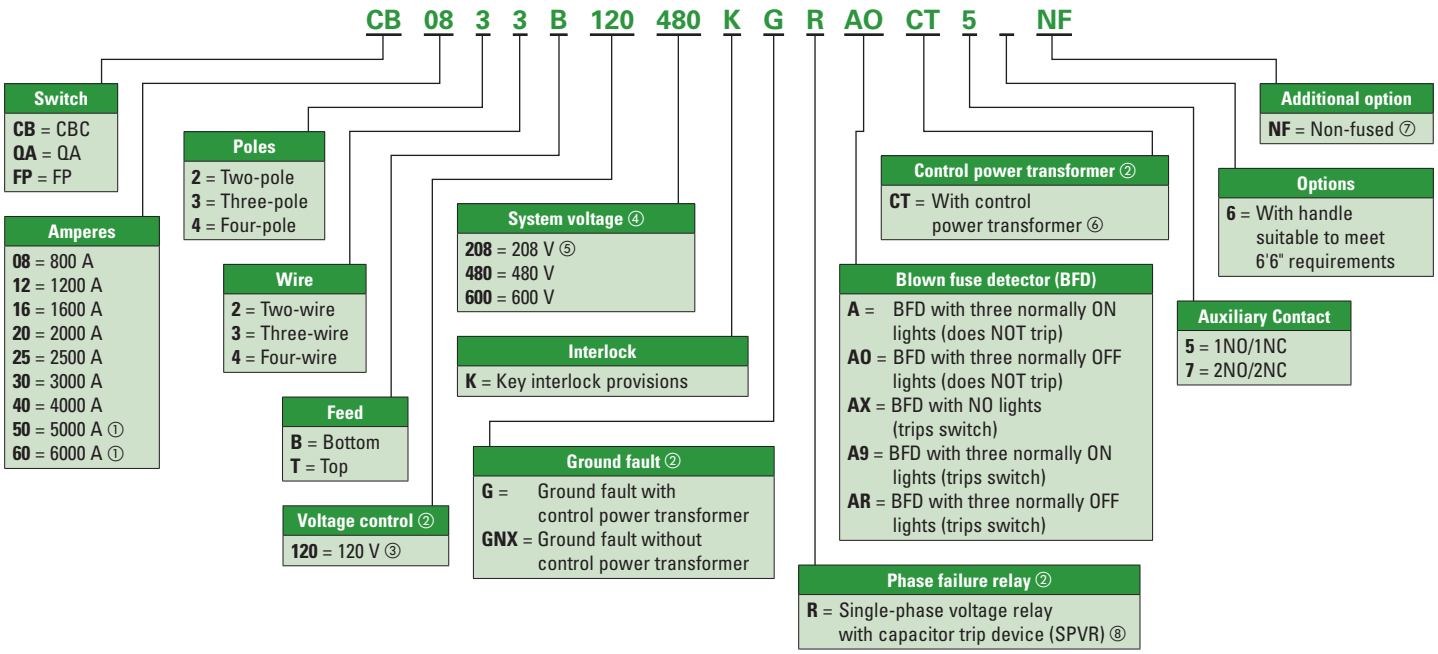
⑤ Blown fuse detection options—with/without lights, lights normally on/off, trips / doesn't trip switch. QA switches do not have capability to trip switch.

⑥ Included standard, along with zero-sequence sensor.

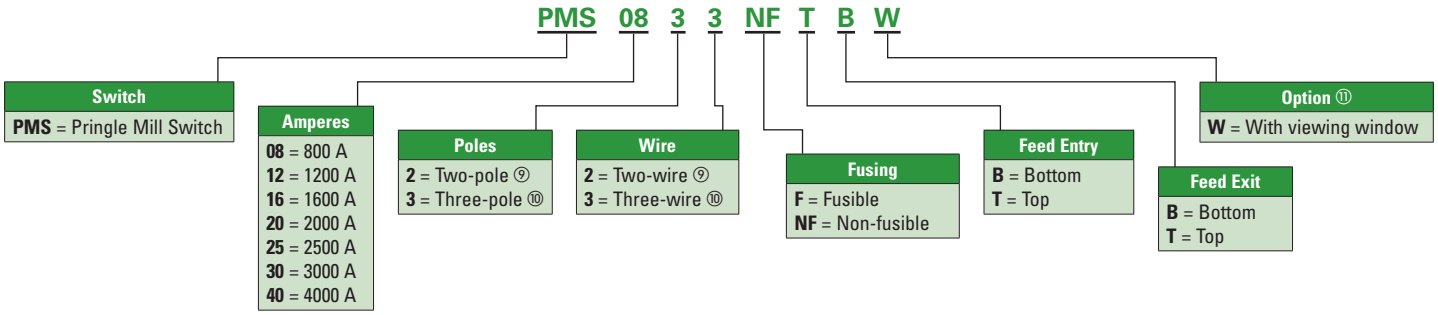
⑦ 800 A–2000 A only.

Catalog number selection

Pringle Bolted Pressure Switch



Pringle Mill Switch ②
(NEMA 1/3R/12 Enclosed)



① Does not carry UL listing.

② Not an option with QA type switches.

③ 110 Vdc and 125 Vdc also available. Please contact the Cleveland, TN plant.

④ For different system voltage requirements, please contact the Cleveland, TN plant.

⑤ For QA switches, use 480 V system catalog number when referencing a 208 V system.

⑥ Only applicable if ordering a CPT only, without ground fault.

⑦ Only available with QA switches and in a top-feed configuration.

⑧ Includes control power transformer.

⑨ 250 Vdc.

⑩ 480 Vac.

⑪ Additional available accessories/options—door interlock, special nameplates, custom dimensions, special paint and auxiliary contacts. Please inquire with the Cleveland, TN plant.

For additional information, call
1-888-329-9272 option 2
or **email Pringle@eaton.com**

Additional information is available at
Eaton.com/pringle

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