



Order Specifications for Substation Switching Applications

Please contact our Application Engineering personnel at (704)-392-1396 if you require assistance in completing the Order Specification or if you have requirements other than what is shown. If we must contact you to confirm your information, please provide a contact name and number. If more than one switch type is required, please fill out a separate Order Specification sheet for each switch type.

Organization _____ Contact (Name) _____

Phone # _____ E-Mail Address _____

1. Switch Requirements

1.1. Quantity of switches required (3x phases per switch) _____

1.2. Required Switch ratings:

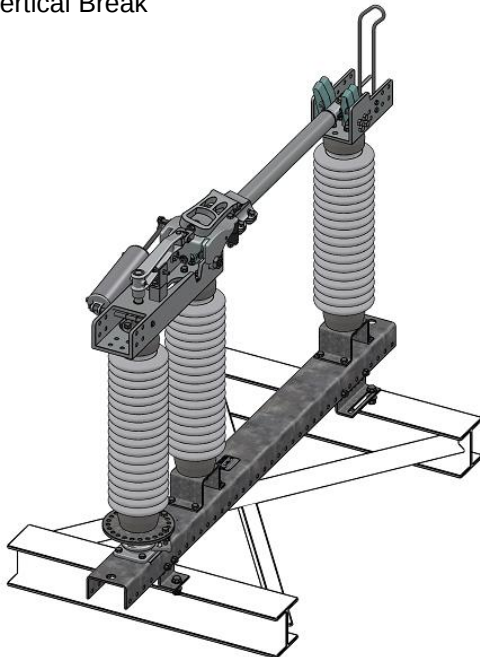
kV	15	23	34.5	46	69	115	138	161	230	345*	500*	Other
BIL (kV)	110	150	200	250	350	550	650	750	900	1300	1800	
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Amps	600	1200	2000	3000	4000*
Mom. (kA)	40	61	100	100	100
	☐	☐	☐	☐	☐

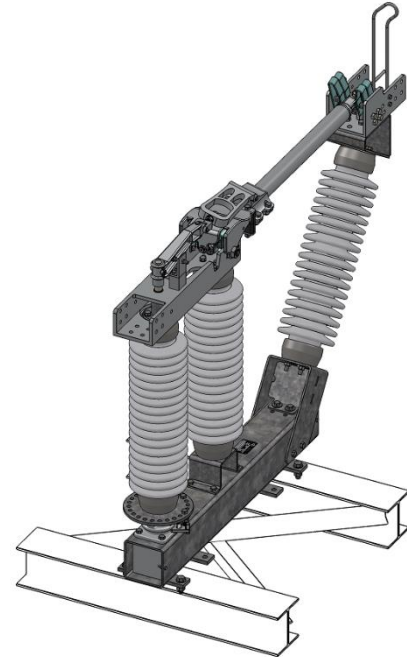
*345kV, 500kV & 4000A only available for Vertical Break Switches (VIP).

2. Switch Types:

2.1. Vertical Break



☐ VIP



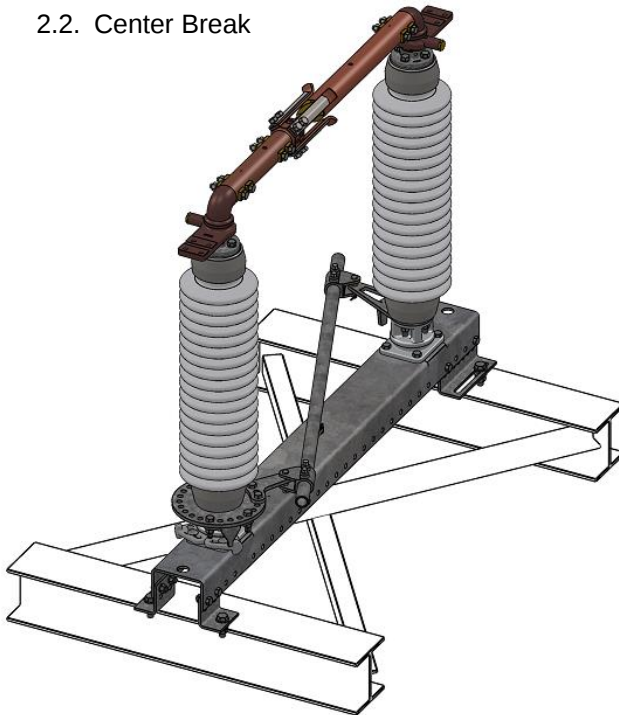
☐ VIP-V1 (Single-Slant)

Specify material: ☐ Aluminum ☐ Copper ☐ Hybrid

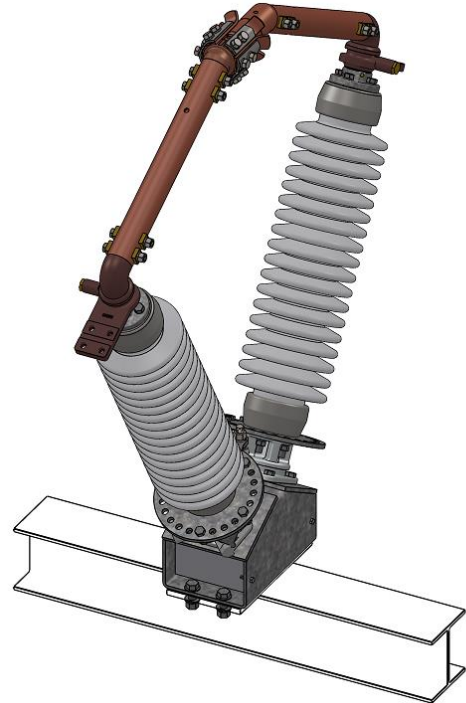


Order Specifications for Substation Switching Applications

2.2. Center Break

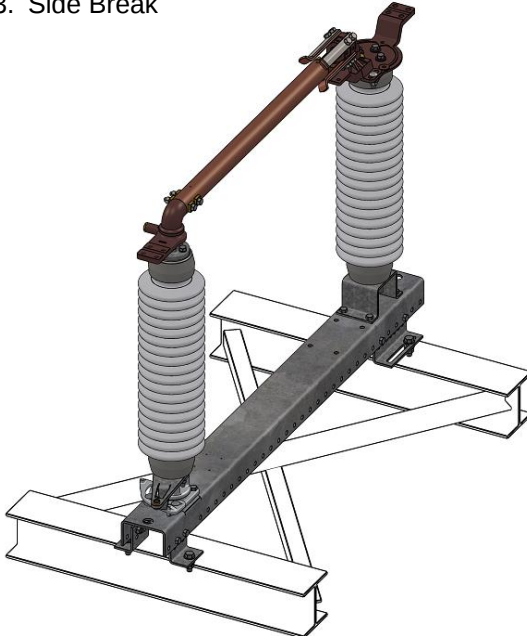


☐ C

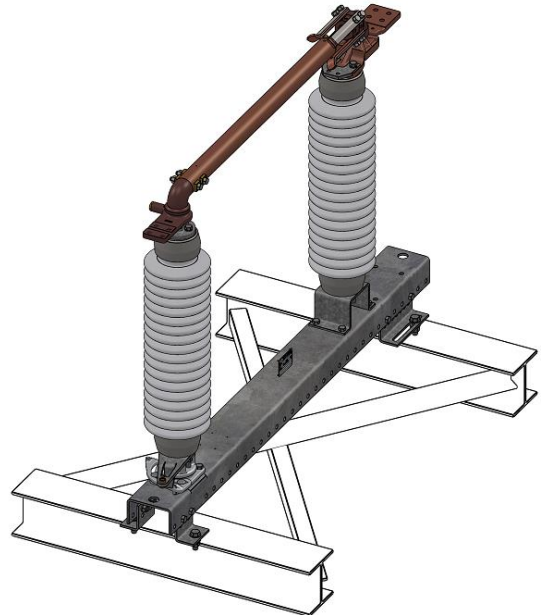


☐ C-V

2.3. Side Break



☐ SM



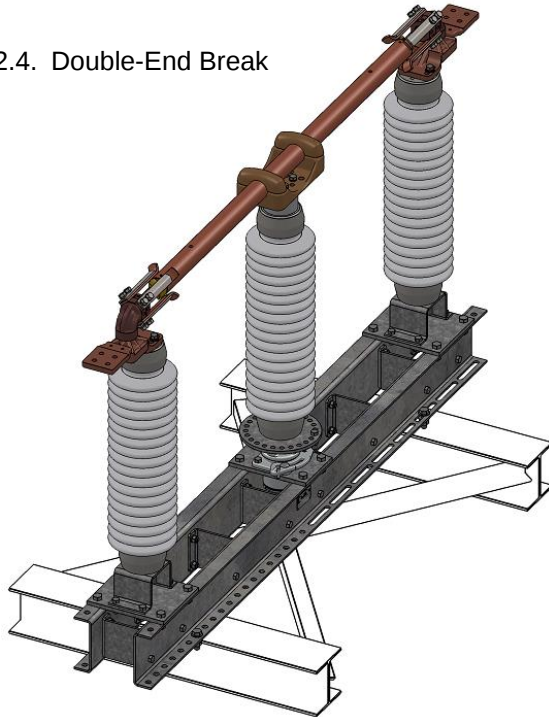
☐ S

*Type S is limited in load break capabilities but allows for shorter insulator spacing; the Type SM allows for full load break.

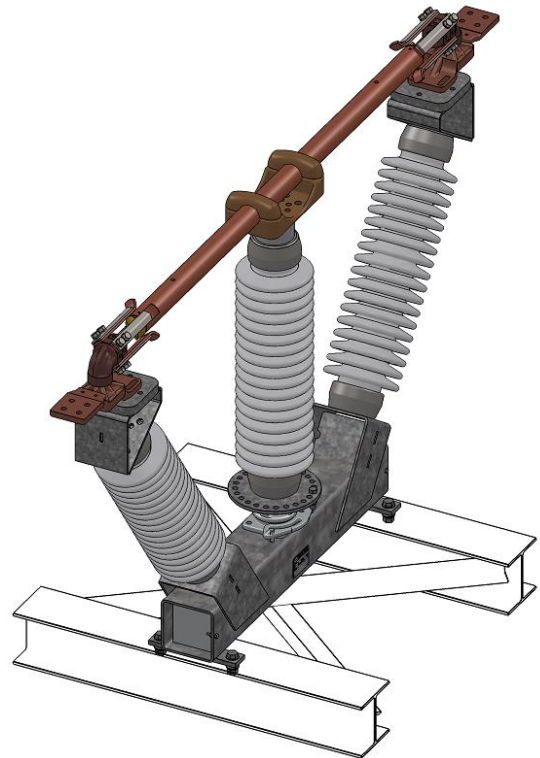


Order Specifications for Substation Switching Applications

2.4. Double-End Break

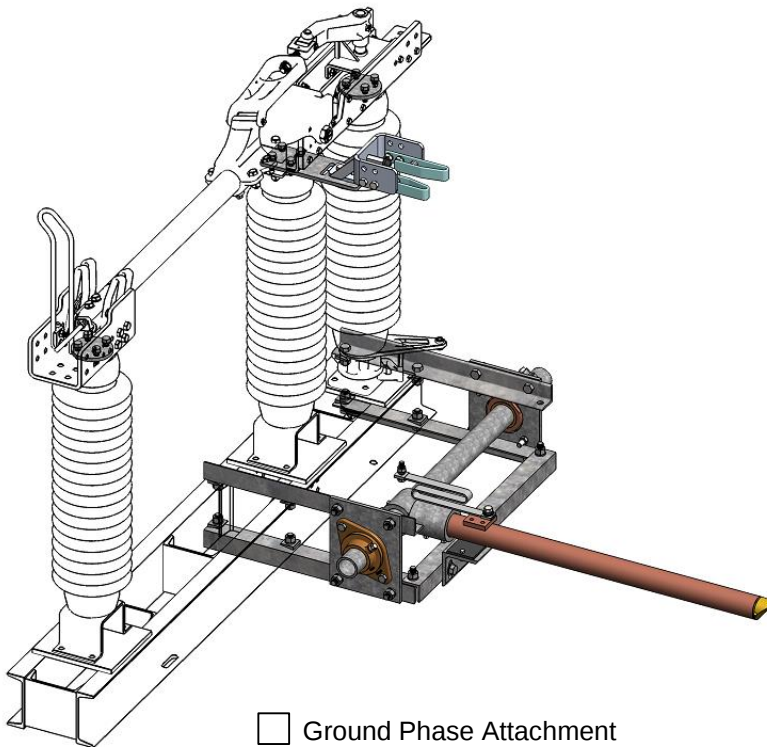


☐ D



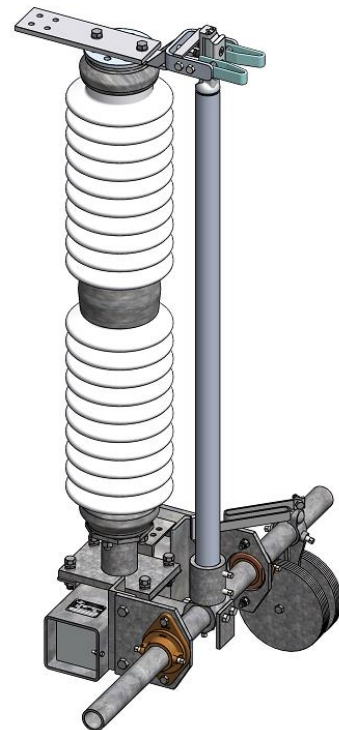
☐ D-V

2.5. Ground Switch (Available on all switch types)



☐ Ground Phase Attachment
☐ Hinge End ☐ Jaw End

Specify material: ☐ Aluminum ☐ Copper

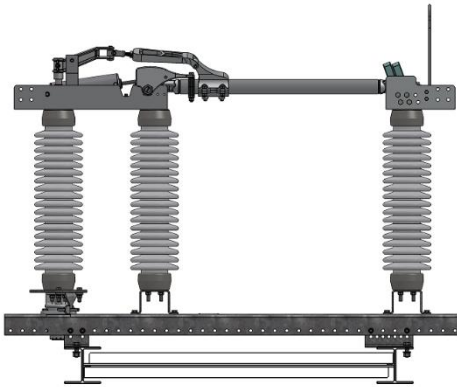


☐ Stand-alone Ground Phase

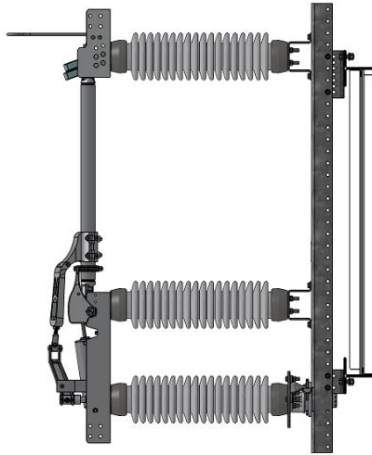


Order Specifications for Substation Switching Applications

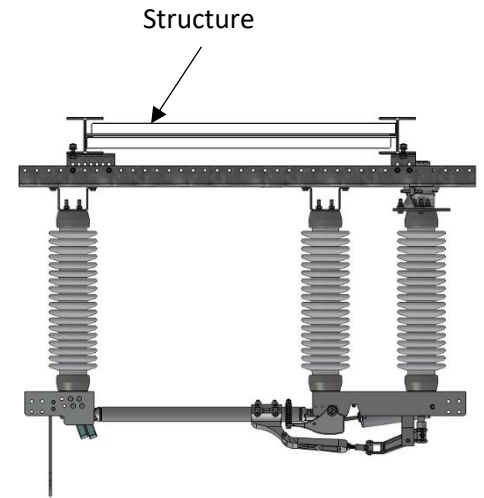
2.6. Switch Orientation



☐ Horizontal



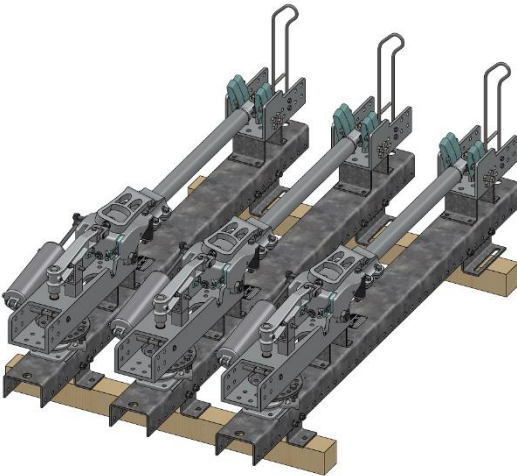
☐ Vertical



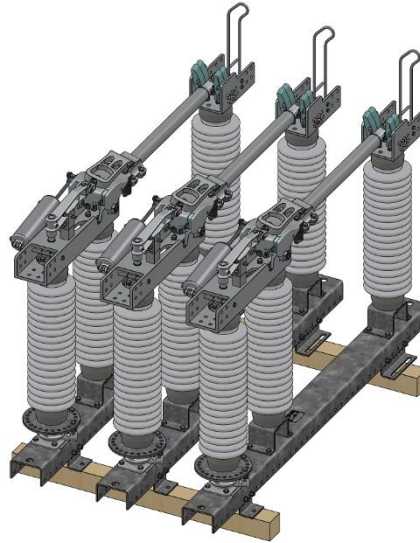
☐ Underhung

*Orientation refers to the position of the base relative to the structure.

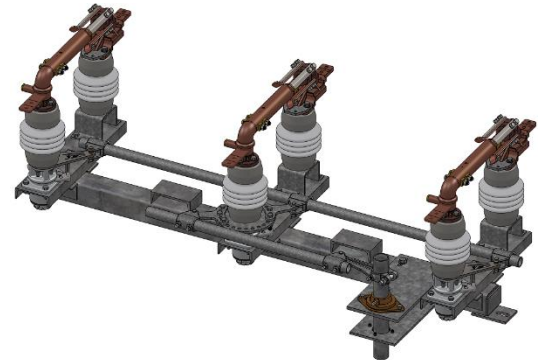
2.7. Shipping Method



☐ Live Parts on Bases (LPOB)



☐ Pre-Assembly



☐ Unitized

Please send specifications for other shipping requirements not listed.

- LPOB - Single Phases are shipped assembled without insulators
- Pre-Assembly - Single Phases are shipped assembled individually (Default)
- Unitized – Single Phases are shipped assembled and adjusted on a backbone or truss.



Order Specifications for Substation Switching Applications

3. Insulators

- 3.1. ☐ Porcelain ☐ Polymer ☐ Not included
(Polymer not recommended for switches rated 138kV and above)

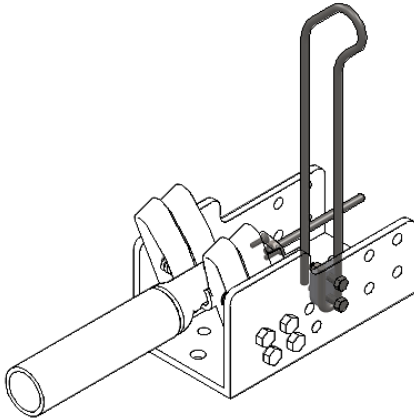
Select all that apply:

- 3.2. ☐ Standard Strength ☐ High Strength ☐ Resistive Glaze
- 3.3. ☐ Extra Leakage distance; if so, specify distance: _____
- 3.4. ☐ If other or special, specify TR or Catalog Number: _____
- 3.5. Specific manufacturer(s) (if required): _____

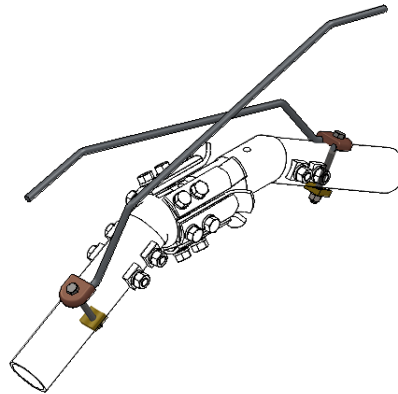
4. Interrupting Devices

- 4.1. No load breaking capability required:

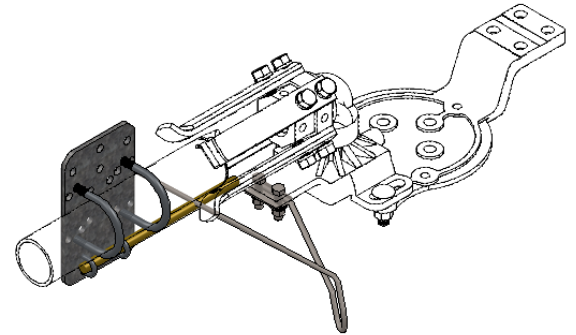
4.1.1. Wipe horns are a standard attachment on substation switches. Wipe horns have no interrupting capability and are used as a first and last point of contact during operation.



☐ VIP & VIP-V1



☐ C & C-V



☐ SM, S, D & D-V



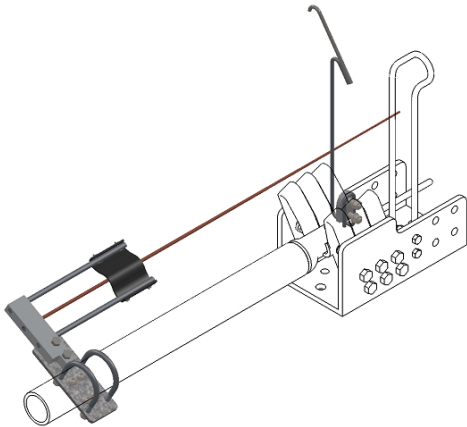
Order Specifications for Substation Switching Applications

4.2. Line Dropping:

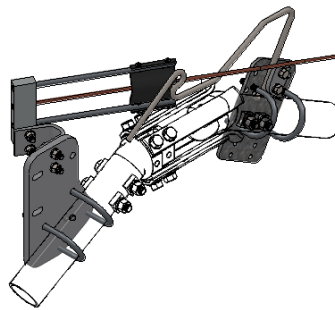
Fill out table below for line dropping requirements:

	Recovery Voltage	Amps	Length of line (mi)
Expected			

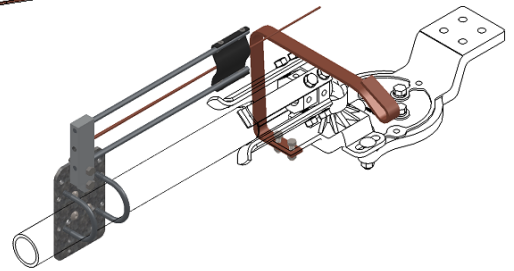
4.2.1. Arcing Horns: High-speed, snap-out arcing horns are used for a limited amount of line charging current. All switch types can be upgraded to have arcing horns. Contact SEECO for the threshold for arcing horns.



☐ VIP & VIP-V1

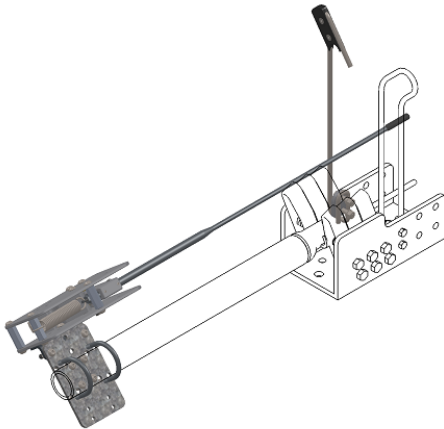


☐ C & C-V

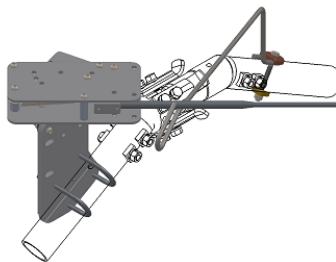


☐ SM, S, D & D-V

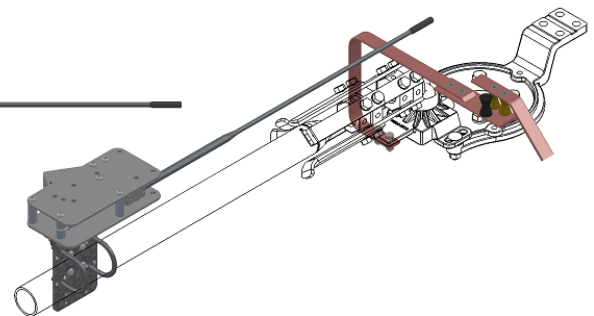
4.2.2. High Velocity Whips (HVWs): For interrupting a greater amount of line charging current. All switch types can be upgraded to have HVWs. Contact SEECO for the threshold for HVWs.



☐ VIP & VIP-V1



☐ C & C-V



☐ SM, S, D & D-V



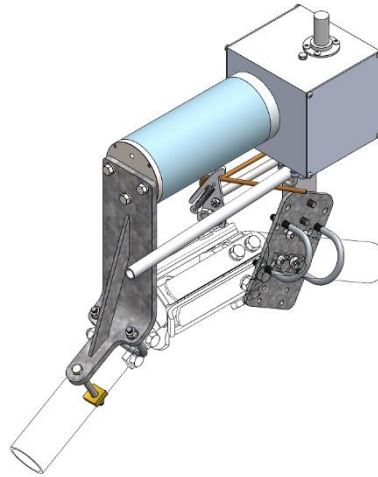
Order Specifications for Substation Switching Applications

4.3. Single-Bottle Monoruptrs®:

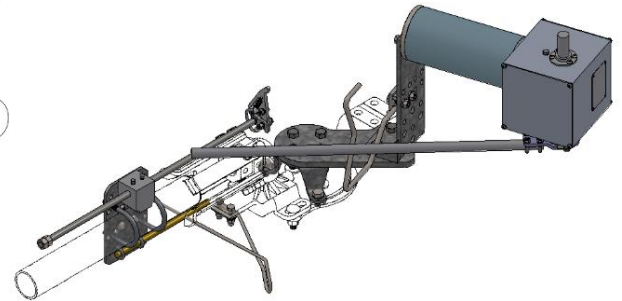
4.3.1. Single-Bottle interrupters (Monoruptrs®) are used for loop splitting applications where the recovery voltage does not exceed 30kV. Single-Bottle interrupters also serve as a full load break for switches rated 34.5kV and below. Single-Bottle interrupters are available for all switches except Type S.



☐ VIP & VIP-V1



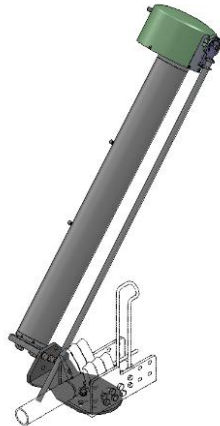
☐ C & C-V



☐ SM, D & D-V

4.4. Multi-Bottle Monoruptrs®:

4.4.1. Multi-Bottle interrupters (Monoruptrs®) are used when full load break is required for switches rated 46kV and above. The minimum number of bottles needed is determined by the voltage rating of the switch.



☐ VIP & VIP-V1



☐ SM

kV	46	69	115	115	138	161	230
# of Bottles	2	3	4	5	5	6	8
	☐	☐	☐	☐	☐	☐	☐



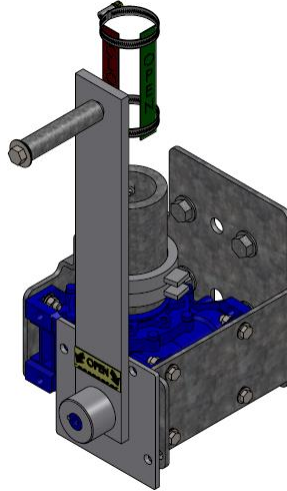
Order Specifications for Substation Switching Applications

5. Switch Operator Type

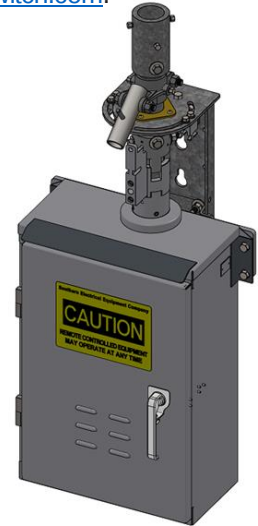
- 5.1. Substation switches are furnished with a swing handle and lock segment by default. If a different operator is required, specify below: For motor operators, refer to Order Specification for Motor Operator ([OS-001-2](#)) available online www.seecoswitch.com.



☐ Swing Handle & Lock Segment



☐ Worm Gear (Specify ratio)
☐ 10:1 ☐ 30:1 ☐ 50:1



☐ Motor Operator

6. Structure

- 6.1. ☐ 1-Leg Stand ☐ 2-Leg Stand ☐ 4-Leg Stand
☐ 6-Leg Stand ☐ H-Frame ☐ A-Frame

Other: _____; (Provide Drawing)

- 6.2. ☐ Expected above grade mounting height: _____ feet
6.3. ☐ Rigid Bus; specify height: _____
6.4. ☐ Mechanical or electrical clearance concerns; if so, specify: _____
6.5. ☐ Structure prints available, if so, please provide

Dimensional data, phase spacing are available online (www.seecoswitch.com), or by contacting SEECO.

- 6.6. Expected Dimensions:
Phase Spacing _____ feet
Vertical distance from ground to switch mounting _____ feet



Order Specifications for Substation Switching Applications

7. Operating Environment

- 7.1. Proposed geographical location of switch: _____
- 7.2. Geographical location of switch is considered NESC:
☐ Light ☐ Medium ☐ Heavy
- 7.3. Altitude of switch will be _____ feet above sea level
- 7.4. Seasonal temperature extremes will vary from _____ °F to _____ °F
- 7.5. Will the switches be subject to a salt-laden environment:
☐ Yes ☐ No

8. Optional Features

If additional information is needed regarding the functionality of these options contact SEECO.
Select all that apply.

- 8.1. Tin-plated terminal pads: (Only available on copper switches)

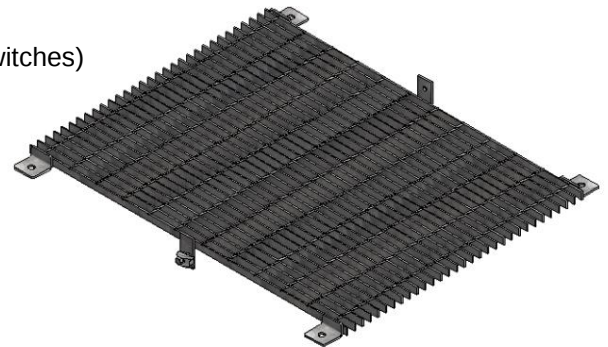
☐ Required

- 8.2. Silver-coated blade ends: (Only available on copper switches)

☐ Required

- 8.3. Ground Platform Qty: _____

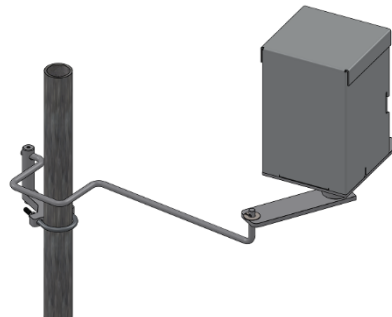
☐ 3' x 4' (Default) ☐ 3' x 5'
☐ 4' x 6' ☐ Other (Specify)



- 8.4. External Auxiliary Switches; Qty: _____

Specify number of switches required

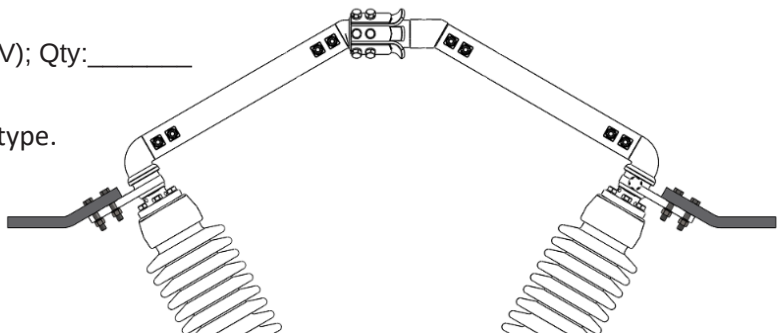
☐ 2 ☐ 4 ☐ 6 ☐ 8
☐ 10 ☐ 12 ☐ 14 ☐ 16



- 8.5. Terminal pad adapters; (Typically for C-V); Qty: _____

☐ Required

Provide details if required for different switch type.



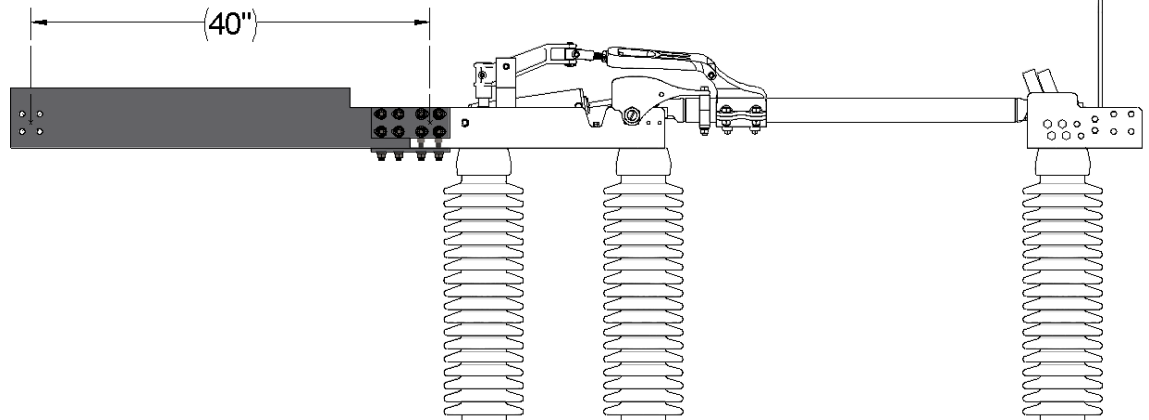


Order Specifications for Substation Switching Applications

Document OS-SUB

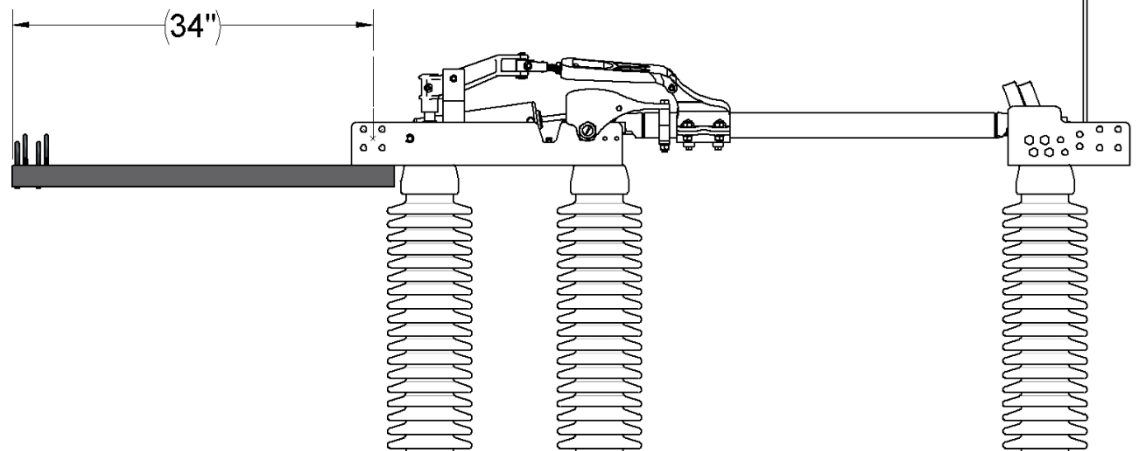
8.6. Terminal Extensions; Qty: _____

☐ Required; If other length is required, contact SEECO.



8.7. Outriggers; Qty: _____

☐ Required; If other length is required, contact SEECO.



8.8. Sensors required:

(Refer to Sensor Order Spec Sheet ([OS-006](#)) available at www.seecoswitch.com.)

☐ Required

8.9. Keyed Mechanical/Electrical Interlock: Qty. _____

Select all that apply:

☐ Keyed ☐ Mechanical ☐ Electrical

