

The background of the entire page is a photograph of a high-voltage power line. A wooden utility pole stands vertically, with several horizontal metal cross-arms. On these arms, there are large, white, disc-shaped insulators. Black power cables are strung across the scene, some running horizontally and others diagonally. The sky is a clear, bright blue. In the top left corner, there is a white rectangular box containing the Siemens logo and tagline. In the bottom right, there is a large teal rectangular box containing the product name and description. At the very bottom, a white horizontal bar contains a website URL.

SIEMENS

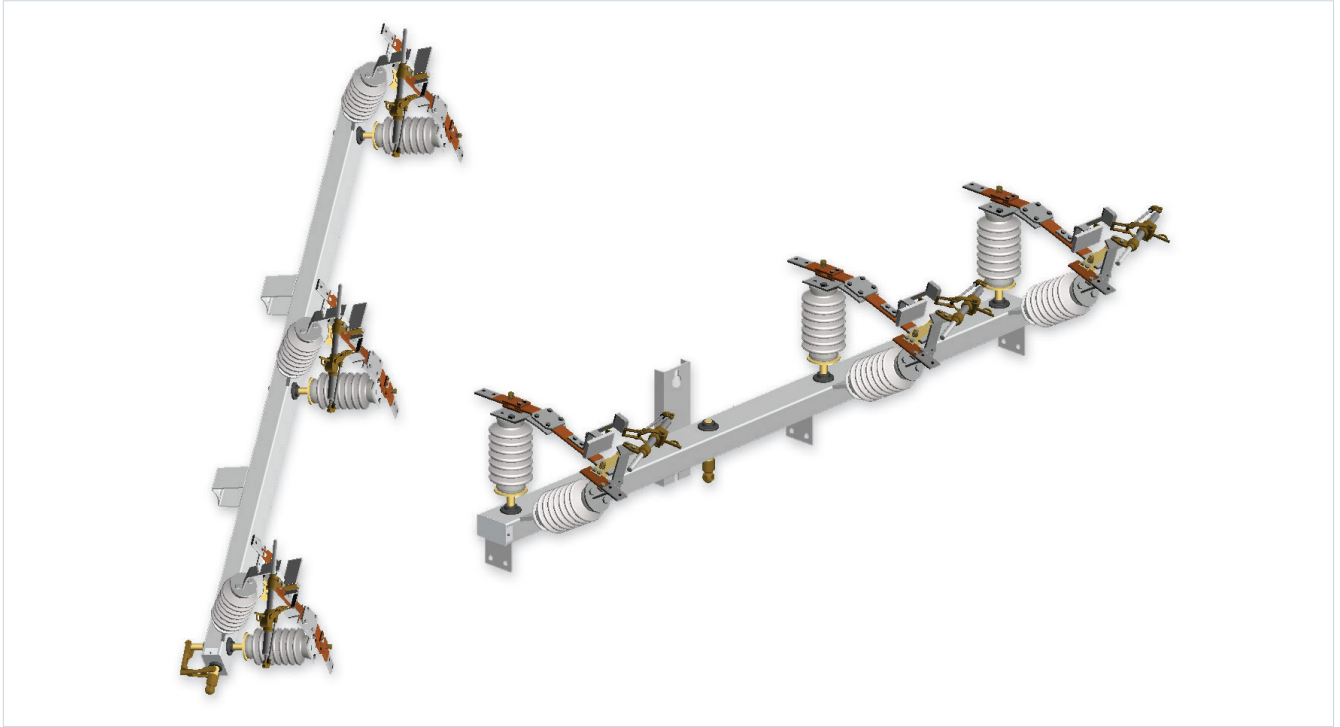
Ingenuity for life

Vector[®] series

Group-operated switches
manual and motorized

usa.siemens.com/disconnectswitches

Vector

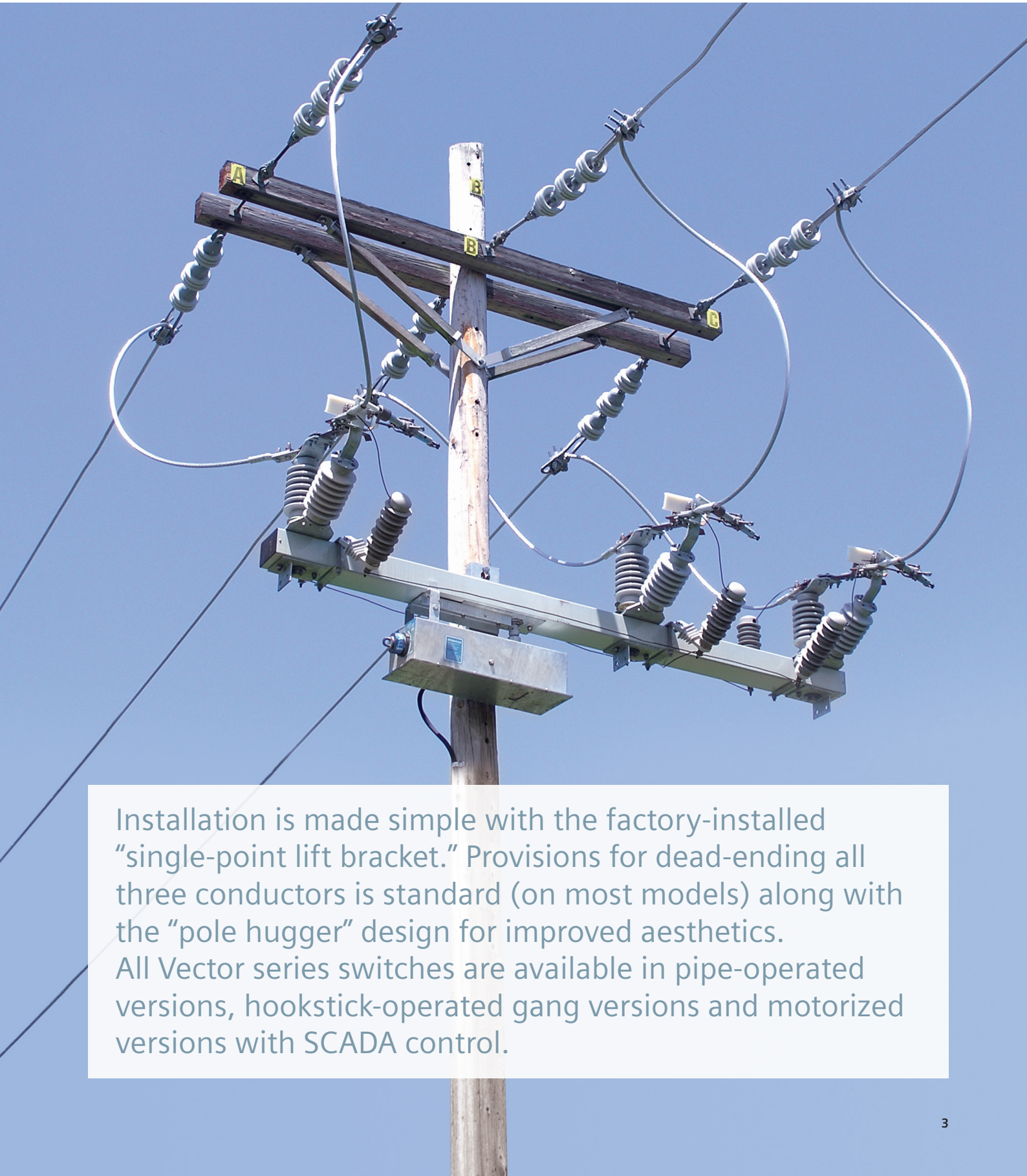


Overview

Designed for superior reliability and load-breaking performance, the Vector series of group-operated air-break switches includes 15/25 kV and 38 kV versions. Manufactured as a true unitized switch, the Vector series is completely factory assembled and adjusted to eliminate the need for tuning in the field. Utilizing Siemens innovative Saf-T-Gap interrupters for dependable load interruption, bolt-on style interrupters are supplied as standard with plug-in style interrupters available as an option for rapid change-out using a shotgun stick.

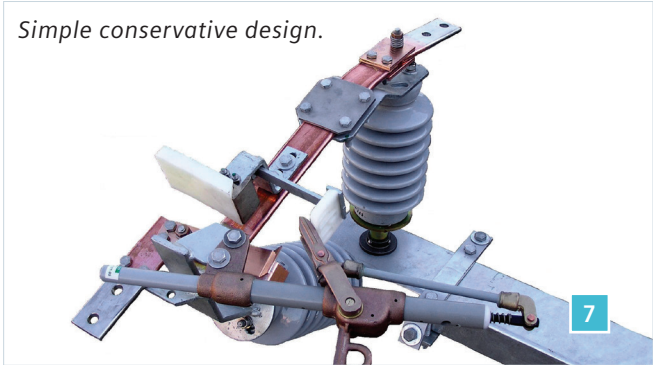
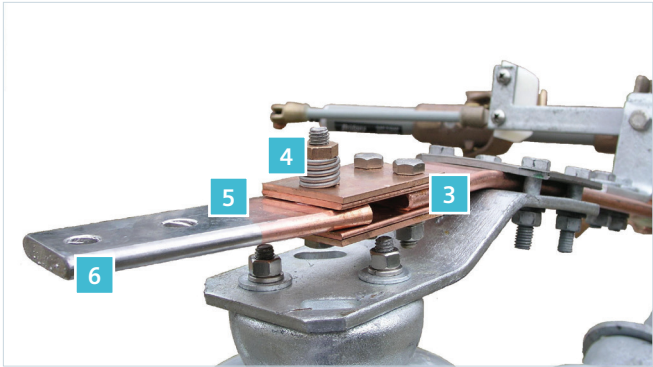
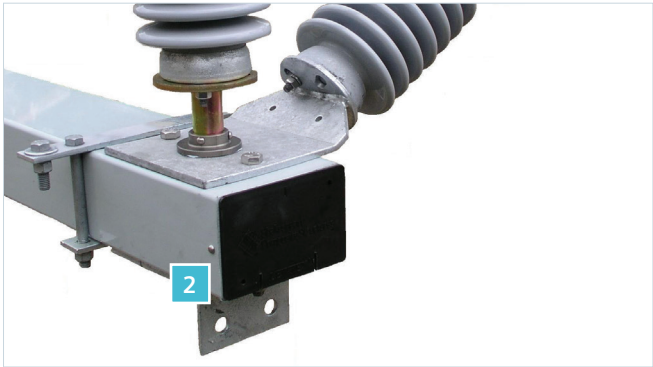
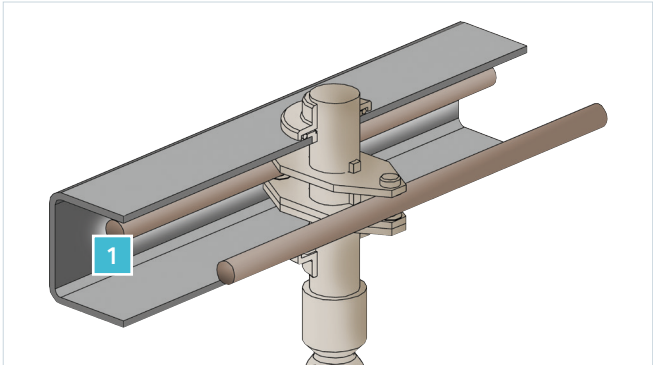
Operational reliability is enhanced by enclosing the operating mechanism inside the switch base for superior weather protection. Ease-of-operation is assisted with the use of environmentally sealed, oil impregnated sintered bronze bearings supporting a balanced-force operating mechanism. Galvanized steel, fiberglass, and aluminum tubular bases are available.

Overview



Installation is made simple with the factory-installed "single-point lift bracket." Provisions for dead-ending all three conductors is standard (on most models) along with the "pole hugger" design for improved aesthetics. All Vector series switches are available in pipe-operated versions, hookstick-operated gang versions and motorized versions with SCADA control.

Features

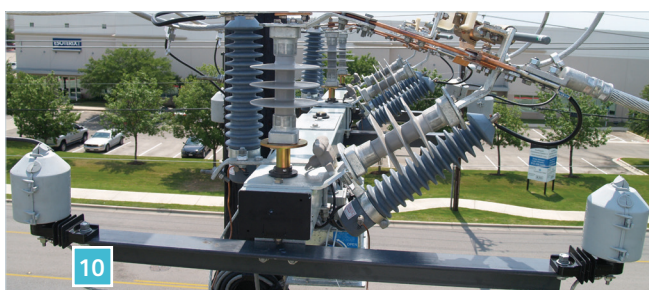
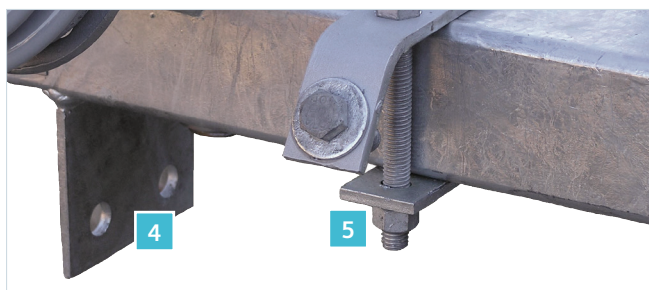
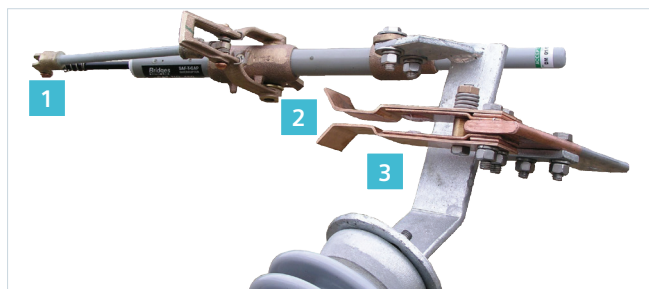


Enclosed operating mechanism
Operational reliability is assured by enclosing the operating mechanism inside the switch base to shield it from the environment. Two interposing rods balance the forces acting on the rotating insulator shafts to provide dependable push-pull switching.

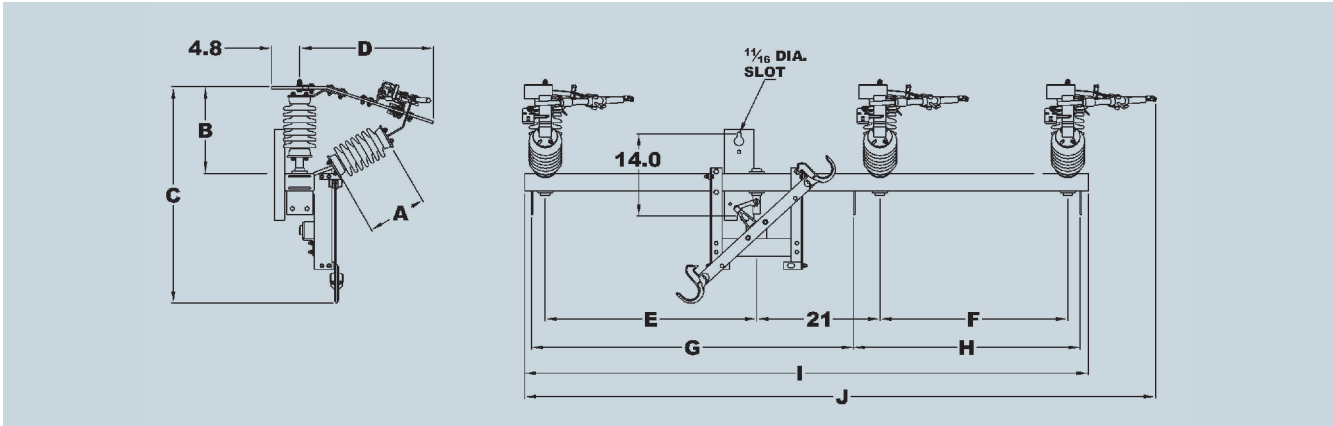
1	Internal operating rods – plated steel on steel base, fiberglass rods on fiberglass base.
2	4" x 6" fiberglass switch base
3	Blade, hinge and jaw terminals are 3/8" x 2" bus copper bar; 1/2" x 2" for 1,200 A.
4	Contact pressure is factory adjusted and maintained with a stainless steel spring and lock-nut assembly.
5	Silver washers (two per side) provide an excellent mechanical swivel point, as well as a sound electrical connection.
6	Tinned terminal pads – two-hole standard on 900 A; four-hole standard on 1,200 A.
7	3" x 5" hot-dipped galvanized steel base.

Simple conservative design.

Features



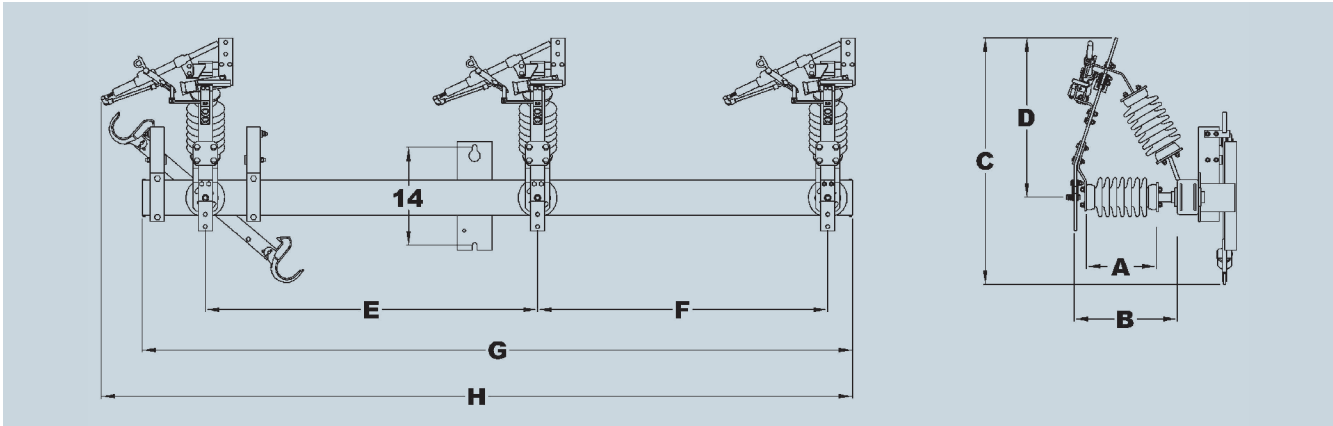
1	Proven Saf-T-Gap interrupter: -Bolt-on or plug-in (shotgun stick removable) -600 A or 900 A -600 A bolt-on is standard; other configurations are optional
2	Separate fault close contacts
3	High-pressure self-cleaning silver contacts
4	Provisions for dead-ending (not available for vertical riser model)
5	Standard arrester bracket; "A" bracket shown, other designs available
6	Arrester bracket (optional)
7	A "swivel" type connection allows placement of the handle on three faces of the pole – "pole hugger" design
8	Single-point lift bracket means easy installation – bracket is installed on tested balance point of switch
9	Stiff 3" x 5" galvanized steel base (fiberglass available)
10	Extended arrester bracket – galvanized steel angles or fiberglass angles bolted to dead-end provisions to allow for mounting of arresters farther away from base of switch



The HOG – horizontal

Cat. no.	Nom kV	kV BIL	Dimensions - inches										Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	J	Porcelain	Polymer
973X-H	25	150	10	14.8	36.8	22.8	36	32	54.9	38.6	96	107.5	320	275
973XF-H	25	150	10	14.8	36.8	22.8	36	35	60.8	35	101	111.5	320	275
994X-H	38	200	18	22.8	45	28.5	56	48	81.5	48	132	149.3	485	365
994XF-H	38	200	18	22.8	45	28.5	56	48	80.8	48	134	150.3	460	340

* Weight does not include operating pipe.



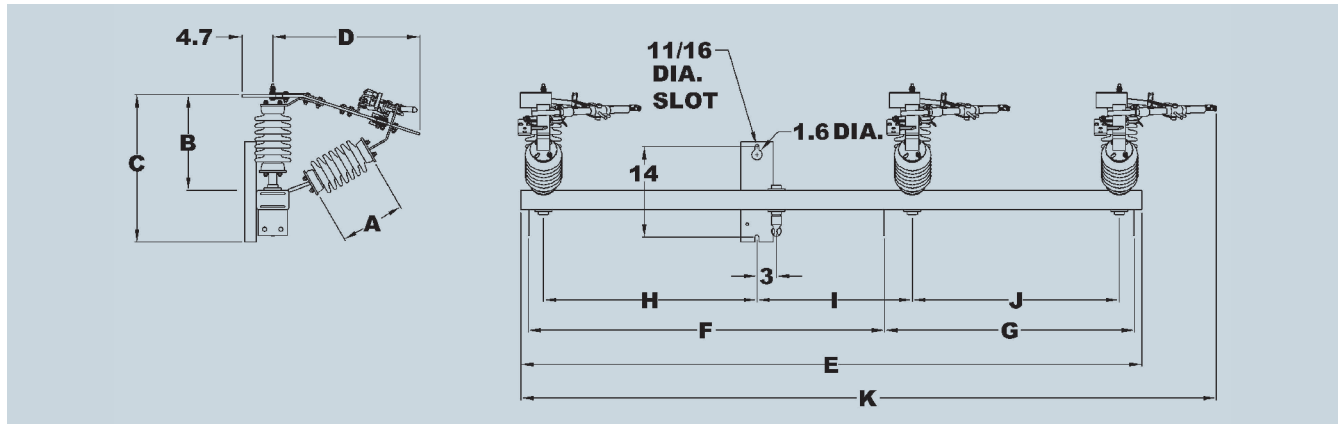
The HOG – vertical

Cat. no.	Nom kV	kV BIL	Dimensions - inches										Switch weight - pounds*	
			A	B	C	D	E	F	G	H			Porcelain	Polymer
973V-H	25	150	10	14.8	35.3	22.8	47.5	41.5	101.5	107.4			335	290
973VF-H	25	150	10	14.8	35.3	22.8	47.5	41.5	102.5	108.4			330	285
994V-H	38	200	18	22.8	41	28.5	48	48	107.5	120.8			470	350
994VF-H	38	200	18	22.8	41	28.5	48	48	109.5	121.8			465	345

* Weight does not include operating pipe.

Details

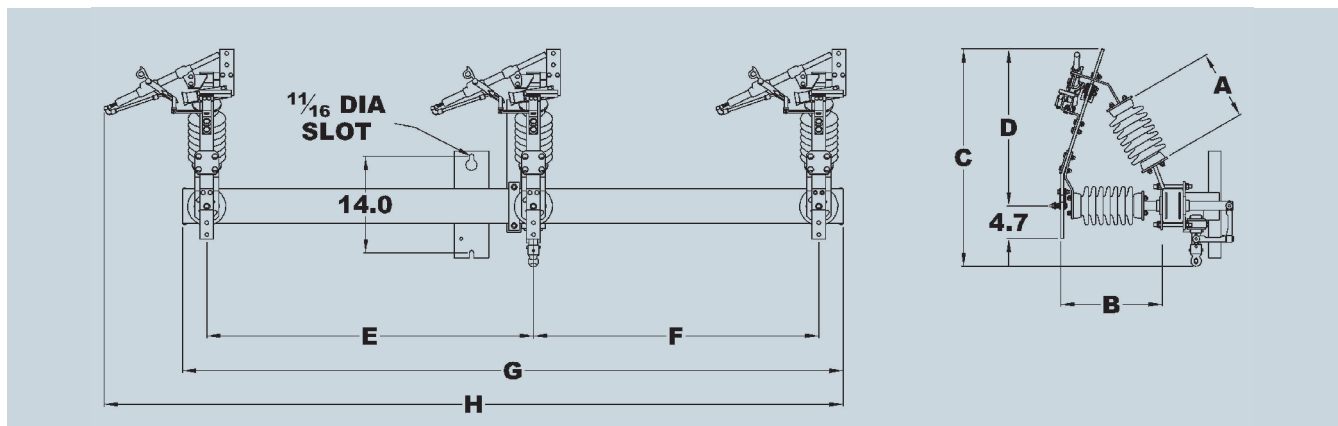
Pipe operated



Pipe operated – horizontal

Cat. no.	Nom kV	kV BIL	Dimensions - inches											Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	J	K	Porcelain	Polymer
973X-30	25	150	10	14.8	22.8	22.8	96	54.9	38.6	33	24	32	107.5	270	225
973XF-30	25	150	10	14.8	24.3	22.8	101	57	38.8	33	24	35	111.5	270	225
994X-30	38	200	18	22.8	30.8	28.5	132	74.9	54.6	53	21	48	149.3	450	330
994XF-30	38	200	18	22.8	32	28.5	134	77	51.7	53	21	48	150.3	445	325

* Weight does not include operating pipe.



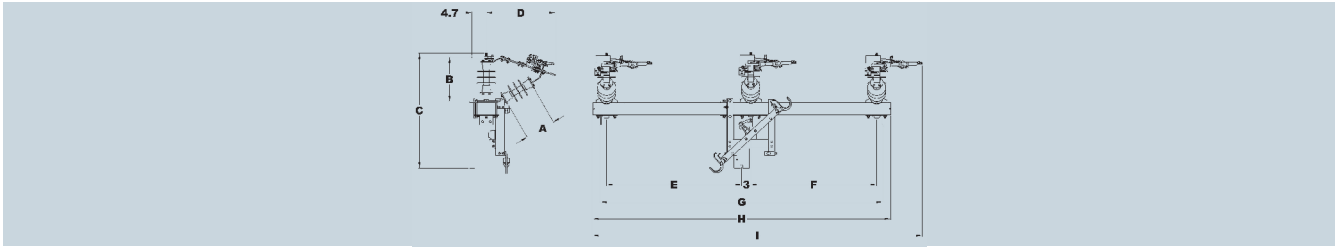
Pipe operated – vertical (cable riser style)

Cat. no.	Nom kV	kV BIL	Dimensions - inches								Switch weight - pounds*	
			A	B	C	D	E	F	G	H	Porcelain	Polymer
973V-30	25	150	10	14.8	31.6	22.8	47.5	41.5	96	107.4	285	245
973VF-30	25	150	10	14.8	31.6	22.8	47.5	41.5	98	108.4	280	240
994V-30	38	200	18	22.8	37.3	28.5	48	48	103	120.8	420	300
994VF-30	38	200	18	22.8	37.3	28.5	48	48	105	121.8	415	295

* Weight does not include operating pipe.

Details

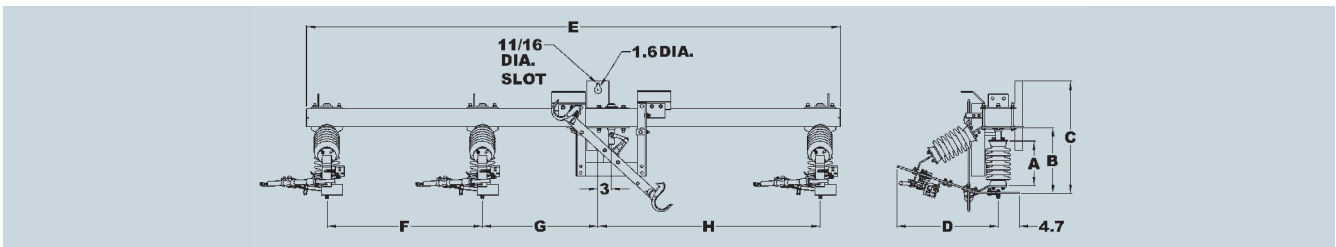
Hookstick-operated gang



The HOG – symmetrical

Cat. no.	Nom kV	kV BIL	Dimensions - inches									Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	Porcelain	Polymer
973-H	25	150	10	14.8	36.8	22.8	44.5	32	92.8	96	107.5	335	290
973F-H	25	150	10	14.8	38.4	22.8	44.5	35	92.8	98	108.5	335	290
994-H	38	200	18	22.8	45	28.5	45	48	100.5	103	120.3	470	350
994F-H	38	200	18	22.8	46.1	28.5	45	48	100.5	105	121.3	445	325

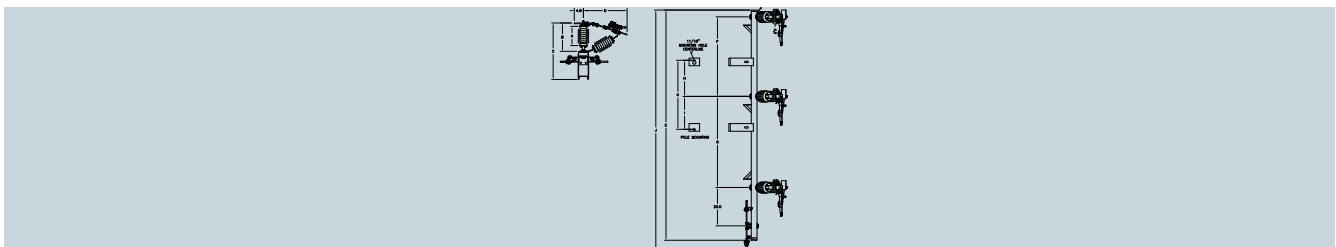
* Weight does not include operating pipe.



The HOG – inverted

Cat. no.	Nom kV	kV BIL	Dimensions - inches									Switch weight - pounds*	
			A	B	C	D	E	F	G	H		Porcelain	Polymer
973U-H	25	150	10	14.8	24.3	22.8	115	35	26	50		330	290
973UF-H	25	150	10	14.8	25.3	22.8	120	35	26	50		335	295
994U-H	38	200	18	22.8	32	28.5	137	48	29	53		500	380
994UF-H	38	200	18	22.8	33	28.5	139	48	29	53		495	375

* Weight does not include operating pipe.



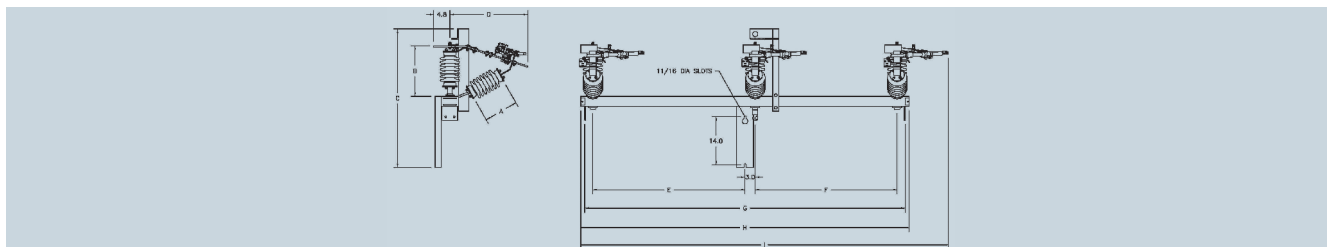
The HOG – phase-over-phase (POP)

Cat. no.	Nom kV	kV BIL	Dimensions - inches											Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	J	K	Porcelain	Polymer
973P-H	25	150	10	14.8	29.5	22.8	120	41.5	47.5	18.9	17.1	125.4	36	335	290
973PF-H	25	150	10	14.8	30.7	22.8	105	36	36	18	18	109.3	36	300	255
994P-H	38	200	18	22.8	37.5	28.5	127.1	48	48	36	36	132.4	72	465	345
994PF-H	38	200	18	22.8	38.7	28.5	129	48	48	36	36	133.4	72	440	320

* Weight does not include operating pipe.

Details

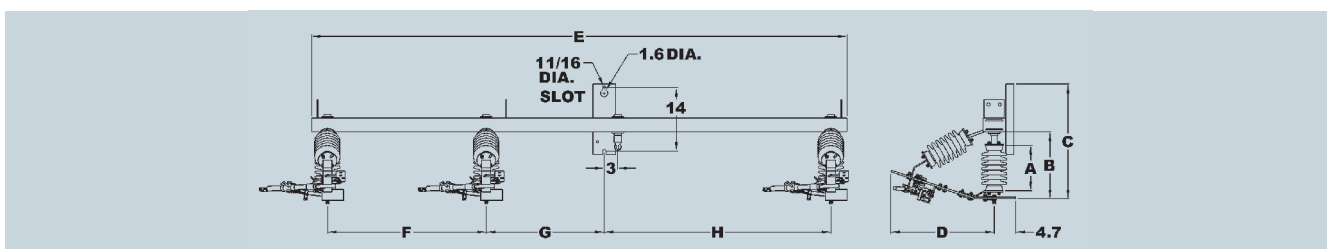
Pipe operated



Pipe operated – symmetrical

Cat. no.	Nom kV	kV BIL	Dimensions - inches									Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	Porcelain	Polymer
973-30	25	150	10	14.8	35.5	22.8	44.5	41.5	93.5	96	107.5	285	245
973F-30	25	150	10	14.8	36.5	22.8	44.5	41.5	92.8	98	108.5	280	240
994-30	38	200	18	22.8	43.5	28.5	45	48	100.5	103	120.3	420	300
994F-30	38	200	18	22.8	44.2	28.5	45	48	99.8	105.1	121.3	415	295

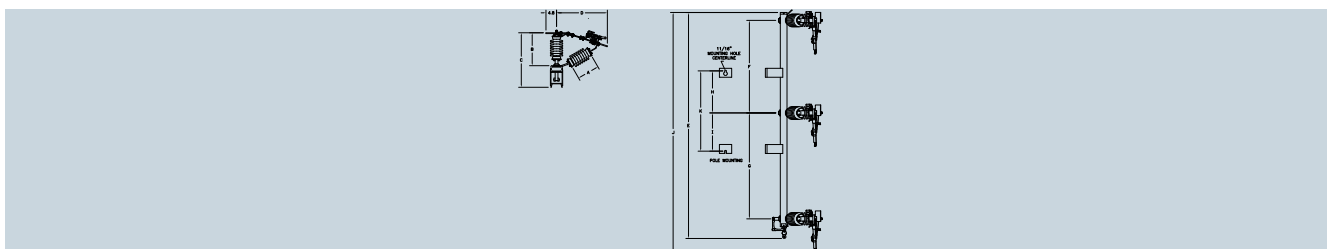
* Weight does not include operating pipe.



Pipe operated – inverted

Cat. no.	Nom kV	kV BIL	Dimensions - inches								Switch weight - pounds*	
			A	B	C	D	E	F	G	H	Porcelain	Polymer
973U-30	25	150	10	14.8	25.3	22.8	118	35	26	50	280	240
973UF-30	25	150	10	14.8	25.3	22.8	120	35	26	50	285	245
994U-30	38	200	18	22.8	33	28.5	132	48	24	53	450	330
994UF-30	38	200	18	22.8	33	28.5	134	48	24	53	445	325

* Weight does not include operating pipe.

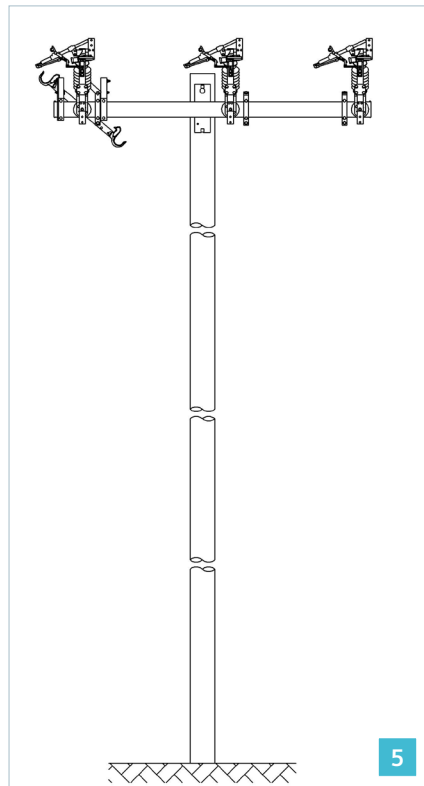
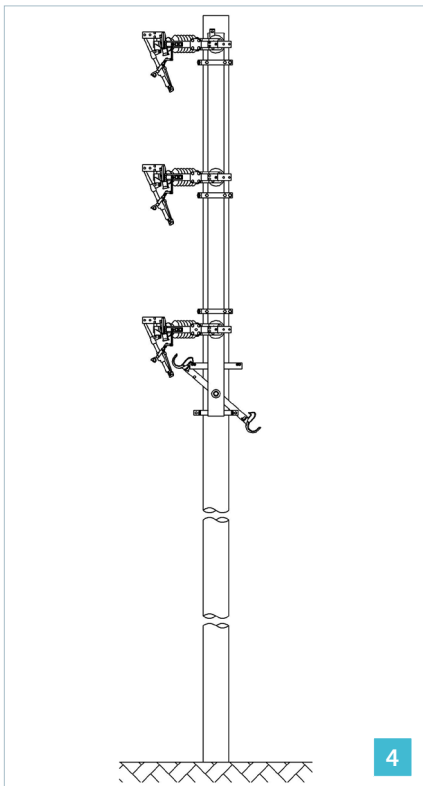
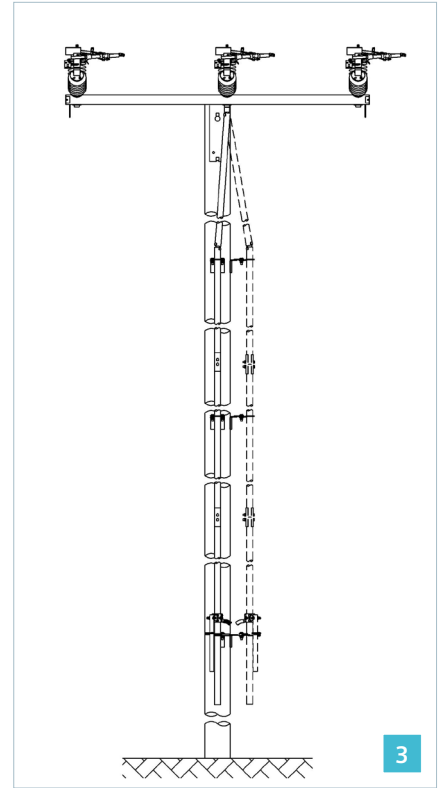
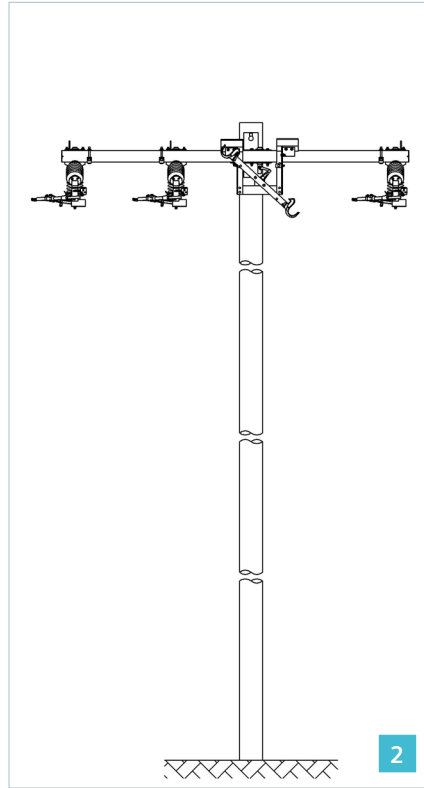
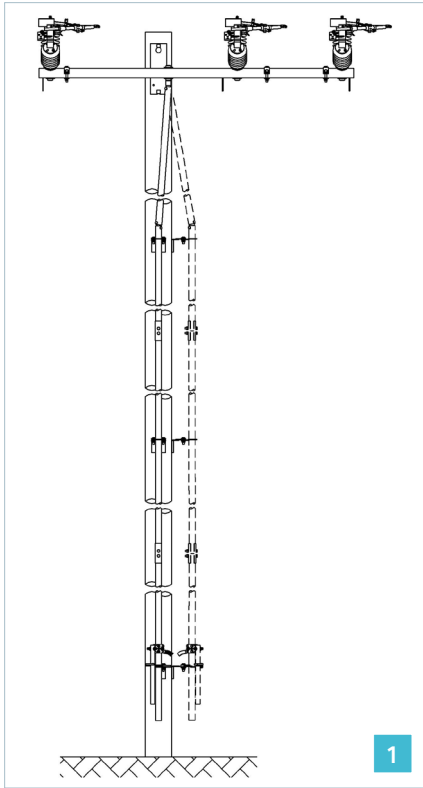


Pipe operated – phase-over-phase (POP)

Cat. no.	Nom kV	kV BIL	Dimensions - inches											Switch weight - pounds*	
			A	B	C	D	E	F	G	H	I	J	K	Porcelain	Polymer
973P-30	25	150	10	14.8	24.5	22.8	101.3	41.5	47.5	18.9	17.1	107.5	36	285	245
973PF-30	25	150	10	14.8	30.7	22.8	85.3	36	36	18	18	91.5	36	280	240
994P-30	38	200	18	22.8	32.5	28.5	103	48	48	36	36	103	72	400	280
994PF-30	38	200	18	22.8	38.7	28.5	109.3	48	48	36	36	121.3	72	390	270

* Weight does not include operating pipe.

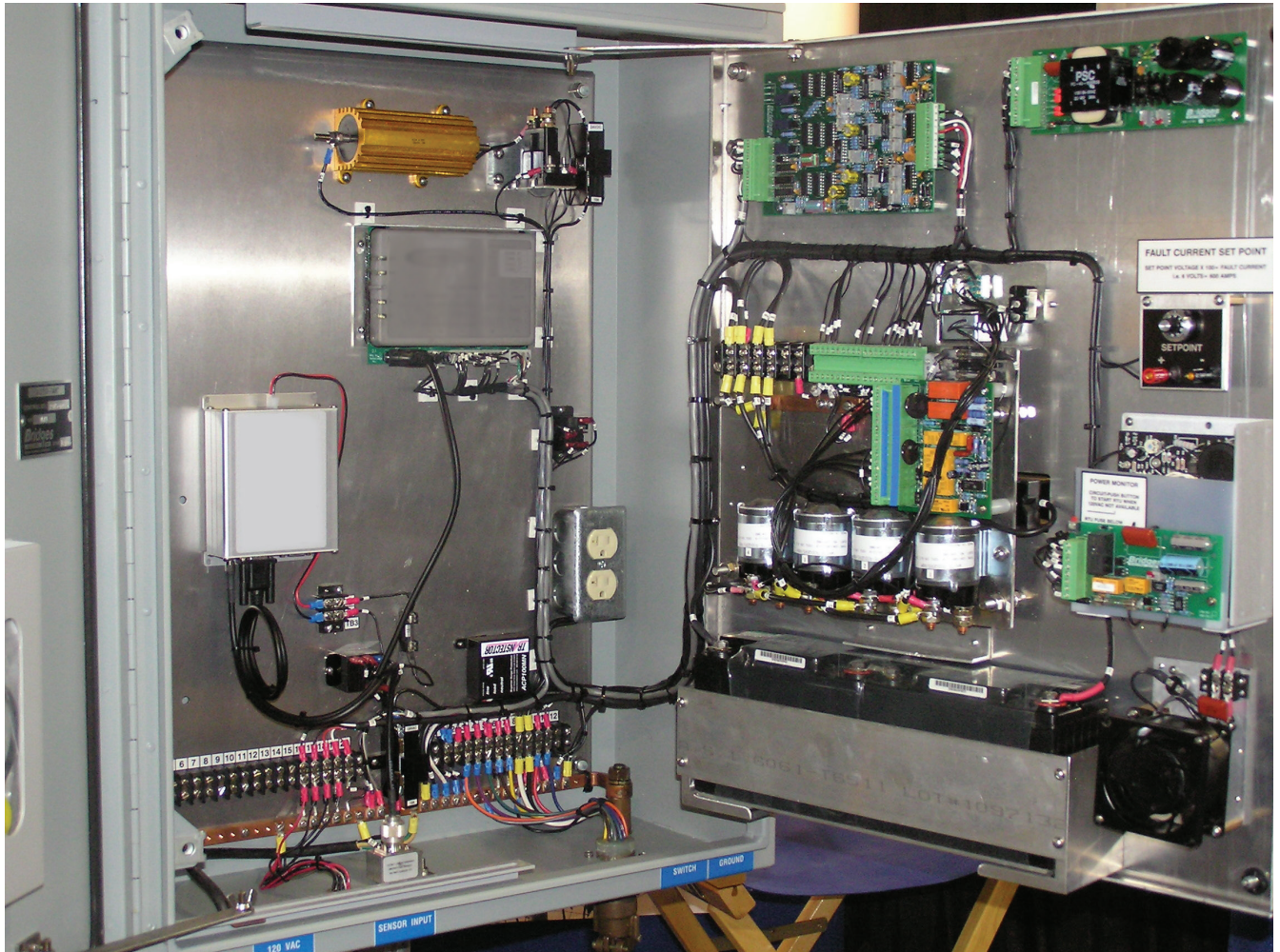
Configurations



The Vector® series is available in pipe-operated and hookstick-operated versions. For additional options or configurations, please contact your Siemens representative.

1	Horizontal Vector pipe-operated
2	Inverted Vector hookstick-operated - The HOG
3	Symmetrical Vector (pole-top style) pipe-operated
4	Phase-over-phase Vector hookstick-operated
5	Vertical Vector (cable riser style) hookstick-operated

Automation



Versatility is key when it comes to operating a motorized group-operated airbreak switch locally or remotely. Combining the field proven reliability of the manually operated Vector series with engineered controls, the Auto-Pak Vector (APV) enables applications such as auto-transfer and auto-sectionalizing. Optional voltage and current sensors can be mounted directly to the switch unit to provide a cost-effective line monitoring and fault detection solution.

Vector numbering system

		Position: 1 2 3 4 5* A B ¹ C*	Order No.: <input type="text"/>
1st position	Continuous current rating: 9= 900 A continuous current 19= 1,200 A continuous current		
2nd position	Insulator: 6= 2 1/4" D.B.C. polymer insulators (only available with 25 kV) 7= 2 1/4" D.B.C. porcelain insulators (only available with 25 kV) 8= 3" D.B.C. polymer insulators 9= 3" D.B.C. porcelain insulators (only available with 38 kV)		
3rd position	Voltage class: 3= 25 kV, 150 kV BIL 4= 38 kV, 200 kV BIL		
4th position	Mounting style: Q= Symmetrical pole-top style X= Horizontal crossarm style P= Phase-over-phase style V= Vertical (cable riser style) U= Underslung (inverted style)		
5th position	Base style (No letter indicates galvanized steel switch base; proceed to position A*): F= Fiberglass switch base		

Options available after dash

Position A	Operating method: 3= 28' of operating pipe (4@7') 4= 35' of operating pipe (5@7') 5= 49' of operating pipe (7@7') H= Hookstick-operated gang switch (HOG) ¹
Position B ¹	Operating shaft insulator: 0= No operating shaft insulator 1= Porcelain operating shaft insulator 5= Polymer operating shaft insulator
Position C	Optional accessories (multiple accessories can be selected and should be placed in alphabetical order*): If arrester is desired, choose one; if not, move to next selection: A= Lightning arrester mounting bracket (GALV) A2= Extended lightning arrester mounting bracket (GALV) A4= Extended lightning arrester mounting bracket (F/G) Choose as many as desired: B= Pole band C= Convertible to motorized E= Extended base length F= Fiberglass operating pipe section (not compatible with HOG) K= Six (6) cable connectors (wire size range #6-397.5 MCM ACSR, #4-500 MCM copper) L= Three (3) 16" extension links M= Marine grade R= Crossarm brace W= Wildlife design (60+" phase spacing) If interrupter is desired, choose one: N= Non-load break S= Plug-in Saf-T-Gap interrupters – 900 A T= Bolt-on Saf-T-Gap interrupters – 900 A

Vector configuration examples:

Example A:	9	6	3	Q	F	-	H	M		
Example B:	19	9	4	U		-	5	1	E	L
Example C:	9	8	3	X		-	4	5	A	B

¹ If hookstick operation is selected, position B does not apply; proceed to position C.

Consult factory for custom configurations.

Details

Vector ratings:

- 900/1,200 A continuous current
- 630 A loadbreak
- Momentary current loadbreak
- 25,000 A three second
- 20,000 A one-time symmetrical fault close in
- 15,000 A three-time symmetrical fault close in.

Standard features:

- Silver-to-silver hinge and jaw contacts
- Dead-end bracket supplied as standard (not available for vertical riser model)
- Enclosed balanced bearing operating mechanism
- Pole-hugger operating shaft for improved installation appearance
- Four 7" pipe sections, handle and locking assembly and necessary couplings and guides
- Single-point lift bracket
- All components packaged in one crate
- 630 A bolt-on Saf-T-Gap interrupters. Plug-in style available as an option.
- Copper-bronze live parts
- Tinned terminal pads.



3EK4 (APS) surge arrester



3EK8 (APS) surge arrester





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For more information, including service or parts,
please contact our Customer Support Center.
Phone: 1-800-333-7421

usa.siemens.com/disconnectswitches

Order No.: E50001-F630-A167-01-76US

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