

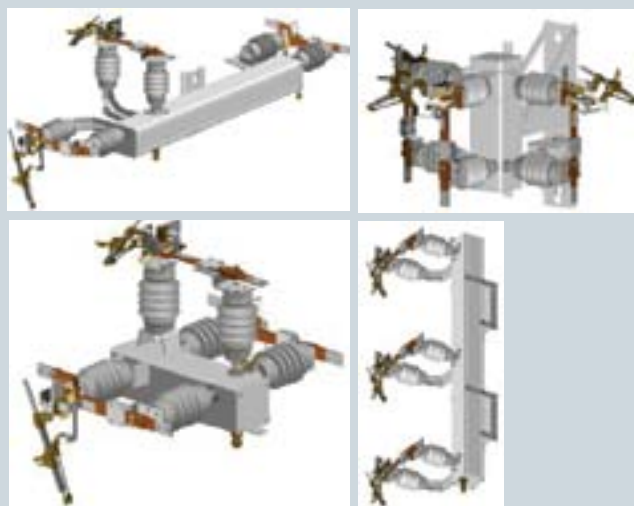
Topper[®]

Group-operated switches

Answers for energy.

SIEMENS





Overview



The Bridges Electric™ Topper® series of switches takes its name from the original Topper switch, a pole top-only design of unequalled compactness, ease of installation and unique synchronized operation. The same proven hot parts are used on all Topper styles. The Topper series is conservatively rated and has superior fault close, three-second, continuous and loadbreak ratings.

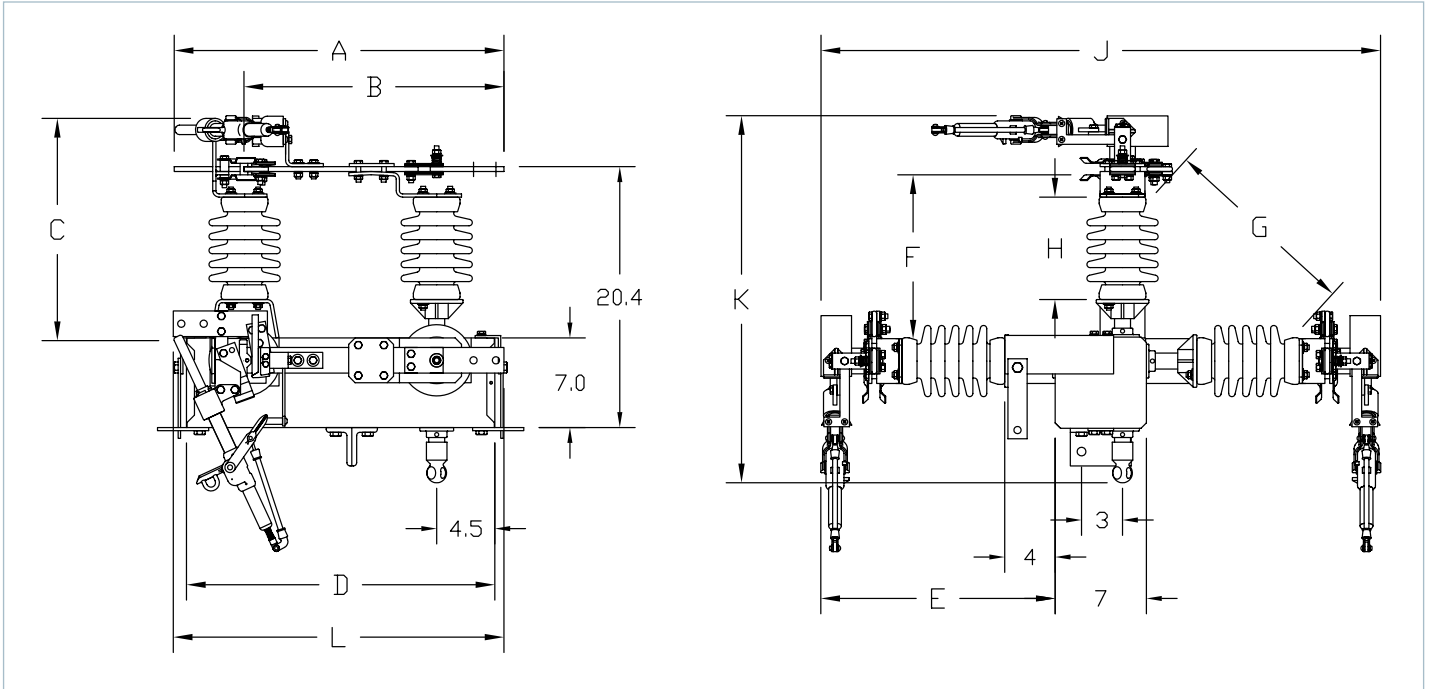
The Topper series is available in ratings of 15 through 38 kV, 110 through 200 kV BIL, 900 and 1,200 A. The three-phase switch unit consisting of the large square galvanized steel or extruded aluminum housing, the operating mechanism contained within the housing and the three single-pole switch units, which utilize a common base, is completely pre-assembled and factory adjusted so that no field adjustment of the

switch is required other than the final assembly of the vertical operating shaft and the operating handle. The square shaped housing is enclosed, with covers at both ends, and "O" rings at all journal bearings, so that the three-phase operating mechanism of the switch is better protected from exposure to weather. The horizontal break switch is available with 600 A and 900 A Saf-T-Gap or 1,200 A vacuum interrupters in all ratings. Both the vacuum interrupters and the Saf-T-Gap have a special plug-in feature that allows the unit to be installed or removed with a standard shotgun stick. This can be accomplished if the switch is open or closed, energized or dead. The switch is available with 3" D.B.C. NEMA substation-class insulators or 2 1/4" D.B.C. distribution-class insulators. The switch base has provisions for dead-ending all three phases on certain models.



Details

Topper®



Catalog number	Nom kV	kV BIL	Dimensions - inches											Insulator ³
			A	B	C	D	E	F ¹	G ²	H	J	K	L	
1272-30	15	110	25.7	15	17.4	24	18.3	10.7	15.5	8	43.7	28.7	25.8	2 1/4" D.B.C.
1273-30	25	150	28.7	18	19.4	27	20.3	12.7	18.3	10	47.7	30.7	25.8	2 1/4" D.B.C.
1292-30	15	110	25.7	15	19.4	24	20.3	14.6	16.9	10	47.7	30.7	25.8	3" D.B.C. NEMA
1293-30	25	150	28.7	18	23.4	27	24.3	18.5	22.5	14	55.7	30.7	25.8	3" D.B.C. NEMA
1294-30	38	200	36.6	24	31.2	34	32.1	22.4	30.8	18	71.2	42.5	34.7	3" D.B.C. NEMA

1. Minimum metal-to-metal, switch open
 2. Minimum metal-to-metal, switch closed

3. 2 1/4" D.B.C. polymer insulators are optional (i.e., 1262-30)
 3" D.B.C. polymer insulators are optional (i.e., 1282-30)

Standard features:

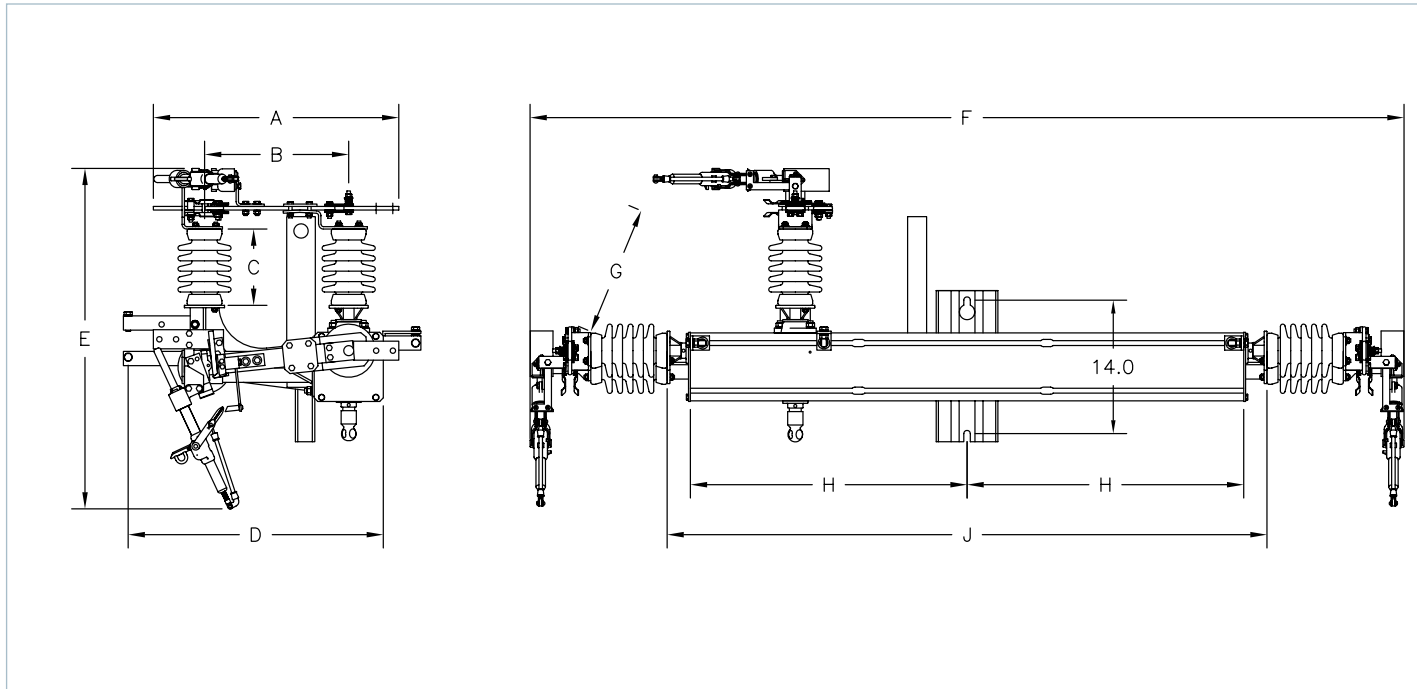
- Plug-in Saf-T-Gap interrupters
- Pole-top mounting
- Copper-bronze hot parts
- 30' of operating shaft
- Torsional operating mechanism
- Tinned terminal pads
- 900 A continuous current
- 900 A interrupting (38 kV is 600 A interrupting)
- 40,000 A momentary current
- 25,000 A 3-second
- Fault close 2 times 20,000 A symmetrical.

Options:

- Center phase (only) arrester brackets (i.e., 1272-30 A)
- Extra length of pipe (i.e., 1272-40)
- Porcelain operating shaft insulator (i.e., 1272-31)
- Polymer operating shaft insulator (i.e., 1272-35).

Details

Crossarm Topper®



Catalog number	Nom kV	kV BIL	Dimensions - inches									
			A	B	C	D	E	F ¹	G ²	H	J	Insulator ³
1272X-30	15	110	25.7	15	8	25.8	35.7	91.6	13.9	29	62.9	2 1/4" D.B.C.
1273X-30	25	150	28.7	18	10	28.8	37.7	95.5	15.4	29	62.9	2 1/4" D.B.C.
1292X-30	15	110	25.7	15	10	25.8	37.7	95.5	15.8	29	62.9	3" D.B.C. NEMA
1293X-30	25	150	28.7	18	14	28.8	41.9	103.5	19.8	29	62.9	3" D.B.C. NEMA
1294X-30	38	200	34.8	24	18	36.6	56.1	127.1	23.3	33	70.9	3" D.B.C. NEMA

1. Minimum metal-to-metal, switch open
 2. Minimum metal-to-metal, switch closed

3. 2 1/4" D.B.C. polymer insulators are optional (i.e., 1262X-30)
 3" D.B.C. polymer insulators are optional (i.e., 1282X-30)

Standard features:

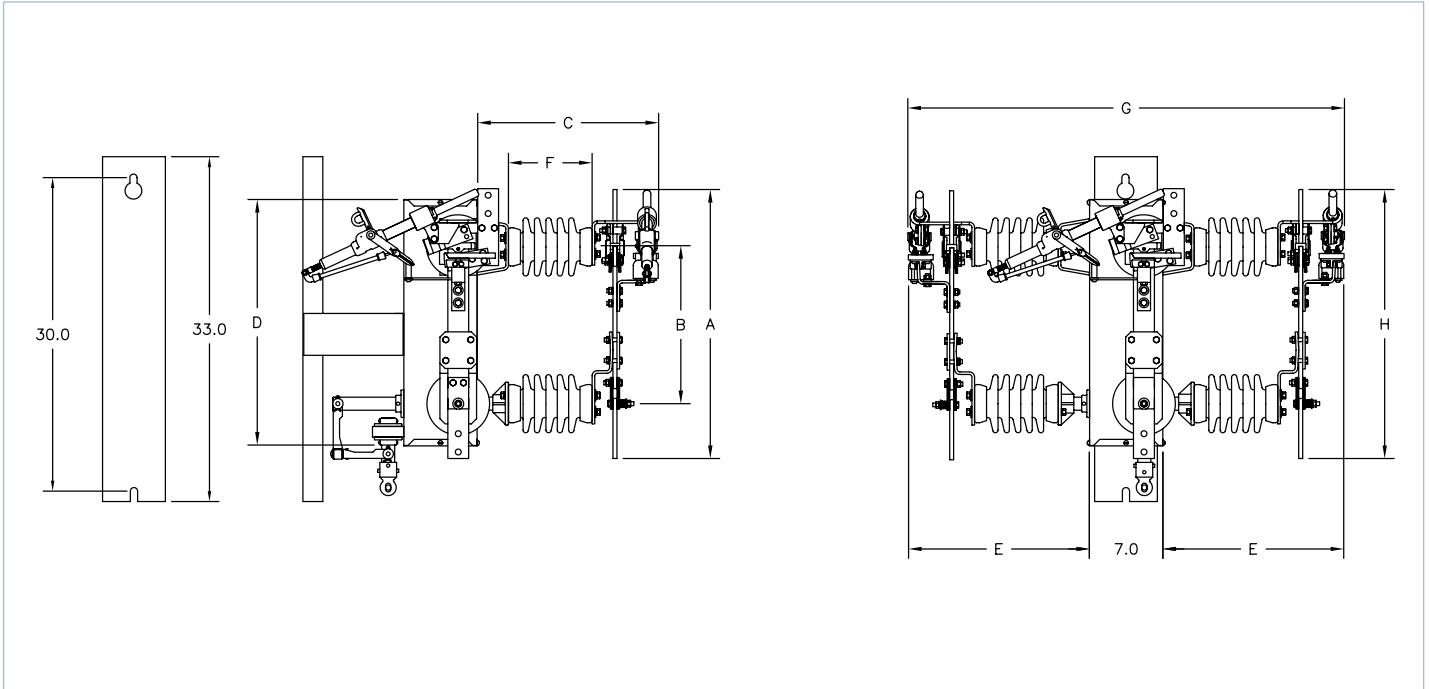
- Plug-in Saf-T-Gap interrupters
- Pole-top or underbuild mounting
- Copper-bronze hot parts
- 30' of operating shaft
- Torsional operating mechanism
- Lift bracket (removable)
- Tinned terminal pads
- 900 A continuous current
- 900 A interrupting (38 kV is 600 A interrupting)
- 40,000 A momentary current
- 25,000 A 3-second
- Fault close 2 times 20,000 A symmetrical.

Options:

- Arrester brackets (i.e., 1272X-30A)
- Extra length of pipe (i.e., 1272X-40)
- Porcelain operating shaft insulator (i.e., 1272X-31)
- Polymer operating shaft insulator (i.e., 1272X-35).

Details

Vertical Topper®



Catalog number	Nom kV	kV BIL	Dimensions - inches								Insulator ¹
			A	B	C	D	E	F	G	H	
1272V-30	15	110	25.7	15	17.4	24	17.3	8	41.6	25.8	2 1/4" D.B.C.
1273V-30	25	150	28.7	18	19.4	27	19.3	10	45.6	28.8	2 1/4" D.B.C.
1292V-30	15	110	25.7	15	19.4	24	19.3	10	45.6	25.8	3" D.B.C. NEMA
1293V-30	25	150	28.7	18	23.4	27	23.3	14	53.6	28.8	3" D.B.C. NEMA
1294V-30	38	200	36.6	24	31.2	34	32.1	18	34.7	34.7	3" D.B.C. NEMA

* For minimum metal-to-metal distances, see Topper spec. sheet

1. 2 1/4" D.B.C. polymer insulators are optional (i.e., 1262V-30)
 3" D.B.C. polymer insulators are optional (i.e., 1282V-30)

Standard features:

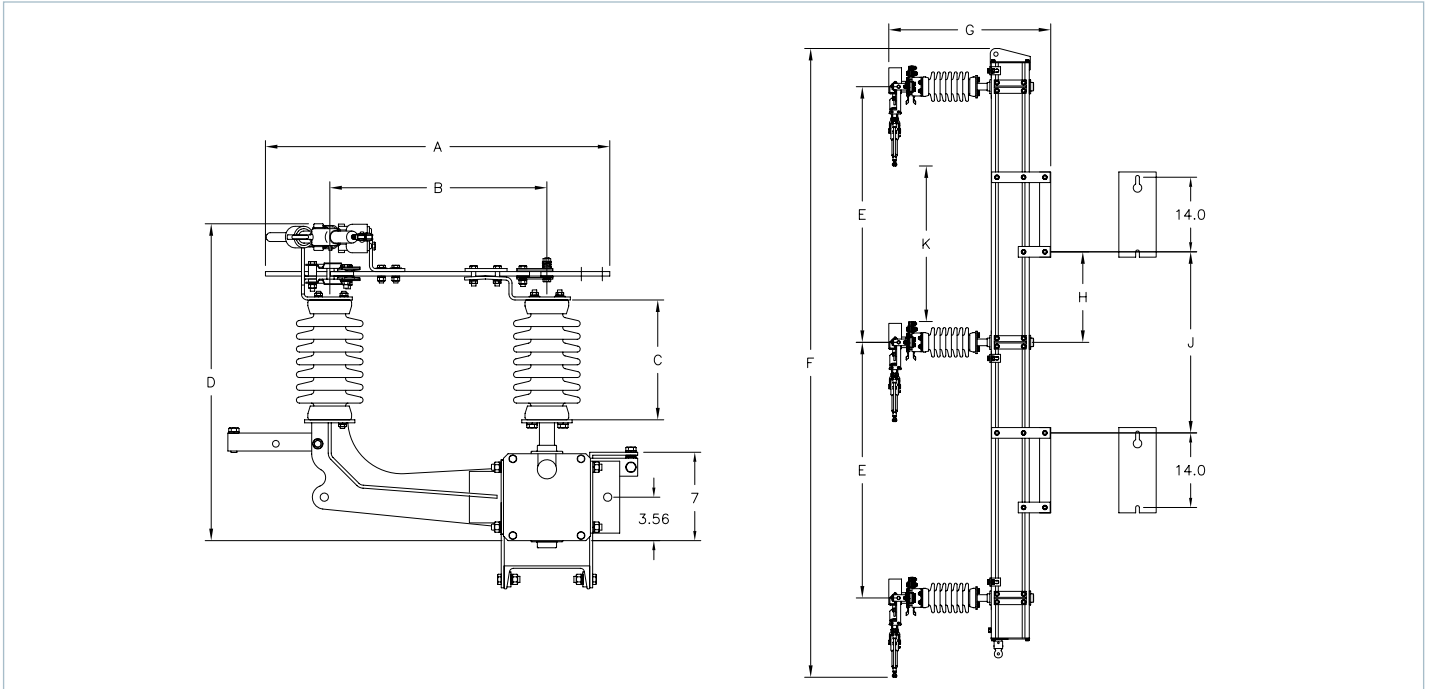
- Plug-in Saf-T-Gap interrupters
- For riser pole or tie switch
- Copper-bronze hot parts
- 30' of operating shaft
- Torsional operating mechanism
- Tinned terminal pads
- 900 A continuous current
- 900 A interrupting (38 kV is 600 A interrupting)
- 40,000 A momentary current
- 25,000 A 3-second
- Fault close 2 times 20,000 A symmetrical.

Options:

- Arrester brackets (i.e., 1272V-30 A)
- Extra length of pipe (i.e., 1272V-40)
- Porcelain operating shaft insulator (i.e., 1272V-31)
- Polymer operating shaft insulator (i.e., 1272V-35).

Details

Phase-over-phase Topper®



Catalog number	Nom kV	kV BIL	Dimensions - inches										
			A	B	C	D	E	F	G	H	J	K ¹	Insulator ²
1272P-30	15	110	25.7	15	8	17.4	36	94.2	28.3	12	24	16.7	2 1/4" D.B.C.
1273P-30	25	150	28.7	18	10	19.4	48	118.2	30.3	17	34	28.7	2 1/4" D.B.C.
1292P-30	15	110	25.7	15	10	19.4	36	94.2	30.3	12	24	16.7	3" D.B.C. NEMA
1293P-30	25	150	28.7	18	14	23.4	48	118.2	34.3	17	34	28.7	3" D.B.C. NEMA
1294P-30	38	200	36.6	24	18	31.2	48	124.6	41.8	17	34	19.7	3" D.B.C. NEMA

1. Minimum metal-to-metal, switch open

2. 2 1/4" D.B.C. polymer insulators are optional (i.e., 1262P-30)
 3" D.B.C. polymer insulators are optional (i.e., 1282P-30)

Standard features:

- Plug-in Saf-T-Gap interrupters
- Phase-over-phase mounting
- Copper-bronze hot parts
- 30' of operating shaft
- Torsional operating mechanism
- Lift bracket
- Tinned terminal pads
- 900 A continuous current
- 900 A interrupting (38 kV is 600 A interrupting)
- 40,000 A momentary current
- 25,000 A 3-second
- Fault close 2 times 20,000 A symmetrical.

Options:

- Arrester brackets (i.e., 1272P-30A)
- Extra length of pipe (i.e., 1272P-40)
- Porcelain operating shaft insulator (i.e., 1272P-31)
- Polymer operating shaft insulator (i.e., 1272P-35).

Bridges Electric™ Topper® series 72.5 kV switch



Ratings according to IEEE standards:

- 72.5 kV, 350 kV BIL
- 1,200 A continuous
- 38 kA short-time withstand
- 1,200 A loop switching
- 8 A line charging

The Bridges Electric™ Topper® series 72.5 kV design. This three-phase, unitized switch incorporates the internal operating mechanism and single-point lift bracket.

Two interrupting versions are available. One version utilizes vacuum bottle interrupters for 1,200 A loop switching applications and the other version utilizes whip arms for 8 A line charging applications.

Design characteristics:

- Motor driven
- Three-phase, unitized switch
- Easy installation
- No field adjustments
- Interchangeable interrupters.

Topper® numbering system



900 A continuous current 900 A loadbreak (38 kV versions are 600 A loadbreak)	2
1,200 A continuous current 900 A loadbreak (38 kV versions are 600 A loadbreak)	6
1,200 A continuous current 1,200 A loadbreak (Vacuum bottle interrupter)	8

2 1/4" D.B.C. polymer insulators	6
2 1/4" D.B.C. porcelain insulators	7
3" D.B.C. polymer insulators	8
3" D.B.C. porcelain insulators	9

15 kV; 110 kV BIL	2
25 kV; 150 kV BIL	3
38 kV; 200 kV BIL	4

Topper ratings:

- 900 A continuous current
- 900 A loadbreak (38 kV is 600 A loadbreak)
- 40,000 A momentary current
- 25,000 A 3-second current
- 20,000 A (2-time) symmetrical fault close in.

Standard features:

- Silver-to-silver hinge and jaw contacts
- Provisions for dead-ending on switch (optional on phase-over-phase)
- Enclosed balanced bearing operating mechanism
- Three 10-ft. pipe sections, handle and locking assembly and necessary couplings and guides
- Single-point hoist bracket - remove after installation (permanent installation on phase-over-phase)
- All components packaged in one crate
- Plug-in Saf-T-Gap interrupters
- Copper-bronze hot parts
- Tinned terminal pads.

No letter indicates symmetrical pole-top style	
Horizontal crossarm style	X
Phase-over-phase style	P
Vertical (cable riser style)	V
Upright horizontal style	H

30' of operating pipe (3@10')	3
40' of operating pipe (4@10')	4
50' of operating pipe (5@10')	5

No operating shaft insulator	0
Porcelain operating shaft insulator	1
Polymer operating shaft insulator	5

Lightning arrester mounting bracket (GALV)	A
Extended lightning arrester mounting bracket (GALV)	A2
Extended lightning arrester mounting bracket (F/G)	A4
Convertible to motorized	C
Dead-end provisions	D
Extended base length	E
Fiberglass operating pipe section	F
Hookstick operated - The HOG	H
Six (6) cable connectors	K
Three (3) 16" extension links	L
Marine grade	M
No load interruption	N
Cross arm brace	R
Wildlife design	W



The Bridges Electric™ Topper® Series switches can be customized to fit substation structures. The switches are designed to be installed in existing or new substations. Being a truly unitized switch and fully factory adjusted makes for easier installation, as well as lower installation costs.



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