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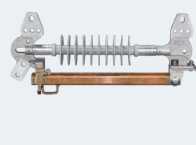


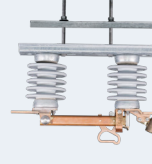
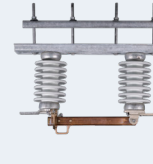
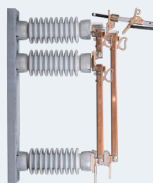
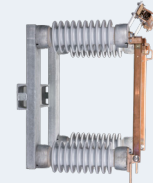
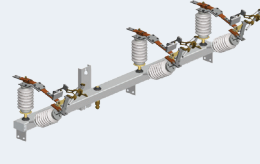
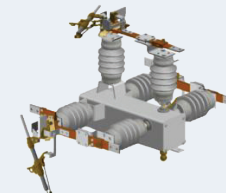
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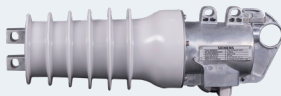
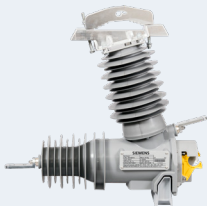
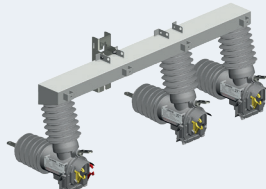
MEDIUM-VOLTAGE

Outdoor distribution and substation products and solutions

SIEMENS

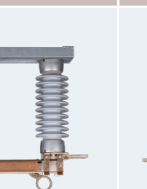
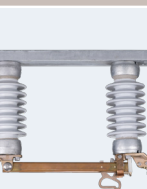

The Siemens family of medium-voltage, outdoor, distribution and substation, products and solutions

Distribution switching					Distribution and substation switching			
Disconnects					Bypass disconnect switches		Group-operated switches	
SE and SEL	SER	LER	E	EF	B-1 regulator	B-2 recloser	Vector® series	Topper® series
								
Application: In-line disconnection under tension for rapid and safer line maintenance.					Application: Regulator bypassing to reduce the impact of equipment maintenance on network reliability.		Application: Three-phase off-load and load-break switching.	
Voltage class (U₀): 15, 25, 38 kV					Voltage class (U₀): 15, 27, 38 kV		Voltage class (U₀): 25, 38 kV	
Continuous current: 600, 900, 1,200 A					Continuous current: 600, 900, 1,200 A		Continuous current: 900, 1,200 A	
Lightning impulse (BIL): 150, 200 kV					Lightning impulse (BIL): 110, 150, 200 kV		Lightning impulse (BIL): 150, 200 kV	
Description: Ruggedly built, the types SE and SEL in-line disconnects support the conductor while providing the required insulation gap, line maintenance can be performed rapidly and safely.					Description: A simple and rugged, three-blade, disconnect switch, the type B-1 encompasses a major safety feature in that the bypass blade can be visually checked to verify that it is open.		Description: Designed for superior performance in three-phase loadbreak switching, the Vector is manufactured as a true unitized switch. High-pressure, self-cleaning contacts improve reliability. Factory adjusted and fitted with a single-point lift, the Vector can be manually operated or motorized.	
Features: <ul style="list-style-type: none">• Loadbreak hooks• Lightweight design• Robust square-tubular blade• Polymer insulators.					Features: <ul style="list-style-type: none">• Robust square-tubular copper blades• Easy identification of bypass blades in open or closed position.		Features: <ul style="list-style-type: none">• Oil-impregnated sintered bronze bearings• Internal operating mechanism• Factory adjusted• Single-point lifting• Plug-in Saf-T-Gap interrupters.	
Options: <ul style="list-style-type: none">• Saf-T-Gap load-break interrupter• Anti-roll closer arm• Quick break.					Options: <ul style="list-style-type: none">• Saf-T-Gap load-break interrupter• Porcelain or polymer insulators• Stop-position angle• Loadbreak hooks• Three-phase assemblies mounted on fiberglass base.		Options: <ul style="list-style-type: none">• Fiberglass or galvanized steel base• Horizontal, vertical, phase-over-phase, or underhung mounting• Porcelain or polymer insulators• Arrestor brackets• Hookstick or pipe operated• Motorized operation.	

Distribution protection		
Protection		
Fusesaver circuit breaker	CMR recloser	Multi-phase CMR
		
Application:		
Saves fuses from blowing due to transient faults or completely replaces fuses using reclose operation. Cal Fire exempt for use in wildfire-prone regions.	Lightweight, reduced-maintenance alternative to hydraulic reclosers that is self-powered from line voltage.	Multi-phase CMR can be configured with either three-phase or dual-phase configurations. Includes integrated relaying protection.
Voltage class (U_n):		
15.5, 27 kV	4.5, 17.5, 27, 38 kV	4.5, 17.5, 27 kV
Continuous current:		
40, 100, 200 A	400, 630, 800 A	400, 630, 800 A
Short-circuit withstand:		
1.5, 4, 6.3 kA	6.3, 12.5 kA	12.5 kA
Short-circuit interrupting (I_{sc}):		
1.5, 4, 6.3 kA	6.3, 12.5 kA	12.5 kA
Lightning impulse (BIL):		
110, 125 kV	110, 125, 150, 170 kV	110, 125, 150 kV
Description:		
As the world's fastest medium-voltage outdoor vacuum circuit breaker, Fusesaver circuit breaker reduces the impact of temporary faults on lateral lines. Its sub-cycle operating time and wireless communications help utilities increase network reliability while minimizing operating costs of overhead medium-voltage networks.	As a direct substitute for traditional, single-phase, hydraulic reclosers, the type CMR allows for reduced maintenance with only the rechargeable battery pack having to be replaced. Wireless communication enables convenient in-service access for reconfiguration, service operation, and downloading event/load data.	A new class of intelligent solid dielectric reclosers with innovation that self-powers via a fully integrated resistor-capacitor chain power supply using line-to-ground potential. Wireless communication enables CMR level access. A remotely customizable relay that brings high coordination to your gang-operated recloser applications.
Features:		
<ul style="list-style-type: none">• Sub-cycle breaking• Self-powered from less than one amp of line current• Encrypted wireless communications• Multi-phase operation• Lightweight at 12 lbs.• Battery backup for more than 10 days• Inrush restraint• Cold-load pickup.	<ul style="list-style-type: none">• Reduced maintenance with only the rechargeable battery pack having to be replaced• Self-powered from line voltage• Battery backup for 72 hours when there is no line voltage available• Integrated GPS clock• Lightweight at 50 lbs.	<ul style="list-style-type: none">• Three-phase or dual-phase operation• Vacuum interruption• Stainless steel cross arm style frame for pole mount• High-grade silicone insulation• Self-powered from line voltage• Mechanical trip and lockout.
Options:		
<ul style="list-style-type: none">• Rechargeable battery• Conductor, crossarm, or pole mounting• SCADA connectivity with RCU• Sectionalizing mode.	<ul style="list-style-type: none">• A range of mounting styles• Factory pre-configuration• SCADA connectivity with remote control unit (future)• SCADA connectivity with RCU and REA (remote engineering access)• Operator panel for additional flexibility for line crew access• Sectionalizing mode.	<ul style="list-style-type: none">• Factory pre-configuration• SCADA connectivity with RCU and REA (remote engineering access)• Operator panel for additional flexibility for line crew access• Sectionalizing mode.

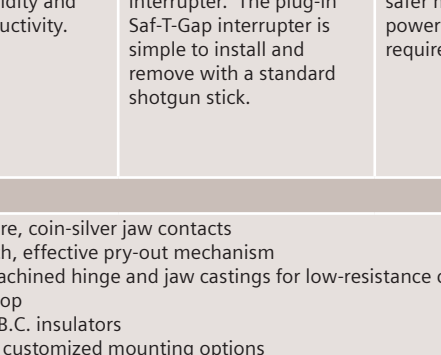
Substation

Station class hookstick disconnects

EH	EHL	EHTT
		
Application:		
Off-load disconnection and isolation of substation equipment.	On-load disconnection and isolation of substation equipment.	Substation tandem-transfer switching.
Voltage class (U₀):		
15, 25, 38 kV	15, 25, 38 kV	15, 25, 38 kV
Continuous current:		
600, 1,200, 2,000 A	600, 1,200 A	600, 1,200 A
Lightning impulse (BIL):		
110, 150, 200 kV	110, 150, 200 kV	110, 150, 200 kV
Description:		
The type EH is a simple and reliable power-class disconnect switch which features a square-tubular blade for exceptional mechanical rigidity and electrical conductivity.	Equipped with a Saf-T-Gap interrupter, the type EHL combines the advantages of the EH with the capabilities of a proven interrupter. The plug-in Saf-T-Gap interrupter is simple to install and remove with a standard shotgun stick.	Utilizing the advantages of the type EH switch in a tandem-transfer configuration, the EHTT provides an effective and safer means to redirect power when bypassing is required.
Features:		
<ul style="list-style-type: none">High-pressure, coin-silver jaw contactsPositive-latch, effective pry-out mechanismPrecision machined hinge and jaw castings for low-resistance connection90° blade stopNEMA 3" D.B.C. insulatorsStandard or customized mounting optionsGalvanized steel channel or formed universal base.		
Options:		
<ul style="list-style-type: none">Porcelain or polymer insulatorLoadbreak hooksCable connectorTinned terminal padsBackplate set.	<ul style="list-style-type: none">Porcelain or polymer insulatorCable connectorTinned terminal padsBackplate set.	<ul style="list-style-type: none">Porcelain or polymer insulatorLoadbreak hooksCable connectorTinned terminal padsBackplate set.

Distribution circuit breaker

SDV7



SDV7

SDV7-AR

Ratings:

- 15.5 kV, 20 kA to 40 kA, 1,200 A to 3,000 A, 110 kV BIL
- 17.5 kV, 20 kA to 40 kA, 1,200 A to 2,000 A, 110 kV BIL
- 27.6 kV, 20 kA to 25 kA, 1,200 A to 2,000 A, 150 kV BIL
- 38.0 kV, 20 kA to 40 kA, 1,200 A to 2,500 A, 200 kV BIL.

Enclosure types:

- Standard: non-arc-resistant, type SDV7
- Optional: arc-resistant, accessibility type 2B to ANSI/IEEE C37.20.7, type SDV7-AR.

Type SDV7 distribution circuit breaker family:

- SDV7-SE: type SDV7 non-arc-resistant with stored-energy operator
- SDV7-MA: type SDV7 non-arc-resistant with magnetic-actuator operator
- SDV7-SE-AR: type SDV7-AR arc-resistant with stored-energy operator
- SDV7-MA-AR: type SDV7-AR arc-resistant with magnetic-actuator operator.

Features and benefits:

- Extended capacitor switching (optional)
- Tested for out-of-phase switching ratings (ANSI/IEEE C37.09)
- Large relay and control compartment
- Stainless steel exterior hardware
- Porcelain dry-type bushings with extended creep
- Highly reliable vacuum interrupters - mean time to failure (MTTF) over 50,000 years
- Pair with Siemens protective relays to match most typical applications
- Moderate and high seismic qualification (zones 1-4) available
- Meets or exceeds the latest ANSI, IEEE and NEMA standards.