

Legal Manufacturer

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MEDIUM-VOLTAGE

Outdoor distribution and substation products and solutions

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

Distribution switching Distribution and substation							ubstation swi	tching	Distribution protection			Substation				
Disconnects					Bypass disconnect switches Group-operated switches				Protection			Station class hookstick disconnects			Distribution circuit breaker	
SE and SEL	SER	LER	E	EF	B-1 regulator	B-2 recloser	Vector® series	Topper® series	Fusesaver circuit breaker	CMR recloser	Multi-phase CMR	ЕН	EHL	EHTT	SDV7	
Application:					Application:		Application:		Application:			Application:				
In-line disconnection under tension for rapid and safer line maintenance.	Cut-out, mounted disconnection.	Line-tap or cross-over disconnection.	Power class distribution interrupting where clamp mounting is possible.	Distribution class disconnection where clamp mounting is possible.	Regulator bypassing to reduce the impact of equipment maintenance on network reliability.	Recloser or regulator bypassing to reduce the impact of equipment maintenance on network reliability.	Three-phase off-load and load- break switching.	Three-phase off-load and load- break switching.	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.	Off-load disconnection and isolation of substation equipment. Voltage class (Ua):	On-load disconnection and isolation of substation equipment.	Substation tandem- transfer switching.		
Voltage class (U _d):					Voltage class (U₁):		Voltage class (U₁):		Voltage class (U _d):			15, 25, 38 kV	15, 25, 38 kV	15, 25, 38 kV		
15, 25, 38 kV	15, 25, 38 kV	15, 25, 38 kV	15, 25 kV	15, 25, 38 kV	15, 27, 38 kV	15, 27, 38 kV	25, 38 kV	15, 25, 38 kV	15.5, 27 kV	4.5, 17.5, 27, 38 kV	4.5, 17.5, 27 kV	Continuous current:				
600, 900, 1,200 A	600, 900 A	600, 900 A	600, 900 A	600, 900 A	Continuous current: 600, 900, 1,200 A	600, 900 A	Continuous current: 900, 1,200 A	600, 900, 1,200 A	Continuous current: 40, 100, 200 A	400, 630, 800 A	400, 630, 800 A	600,1,200, 2,000 A	600, 1,200 A	600, 1,200 A		
Lightning impulse (000, 300 / (000, 300 11	000, 300 11	Lightning impulse (B		Lightning impulse (BIL):	000, 300, 1,2007	Short-circuit withstand:	100, 050, 000 / (100, 030, 000 / (000, 1,200 A	000, 1,200 A	h 4 h 4	
150, 200 kV	110, 150, 200 kV	110, 150 kV	110, 150 kV	110, 150 kV	110, 150, 200 kV	110, 150, 200 kV	150, 200 kV	110, 150, 200 kV	1.5, 4, 6.3 kA	6.3, 12.5 kA	12.5 kA	Lightning impulse (BIL):			SDV7 SDV7-AR	
Description:					Description:		Description:		Short-circuit interrupting (Isc):			110, 150, 200 kV	110, 150, 200 kV	110, 150, 200 kV		
Ruggedly built, the types SE and SEL	A single insulator disconnect, the type	Featuring a sturdy and well-ventilated	A distribution class switch that meets	Crossarm mounted with either through	A simple and rugged, three-blade,	A versatile bypass solution, the type B-2	Designed for superior performance in three-phase	A compact style switch for use where mounting clearances are	1.5, 4, 6.3 kA	6.3, 12.5 kA	12.5 kA	Description:			Ratings:	
in-line disconnects splice into the line. By	SER is rugged and reliable where	square-tubular copper blade and high-	power class standards up to 600 A.	bolts or optional clamping	disconnect switch, the type B-1	bypass switch is purposely designed	loadbreak switching, the Vector is manufactured as a true	constrained. Tailored to substation duties, the Topper	Lightning impulse (BIL): 110, 125 kV	110, 125, 150, 170 kV	110, 125, 150 kV	The type EH is a simple and reliable power-class	Equipped with a Saf-T-Gap interrupter, the type EHL	Utilizing the advantages of the type EH switch in a	 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 	
securely supporting the conductor while providing the required insulation gap, line maintenance can be performed rapidly and safely.	dependable operation in a lightweight package is required. Featuring a sturdy and well-ventilated square-tubular copper blade and high-pressure silver contacts, these switches have superior current carrying characteristics.	pressure silver contacts, the type LER line-tap disconnect provides superior current carrying characteristics. Meets the requirements of a wide array of cable- riser and cross-over applications.	600 A. When fitted with the Saf-T-Gap interrupter, the type E can be used for	type EF disconnect is a robust, securely- mounted switch for	encompasses a major safety feature in that the bypass blade can be visually checked to verify that it is open.	as a recloser bypass and can also be used as a regulator bypass. Underhung and	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.	comes fully assembled and factory adjusted on either a steel or aluminum base with a range of mounting styles to provide the best fit to the application.	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	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,	, 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	disconnect switch which features a square-tubular blade for exceptional mechanical rigidity and electrical conductivity.	of the EH with the capabilities of a proven interrupter. The plug-in Saf-T-Gap interrupter is	tandem-transfer configuration, the EHTT provides an effective and safer means to redirect power when bypassing is required.	 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. 	
			emergency load dropping.						overhead medium-voltage and downloa networks.	and downloading event/load data.		Features:	r iaw contacts		Type SDV7 distribution circuit breaker family:	
Features:				Features: Features:			applications.			High-pressure, coin-silver jaw contactsPositive-latch, effective pry-out mechanism			 SDV7-SE: type SDV7 non-arc-resistant with stored-energy operator SDV7-MA: type SDV7 non-arc-resistant with magnetic-actuator 			
 Loadbreak hooks Lightweight design Robust squaretubular blade Polymer insulators 	mountingPolymer insulatorsPositive latch	 Dead-end connection and tension withstand Porcelain or polymer insulators High-pressure silver contacts. 	porcelain	 Loadbreak hooks Compact design Polymer or porcelain insulators. 	Robust square- tubular copper blades Easy identification of bypass blades in open or closed position.	 Robust square- tubular copper blades Easy identification of bypass blades in open or closed position. 	 Oil-impregnated sintered bronze bearings Internal operating mechanism Factory adjusted Single-point lifting Plug-in Saf-T-Gap 	 Oil-impregnated sintered bronze bearings Pipe operated Exceptionally compact Internal operating mechanism Plug-in Saf-T-Gap or vacuum 	Sub-cycle breaking Self-powered from less than one amp of line current Encrypted wireless communications	 Reduced maintenance with only the rechargeable battery pack having to be replaced Self-powered from line voltage Battery backup for 72 hours 	operation Vacuum interruption Stainless steel cross arm style frame for pole mount	 Precision machined hinge and jaw castings for low-resistance connection 90° blade stop NEMA 3" D.B.C. insulators Standard or customized mounting options Galvanized steel channel or formed universal base. Options:		esistance connection	 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:	
Ontions			interrupters. interrupters.			interrupters.	Multi-phase operationLightweight at 12 lbs.	when there is no line voltage available	 High-grade silicone insulation 	Porcelain or polymer	Porcelain or polymer	Porcelain or polymer	Extended capacitor switching (optional)			
Saf-T-Gap load-break interrupter Anti-roll closer arm Quick break.	Plug-in Saf-T-Gap interrupter Quick break Crossarm mounting Loadbreak hooks.	 Plug-in Saf-T-Gap interrupter Captive-terminal hardware Wedge hangers or cable connectors Loadbreak hooks. 	Backplate set for single or double cross arm mounting Available with or without Saf-T-Gap interrupter.	Backplate set Tinned terminal pads Loadbreak hooks Cable connectors.	Saf-T-Gap load-break interrupter Porcelain or polymer insulators Stop-position angle Loadbreak hooks Three-phase assemblies mounted on fiberglass base.	Saf-T-Gap load-break interrupter Porcelain or polymer insulators Stop-position angle Left- or right-hand bypass operation Custom terminal arrangements Loadbreak hooks Three-phase assemblies mounted on fiberglass base.	Fiberglass or galvanized steel base Horizontal, vertical, phase-over-phase, or underhung mounting Porcelain or polymer insulators Arrester brackets Hookstick or pipe operated Motorized operation.	 Porcelain or polymer insulators Steel or aluminum base Motorized operation Variable phase spacing Pole-top, crossarm, phase-over-phase, upright, and vertical mounting styles Hookstick or pipe operated. 	than 10 days Inrush restraint Cold-load pickup. Options: Rechargeable battery Conductor, crossarm, or pole mounting SCADA connectivity with RCU Sectionalizing mode. **Note that the control of the con	Integrated GPS clock Lightweight at 50 lbs. 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.	 Self-powered from line voltage Mechanical trip and lockout. Factory pre-configuration SCADA connectivity with RCU and REA (remote engineering access) Operator panel for additional 	insulator Loadbreak hooks Cable connector Tinned terminal pads Backplate set.	insulator • Cable connector	insulator Loadbreak hooks Cable connector Tinned terminal pads Backplate set.	 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. 	