

# Medium Voltage Products Panorama

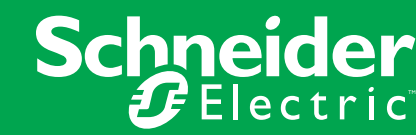
Shielded Solid Insulation System														Air insulated switchgear					Motor starters			Gas insulated switchgear					Ring main unit (RMU)						Transformers					Prefabricated substations	Modular power substations	
Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product	Product				
Premset	Outdoor Premset	GenieEvo	SM6-24	MCset	PIX	SM6-36	DNF7-2	Fluair 400	GI-E	Motorpact	PIX MCC	ATV1200	GMA	CBGS-0	GHA	VOX	CBGS-2	WI	Ringmaster C	RM6	FBX	CAS-36	DVCAS	Fiusarc 36	Tesa	GMX	Trihal	Tricast	Minera MP	KPX	Powerhouse	NOMAD Mobile Substation								
Rated Voltage (kV)																																								
15	13.8	13.8	12	24	17.5	24	12	17.5	24	36	36	40.5	40.5	52	52	13.8	24	24	36	36	36	24	36	36	52	170	up to 36kV		52	36 and 66										
Maximum rated current (A)																																								
630	630	2500	630	1250	4000	2500	4000	4000	2500	630	1250	3150	2500	3150	400	400	2500	2000	2000	2500	2000	2000	2500	630	630	630	630	630	630	2.5MVA	3.15MVA	10MVA	30MVA	80MVA	2.5MVA					
Maximum rated short circuit current (kA)																																								
25	25	25	25	50	31.5	50	50	31.5	20	25	31.5	40	40	25	40	21	25	25	20	20	25	25	20	25	20	25	20	25	20	25	20	25	20	25	20	25				
Type of protection																																								
Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker / fuses/contactor	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Contactor /fuse	Contactor / fuse	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker	Circuit breaker/fuse	Circuit breaker	Circuit breaker/fuse	Circuit breaker/fuse	Circuit breaker/fuse	Circuit breaker	Circuit breaker/fuse	Liquid insulation	Liquid insulation	Solid insulation	Solid insulation	Liquid insulation	Brief Description	Equipment	Equipment						
Switching medium																																								
Vacuum	Vacuum	Vacuum	Vacuum / SF6	Vacuum / SF6	Vacuum	SF6	Vacuum / SF6	SF6	SF6	Vacuum	Vacuum	Vacuum	SF6	Vacuum	SF6	SF6	SF6	Vacuum	SF6	SF6	Vacuum	SF6	Vacuum	Vacuum	Liquid insulation	Liquid insulation	Solid insulation	Solid insulation	Liquid insulation	Design	Operation	Operation								
Indoor / outdoor																																								
Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor and outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor and outdoor	Indoor and outdoor	Indoor and outdoor	Indoor and outdoor	Indoor and outdoor	Design	Design			
Type of circuit breaker																																								
Fixed	Fixed	Fixed	Fixed / withdrawable	Withdrawable	Withdrawable	Fixed / withdrawable	Withdrawable	Withdrawable	Fixed	Withdrawable	Withdrawable	Withdrawable	Withdrawable	Withdrawable	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed			
Features and applications																																								
Shielded Solid Insulation System (SSIS) that reduces risk of internal arc	Shielded Solid Insulation System (SSIS) that reduces risk of internal arc	Near maintenance free operation	Complete system of modular cubicles	Remote open /close and racking	Compact design Available with withdrawable truck/MCC	Complete system of modular cubicles SF6 and vacuum circuit breaker	Available with withdrawable SF6 and vacuum circuit breaker	Can be easily integrated into an existing monitoring and control system	Outdoor circuit breaker for outdoor switchyards	MV motor starter with vacuum contactor	1,000,000 switching cycles	ATV1200 is an indoor variable speed drive (VSD) intended for asynchronous and synchronous MV motor applications, with service voltage up to 11kV. Significant energy saving on your application can be obtained, enabling a quick return on investment	Single busbar system	Single busbar system	Modular design of switchgear panels - single or double busbar	Outdoor dead tank circuit breaker for windfarms, utilities and oil and gas applications	Single and double busbar system	Modular design of switchgear panels - single or double busbar	Compact and modular switchgear combining all MV functional units	Compact and modular switchgear combining all MV functional units	Small dimensions and available in fixed or extendable versions	Compact modular switchgear combining all MV functional units	Compact secondary switchgear for windfarms	Compact gas-insulated ring main unit	Ground mounted immersed transformer	Ground mounted immersed transformer	Cast resin dry transformer	Non-inflammable and self-extinguishing F1 Certification	Hermetically sealed or breathing with conservator	Internal arc rated (optional)	Full transformer oil containment (optional)	Cyclone rated (optional)	Remote monitoring and control with the Easergy range	Use	Use					
Positively driven built-in false interlocks	Positively driven built-in false interlocks	Internal arc classification IAC A-FLR 25kA/1 sec	Internal arc classification IAC A-FLR 20kA/1s	Internal arc classification IAC A-FLR 50kA/1 sec	*Up to 31.5kA, 2500A	Internal arc classification IAC A-FLR 40kA/0.15 sec	Cassette type or floor rolling	Internal arc classification IAC A-FLR 31.5kA/1 sec	GI-E circuit breakers use the puffer principle with SF6 gas	Internal arc classification IAC A-FLR 50kA/0.25 sec	Internal arc classification IAC A-FLR 50kA/1 sec	Internal arc classification IAC A-FLR 21kA/1 sec	Internal arc classification IAC A-FLR 21kA/1 sec	Internal arc classification IAC A-FLR 21kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec	Internal arc classification IAC A-FLR 20kA/1 sec				

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Discovering our offer at a glance

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Australia  
2014



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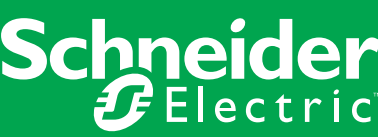
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Protection					Substation system					Distribution management system					Substation control units					Local Fault passage indicators					Remote Network Monitoring					Circuit breakers					Contactors					Fuses					Current and voltage transformers					Power factor correction					Overhead distribution switchgear					Monitoring																													
Sezam Series 10	Sezam Series 20	Sezam Series 40	Sezam Series 60	Sezam Series 80	MICOM Px10	MICOM Px20	MICOM Px30	MICOM Px40	VAMP	PACIS	ADMS	ADVC	Easergy T200I T200E	Easergy Flite 110-SA	Easergy Flair 219, 279	Easergy Flair 2x0	Easergy Flite 116-SA/G200	Easergy Flair 200C	LF	LFP	Evolis	Evolis Lateral	SF1	SF2	HVX	CBX	Rollarc 400	MGK	Tepfuse	Solefuse	Fusarc CF	CT, VT	LPCT	CT, VT	Propivar	CP 200 series	W series	U series	RL series	N series	PowerLogic PM5350	PowerLogic IOI7550 IOI7650																																															
<b>Brief description</b> The Sezam range of protection relays is designed for all protection applications in medium voltage public and industrial distribution networks. It is made up of five series of relays with increasing performance levels.					The MICOM range of digital relays offer advanced and flexible features to meet all low, medium and high voltage needs. Such features include dual rated CT inputs and configurable menus and alarms, allowing the user to personalise the MICOM device to reflect their own practices and notations. MICOM relays also offer numerous communication ports and support a variety of protocols. Finally, being a numeric device, the MICOM range offers comprehensive fault, event and disturbance recording.					VAMP arc flash protection is an extremely fast protection system for LV and MV switchgear and controlgear. It has been specially designed to maximise safety for personnel and to minimise material damage in the event of an arc fault.					<b>Brief description</b> PACIS is a digital control system and belongs to Schneider Electric's range of Substation Automation Solution. It is a scalable solution with high standardisation levels that can provide real-time vision of the entire electrical network.					<b>Brief description</b> The Advanced Distribution Management System (ADMS) software provides an integrated Real-time SCADA/DMS/OMS in one product for secure, reliable and efficient management of electricity distribution networks.					<b>Brief description</b> Control unit for reclosers and sectionaliser. ADVC offers advanced protection, measurement, diagnostic and communication features in a reliable package.					<b>Brief description</b> Detection Phase and earth faults, ammetric					<b>Brief description</b> Detection Phase and earth faults, ammetric					<b>Brief description</b> Detection Phase and earth faults, ammetric and directional					<b>Brief description</b> Rated voltage (kV)					<b>Brief description</b> Multifunction intelligent monitoring device to measure efficiency, reveal opportunities and verify savings																																							
<b>Protection</b> Current protection Current or voltage protection Directional protection Energy / power measurement Restricted Earth fault Differential protection					P111 Overcurrent & Earth fault and Earth fault P115 Self and dual powered overcurrent and Earth fault P116 Dual powered overcurrent and Earth fault. Withdrawable case (option) P211 Motor protection					P12x Overcurrent & Earth fault P52x Line Differential Protection P72x High Impedance Differential P82x CB Fail P92x Voltage/Frequency					P13x - Feeder protection P43x - Distance protection P53x - Line Differential protection P63x - Transformer protection					P14x Feeder management P24x Motor protection P34x Generator protection relay P44x Grid connection protection P54x Line differential protection P64x Transformer Protection P74x Busbar protection relay P84x Auto reclose and CB management					VAMP 120: Component in arc scheme; up to 4 optical sensors VAMP 121: Component in arc scheme; up to 10 optical sensors VAMP 221: Modular central unit; current and light tripping VAMP 321: Modular central unit; option for current or light only tripping					<b>Protection &amp; Automation</b> Built-in function: AVR, ATCC, synchrocheck, interlocks User function: Fast automation (PSL), slow automation (PLC) Equipment monitoring and control System monitoring Electrical network monitoring IEDs monitoring alarm and event recorder archiving Fast self-healing Ethernet ring Disturbance record and waveform oscillography management Cyber security					<b>Features</b> Detection Phase and Earth faults, directional Measurement Phase and earth faults, ammetric Measurement I (optional: P, Q, S, energy and power factor) Concentration of data Data and measurements archives					<b>Measurement</b> Current, voltage, real power, power factor, demand, harmonics, supply outages, waveform capture Concentration of data Data and measurements archives					Measurement U, I, P, Q, S, energy and power factor. 3 outputs, 6 inputs.					Measurement I (max. min. average per hour, instantaneous)					Maximum rated current (A)					Maximum rated short circuit current (kA)					Protocols Modbus, Modbus/IP, IEC 870-5-101/104 DNP3, DNP3/IP					Protocols ION, DNP3, IEC61850, Modbus master, Modbus RTU/ TCP, SMP																			
<b>Features</b> 4 inputs 10 inputs 7 outputs 1 Comms port 8 temperature sensor inputs					28 inputs 16 outputs 2 Comms ports 16 temperature sensor inputs Logic equation editor Synchro-check module					Up to 6 inputs (model dependant) Up to 7 inputs (model dependant) Modbus/IEC103 option					Up to 40 inputs (model dependant) Up to 32 outputs (model dependant) Modbus/Courier/IEC103/ DNP3/61850 option					Up to 40 inputs (model dependant) Up to 32 outputs (model dependant) Modbus/Courier/IEC103/ DNP3/61850 option					VAMP 120: Selective trip for 2 zones; 7ms operating time VAMP 121: Single trip contact; 9 ms operating time VAMP 221: Continuous system self-supervision; Circuit breaker failure protection (CBFP) VAMP 321: Programmable operating zones; Circuit breaker failure protection (CBFP); 2ms tripping time using a high speed output contact					<b>Setting</b> By laptop, operator control panel, SCADA On site by dip switch					<b>Setting</b> By laptop on site or remote On site by dip switch					<b>Setting</b> On site by wireless link from G200 On site by laptop on site or remote					3150 5000 2500 1250 1250 3150 2500 3150 2500 400 315A 400 250 2.5 125 250 500 2500 2500 600kvar 14400kvar 400 630 630 800					50kA/3s 40kA/3s 50kA/1s 31.5kA/1s 40kA/1s 31.5kA/1s 25kA/1s 25kA/3s 40kA/1s 31.5kA/1s 50kA/4s 50kA/4s 31.5kA/4s 6kA/1s* 4kA/1s* 10kA/3s 8kA/1s					I1 I1 I1 I1 I1 50kA/1s 63kA/1s 50kA/1s 63kA/1s 50kA/1s 63kA/1s 50kA/1s 63kA/1s 50kA/1s 63kA/1s 50kA/1s 63kA/1s					All film with or without internal fuses Vacuum / SF6 Dry					Dry Dry Dry					Power factor correction on MV networks or devices Power factor correction and harmonic filtering on MV networks Single Wire Earth Return (SWER) Recloser remote controlled with ADVC controller Recloser remote controlled with ADVC controller Remote controlled with ADVC controller Manual or automatic load break switch Recloser remote controlled with ADVC controller Advanced protection, control and communication Advanced protection, control and communication Sectionalised capabilities on voltage and current Advanced protection, control and communication					Digital Digital					Energy accuracy IEC 62053-22 Class 0.5S (PM5350, PM800 series) Energy accuracy IEC 61000-4-30 Class A (IOI7550)									
<b>Applications</b> Overcurrent and Earth-fault relay for basic protection of feeders and distribution transformers Multifunction unit compact and flexible for all applications Multifunction unit compact and flexible for all applications Multifunction unit flexible for all public or industrial distribution network protection applications Multifunction unit intelligent and flexible for custom applications (Logipam software)					Refurbishment Retrofit for CDG and CAG / CDAG relays Motors Self powered relays					Over current & Earth fault Relay Line Differential Protection Busbar Protection CB Fail Voltage / Frequency					Feeder protection Distance protection Line differential protection Transformer protection 3-phase models utility / industrial segment application 2-phase models railway segment application					Feeder Protection Motor Protection Generator protection Distance Protection Line differential protection Transformer protection Busbar Protection Auto reclose and CB management Frequency Protection					Arc flash protection Substation control for: Industry & Infrastructure Windfarms Transmission and Distribution Substations Commercial buildings Healthcare centres Mining Oil & Gas					<b>Protocols</b> IEC101-104, DNP3 & DNP3/IP, MODBUS, IEC 61850, IEC60870-5-101, 103, 104, DNP3 & DNP3/IP, MODBUS, HNZ					<b>Protocols</b> Radio, modem, GSM, V23, RS232, RS485, 10BaseT Ethernet					<b>Communication</b> Radio, FSK/ FFSK, PSTN, GSM, GPRS, 3G, fiber optic, Ethernet, RS485, RS232					<b>Communication</b> 915 Mhz short range radio 1 SCADA comm port Transmission interface: PSTN, Radio, GSM, GPRS, Ethernet, RS232, RS485					<b>Communication</b> 1 communication port 1 Ethernet port (option) Transmission interface: PSTN, Radio, GSM, GPRS, Ethernet, RS232, RS485					Fixed and withdrawable circuit breaker Fixed circuit breaker High power version for power plant					Fixed and withdrawable circuit breaker Fixed circuit breaker Front or side mounted mechanism Front mounted					Compact arrangement High performance thanks to pole design Available in fixed or withdrawable configurations Fixed vacuum contactor. Available as a withdrawable fused contactor: CVX *150kA in conjunction with fuses) 1 or 3 poles With magnetic holding or mechanical					UTE standard UTE standard UTE standard DIN standard Ring type and medium voltage current transformer voltage transformer Ring type and medium voltage low power current transformer (LPCT) Outdoor current transformer and voltage transformer Power factor correction on MV networks or devices Power factor correction and harmonic filtering on MV networks Fixed or automatic capacitor banks for motor, substation or global distribution Indoor or outdoor installation					Power factor correction on MV networks or devices Power factor correction and harmonic filtering on MV networks Single Wire Earth Return (SWER) Recloser remote controlled with ADVC controller Recloser remote controlled with ADVC controller Remote controlled with ADVC controller Manual or automatic load break switch Recloser remote controlled with ADVC controller Advanced protection, control and communication Advanced protection, control and communication Sectionalised capabilities on voltage and current Advanced protection, control and communication					Digital Digital					Energy accuracy IEC 62053-22 Class 0.5S (PM5350, PM800 series) Energy accuracy IEC 61000-4-30 Class A (IOI7550)				