SIEMENS
Ingenuity for life

Vacuum Recloser 3AD ready-to-install packages for 3-phase applications

Up to 16 kA short current, 11 kV to 38 kV voltage level, 800 A nominal current

The Vacuum Recloser 3AD was developed backed by decades of experience in vacuum switching. It uses this proven technology for safe and efficient operation also in the event of faults, avoiding permanent interruptions in distribution lines that may be caused by temporary fault causes, for example, by lightning strikes or branches falling down. With fast automatic source transfer in less than 100 ms and fault isolation < 500 ms, it is used in transformer substations and on overhead lines, switching normal and fault currents like a circuit-breaker. In case of a temporary line fault, the recloser can trip and reclose up to nine times, resulting in only short interruptions.

Since every customer has different requirements, Siemens offers three different packages (basic, advanced or smart grid) with various features for the flexible Recloser system.

All three packages come with the following features:

Human-machine interface functions

- Large display with 18 function and arrow keys
- 6 rows 20 characters each
- 32 LED and 9 freely programmable function keys
- Multiple languages available
- Several passwords for control, parameterization, remote control, and more
- Run and Error LEDs to display the operating state of the 7SC80

Communication ports and protocols

- USB front interface for configuration

Monitoring functions

- Measured and metered values U, I, f, Wp, Wq
- 40 fault records and load profile
- Battery monitoring and capacitor supervision

Technical Data	
Rated voltage up to 38 kV	• Rated short-circuit breaking current up to 16 kA • Rated lightning impulse withstand voltage up to 185 kV • Rated normal current up to 800 A
Recloser sequence	Typically: 0 – 0.2 s...14,400 s – CO – 1 s...14,400 s – CO – 1 s...14,400 s – CO – lockout Up to 9 cycles possible
Opening time	< 35 ms
Closing time	< 60 ms
No. of operating cycles	30,000 maintenance-free
Standards	IEEE C37.60/IEC 62271-111; IEC 60068; IEC 61109; IEC 60529
Protection class	IP55 (standard), IP66 (optional)

	Basic [A]	Advanced [B]	Smart Grid [C]
Large number of protection, metering and monitoring functions	✓	✓	including loop automation ready for integrating in Siemens FLISR*
SCADA communication	–	DNP 3.0 serial	IEC61850 and IEC-104 or DNP/TCP
Data transmission over distances of up to 24 km with a single-mode cable and up to 4 km with a multi-mode cable	–	–	✓
Advanced self-healing solution, automatic and rapid fault analysis, easy to configure and maintain	–	–	✓
Number of current inputs	3		
Number of voltage inputs	0	3	6
Number of binary inputs/outputs (BI/BO)	12 BI/8 BO, 1 life contact	12 BI/8 BO, 1 life contact	20 BI/15 BO, 1 life contact
Parameter groups for switching even during operation, changeover time < 10 msec	16		
Web monitor to monitor status from remote	not available for basic	if equipped with additional communication modem	if equipped with additional communication modem

Included accessories			
Self-powering VT	✓	✓	✓
Surge arresters	upon request		
Mounting frame	✓	✓	✓
Nema pads	✓	✓	✓
Control and sensor cable, length 6 m	✓	✓	✓
Delivery FCA	✓	✓	✓

* FLISR (Fault Location, Isolation, and Service Restoration)

Available for all packages:

Power supply/battery charger

- External Power supply:
  AC and DC 110/230 V
- Battery: 4 pieces a 12 Ah sealed lead acid
- Expected battery standby time:
  70 hours at 20 degrees celcius

Control cubicle

- Material: steel, painted with RAL 7035,
  IP55 (higher values on request)
- Dimensions:
  600 x 600 x 350 mm (W x H x D)

Please scan the QR code.

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