

Alduti-Rupter[®] Switch-disconnector 52kV – 72.5kV



- Load break up to an active load of 630A
- Total absence of external arc
- No maintenance required
- Extremely reliable contacts
- Possibility of three-pole, single-pole, vertical, horizontal or inverted mounting



S&C **Alduti-Rupter** Switches provide no-external-arc circuit interruption on overhead distribution lines and outdoor distribution substations. They are specially designed for interrupting duties on overhead lines and transformers, with the capacity to withstand associated charging and magnetizing currents.

Overhead distribution lines

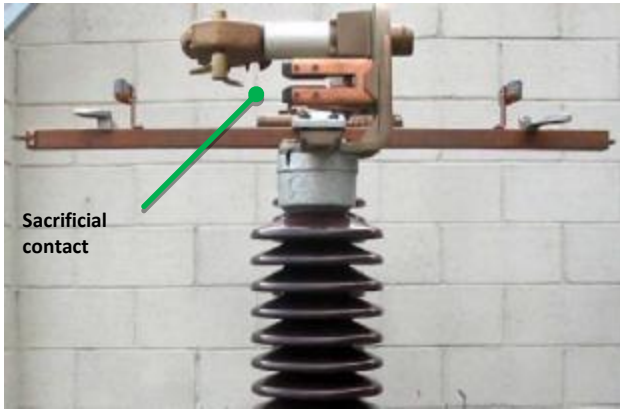
Greater load densities have led to increasingly overloaded lines, more interconnections, and more laterals and branches. In order to simplify isolation procedures, reduce outages and facilitate post-outage pickup, more and more sectionalizing points are being used. Due to the fact that isolation work has exceeded the capabilities of ordinary disconnectors, load-interrupting devices have become the best option for most applications.

The **Alduti-Rupter** switches are designed and produced for load break on overhead distribution lines for voltage levels of up to 72.5kV and 630 Amps nominal. There are a great variety of mounting options: vertical, horizontal or inverted. They can be operated using manual controls by means of a linkage mechanism or they can be motor-driven with the AS-1A switch operator.

S&C switches offer the maximum flexibility when sectionalizing distribution systems. The lines can be extended and an additional load can be added, since the **Alduti-Rupter** Switches can withstand substantial loads, typically up to the overload rating of the line conductor. The S&C Switches can **isolate** the entire connected load, without complicated breaker and switch sequencing. There is no need to **isolate** individual loads as a preliminary operation.

Outdoor distribution substations

The economics of power distribution has led to the overloading of substation transformers, increasing the number of feeders and the load of existing feeders. The S&C **Alduti-Rupter** switch is an ideal disconnector for these demanding tasks. It can **share** load, and **break** lines or cables or even the entire load. Its no-external-arc interruption operation is essential for substations where close phase spacings rule out the use of arc-producing disconnects.



Sacrificial contact

No-external-arc interruption

Each S&C **Alduti-Rupter** switch has its own built-in interrupter, so no add-ons are required. Operation is simple and straightforward. Interrupter contacts separate at high speed, guided by a mechanism inside the interrupter driven by the movement of the blade. S&C switches do not use springs. Interrupter contacts and blades are synchronized to coordinate dynamic internal dielectric strength with the interrupter's external striking distance, eliminating any possibility of external arc. The deionizing gases of the arc are expelled through a muffler. There is no oil or vacuum, and no maintenance is required.

Exhaustively tested, proven by the principal power utilities

S&C switch ratings have been defined following a wide range of tests: **load sharing**, **load-shedding**, line and cable isolation – all at maximum voltages and rated currents, and with test circuits tuned to duplicate the most severe transient recovery voltages likely to be encountered in service. The performance of the equipment is assured for all "live" isolation applications. The validity of S&C's testing has been confirmed by more than 60 years of reliable operation of S&C switches by utilities worldwide under the harshest conditions.



AS-1A motor

Technical specifications

Nominal Values		Insulation levels				Maximum current		Closing capacity		Weight (kg)
Ur	Ir	Lightning impulse		Industrial frequency		Short duration 1 s.	Maximum	Breaking capacity		
		Grounded and between poles	On isolation	Grounded and between poles	On isolation			Active load	Cables empty	
52kV	630A	250kV	275kV	100kV	100kV	25kA	56.5kA	630A	8A	
72.5kV	630A	325kV	375kV	140kV	160kV	25kA	72.5kA	630A	8A	

Dimensions (mm)

A	B	C	D	E	F	G	R

