

An Economical Way to Add Remote Resetting to the Trans-Rupter II Transformer Protector Model EX

S&C's Trans-Rupter II Transformer Protectors offer an innovative solution for substation transformer protection. They provide the protection features of higher-cost circuit breakers and circuit-switchers—including activation by relays, a high 31.5-kA fault-interrupting rating, and three-phase tripping—with the low cost and mounting flexibility of power fuses.

Now there's a simple way to add resetting capability to the Trans-Rupter II Transformer Protector Model EX. The new motor operator option is ideal for both new and existing installations. See Figure 1.

Easy to Install

The lightweight, compact motor operators attach to the underside of the pole-unit bases with two simple-to-install brackets. The motor operators couple directly to the pole-unit operating shafts. No additional electrical clearance is needed.

Simple electrical connections between the motor operators and the low-voltage connection enclosure complete the installation. If S&C mounting pedestals have been specified, wired conduit is furnished—further simplifying installation.

For power-operated disconnects, S&C recommends that users configure an electrical interlock between the disconnect and the Trans-Rupter II Transformer Protector to ensure proper sequence of operation.

Easy to Operate

Upon receiving a user-furnished signal—or when a pushbutton is pressed locally at the low-voltage connection enclosure—the motor operators automatically close and charge the pole-units. The motor operators close and charge the pole-units in approximately 2 minutes. Built-in limit switches prevent overcharging and ensure the pole-units are either fully open or fully closed.

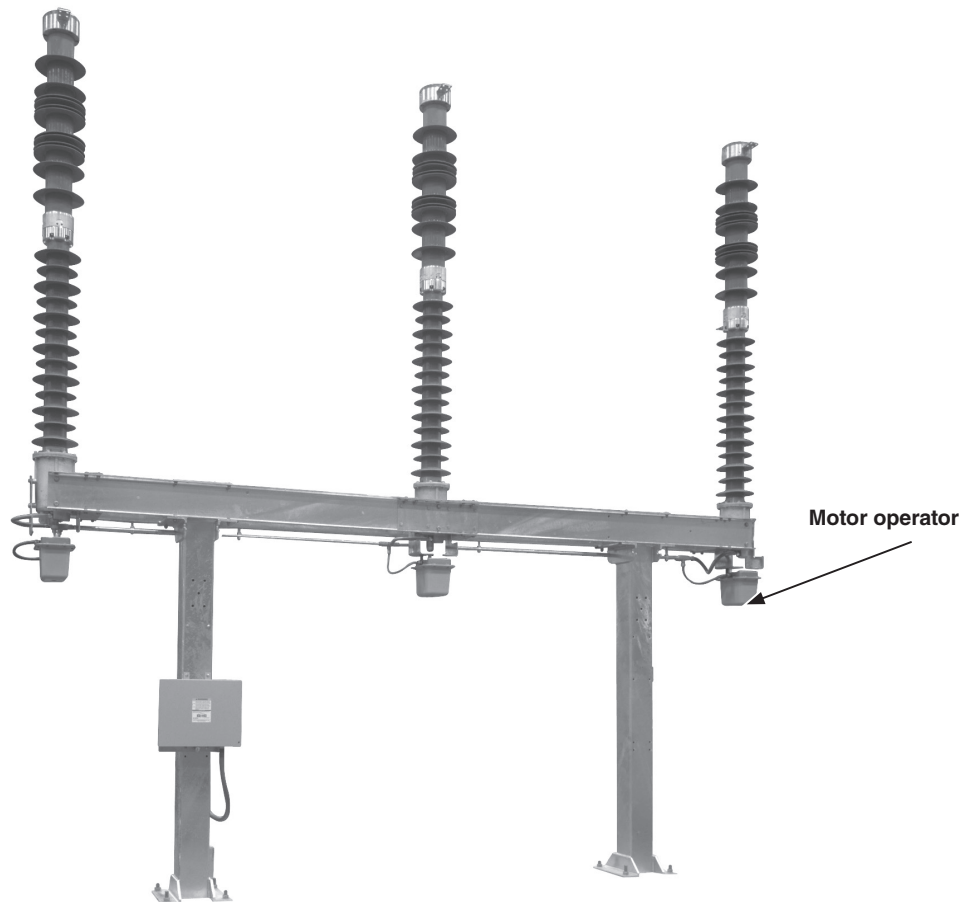


Figure 1. A 115-kV Trans-Rupter II Transformer Protector with motor operators.



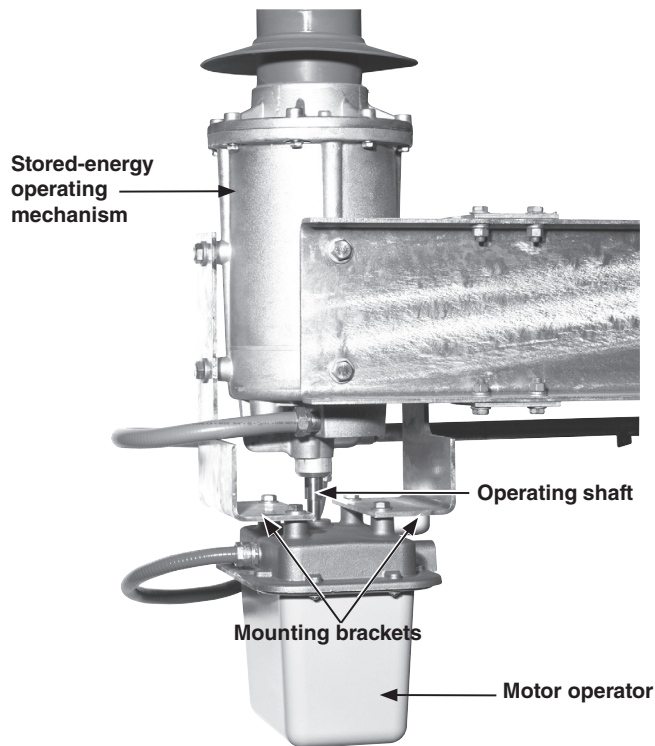


Figure 2. A motor operator mounted to the pole-unit.

The Trans-Rupter II Transformer Protector Model EX with motor operators offers the following benefits:

Compatible with virtually any relay system— The Model EX is compatible with virtually any user-furnished differential, sudden pressure, or overcurrent relay for comprehensive transformer protection.

Three-phase tripping by electrically linked pole-units— This provides trip simultaneity of less than $\frac{1}{4}$ cycle.

A 31.5-kA fault-interrupting rating—This is more than enough for most applications. Single-gap SF₆ gas-filled puffer-type interrupters interrupt the circuit in 3 cycles and maintain dielectric ratings when open.

Installation flexibility—Designed to conserve space, the Trans-Rupter II Transformer Protector can be mounted on many user-furnished structures; phase spacing is user-determined. See Figure 1. S&C also can furnish mounting pedestals. A user-furnished, source-side three-pole, group-operated disconnect is required to provide visible air-gap isolation during maintenance and to pick up transformer magnetizing inrush current.

The motor operators feature:

Durability. Fully tested motor operators use a minimum number of parts for a long operating life.

Weather-resistant design. Motor operators are designed to withstand the elements. No heaters are needed.

Retrofittable. Motor operators can be added to most Trans-Rupter II installations at any time.

Removable for manual closing and charging. Motor operators are readily removable, so pole-units can be manually closed and charged in the event control power is lost.

Optional LOCAL/REMOTE selector switch. Prevents remote operation of motor operator when the selector switch is placed in **Local** mode—for example, during inspection.

Low maintenance. Like the Trans-Rupter II pole-unit, the motor operators require no periodic maintenance.



Figure 3. Indicators are fully visible beneath a pole-unit with motor operators installed.