

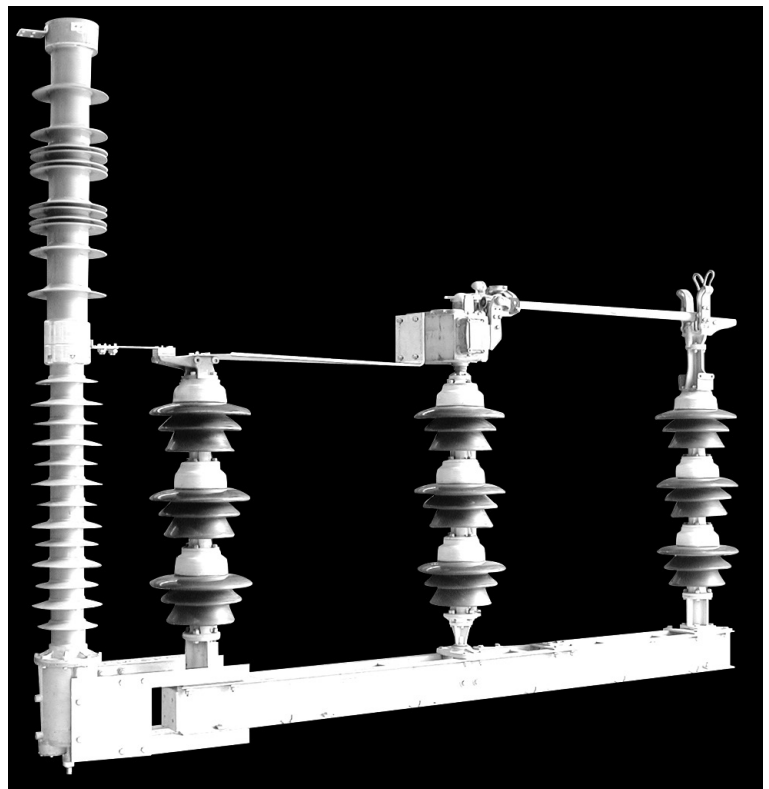
## An Economical Solution for Upgrading S&C Mark-Series Circuit-Switchers

With the high level of electric service reliability demanded today, many older substations require major equipment upgrades. But such upgrades can be extremely costly. And the available real estate and access needed to install new equipment are often limited.

Now there's an economical way to upgrade S&C Mark II through V Circuit-Switchers in transformer-protection applications: retrofit kits featuring S&C Trans-Rupter II Transformer Protector. The Trans-Rupter II pole-units mount directly to the circuit-switcher bases and provide enhanced transformer protection. The blade assemblies of the circuit-switcher are retained to provide a source-side series disconnect. Retrofit kits include all mounting brackets and hardware needed to complete the installation. Benefits of retrofitting with Trans-Rupter II Transformer Protector include:

- **Low initial and installed cost.** The Trans-Rupter II Transformer Protector provides substantial cost savings over most other transformer-protective devices. So it's easier to fit critical retrofit projects into a tight budget.
- **Conserves valuable substation real estate.** Because a Trans-Rupter II Transformer Protector mounts directly to the circuit-switcher base, no additional space is required. There's no need for costly additional foundations.
- **Minimizes reconfiguration of existing buswork.** The Trans-Rupter II Transformer Protector mounts in the same location as the existing circuit-switcher, minimizing expensive, time-consuming changes to the buswork.
- **Increased fault-interrupting capability.** The Trans-Rupter II Transformer Protector's 31.5-kA fault-interrupting capability is significantly higher than that of Mark-series circuit-switchers. This is especially useful in substations experiencing rising fault-current levels. The Trans-Rupter II Transformer Protector also features a faster three-cycle interrupting time.

- **Fault-closing capability maintained.** Unlike most other disconnects, the retained circuit-switcher series disconnect offers a fault-closing rating.
- **Installation equipment requirements are minimized.** There's no need for heavy installation equipment that creates considerable expense and inconvenience.
- **No need for new wiring runs and associated trenching.** The Trans-Rupter II Transformer Protector connects directly to the circuit-switcher operator for connection to user-furnished relays and control power. The Trans-Rupter II Transformer Protector is fully compatible with existing relays and control power, eliminating another possible expense.



A 115-kV Trans-Rupter II Transformer Protector installed on a Mark II Circuit-Switcher (one phase shown).

