Design Overview

The Southern States CapSwitcher® is an outdoor three-phase interrupter device that provides excellent capacitor-switching capabilities. The interrupter is an SF₆ puffer type. During tripping the gas within the puffer is compressed by the piston and blown to the arc to extinguish it. The mechanism is a low maintenance motor charged spring open-spring close mechanism.

Interrupter
The interrupter is an SF₆ puffer design. It has been designed specifically for capacitor switching duty. The contact structure is robust and designed for many low-current switching operations.

CapSwitcher® utilizes composite insulators. These insulators require very little maintenance. They are naturally hydrophobic and generally do not need to be washed.

Pre-insertion resistor
- Resistor assembly is in SF₆ gas
  - Contacts make in SF₆
  - Keeps resistors dry
  - No ice issues
- 6 to 10 ms resistor pre-insertion time
- Resistor is not in the circuit on opening
- 10,000 operations endurance
- Designed for fault close duty

The closing resistor is made of a stack of carbon block resistors which have been specifically designed for capacitor switching duty. An aluminum current distribution screen has been added between the resistor blocks to prevent failure modes experienced by competition in prior attempts to utilize pre-insertion resistors. Note in the picture above the difference in size between our resistor and a competitor’s resistor. The Southern States design uses an EHV breaker approach.

Capswitcher is a registered trademark of Southern States, LLC