

## CapSwitcher<sup>®</sup>

Capacitor  
Switching Device  
27 kV  
Type 27M

### Purpose specific device provides reliable, long-life performance.

The need for quality power has never been greater. This has led to an increase in the use of capacitor banks to improve power factor. The Southern States **CapSwitcher<sup>®</sup>** high voltage capacitor switching device has been specifically developed to provide restrike free switching of capacitor banks. This reliable, long-life, special purpose SF<sub>6</sub> capacitor switch utilizes closing resistors for mitigating voltage transients and current inrush.

#### FEATURES

- Closing resistors minimize voltage and current transients
- C2 Rating with No Restrikes
- E2 Electrical Endurance Rating
- M2 (10,000 CO operations) Mechanical Endurance Rating
- Eliminates need for inrush reactors
- Simple, cost effective, mechanical design that provides repeatability
- Gas pressure sensing on each phase with lockout on low gas
- Integral Capacitor Bank Controller with DNP3 communication

#### SPECIFICATIONS

##### Maximum Voltage Ratings

27 kV

##### Capacitive Current Switch Rating

400 A

##### Short Time Withstand Ratings

25 kA RMS Sym (1 sec)

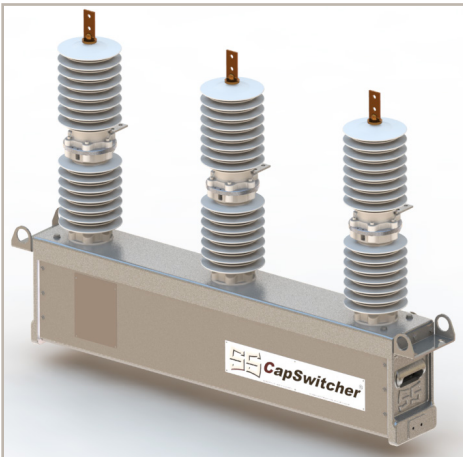
##### Peak capacitive Inrush Current

25 kA @ 4400 Hz

##### Application

- Single Bank or Back-to-Back
- Grounded or Ungrounded

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CapSwitcher Controller CSC-211  
 with DNP3 communication  
 (standard on most models).



RATINGS	
Maximum Voltage Rating (kV)	27*
BIL (kV)	150
Rated Power Frequency (Hz)	50/60
Continuous Current (A)	400
Capacitive Switching Current (A)	400
Short-Time Symmetrical Withstand (kA/sec)	25/1
Peak Withstand (kA)	69
Short Circuit Making (kA)	25
Endurance Life (CO operating)	10,000 (M2)
Ambient Temperature Rating	-35° C to +50° C (standard)

\* Can be safely applied to 29.2 kV

Capacitor Switching Ratings (IEEE C37.09a-2005)		
Maximum Voltage Rating (kV)	15.5	27
Capacitive Switching Current	400 A	
High Frequency Transient Making Current	25 kA peak at 4400 Hz	
Closing Resistor Value	Matched to bank size for optimum performance*	

\* See Application Guide Document

KEY ADVANTAGES

- Makes and breaks circuit in SF<sub>6</sub>
- Designed and tested for restrike-free performance
- Closing resistors provide reliable and consistently repeatable transient suppression
- Multiple resistor sizes allow performance optimization
- Closing resistor eliminates need for inrush reactors
- Sensor on each interrupter provides auto-trip or lockout on low gas pressure
- Separate control cabinet provides ground level access to control components
- Optional Capacitor Bank Control (VAR, Voltage, Current, TOD, Temp, SCADA)
- Designed to mount on new or existing capacitor bank racks
- Straight forward mechanical design insures long life, repeatable operation
- Ships assembled and pressurized minimizing installation and setup

Rated Duty Cycle:

• 15 sec - CO – 5 minute time delay (adjustable)  
 30 Georgia Avenue Hampton, GA 30228  
 P 770-946-4562 F 770-946-8106  
 sales@southernstatesLLC.com  
 www.southernstatesLLC.com