

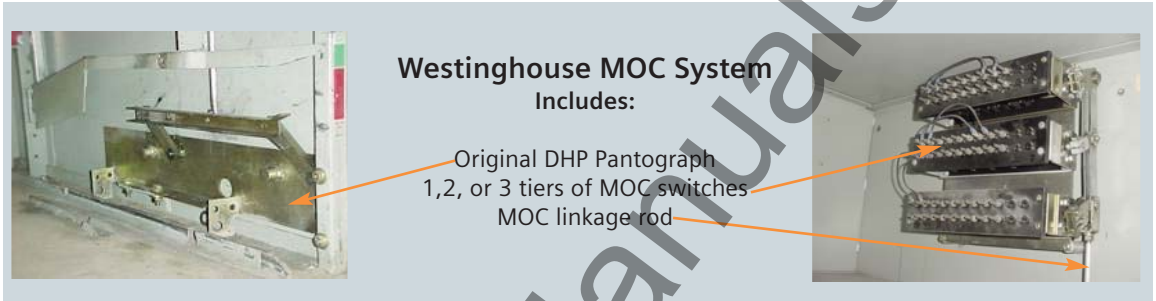
# Siemens MOC-Saver

Siemens provides replacement vacuum circuit breakers for most medium voltage air-magnetic circuit breakers including the legacy Westinghouse DH and DHP switchgear. This switchgear often included cubicle-mounted auxiliary switches (mechanism-operated cell switches (MOC switches)) for indication of the circuit breaker's open or closed position.

Operation of the legacy MOC switches requires sufficient energy from the vacuum circuit breaker stored energy mechanism to reliably close the circuit breaker and the MOC switches while not damaging the MOC system yet maintaining full interchangeability.



**Siemens DPR**  
(Fully Interchangeable  
Replacement for  
Westinghouse DHP)



## Westinghouse MOC System Includes:

Original DHP Pantograph  
1, 2, or 3 tiers of MOC switches  
MOC linkage rod

## The Solution

Siemens MOC-Saver (patent pending) system addresses the various operational issues associated with replacing Westinghouse DH and DHP air-magnetic circuit breakers. The MOC-Saver system controls the velocity operating the original cubicle MOC system thus mitigating the increased forces which would be applied to the cubicle MOC system. The MOC-Saver provides positive MOC switch actuation in the Open and Close directions. The MOC-Saver includes a bi-directional stored energy mechanism (snubber) and a bi-directional hydraulic velocity controller.



Bi-directional  
Spring Snubber

Bi-directional  
Velocity  
Controller

## Customer Benefits

### MOC Mechanical Load Endurance

The circuit breaker stored energy mechanism must operate the primary contacts plus the MOC system reliably without damaging the cubicle MOC system or the circuit breaker. Siemens DHR and DPR replacement circuit breakers with the MOC-Saver system completed full 10,000 operations mechanical endurance tests for the MOC system under various worse case conditions.

### Maximum Required Energy

The Siemens 3AH mechanism and MOC-Saver system is tested to operate the Westinghouse MOC switches plus an additional marginal load. The MOC-Saver system ensures no MOC switch over-travel, no MOC switch under-travel, and minimum MOC switch contact bounce.

### Replacement Breaker Interchangeability

Siemens DHR and DPR circuit breakers with the MOC-Saver system are fully interchangeable into applications with either one, two, or three tiers of MOC switches without making any adjustments.

Siemens type DHR & DPR replacement vacuum circuit breakers with the Siemens MOC-Saver system provide reliable circuit breaker operation and reliable operation of the existing MOC system.

## Contact Us

To find out more about Siemens replacement breakers, please contact your local Siemens representative or (800) 347-6659 regarding your site specific application.

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