SIEMENS
Ingenuity for life

MOC-Saver

Siemens provides replacement vacuum circuit breakers for most medium-voltage air-magnetic circuit breakers, including the legacy Westinghouse DH and DHP switchgear, ITE HK (8.25 kV and 15 kV), and Federal Pacific DST-2 (8.25 kV and 15 kV). 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.

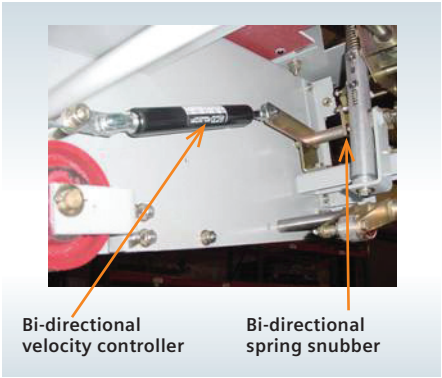
The solution

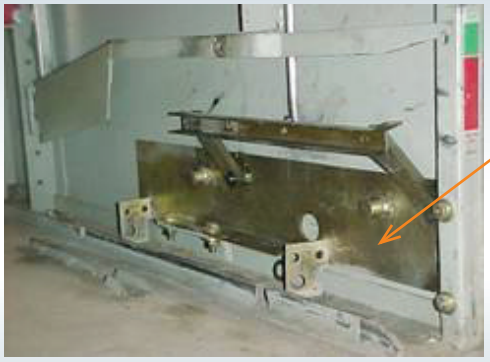
Siemens' patented MOC-Saver™ system addresses the various operational issues associated with replacing air-magnetic circuit breakers. The MOC-Saver system controls the velocity operating the original cubicle MOC system thus mitigating the increased forces that would be applied to the cubicle MOC system.

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.

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

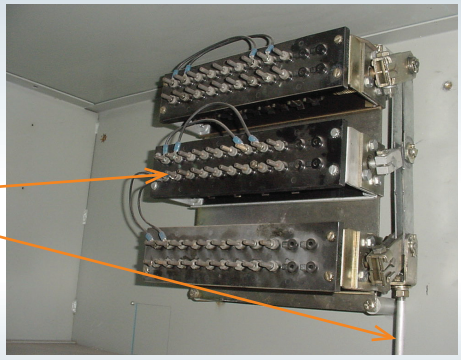
Siemens DPR (fully interchangeable replacement for Westinghouse DHP)





Westinghouse MOC system
Includes:

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



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

Siemens Industry, Inc.
7000 Siemens Road
Wendell, NC 27591

For more information, please contact
our Customer Support Center.
Phone: 1-800-333-7421

usa.siemens.com

Order No: EMTS-B40012-00-4AUS
Printed in USA