

Revolutionary new design simplifies capacitor switching, now with zero voltage closing capability



Eaton's Edison™ capacitor switch increases overall system reliability and reduces lineman time in the field. Robust operational and bushing designs, and unique terminal ring provide dependability and ease of use.

The single-phase Edison capacitor switch line is ideal for the difficult capacitive current switching duty of distribution capacitor banks. The Edison family includes 15 kV and 25 kV class switches that are available for system applications up to 38 kV. This solid dielectric vacuum switch with unique, permanent magnet solenoid mechanism has been designed in accordance with ANSI/IEEE® Std C37.66-2005.

The heart of the switch is the field-proven Eaton vacuum interrupter specifically designed for capacitor switching. To ensure long life in the harshest environmental conditions, the vacuum bottle is encapsulated in a rugged cycloaliphatic epoxy bushing that offers superior hydrophobic properties.

The alternating bushing shed design provides effective self-cleaning to improve flashover performance over porcelain bushings. Designs meeting the Very High Pollution Severity Class requirements of IEC 60815 are available for the respective voltage class.

The Edison capacitor switch uses a revolutionary terminal ring design that enables easy switch installation and 360-degree adjustment—in 60-degree increments—without the need to rotate the switch body or break any seals, which:

- Eliminates potential moisture ingress due to compromising the sealing system when relocating the load terminal in the field
- Reduces installation time
- Improves installation flexibility

Valquest Z-Cap zero voltage closing control

Eaton offers the Valquest Z-Cap zero voltage closing control (ZVC) as part of a comprehensive capacitor solution for distribution systems through 38 kV (grounded wye). Initiating the switching device to close at the instant of zero voltage difference across the switch reduces switching related transients during operation of overhead capacitor racks. Zero voltage closing is an ideal solution for multi-step applications where inrush current and frequency may impact the scope of the capacitor solution. Eaton's revolutionary Edison capacitor switch combined with the Valquest Z-Cap control can be used with any industry capacitor control such as Eaton's CBC8000 to provide Integrated Volt/VAR Control (IVVC). The Valquest Z-Cap product brochure and Edison capacitor switch information is available online at Valquest.com.

The Edison capacitor switch is key to adding or removing vars (volt-ampere-reactive) from the system as needed and is ideal for:

- Pole-mounted capacitor racks
- Metal-enclosed capacitor banks
- Outdoor distribution substation banks
- Other 200 A or 400 A at 15 kV switching

Contact factory for more information regarding ZVC applications.



Valquest Z-Cap
(Photograph courtesy of Valquest Systems, Inc.)



Powering Business Worldwide

Easy field installation and maintenance

Vacuum bottle

- Field-proven Eaton vacuum interrupter
- Specifically designed for capacitor switching
- Fully encapsulated in solid dielectric material for effective heat transfer and maintenance-free operation
- Meets critical IEEE Std 37.66-2005

Revolutionary terminal ring design

- Allows for 360-degree termination of load (in 60-degree increments)
- Eliminates need to break seals for rotation of the switch body to accommodate installation requirements
- Allows for multiple terminals by simply adding another terminal clamp

Cycloaliphatic epoxy bushings

- High creep versus porcelain for improved performance in contaminated environments
- Highly resistant to ozone, moisture, contamination and ultra-violet light
- Less surface wetting
- Alternating shed design improves flashover performance
- Bushing shed designed per IEC 60815

Permanent magnetic solenoid

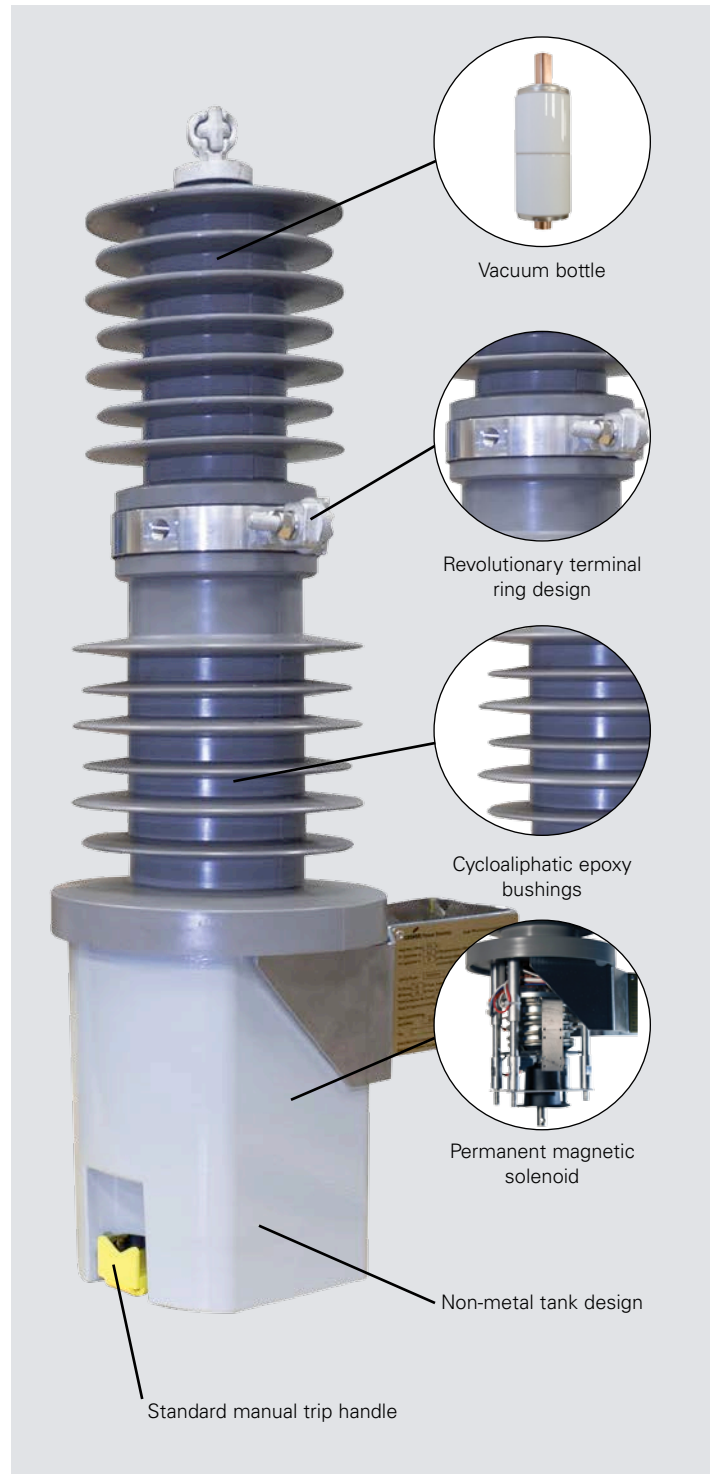
- Direct drive, permanent magnet solenoid design with no cams, linkages or struts needed
- Dual coil design eliminates the need for relays or circuit boards to open and close the switch
- Solenoid operates in voltage range of 75 V to 130 V (120 Vac option)
- DC pulse operation for zero voltage closing applications
- Critical opening operation powered by a heavy-duty precision spring that provides consistent opening speeds that are effectively immune to variations in ambient temperature

Non-metal tank design

- Fiberglass reinforced polyester prevents corrosion; same material as boat hulls
- Integrated rain shield and hotstick guide for trip handle

Standard manual trip handle

- Easy hotstick operation
- Visual trip indicator to quickly see state of switch
- Designed for manual open only for increased safety



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Power Systems Division
2300 Badger Drive
Waukesha, WI 53188
United States
Eaton.com/cooperpowerseries

© 2017 Eaton
All Rights Reserved
Printed in USA
Publication No. PA230003EN / Z19108
Supersedes B230-13020
January 2017

For Eaton's Cooper
Power series product
information, visit
[www.eaton.com/
cooperpowerseries](http://www.eaton.com/cooperpowerseries)

EATON
Powering Business Worldwide

Eaton is a registered trademark.

All other trademarks are property
of their respective owners.

Follow us on social media to get the
latest product and support information.

