Revolutionary new design simplifies capacitor switching

Eaton’s Cooper Power series 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 ideal solution

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

The Edison capacitor switch is a simple, robust, and reliable part of a comprehensive capacitor solution for distribution systems. The switch can be used with any industry capacitor control such as Eaton’s Cooper Power series CBC-8000 control to provide Integrated Volt/VAR Control (IVVC), leading to overall cost savings for utilities.

As the need for VARs (Volt-Ampere Reactive) on the network changes, the Edison capacitor switch is key to adding or removing VARs from the system as needed, and is ideal for:
- Distribution capacitor switching – IVVC/CVR
- Pole-mounted capacitor racks
- Metal-enclosed capacitor banks
- Outdoor distribution substation banks
- Other 200 A load switching

Eaton
Powering Business Worldwide
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 standard

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)
- Critical opening operation powered by a heavy duty precision spring which 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

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