

Engineering and Consulting

Motor operation kit for CSFU ring main units

Switchgear could easily operate several years and still being in good conditions if installed in suitable environments and properly maintained. Life can be additionally extended by performing service retrofit and revamping activities. Moreover specific improvement actions allow also getting the best performances from old switchgear.

ABB provides full engineering and consulting services on medium voltage switchgear for recommending standard available upgrades but also customized engineered solutions.

The real challenge lies in implementing the right action at the right time. ABB can support asset managers to take care of the actual condition of the equipment and define the new features for fulfilling today and future requirements.

Main focus areas are linked to safety, monitoring, diagnostic, automation, remote control and new Standards compliance.

Benefits

CSFU motor operation kit enables to electrically operate main switch disconnecter. Line-open and open-line operations are required by automatic procedures to split the faulty segment of the grid and re-store the energy in the remaining part of it very rapidly with the following advantages:

- Keep install base up on running according new network requirements.
- Improve system reliability.
- Reduced network outages duration.
- Reduction in lost revenue.
- Fewer customer complaints.
- Reduced safety risk to personnel.
- Allow full remote control and operation.

An easy assembly design fully compatible with existing mechanisms makes possible the get many benefits:

- Low cost upgrading.
- Fast and easy site work.
- Keep critical units energized.
- Shorter delivery time.
- Reduced additional spare components.
- Simpler maintenance staff training.

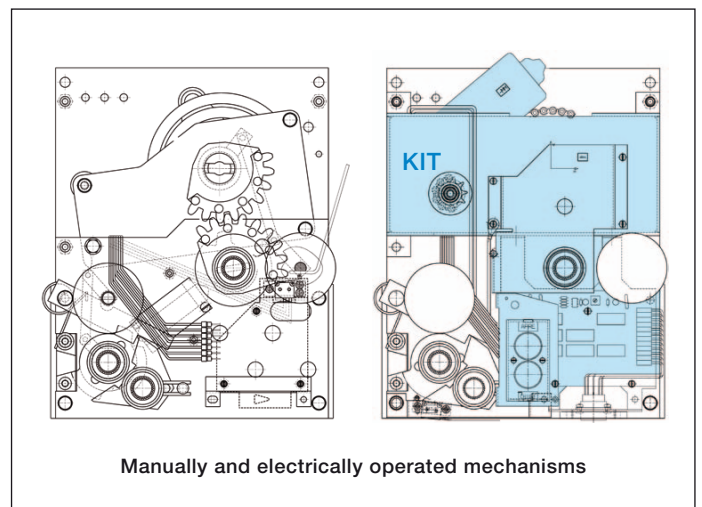
Facts

CSFU was a 24kV SF6 gas insulated ring main unit specifically designed to fulfil Italian national utility ENEL DY801 Standard. It has been widely used in the whole country and seldom applied in other countries too.



It was based on three positions line-open-earth disconnecter units for the grid connection and the same device equipped with protection fuses for feeding power transformers. Both manually and electrically operated mechanisms were available during its active life cycle but most of them were delivered in the manually operation version only.

ABB designed specific revamping kit to be applied to the existing mechanisms to become motor operated and electrically perform line to open operations and vice-versa.



Technical Data

Applicable to:

- CSFU 24.
- CSFU1 24.

Reference site work operating instructions:

- 1VCS001968 and 1VCS001975.
- 1VCS001924.

Applicable functional scheme according to ENEL DY1050:

- 401799 (for both types).

Features:

- Local electrical opening and closing operations with built-in pushbuttons.
- Preset for remote electrical opening and closing operations through free contacts.
- Operating springs automatically charged by motor-gear mechanism.
- Single 24V DC auxiliary supply.
- Mechanical interlocks are kept in place.

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