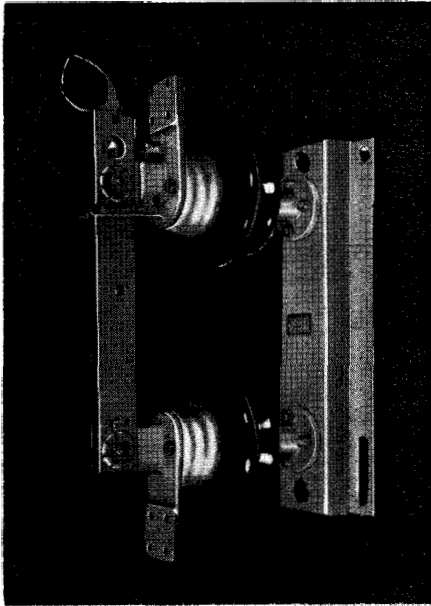


Westinghouse



Types LCO and RBO Single Pole Outdoor Disconnect Switches

Type LCO



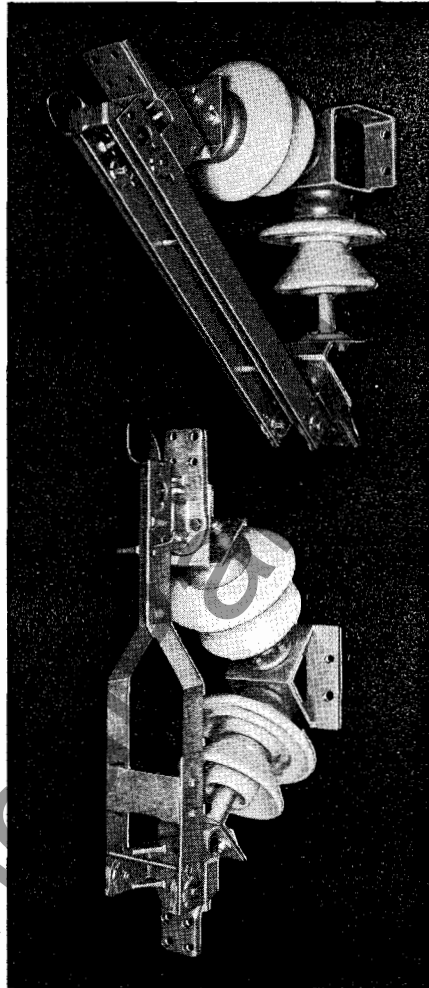
Application

The LCO hookstick operated disconnect switches are normally used for isolating or disconnecting apparatus from a line under no load conditions. These single pole switches can be single throw, double throw, or tandem transfer type, and can be mounted in either the vertical or underhung position. They are available in voltage ratings of 7.5 thru 69 kv and current ratings of 600 and 1200 amperes. A 2000 ampere rating is also available in voltage ratings of 7.5 thru 34.5 kv.

Advantages

- * Positive latch to lock blades in closed position.
- * Parallel blades with self-adjusting spring washers to maintain contact pressure.
- * Positive blade stops for 90° and 135°.
- * Provision to lock switch in open position.
- * Embossed silver multiple high pressure line contacts on break jaw end.
- * Raised silver surface hinge contact.
- * NEMA terminal pad drilling.
- * 3-inch bolt circle insulators (cap and pin or station post).

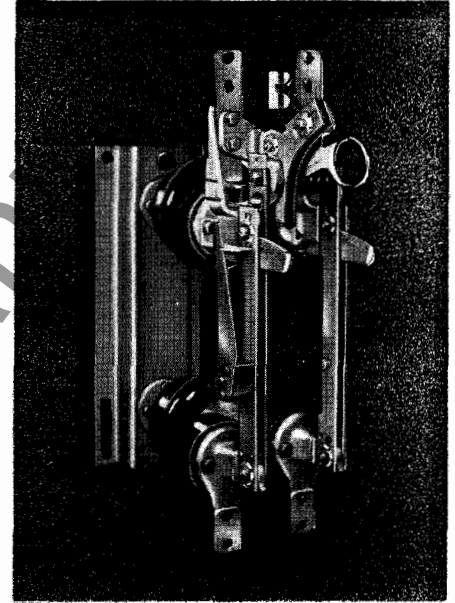
Type LCO-A



Application

The LCO-A switches have the same application and features as the type LCO, but the special mounting base and "V" shaped insulator configuration are especially applicable in low profile substation design. The LCO-A switch can be mounted in either the vertical, 45°, or underhung positions. They are available in ratings of 7.5 thru 34.5 kv, 600 thru 2000 amperes.

Type RBO



Application

Type RBO hookstick operated disconnect switches are designed for isolating single phase and three phase step and induction feeder voltage regulators.⓪ These switches are single pole ranging from 7.2 Kv through 34.5 Kv, 400 and 600 amperes, vertically mounted.

⓪ RBO switch cannot be used with a three phase induction regulator having a single core construction.

Advantages

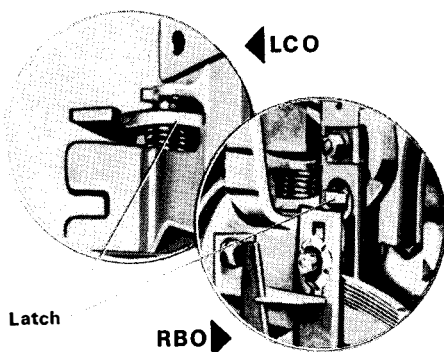
- * Economical
- * Space Saving
- * Positive latch to lock blades in closed position.
- * Parallel blades with self-adjusting spring washers to maintain contact pressure.
- * Positive blade stops for 90° and 135°.
- * Provision to lock switch in open position.
- * Embossed silver multiple high pressure line contacts on break jaw end.
- * Raised silver surface hinge contact.
- * Quick break auxiliary blade to interrupt regulator magnetizing current.
- * By-pass mechanism to automatically by-pass regulator when main switch is open.
- * NEMA terminal pad drilling.
- * 3-inch bolt circle insulators (cap and pin or station post).

May, 1971

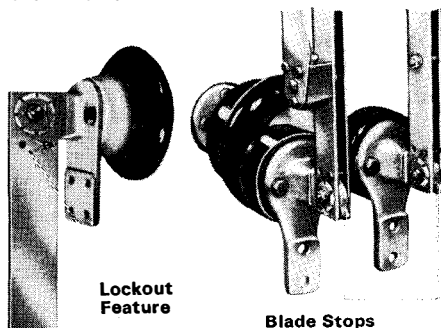
Supersedes DB 36-151 dated June, 1968
E, D, C/1969/DB

Types LCO and RBO Single Pole Outdoor Disconnect Switches

Design Features



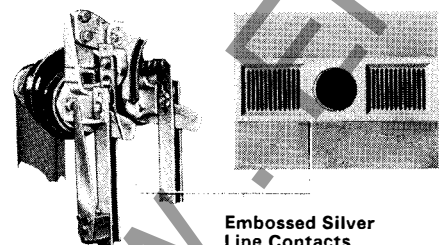
Latching: The LCO and RBO utilize a latch that locks the blade in a fully closed position until released by the hookstick, it also locks the switch in the closed position under short circuit stresses. A lever action breaks ice and corrosion seals permitting ease in opening the switch.



Lockout Feature

Blade Stops

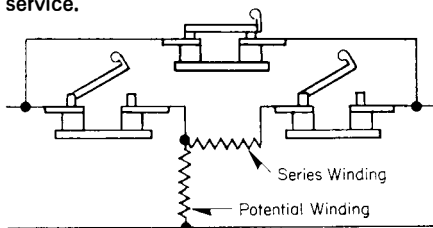
Blade Stop and Lockout Feature: Blades on the LCO and RBO can be stopped at 90° or 135° with a standard combination stop, or can be padlocked in the open position with the blade set at 135° or 180° position providing protection against accidental closing by operator.



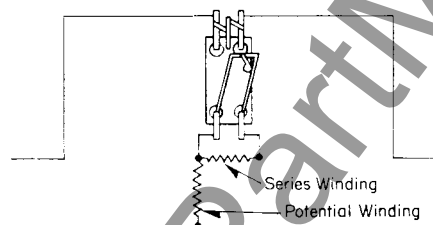
Embossed Silver Line Contacts

Multiple Line Silver Contacts: All types of LCO and RBO switches use embossed silver multiple high pressure line contacts on break jaw end and raised silver surface on the hinge contact.

Economy and Space Saving: The RBO is designed to have a single pole switch to take the place of three ordinary single pole, single throw switches for regulator by-pass service.

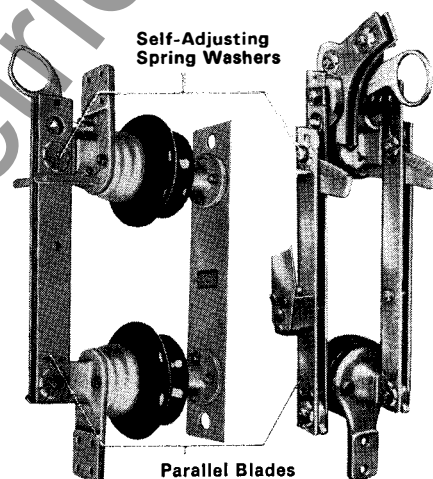


Conventional Arrangement using three single pole, single-throw switches.



Regulator By-Pass Switch Arrangement using one single pole type RBO switch.

Through the use of this single pole RBO switch, the structure size and conductor lengths are reduced, connections are simplified, thus economizing on construction and installation costs.

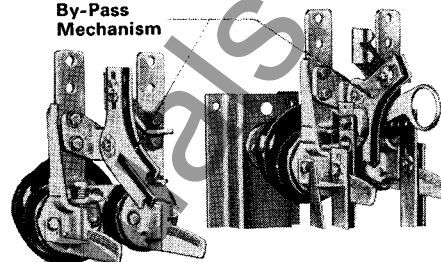


Self-Adjusting Spring Washers

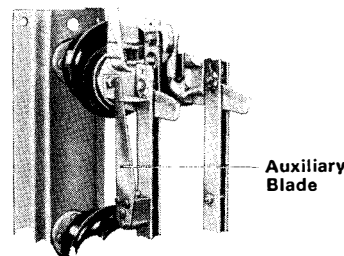
Parallel Blades

Parallel Blades: LCO and RBO switches use parallel blade construction, with self-adjusting spring washers to maintain constant pressure. Under short circuit conditions the magnetic action draws the blades together increasing the contact pressure.

By-Pass Mechanism

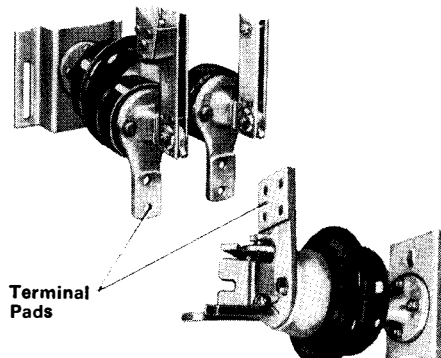


By-Pass Mechanism: The by-pass mechanism on RBO switches is hinged to the left terminal. When the main blades are opened the by-pass blade is moved upward by a cam action to engage the contact on the right terminal and transfers the regulator potential winding to the auxiliary blade.



Auxiliary Blade

Auxiliary Blade: The RBO utilizes an auxiliary blade to prevent arcing at the main contacts during the opening cycle. Initial opening of the main blades transfers the regulator magnetizing current to the auxiliary blade which is rapidly snapped open by the force of the coil spring in the hinge when the main blades have completed the opening cycle.



Terminal Pads

Terminal Pads: The LCO switch is provided with two (2) or four (4) hole terminal pads with standard NEMA drilling, and the RBO has two (2) hole terminal pads with standard NEMA drilling.

Westinghouse Electric Corporation

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