

ABB AutoLink

Automatic single phase sectionalizer

The new ABB AutoLink electronic sectionalizer provides an economical solution for sectionalizing overhead distribution lines, thus improving system reliability and providing users with unique flexibility. Both the number of counts and the actuation current can be set and reset on the product to adjust for specific coordination needs. Additionally, unlike other products in the marketplace, the AutoLink does not require any tools for resetting. These combined features translate into reduced inventory, labor expenses, and number of power outages.

Description

The device consists of a fuseholder base identical to the one used for simple fused cutouts. This base is fitted with a tube that houses an electronic circuit, which discriminates permanent from temporary faults, thus granting immunity to symmetrical and asymmetrical inrush currents. The electronic circuit also sets the mechanical opening of the sectionalizer if the fault current is determined to be permanent or continuous.

The device's resetting module is found under the tube's upper contact cap. Through this module, the operator can manually configure and reconfigure the sectionalizer's actuating current and number of cycles to obtain the desired combination for system protection.

When placed in combination with an upstream recloser (or recloser switch), the AutoLink installed on a downstream service connection counts the operations and, once it reaches the preset count (1 to 4 opening operations of the recloser), it cuts the circuit while the circuit is being opened by the recloser. The circuit is restored by manually resetting (with no tools) the mechanical device.

Operation

If a temporary fault occurs, the upstream recloser equipment opens and the AutoLink sectionalizer counts one opening operation. Then the recloser closes. Because the fault is temporary, it is cleared so that both the downstream equipment and the AutoLink are connected and the circuit stays in operation. After 30 seconds, the AutoLink resets and the count is completed.



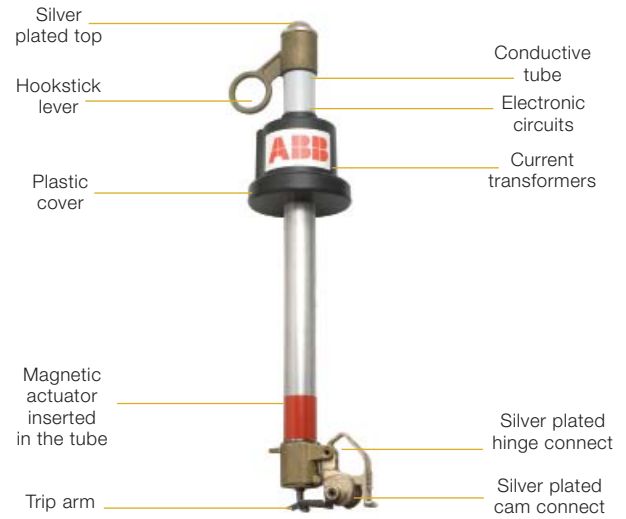
If a permanent fault occurs, the continuous reclosing operations do not clear the fault. The AutoLink counts the opening operations and, upon reaching the set count, opens the line with the permanent fault.

Application

The ABB AutoLink coordinates perfectly with medium voltage distribution networks. Due to new technology introduced in the AutoLink sectionalizer, the actuating current and counts of any single equipment can be reset to the different configurations of the network as many times as necessary, allowing a proper coordination in current and future protection combinations. The use of the AutoLink in branch and service connections, instead of the fused sectionalizer, allows better coordination in the event of faults, thus decreasing both operating costs and the number of power outages.

Product benefits and features

- Improves network reliability
- Isolates temporary faults preventing extensive outages
- Reduces replacement of fuses
- Reduces operating costs
- 'One kV rating fits-all' design minimizes inventory
- Fits on a standard cutout body
- Field configurable and resettable as many times as needed between 6 and 215 A, and from 1 to 4 counts
- Detects and discriminates inrush current
- Trip arm reset with no tools required
- Does not require an auxiliary power source



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Technical specifications

Model		AutoLink-15	AutoLink-27	AutoLink-27/33	AutoLink-33
Rated voltage	kV	15	27	27/38	38
Insulation level	kV BIL	110	125	150	170
Nominal current	A	200	200	200	200
Actuating current	A	6 - 215	6 - 215	6 - 215	6 - 215
Number of counts before operation	No.	1 - 4	1 - 4	1 - 4	1 - 4
Short time current 1 sec. (effective)	kA	4	4	4	4
Dead line detection	mA	< 200	< 200	< 200	< 200
Memory reset	Sec.	30	30	30	30
Asymmetrical initial (peak)	kA	10	10	10	10

Applicable standards

The AutoLink sectionalizer was designed and tested to meet ANSI/IEEE C37.63 standard. 1YSA160001-en Rev. B June 2010.

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