

Features

- Unsymmetrical current measurement for:
 - detection of broken conductor on protected power line
 - detection of interruptions in CT secondary circuits
- Time delayed operation allows sensitive settings

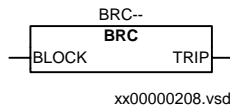
Application

The main purpose of the BRC broken conductor check function is the detection of broken conductors on protected power lines and cables (series faults). It is also able to detect interruptions in the secondary current circuits.

Functionality

The BRC function detects a broken conductor condition by detecting the nonsymmetry between currents in the three phases. It does this by measuring the difference between the maximum and minimum phase currents, i.e. it compares the magnitude of the minimum current with that of the maximum current, and gives an output if the minimum current is less than 80% of the maximum current for a set time interval. At the same time, the highest current must be higher than a set percentage of the terminal rated current.

Function block



Input and output signals

Table 1: Input signals for the BRC (BRC--) function block

Signal	Description
BLOCK	Blocks function

Table 2: Output signals for BRC (BRC--) function block

Signal	Description
TRIP	Trip output

Technical data

Table 3: Broken conductor check

Parameter	Setting range	Accuracy
Minimum level of highest phase current for operation	10-100% of I_r in steps of 1%	+/-2.5% of I_r
Output time delay	0-60s in steps of 0.001s	+/-0.5% +/-10ms

Manufacturer

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