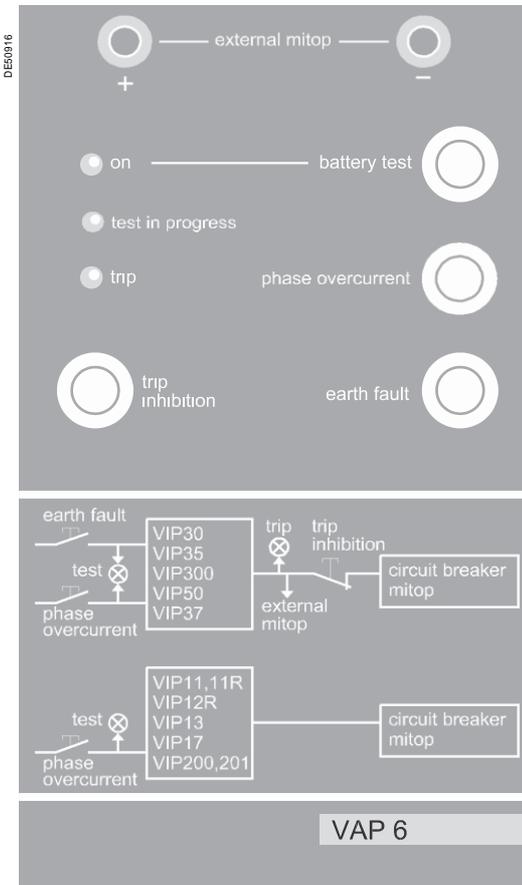


# Electrical network protection

## VAP 6

User  
manual





VAP6 front panel.

The VAP6 is a portable unit that can be connected to the VIP30/35 to carry out simplified testing.

The test can be carried out in the following two cases:

- the VIP30/VIP35 is already supplied by the sensors
- the VIP30/VIP35 is not supplied; in this case the VAP6 batteries supply power to the relay.

The test consists of:

- injecting a stimulus to simulate a phase fault
- injecting a stimulus to simulate an earth fault (VIP35)
- checking tripping (refer to the description of the test in the section entitled "test sequence").

The VAP6 is supplied by batteries. Therefore the parts of the VIP30/VIP35 that require AC current are not checked using this method (input and supply circuits).

## Push-buttons

- **Battery test:** if the batteries are OK, the "on" indicator lights up while the button is pushed.
- **Phase overcurrent:** it sends the phase protection test stimulus. The stimulus is equivalent to 20 times the current setting Is.
- **Earth fault:** it sends the earth protection test stimulus. The stimulus is equivalent to a current greater than the highest of the Io> settings.
- **Trip inhibition:** press the "trip inhibition" button if the VIP30/VIP35 test should be carried out without tripping of the circuit breaker. Circuit breaker tripping is disabled while the "trip inhibition" button is pressed, even if the tripping order results from a real fault.

## Indicators

- **On:** indicates that the batteries are operational. Also lights up when the battery test is carried out by pressing "battery test".
- **Test in progress:** confirms sending of the test stimulus to the VIP30/VIP35.
- **Trip:** lights up when the VIP30/VIP35 sends a trip order (whether or not circuit breaker tripping is inhibited).

## "external mitop" output

It may be used to connect an auxiliary mitop designed, for instance, to stop a stop-watch during operating tests. The mitop is triggered at the same time as the circuit breaker mitop. It is not disabled by pressing the "trip inhibition" button.

## Batteries

to conserve battery life, the batteries are normally off and automatically go on when the VAP6 is connected to the VIP30/VIP35.

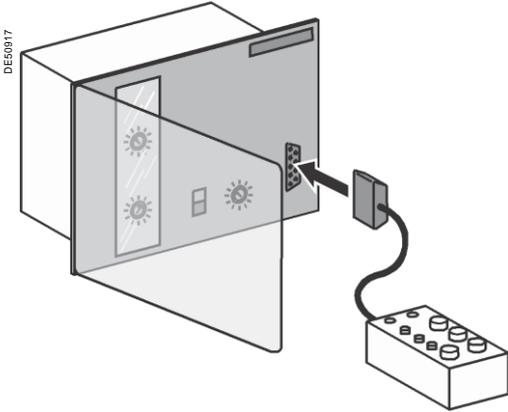
They go on when:

- the "battery test" button is pressed
- the VAP6 is connected directly to a VIP3X or VIP5X relay
- the VAP6 is connected to the adapter cord designed for testing the VIP1X or VIP2X relays.

To install or change the batteries, open the unit by removing the 4 screws on the bottom. Always observe correct battery polarity (+/-).

## Technical characteristics

- supply: 3 x 9 V 6LR61 batteries
- weight: 0.45 kg
- dimensions: 93 x 157 x 45 mm.



## VAP6 test sequence

The test may be carried out with or without current in the sensors. During the test operations, all the VIP30/VIP35 settings are effective; the relay should perform in accordance with the settings. During the test, the relay remains operational and will give a tripping order in the event of a fault, unless the "trip inhibition" button is pressed.

- Connect the VAP6 to the "VAP6 test plug". The VAP6 batteries automatically go on and the "on" indicator lights up.
- Press the "trip inhibition" button if the test should be carried out without tripping of the circuit breaker.

**Be sure to keep the "trip inhibition" button pressed throughout the time it takes to send the stimulus.**

- Press the "phase overcurrent" button to send the phase protection test stimulus:
  - continue pressing the button throughout the duration of the stimulus
  - the VAP6 "test in progress" indicator lights up to confirm the sending of the stimulus to the VIP30/VIP35 relay
  - the VAP6 red "trip" indicator lights up to indicate that the relay has tripped
  - the circuit breaker trips if it is not inhibited.

**If the "phase overcurrent" button is held down after tripping, the VIP30/VIP35 maintains the tripping order. This is normal operation.**

**In that case:**

- the VAP6 "trip" indicator remains lit
- the circuit breaker mitop is supplied by the tripping order.

- Press "earth fault" to test operation of the earth protection (VIP35); use the same procedure as for the phase protection test.
- disconnect the VAP6 (in order to save battery power, do not leave the VAP6 connected to the relay unnecessarily).

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