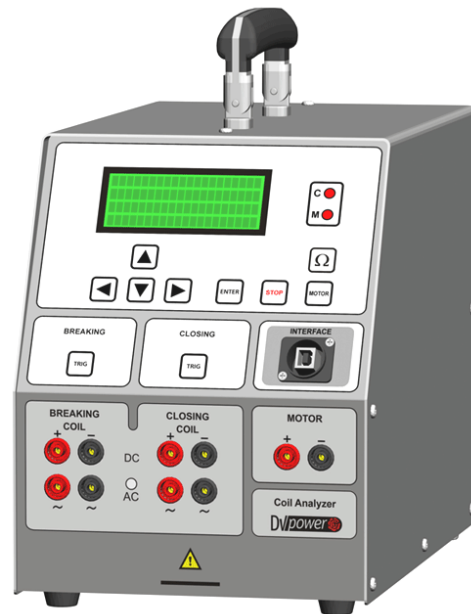




## Coil Analyzer SAT30A

- Lightweight - only 9 kg
- Powerful – up to 30 A
- Voltage 10 V to 300 V DC; 10 V - 250 V AC
- Coil resistance measurement
- Coil current measurement
- Minimum trip voltage test
- Undervoltage release test
- Fully automatic operation



### Powerful breaker coils analyzer

Coil Analyzer SAT30A is a powerful breaker coil analyzer ideal for testing circuit breakers, where substation battery is not connected or available. The SAT30A is intended to operate breaker coils, and spring charging motors as a part of commissioning and maintenance testing.

SAT30A measures current and resistance of circuit breaker coils. SAT30A can also be used to test minimum trip voltage of circuit breaker coils.

Output voltage is selectable from 10 V to 300 V DC or from 10 V to 250 V AC.

The SAT30A is powerful and versatile unit, with possibility to generate at 230V mains supply initial current of 30 A as well as continuous current according to the tables below:

Mains Voltage	Load Voltage	Max Current	Max load interval
230 V	110 V DC	24 A 20 A 10 A	20 sec 60 sec 30 min
	220 V DC	12 A 10 A 7 A	20 sec 60 sec 30 min
115 V	110 V DC	12 A 10 A 7 A	20 sec 60 sec 30 min
	220 V DC	7 A 6 A 5 A	20 sec 60 sec 30 min

Mains Voltage	Load Voltage	Max Current	Max load interval
230 V	110 V AC	10 A 5 A	1 sec 30 min
	220 V AC	10 A 5 A	1 sec 30 min
115 V	110 V AC	10 A 5 A	1 sec 30 min
	220 V AC	10 A 5 A	1 sec 30 min

The set is equipped with thermal and over current protection. SAT30A is easy to use and has accessory cable-set with touch-proof contacts.

The SAT30A has very high ability to cancel electrostatic and electromagnetic interference in HV electric fields. It is achieved by very efficient filtration. The filtration is made utilizing proprietary hardware and software.

## Applications

SAT30A is developed for use in switchyards, electric power and industrial environment. An important part of commissioning and maintenance testing is a circuit breaker testing.

SAT30A is used for:

- ✓ operating circuit breakers
- ✓ supplying spring-charging motors
- ✓ coils resistance measurement
- ✓ coils current measurement
- ✓ minimum trip voltage-test of the circuit breaker's coils
- ✓ under voltage release test
- ✓ power supply at test with breaker analyzers

SAT30A have built-in capability to perform automatic test of minimum trip voltage. The minimum trip voltage test is described in a number of international and national standards such as IEC 62271-100, ANSI C37.09 etc. Many other important parameters are possible to test with a coil analyzer. SAT30A is then used as a power supply unit. It is compatible with breaker analyzers from different vendors. SAT30A can also be used as general power supply unit or temporary battery charger.

## Automatic testing of the minimum trip voltage of a breaker

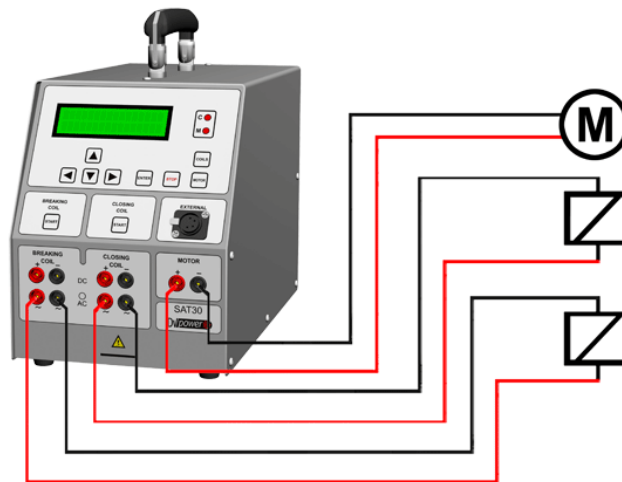
Procedure steps:

1. Make certain that the mains are de-energized on both sides of the breaker, safety grounded and local safety regulations are followed.
2. Connect Power supply unit SAT30A to the breaker's coil circuit.
3. Set the minimal test voltage.
4. Set the step voltage.
5. Set the maximal voltage.
6. Press START button.

## Coil resistance measurement as a unique option on all coil testers.

Experience from field testing of circuit breakers show that, measurement of coil resistance is very important task for circuit breaker monitoring. This feature makes Coil Analyzer SAT30A as one of most versatile and useful devices for Circuit Breaker coil analysis on market.

### Connecting a test object to SAT30A



#### Included accessories

- ✓ Mains power cable
- ✓ Ground (PE) cable
- ✓ USB cable
- ✓ DV-SAT software

#### Recommended accessories

- ✓ Cable set 6 x 2 m 2,5 mm<sup>2</sup>
- ✓ Device bag
- ✓ Cable bag

#### Optional accessories

- ✓ Cable set 6 x 5 m 2,5 mm<sup>2</sup>
- ✓ Transport case



Transport case



Cable set

### Ordering information:

Art.No.	Description
<b>SAT30AA-N-00</b>	SAT30A device with ground cable, USB cable and CD with software
<b>C6-02-02BPBP</b>	Cable set 6 x 2 m 2,5 mm <sup>2</sup>
<b>DEVIC-BAG-00</b>	Device bag
<b>CABLE-BAG-00</b>	Cable bag

Art.No.	Description
<b>C6-05-02BPBP</b>	Cable set 6 x 5 m 2,5 mm <sup>2</sup>
<b>HARD-CASE-00</b>	Transport case

**Technical data****1 - Mains Power Supply**

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Voltage single phase 110 V – 240 V AC, +10% - -15%
- Frequency 50/60Hz

**2 - Output data**

- Coils output DC Voltage 10 V to 300 V DC
- Coils output AC Voltage 10 V to 250 V AC; 50/60 Hz; true RMS
- Motor output DC Voltage 10 V to 250 V DC
- Output current max 30 A

**3 - Measurement**

- Voltage 10 V – 300 V DC or 10 V – 250 V AC
- Current 1 A – 50 A
- Accuracy  $\pm (0,5\% \text{ rdg} + 0,5\% \text{ FS})$

**4 - Coil resistance measurement**

- Measuring range / Resolution 1  $\Omega$  - 99,9  $\Omega$  / 0,1  $\Omega$   
100  $\Omega$  – 999  $\Omega$  / 1  $\Omega$
- Typical accuracy  $\pm (0,5\% + 0,5 \text{ F.S.})$

**5 - Environment conditions**

- Operating temperature  $-10^{\circ}\text{C} - +50^{\circ}\text{C}$
- Storage and transportation  $-25^{\circ}\text{C} - +70^{\circ}\text{C}$
- Humidity 5% – 95% relative humidity, non-condensing

**6- Dimensions and Weight**

- Dimensions 198 mm x 255 mm x 380mm  
7,8 in x 10 in x 15 in  
(W x H x D) without handle
- Weight 9kg / 19,8lbs

**7- Mechanical protection** IP 43**8 - Warranty** three years**9 - Safety Standards**

- European standards LVD 2006/95/EC (EN 61010-1)
- International standards IEC 61010-1  
UL 3111-1  
CAN/CSA-C22.2 No 1010.1-92

**10 - Electromagnetic Compatibility (EMC)**

- CE conformity EMC standard 2004/108/EC

All specifications herein are valid at ambient temperature of + 25 °C and recommended accessories.  
Specifications are subject to change without notice.