



Coil Analyzer SAT30

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



Powerful breaker coils analyzer

SAT30 is a powerful breaker coils analyzer using the latest power electronics technology. SAT30 generates ripple free DC or AC voltage and it is developed for regular maintenance tests of power circuit breakers.

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

The SAT30 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 | 800 msec 30 min |
| | 220 V AC | 10 A 5 A | 800 msec 30 min |
| 115 V | 110 V AC | 10 A 5 A | 800 msec 30 min |
| | 220 V AC | 10 A 5 A | 800 msec 30 min |

The set is equipped with thermal and over current protection. SAT30 is easy to use and has accessory cable-set with touch-proof contacts.

The SAT30 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

SAT30 is developed for use in switchyards, electric power and industrial environment. An important part of commissioning and maintenance testing is a circuit breaker testing.

SAT30 is used for:

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

SAT30 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 breaker analyzer. SAT30 is then used as a power supply unit. It is compatible with breaker analyzers from different vendors. SAT30 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:


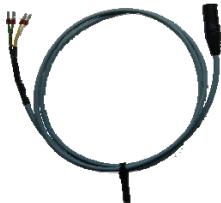

1. Make certain that the mains are de-energized on both sides of the breaker, safety grounded and local safety regulations are followed.
2. Connect Power supply unit SAT30 to the breaker's coil circuit.
3. Set the minimal test voltage.
4. Set the step voltage.
5. Set the maximal voltage.
6. Press START 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 SAT30 as one of most versatile and useful devices for Circuit Breaker coil analysis on market.

Standard accessories

- ✓ Cable set 6 x 2m 2,5 mm²
- ✓ Extern trigger cable set 2 m
- ✓ Mains power cable
- ✓ Ground (PE) cable
- ✓ Transport bags

| | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |
| Cable set | Extern trigger cable |
|  | |
| Transport case | |

Optional accessories

- ✓ Cable set 6 x 5 m 2,5 mm²
- ✓ 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 Ω - 99,9 Ω / 0,1 Ω
100 Ω – 999 Ω / 1 Ω
- 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 EN 61010-1
LVD 73/23/EEC
- International standards IEC 61010-1
UL 3111-1
CAN/CSA-C22.2 No 1010.1-92

10 - Electromagnetic Compatibility (EMC)

- CE conformity EMC standard 89/336/EEC
- Emission EN 50081-2, EN 61000-3-2/3
- Interference Immunity EN 50082-2

*Specifications are subject to change without notice.



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