

Coil Tester & Power Supply **POB40AD**

- Lightweight - only 10,60 kg
- Powerful – up to 40 A
- Voltage 10 V to 300 V DC
- Voltage 10 V to 250 V AC
- Output protection
- Fully automatic operation



Powerful DC and AC power supply for a circuit breaker test

The Coil Tester & Power Supply POB40AD is a powerful tool for testing circuit breakers, where the substation battery is not connected or available. It operates the circuit breaker coils and spring charging motors as a part of commissioning and maintenance testing.

The POB40AD generates true DC (ripple free) or AC voltage and can also be used to test a

minimum trip voltage of the circuit breaker coils. The output voltage is selectable from 10 V to 300 V DC or from 10 V to 250 V AC.

This device is a powerful and a versatile unit which, at 230 V mains supply, is capable of generating the initial current of 40 A as well as the continuous currents as presented in tables 1 and 2:

Mains Voltage	Load Voltage	Max Current	Max load interval
230 V	110 V DC	30 A 24 A 12 A	20 sec 60 sec continuous
	220 V DC	15 A 12 A 8 A	20 sec 60 sec continuous
115 V	110 V DC	15 A 12 A 8 A	20 sec 60 sec continuous
	220 V DC	8 A 6 A 5 A	20 sec 60 sec continuous

Table 1

Mains Voltage	Load Voltage	Max Current	Max load interval
230 V	110 V AC	15 A 10 A	10 sec continuous
	220 V AC	12 A 6 A	10 sec continuous
115 V	110 V AC	12 A 8 A	10 sec continuous
	220 V AC	8 A 5 A	10 sec continuous

Table 2

The set is equipped with thermal and over-current protection. The POB40AD is easy to use and has the accessory cable-set with touch-proof contacts. Thanks to a proprietary

hardware and software design solution, it is capable of canceling electrostatic and electromagnetic interference in HV electric fields.

Application

The POB40AD is used in switchyards, power and industrial environment, in manufacturing, in commissioning and as well in maintenance of the circuit breakers for:

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

The POB40AD has a 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. Performing tests and acquiring of many other important parameters are possible with circuit breaker analyzers.

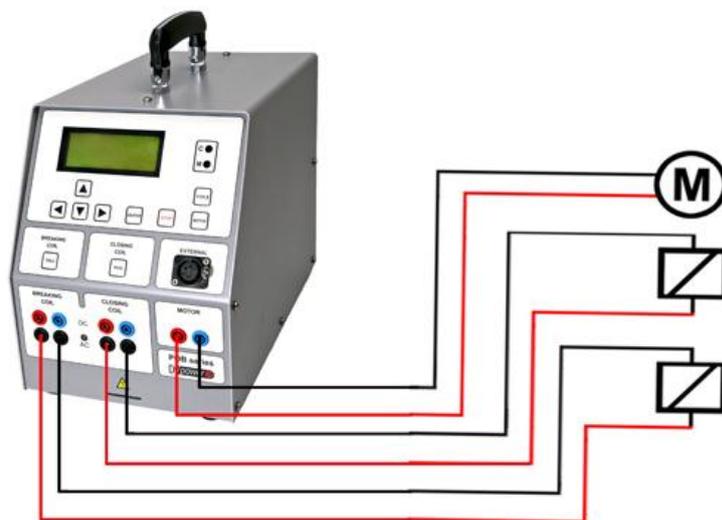
The POB40AD is then used as a power supply unit. It is compatible with breaker analyzers from different vendors. The POB40AD can also be used as a general power supply unit or temporary battery charger.

Automatic testing of the minimum trip voltage of a breaker

Procedure steps:

1. The circuit breaker mains terminals have to be de-energized and safety grounded on both sides and the auxiliary (control) circuit as well. The local safety regulations should be followed.
2. Connect the Power supply unit POB40AD to the breaker's coil circuit.
3. Set the minimum test voltage.
4. Set the step voltage.
5. Set the maximum voltage.
6. Press the TRIG key

Connecting the POB40AD to a test object



Technical Data

Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Voltage 90 V – 264 V AC, 50/60 Hz, Single phase
- Power consumption 4000 VA

Output data

- Coils output DC Voltage 10 V to 300 V DC (varies for different device models)
- Coils output AC Voltage 10 V to 250 V AC (varies for different device models); 50/60 Hz; true RMS
- Motor output DC Voltage 10 V to 250 V DC
- Output current max 40 A (varies for different device models)

Measurement

- Voltage 10 V – 300 V DC or 10 V – 250 V AC
- Current 1 A – 50 A
- Accuracy $\pm (0,25\% \text{ rdg} + 0,25\% \text{ FS})$

Environment conditions

- Operating temperature -10°C - $+55^{\circ}\text{C}$ / 14 F – 131 F
- Storage and transportation -40°C - $+70^{\circ}\text{C}$ / -40 F – 158 F

- Humidity
Maximum relative humidity 95%, non-condensing

Dimensions and Weight

- Dimensions (W x H x D) without handle
205 mm x 287 mm x 410 mm
8,1 in x 11,3 in x 16,14 in
- Weight 10,60 kg / 23.37 lbs

Mechanical protection

- IP 43

Warranty

- Three years

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

Electromagnetic Compatibility (EMC)

- CE conformity EMC standard 2004/108/EC
- Emission EN 61326-1
- Immunity EN 61326-1

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



Transport case

Cable set

External Trigger cable

POB series – models

POB30AD

	<p>Generates 10 V to 300 V DC and 10 V to 250 V AC on coils outputs.</p> <p>Motor output range selectable from 10 V to 250 V DC.</p> <p>Max output current 30 A.</p>
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POB30D

	<p>Generates 10 V to 300 V DC on coils outputs.</p> <p>Motor output range selectable from 10 V to 250 V DC.</p> <p>Max output current 30 A.</p> <p>No AC voltage available.</p> <p>No external trigger connector available.</p>
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POB40ADL

	<p>Generates 1 V to 50 V DC and 1 V to 40 V AC on coils outputs.</p> <p>Motor output range selectable from 1 V to 50 V DC.</p> <p>Max output current 40 A.</p>
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POB40D

	<p>Generates 10 V to 300 V DC on coils outputs.</p> <p>Motor output range selectable from 10 V to 250 V DC.</p> <p>Max output current 40 A.</p> <p>No AC voltage available.</p> <p>No external trigger connector available.</p>
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POB40DL

	<p>Generates 1 V to 50 V DC on coils outputs.</p> <p>Motor output range selectable from 1 V to 50 V DC.</p> <p>Max output current 40 A.</p>
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Order info:

Instrument	Art.No.
Coil Tester & Power Supply POB40AD	POB40AD-N-00
Coil Tester & Power Supply POB30AD	POB30AD-N-00
Coil Tester & Power Supply POB30D	POB30AC-N-00
Coil Tester & Power Supply POB40ADL	POB40AD-N-01
Coil Tester & Power Supply POB40D	POB40AC-N-00
Coil Tester & Power Supply POB40DL	POB40AC-N-01

Included accessories
Ground cable
Power supply cable

Recommended accessories	Art.No.
Cable set 6 x 2 m 2,5 mm ²	C6-02-02BPBP
Device bag	DEVIC-BAG-00
Cable bag	CABLE-BAG-00

Optional Accessories	Art.No.
Cable set 6 x 5 m 2,5 mm ²	C6-05-02BPBP
Transport case	HARD-CASE-ME
External Trigger cable set 2 m	TC-02-04MCBP
Coil supply cable set 2 x 2 m 2,5 mm ² with banana plugs	C2-02-02BPBP