

Coil Trigger Unit CTU80

- Lightweight - only 7,5 kg
- Input voltage 10 V to 300 V DC
- Output voltage 5% to 95% of input voltage
- Output protection
- Programmable DC power supply
- Minimum trip voltage test



Variable voltage DC power supply for circuit breaker testing

The Coil Trigger Unit CTU80 is a variable voltage DC power supply for testing circuit breakers. The CTU80 uses the substation's DC power supply to generate a programmable output voltage from 5% to 95% of the source voltage with 2% regulation at maximum current (up to 80 A). It operates the circuit breaker coil and spring charging motor as a part of commissioning and maintenance testing.

The CTU80 generates true DC (ripple free) voltage and can also be used to test a minimum trip voltage of the circuit breaker coils. The CTU80's input voltage range is from 10 V to 300 V DC. The output voltage is set using the buttons on the front panel of the device.

The set is equipped with thermal and overcurrent protection. The CTU80 is easy to use and has the accessory cable set with touch-proof contacts. Thanks to a proprietary hardware, it is capable of canceling electrostatic and electromagnetic interference in HV electric fields.

The CTU80 is equipped with one pulse and one continuous DC output. Both of these outputs are capable of sourcing up to 80 A. The unit has a built-in short-circuit protection feature that protects the tested coil if the current exceeds 80 A or if the overcurrent's duration exceeds 500 milliseconds. The input circuit is also protected from a reversed polarity connection.

A general purpose single-channel timer is also available for checking circuit breaker operating time or for any other timing application.

The CTU80 has an back-lit LCD screen, 20 characters by 4 lines. The input and output voltages are displayed on the screen during the test.

The built-in, single-channel timer can be used to verify circuit breaker timing parameters or for any timing application. The timing range is from 0,000 to 999,000 seconds with an accuracy of 0,1 milliseconds. The timer can be started by circuit breaker coil initiation or can be triggered by the dry or wet contact input. The timer can be stopped by either the dry or wet contact input.

Application

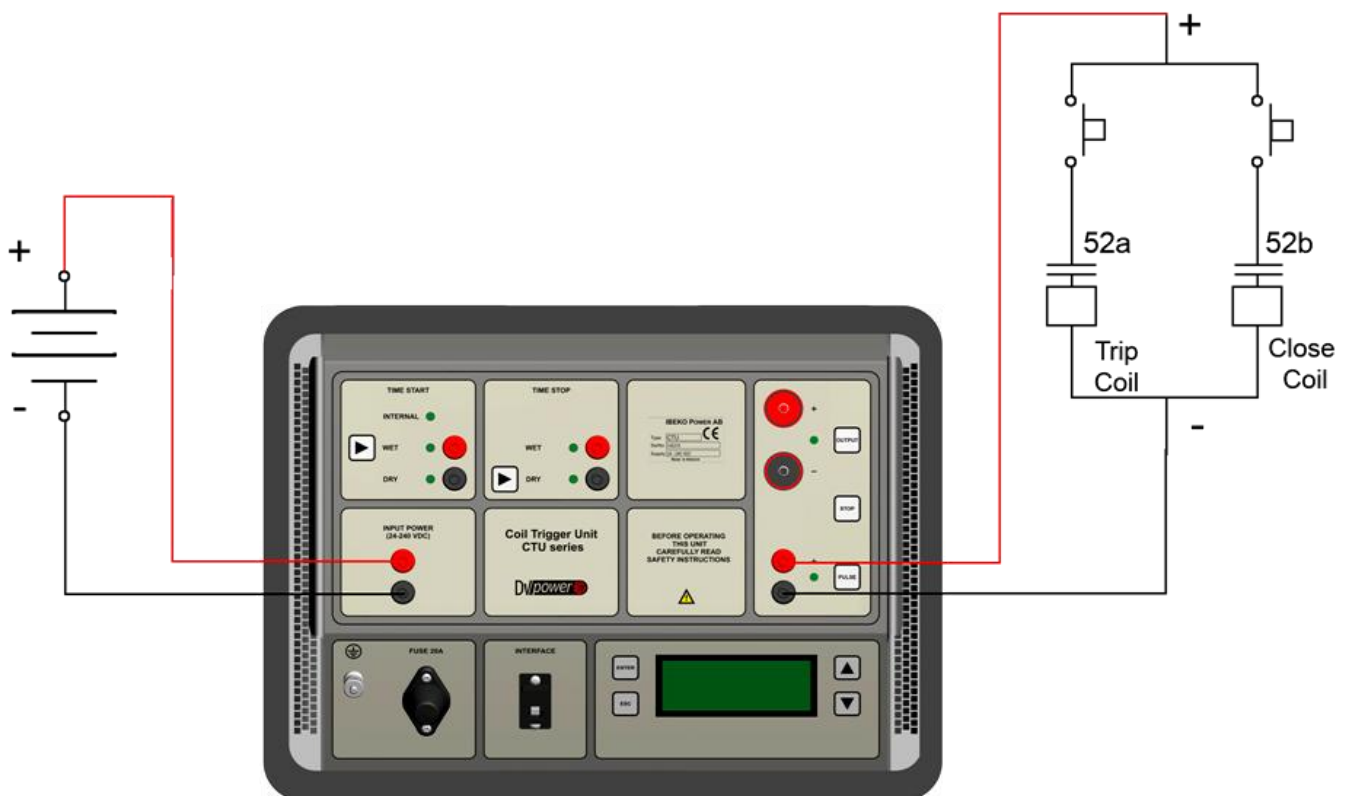
The CTU80 is used in switchyards, power and industrial environment, in manufacturing, in commissioning and as well in maintenance of the circuit breakers for:

- operating circuit breakers
- supplying spring-charging motors
- power supply at test with breaker analyzers

The CTU80 is then used as a power supply unit. It is compatible with breaker analyzers from different vendors. The CTU80 can also be used as a general power supply unit.

Connecting the CTU80 to the test object

On the picture below is showed a connection diagram of the CTU80 device to the test object:



Accessories

Included accessories

- Mains power cable
- Ground (PE) cable

Recommended accessories

- Cable set 2 x 2 m 2,5 mm²
- Cable set 2 x 2 m 10 mm²
- Cable bag

Optional accessories

- Cable set 2 x 5 m 2,5 mm²
- Cable set 2 x 5 m 10 mm²
- Transport case



Transport case

Cable set

Cable bag

Ordering information:

Art.No.	Description
CTU8000-N-00	CTU80 device with ground cable
CABLE-BAG-00	Cable bag
C6-02-02BPBP	Cable set 2 x 2 m 2,5 mm ²
C6-02-10BPBP	Cable set 2 x 2 m 10 mm ²

Art.No.	Description
C6-05-02BPBP	Cable set 2 x 5 m 2,5 mm ²
C6-05-10BPBP	Cable set 2 x 5 m 10 mm ²
HARD-CASE-RG	Transport case

Technical Data

1 - Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Voltage 10 V – 300 V DC, single phase

2 - Output data

- Coils output DC Voltage 5% - 95% of input voltage
- Motor output DC Voltage 5% - 95% of input voltage
- Output current max 80 A

3 - Measurement

- Voltage 0 V – 300 V DC
- Accuracy $\pm (0,25\% \text{ rdg} + 0,25\% \text{ FS})$

5 - Environment conditions

- Operating temperature $-10^{\circ}\text{C} - +55^{\circ}\text{C} / 14\text{ F} - 131\text{ F}$
- Storage and transportation $-40^{\circ}\text{C} - +70^{\circ}\text{C} / -40\text{ F} - 158\text{ F}$
- Humidity 5% - 95% relative humidity, non-condensing

6- Dimensions and Weight

- Dimensions 405 mm x 170 mm x 335 mm
16 in x 6,7 in x 13,2 in
(W x H x D) with handle down
- Weight 7,5 kg / 15.4 lbs

7- Mechanical protection

IP67 (with closed lid)

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 61010-1, 2nd edition, including Amendment 1

10 - Electromagnetic Compatibility (EMC)

- CE conformity EMC standard 89/336/EEC
EMC directive 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.*