

CSU20A

Current and voltage source

User's Manual



Megger

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1 General

The CSU20A is intended for use together with the SVERKER 750 when there is need for a second current supply, as when testing differential relay protection equipment. It is also possible to use a half-wave and a full-wave rectified output when testing "harmonic restraint" and "target/seal in"

2 Safety

Safety instructions



Important

Read the manual and comply with the following instructions before using the CSU20A.

Always comply with local safety regulations.



Warning

High voltage/current on input/output terminals.

Do not attempt to service the instrument yourself. Opening or removing covers may expose you to dangerous voltage. If you attempt to service the instrument yourself the warranty is no longer valid.

Do not use any accessories that are not intended for use together with the instrument.

Disconnect the instrument from the mains before cleaning. Use a damp cloth for cleaning. Do not use liquid cleaners or aerosol cleaners.



Important

Always turn the equipment off before connecting.

Always use safety connecting leads.

Always connect protective earth (ground).

Never leave the instrument unattended while it is turned on.

Use only approved mains detachable cable set with the instrument. Main supply cables shall be rated for the maximum current for the equipment and the cable shall meet the requirements of IEC 60227 or IEC 60245. Mains supply cables certified or approved by a recognized testing authority are regarded as meeting this requirement.

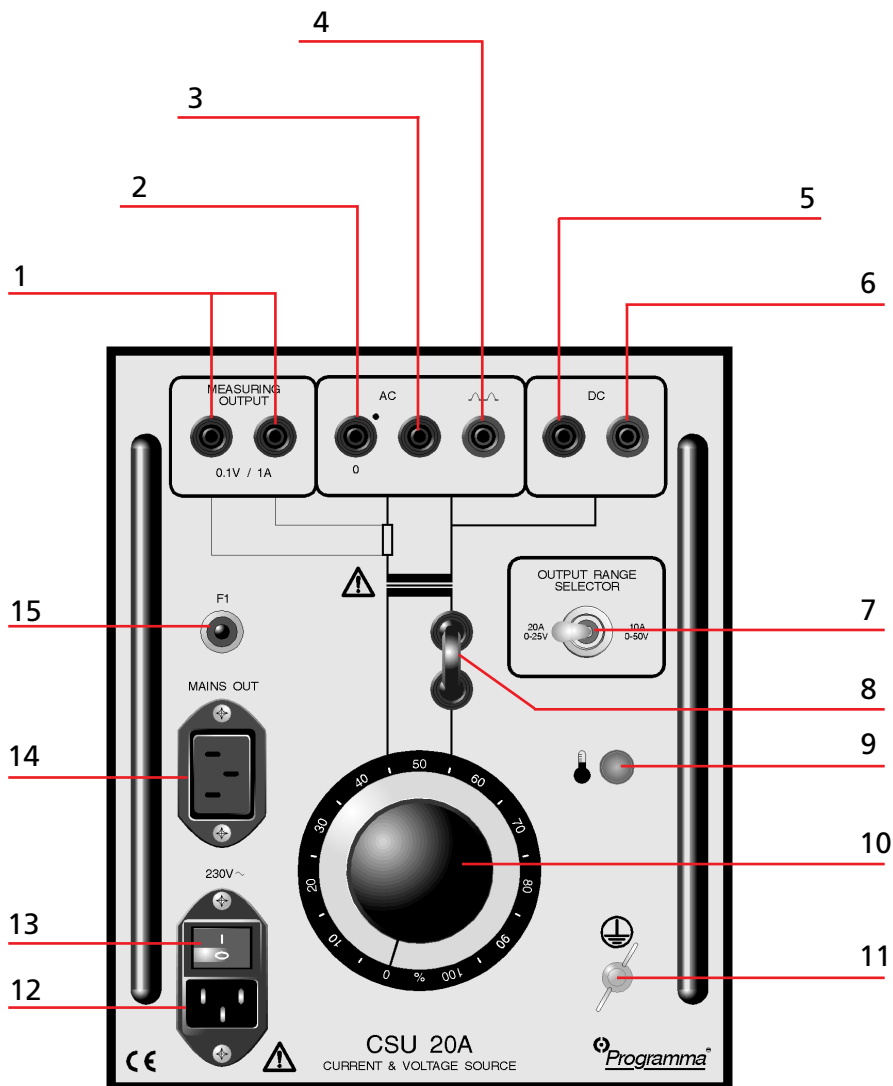
Unplug the instrument from the mains supply when it is left unattended or not in use.

Refer all servicing to Programma authorized personnel.

If you need to return the instrument, please use either the original crate or one of equivalent strength

3 Control panel

1. Measuring output — to be connected to the SVERKER 750 voltmeter
2. AC terminal 0, phase corresponds to SVERKER 750 (if Sverker is connected to MAINS OUT 14)
3. AC terminal
4. Half wave rectified output
5. DC terminal –
6. DC terminal +
7. Current range selector
8. Terminal for connection of resistors for increasing the internal impedance
9. Thermal fuse indicator
10. Knob (variable transformer)
11. Ground (earth) connector
12. Mains input
13. Mains switch
14. Mains output (unswitched), to be connected to the SVERKER 750 mains input
15. Automatic fuse (3/6 A)



4 Operating instructions



Important

Read the manual and comply with the Safety instructions, see page 5, before using CSU20A.

Always comply with local safety regulations.

When a load is applied to the CSU20A, connector (8) must be short-circuited either via the shorting jumper or external resistors.

The switch (7) must only be operated while the unit is unloaded.

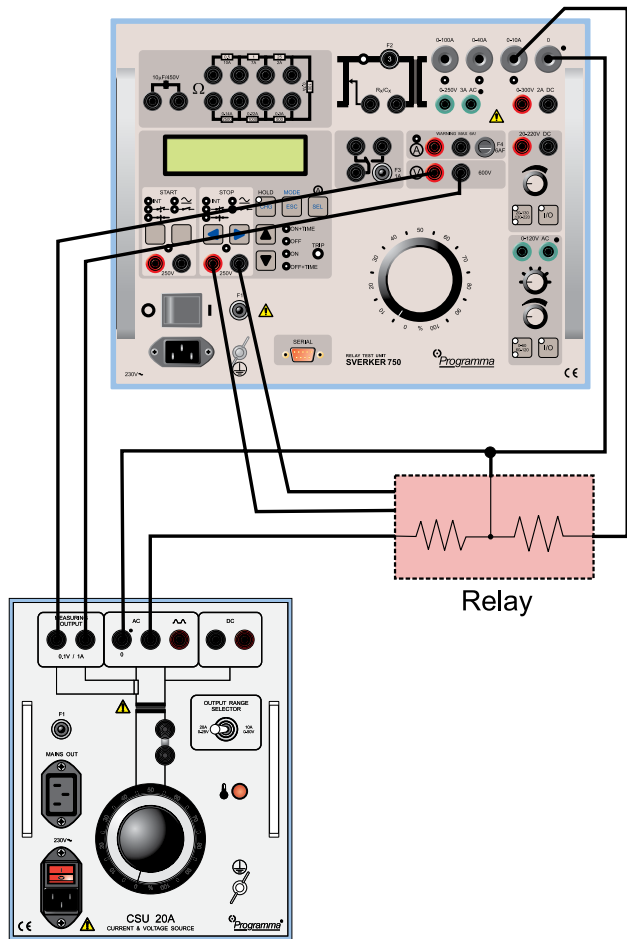
- 1] Make sure that switch (13) is in the OFF "0" position before making the connections.
- 2] Use toggle switch (7) to select either 20 A or 10 A test current.
- 3] Connect the current cables to output terminals (2), (3).
- 4] Turn the knob (10) down to zero and set the switch (13) to the ON "1" position.
- 5] Check the output current using Sverker's voltmeter input connected to measuring output (1).
- 6] Adjust the output current to the desired value using the knob (10).

Note *If red lamp (9) lights up, it indicates that the thermal cutout has been triggered. It will be reset automatically when the temperature has returned to its normal level.*

Application examples

- 1] Connect CSU20A to mains and SVERKER 750 to CSU20A mains output.
- 2] Connect SVERKER 750 and CSU20A outputs to the relay.
- 3] Connect the tripsignal to the STOP input on SVERKER 750.
- 4] Set Sverker's Ext. Voltmeter to SHUNT, value 100 mΩ.
- 5] Connect the CSU20A measuring output to the voltage input on SVERKER 750.

- 6] Set I1 with SVERKER 750 and I2 with CSU20A and test limit/settings of the differential relay.
- 7] Use OFF+TIME to measure the trip time.



Connection diagram for testing differential relays using SVERKER 750 and CSU20A.

Your "One Stop" Source for all your electrical test equipment needs

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