

Bob van Evelingen



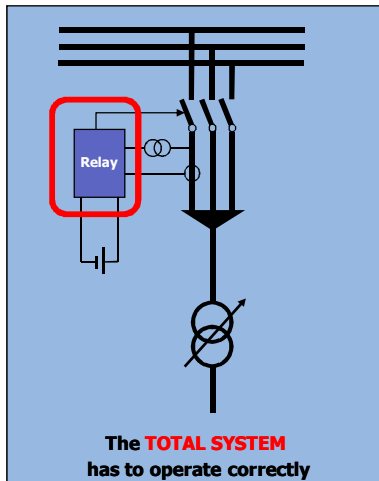
Relay Test Unit  
**SVERKER 750/780**

[www.programmabob.nl](http://www.programmabob.nl)

**Megger**  
AUTHORISED DISTRIBUTOR

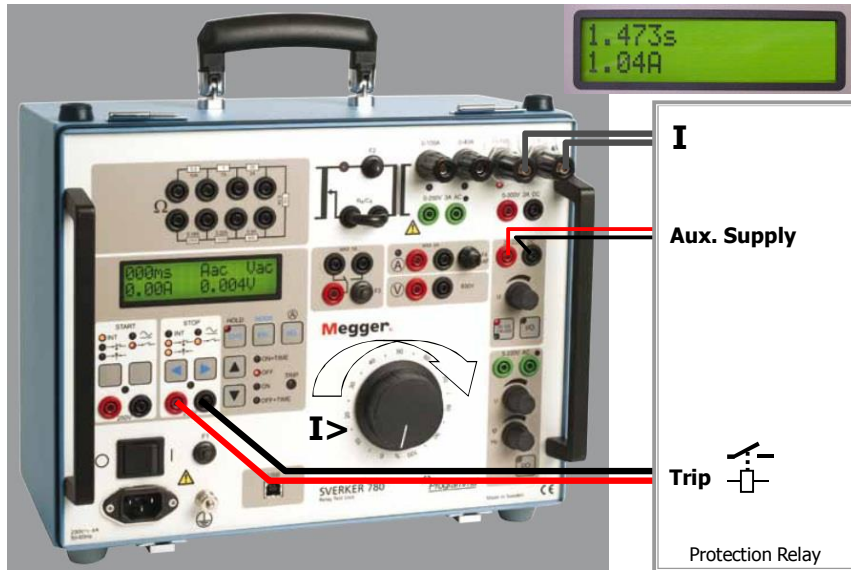
**SVERKER 750/780**

[Programmabob.nl](http://Programmabob.nl)



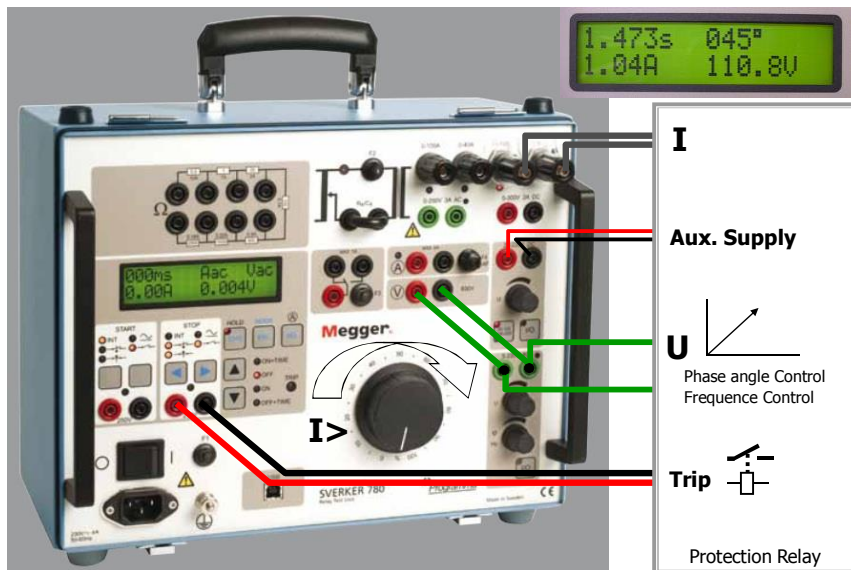
## Auxiliary Supply

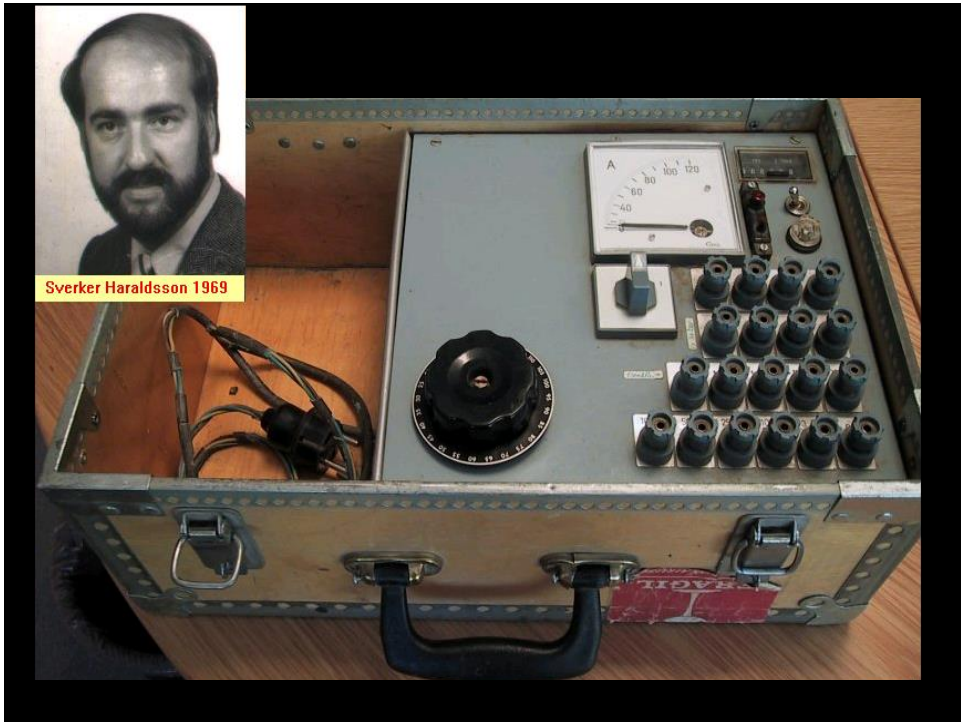
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## Phase Angle Control

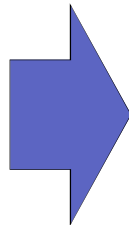
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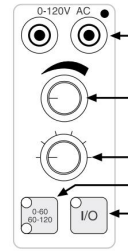
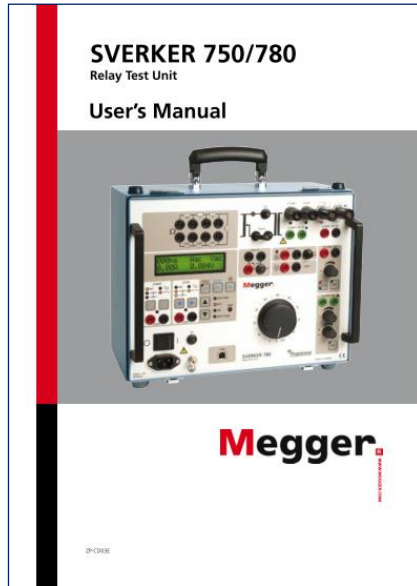
## History - SVERKER 750/780

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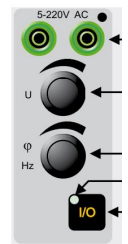


# User's Manual SVERKER

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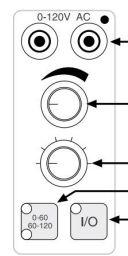
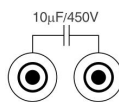
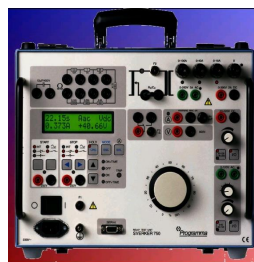
**SVERKER 750**



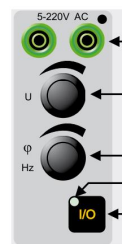
**SVERKER 780**

# Compare SVERKER 750/780

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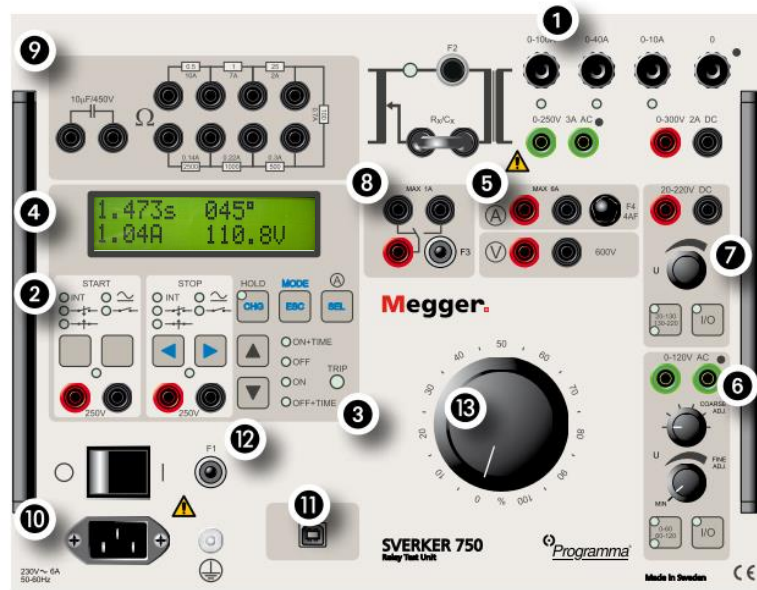
**SVERKER 750**



**SVERKER 780**

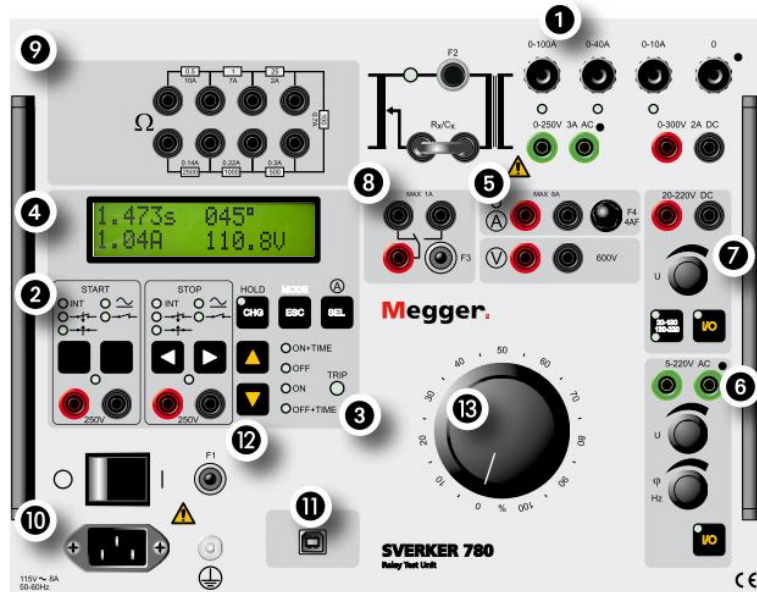
# Front Panel SVERKER 750

[Programmabob.nl](http://Programmabob.nl)



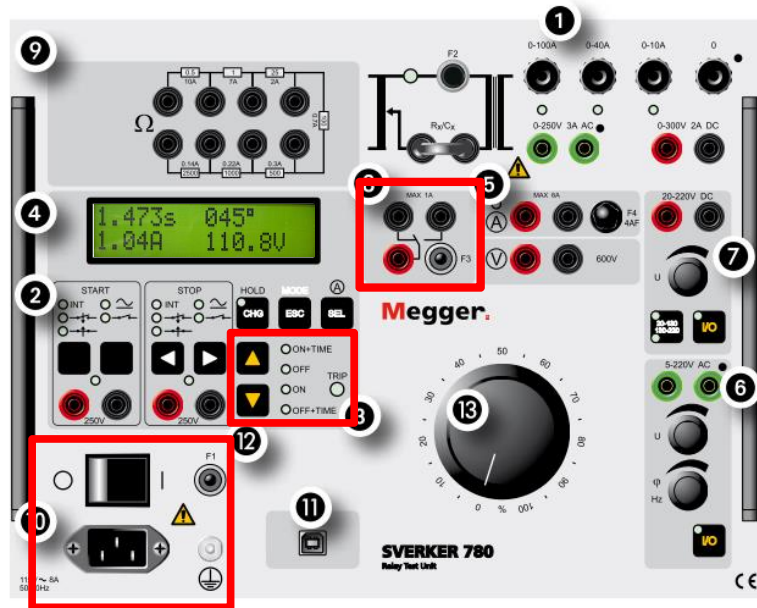
# Front Panel SVERKER 780

[Programmabob.nl](http://Programmabob.nl)



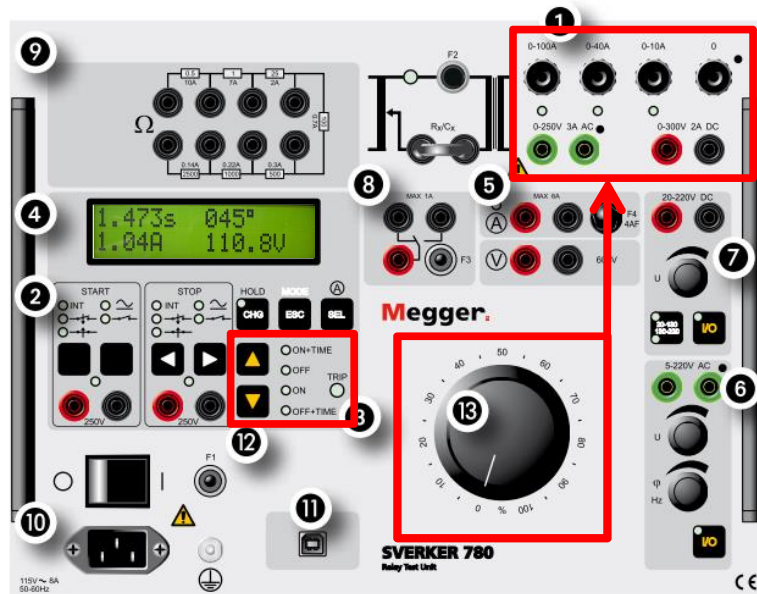
## On/Off + Time

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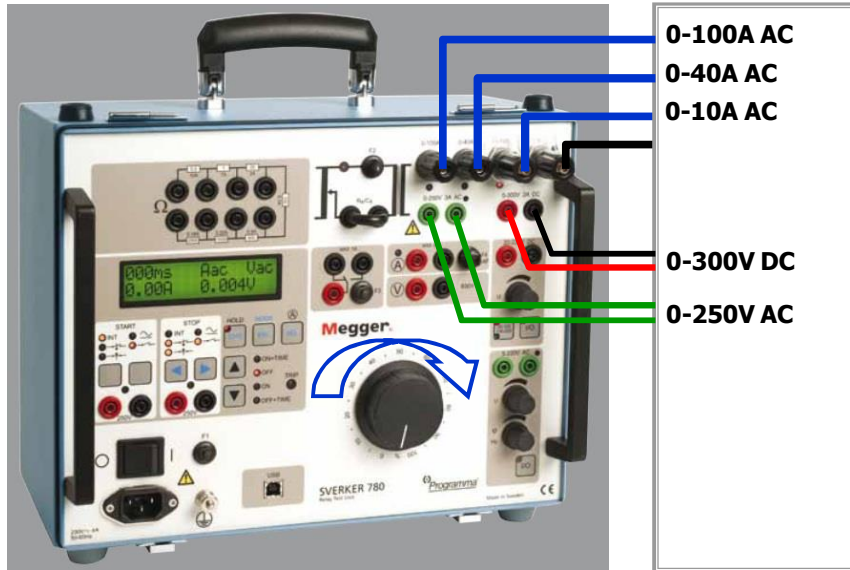
## Control Current & Voltage

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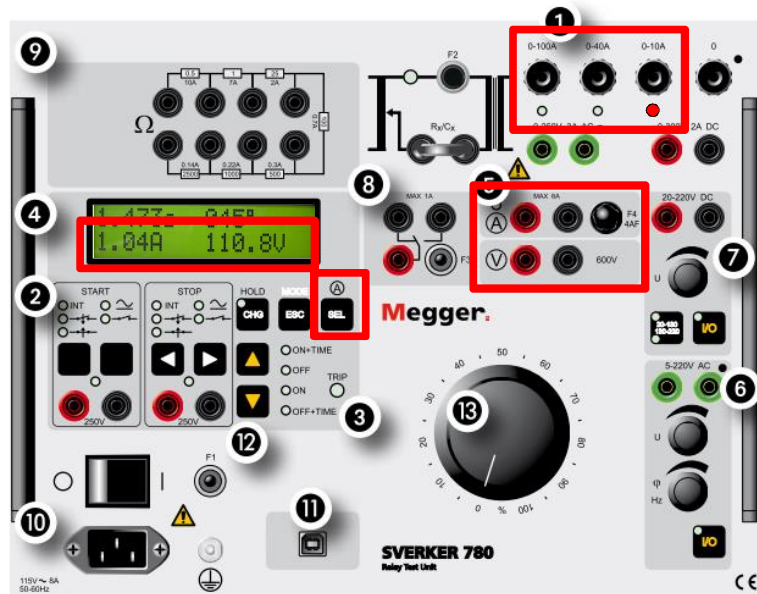
## Control Current & Voltage

[Programmabob.nl](http://Programmabob.nl)



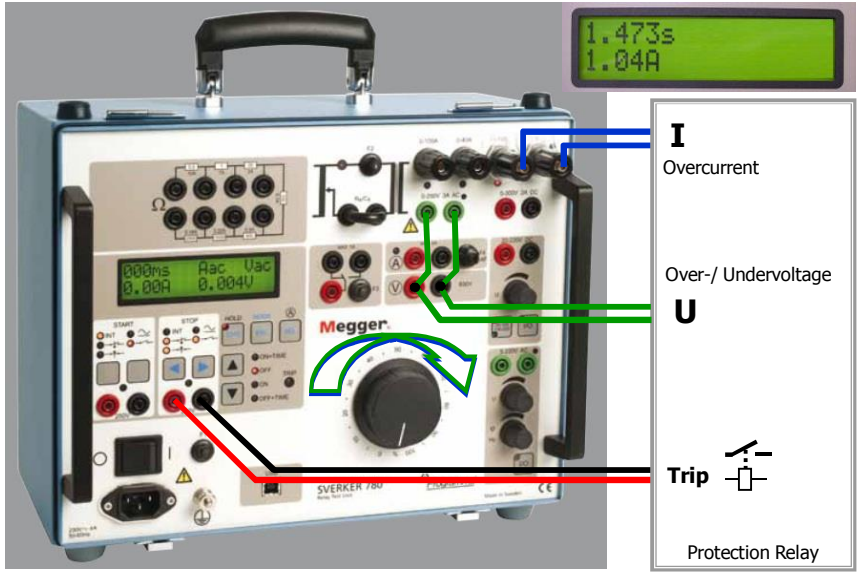
## Ammeter & Voltmeter

[Programmabob.nl](http://Programmabob.nl)



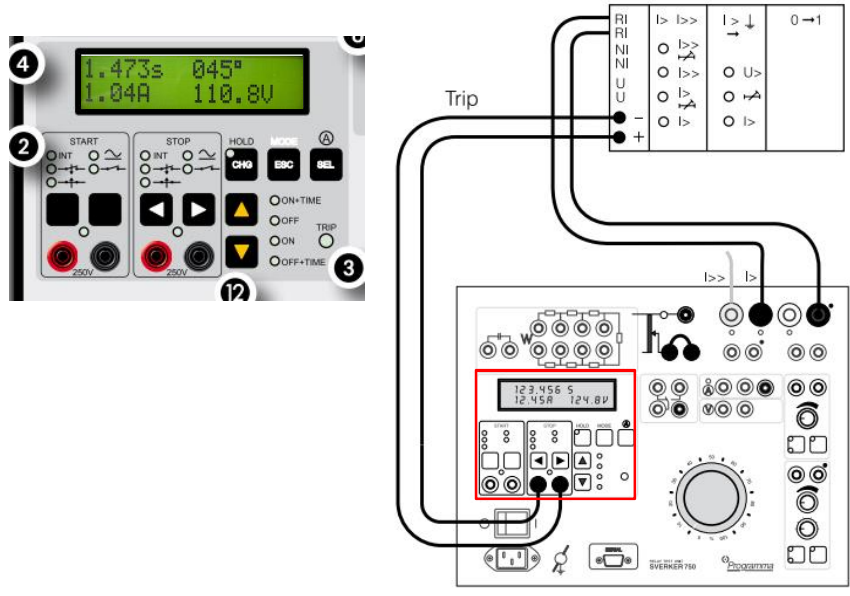
# Testing Protection Relays

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# Trip-Time Relays

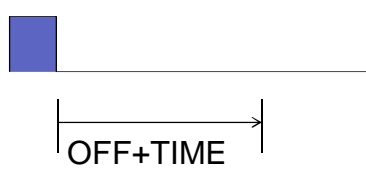
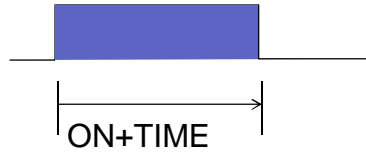
Programmabob.nl





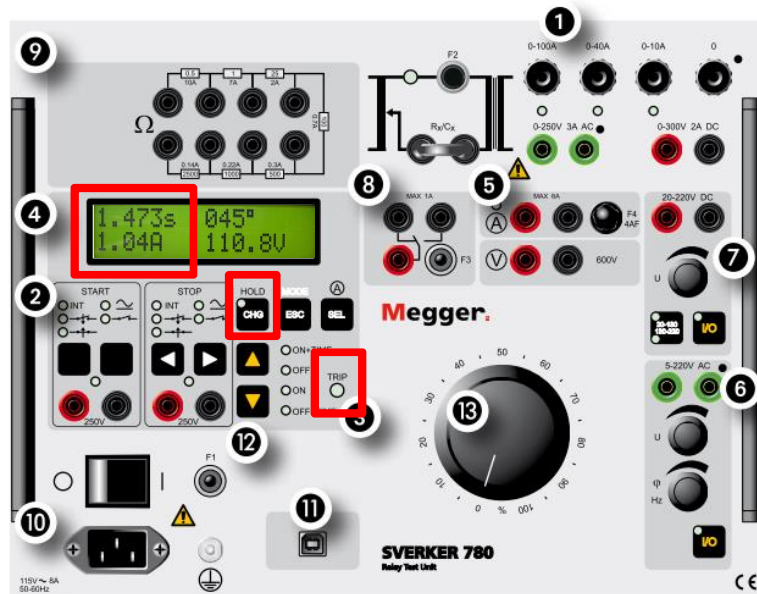
# Trip-Time Relays

Programmabob.nl



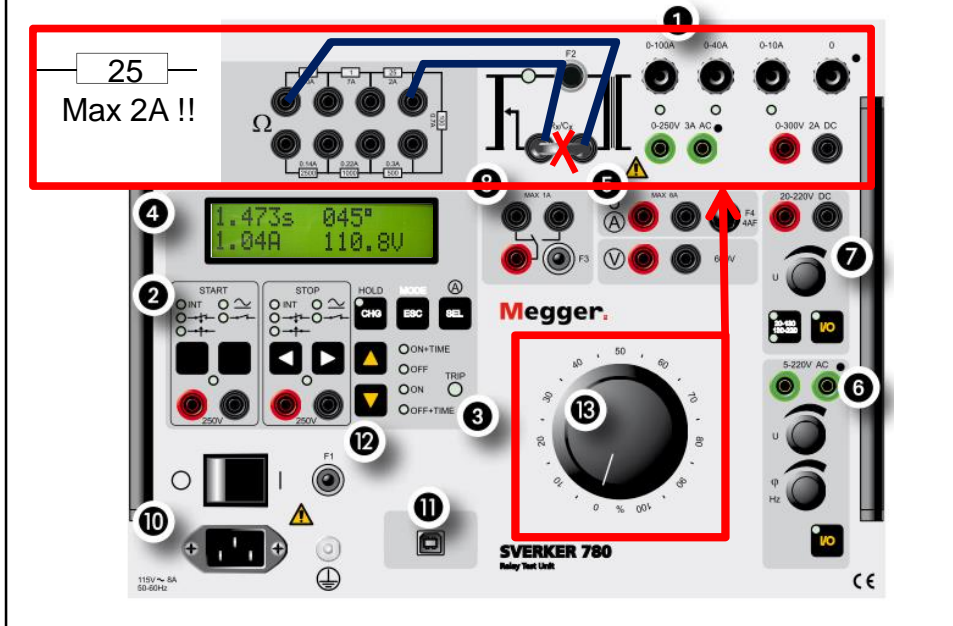
# HOLD-function

Programmabob.nl



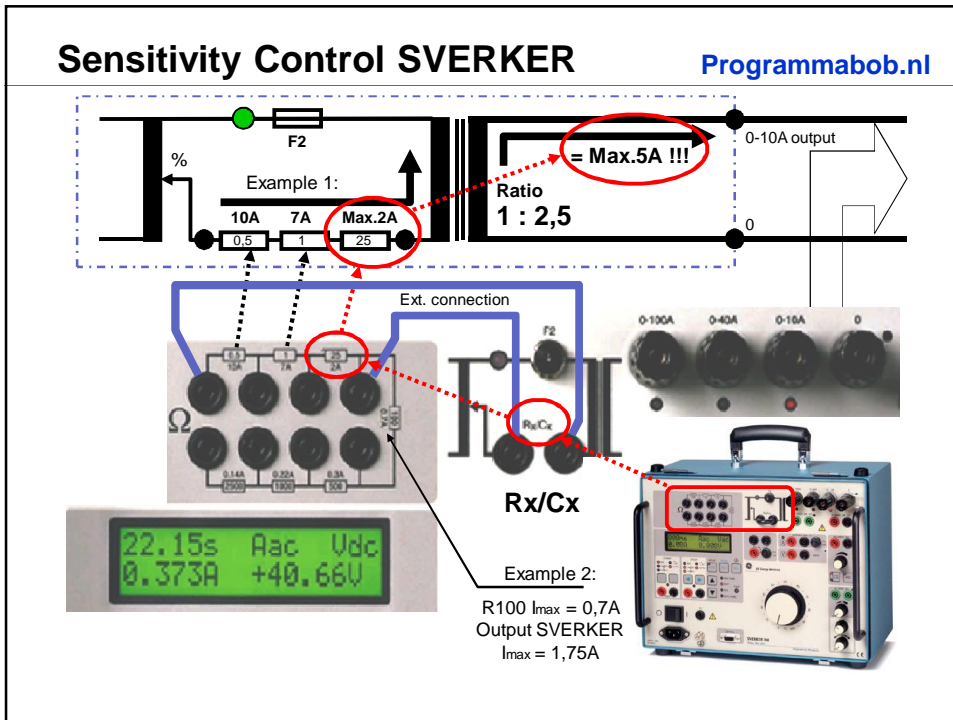
## Fine Control

Programmabob.nl



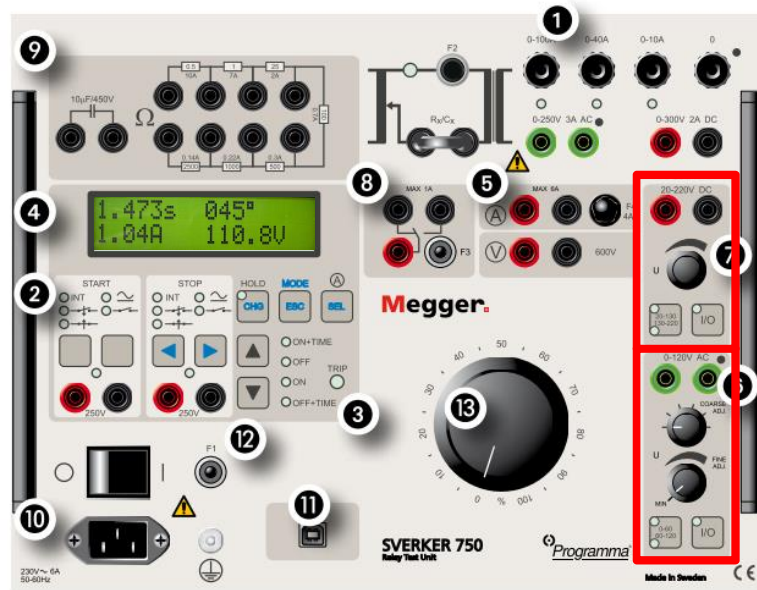
## Sensitivity Control SVERKER

Programmabob.nl



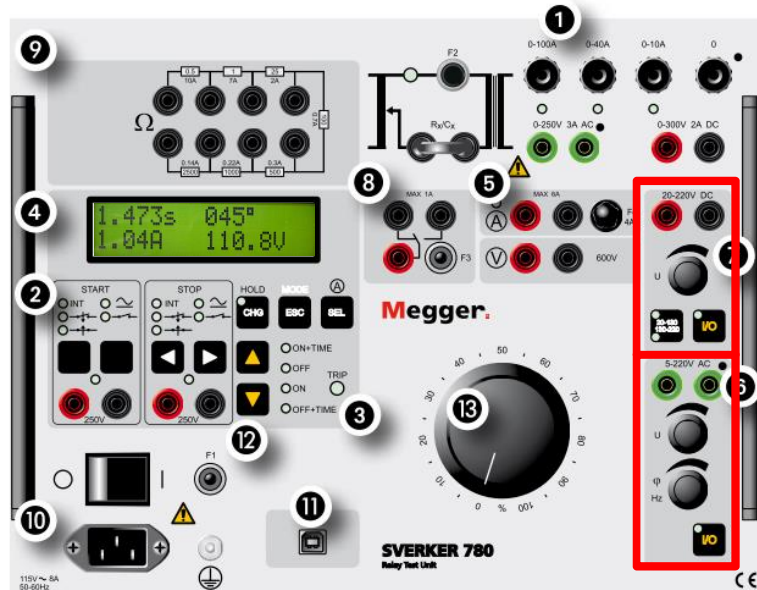
# DC & AC-Supply SVERKER 750

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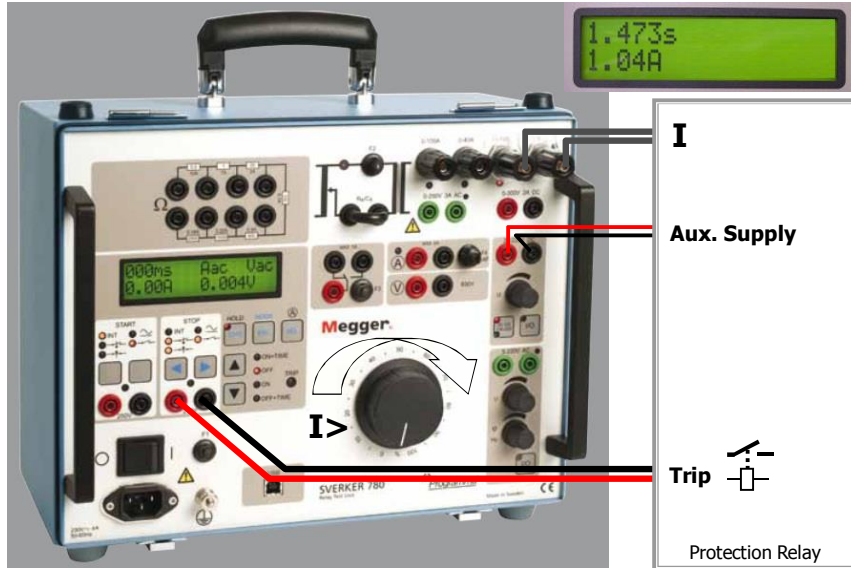
# DC & AC-Supply SVERKER 780

[Programmabob.nl](http://Programmabob.nl)



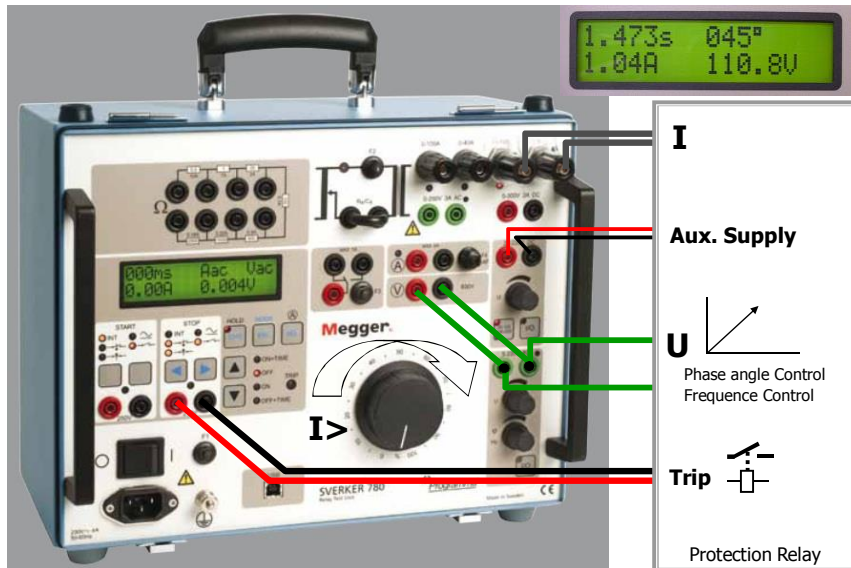
## Auxiliary Supply

Programmabob.nl



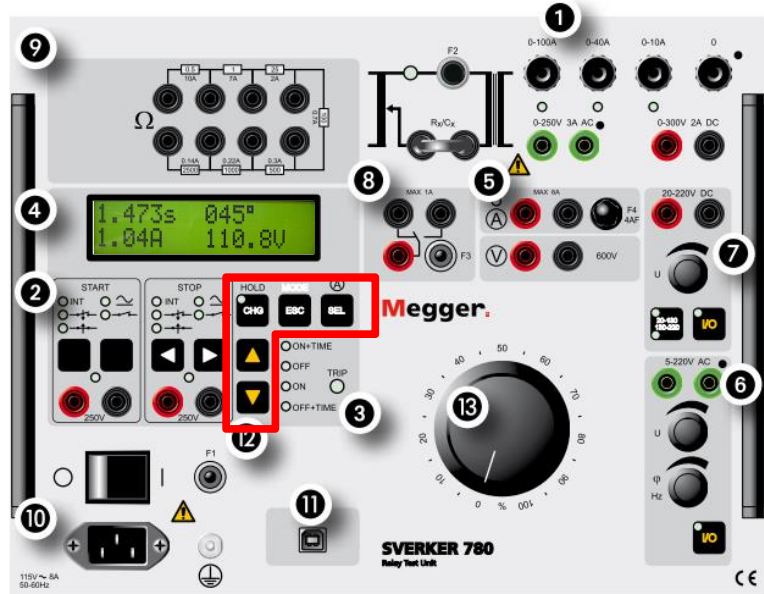
## Phase Angle Control

Programmabob.nl



# Menu & Settings

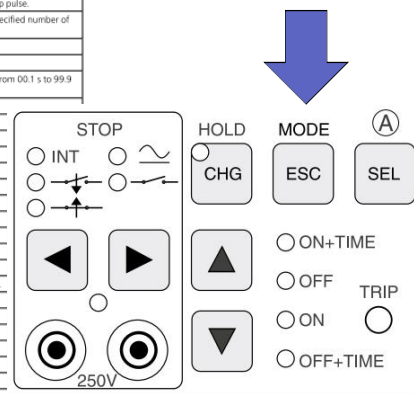
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# Menu & Settings

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Menu level 1	Menu level 2 options	Explanation
Test mode	Normal	Measures time from START to STOP.
	Tripp + pulse time	Measures time from START to STOP and also the duration of the trip pulse.
	Reclose: #01 999 s	Sets time for reclosing. Max 49 reclosings. The total time for the specified number of reclosings can range from 001 to 999 s.
Injection	Maintained	Generation continues without time limit.
	Momentary	Generation continues while button is kept pressed.
	Max time 99.9 s	Generation continues throughout a preset interval that can range from 00.1 s to 99.9 s.
	External start	See section 5.6
Ammeter	AC	Measures AC, true RMS.
	DC	Measures DC, mean value.
	Unit: Ampere	Expressed in amperes.
	Unit: % of nom I	Expressed as % of nominal current.
	Nom I: 001 A	Used to set nominal current.
	Range: Auto	Range selected automatically.
Voltmeter	Range: Low	Fixed low range.
	Range: High	Fixed high range.
	AC	Measures AC, true RMS.
	DC	Measures DC, mean value.
	Shunt (1-999 mΩ)	Default shunt value is 100 mΩ. Displayed value is shown in A or kA.
	Unit: Volt	Expressed in volts.
Q, φ, W, VA	Unit: % of nom U	Expressed as % of nominal voltage.
	Nom U: 063 v	Used to set nominal voltage.
	Range: Auto	Range selected automatically.
	Range: Low	Fixed low range.
	Range: Mid	Fixed mid range.
	Range: High	Fixed high range.
	None	No extra measurement function displayed
	Z (∠ φ)	Impedance (magnitude + phase angle)
	Z (∠)	Impedance (magnitude)
	R, X (∠, ∠)	Resistance and reactance (magnitude and magnitude)
P (W)	Active power	
S (VA)	Apparent power	
Q (VAr)	Reactive power	
cos φ	Power factor	
φ (°, Iref)	Phase difference, current as reference.	
φ (°, Uref)	Phase difference, voltage as reference.	
Frequency (Hz)	Frequency	



## Software Connection

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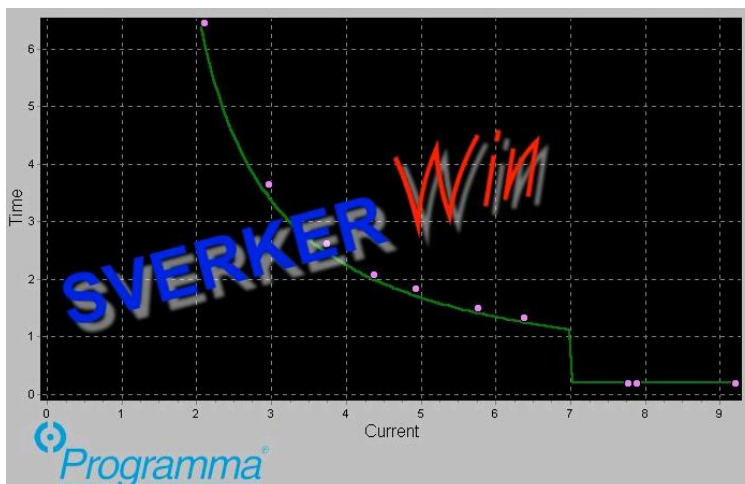


SVERKER 750



## Software SVERKER Win 3.0

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# Software SVERKER Win 3.0

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The screenshot shows the SVERKER Win 3.0 software interface. At the top, there is a menu bar (File, Settings, View, Log, Help) and a toolbar. The main display area contains three digital readouts: 215ms, 8.51A, and 0.008V. Below these are two analog-style gauges for current (A) and voltage (V). A control panel includes a TRIP indicator, ON+TIME, OFF, ON, and OFF+TIME buttons, and a Hold button. A 'Reference graph' section shows a plot of Time (y-axis, 0-6) versus Current (x-axis, 3-10). The graph displays a green curve that starts at approximately (3, 6) and decreases to (10, 1). To the right is a photograph of the Megger SVERKER 700 device, with a red box highlighting a specific port on its front panel.

This screenshot shows the same software interface as above, but with a 'Reference graph setup' dialog box open. The dialog box has the following fields and options:

- Type of graph: IEC\_VERY\_INV
- K: 0.75
- I>: 0.8
- I>>: 7
- T>>: 0.2
- visible:
- Time log scale:
- Current log scale:

Buttons for 'Ok' and 'Cancel' are at the bottom of the dialog. To the right of the dialog, there is a section labeled 'Comments for selected trip point:' with an empty text box. The background software interface shows updated values: 000ms, 0.71A, and 0.004V. The reference graph plot is also visible in the background.

Preview - page 1 of [1..1]

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### Sverker report

DATE	2000-05-23
TIME	15:17
Station	Hagby
Relay	ABB SFAJ 141C
Ser No.	657656
LABCL 6	
LABCL 7	
LABCL 8	

Test No	Time [s]	Current [A]	Voltage [V]	Extra 1	Extra 2	Comments
1	1.885	5.120	0.004	0.000	0.000	
2	2.463	4.090	0.004	0.000	0.000	
3	3.550	3.110	0.004	0.000	0.000	
4	6.226	2.110	0.004	0.000	0.000	
5	1.658	5.810	0.006	0.000	0.000	
6	0.221	7.170	0.004	0.000	0.000	
7	0.215	8.510	0.008	0.000	0.000	

**SVERKER Win Report**

