

# CSU600A/AT

## Current Supply Units



# CSU600A/600AT



---

## Current supply units

These high-current supply units have two main fields of application. The first is to conduct primary tests on protective relays. A primary test shows whether all parts of the protection system are functioning together properly within the specified time limits under operating conditions.

The second field of application involves conducting current tests on low-voltage circuit breakers and overcurrent devices.

The CSU600A™ is a compact instrument which, together with Timer TM200 and an external ammeter, meets stringent requirements for accuracy, easy handling and performance. This current supply unit is ideal for a) performance and turn-ratio tests of current transformers, b) primary tests of protective relays, c) current tests on low- and high-voltage circuit breakers and d) commissioning tests that require variable currents.

The more sophisticated CSU600AT\* provides a more comprehensive solution. It has a built-in timer and an analog ammeter that provide rough current settings quickly and easily. As a result, connection time has been reduced to the bare minimum.

The CSU600A and CSU600AT current supply units have an excellent weight/performance ratio.

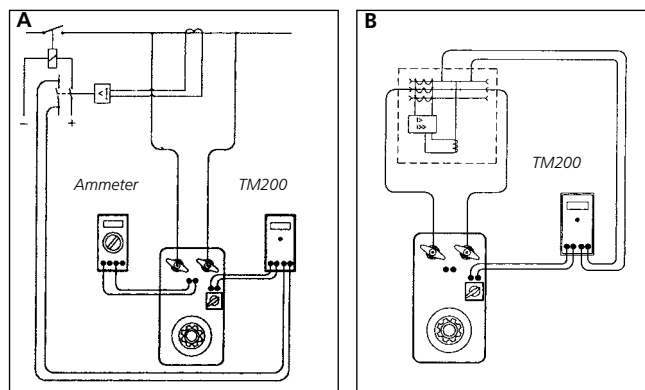
# Application example

## IMPORTANT

Read the User's manual before using the instrument.

## Primary test of protective relay equipment and low-voltage circuit breaker

1. Connect the CSU600A's current outputs across the current transformer (diagram A) or to the breaker terminals (diagram B).
2. Connect Timer TM200's start input to output T and the stop input to the protective relay equipment's auxiliary contact.
3. Set the current.
4. Execute the test.
5. Read the time from Timer TM200.



## Specifications CSU600A/AT

Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

Environment	
<i>Application field</i>	The instrument is intended for use in high-voltage substations and industrial environments.
<i>Temperature</i>	
<i>Operating</i>	0°C to +50°C (32°F to +122°F)
<i>Storage &amp; transport</i>	-40°C to +70°C (-40°F to +158°F)
<i>Humidity</i>	5% – 95% RH, non-condensing
CE-marking	
<i>LVD</i>	Low Voltage Directive 73/23/EEC am. by 93/68/EEC
<i>EMC</i>	EMC Directive 89/336/EEC am. by 91/263/EEC, 92/31/EEC and 93/68/EEC
General	
<i>Mains voltage</i>	115 or 230 V AC, 50/60 Hz
<i>Power consumption (max)</i>	115 V, 667 VA cont. (interm. 3738 VA) 230 V, 851 VA cont. (interm. 6440 VA)
<i>Protection</i>	Thermal cut-outs and miniature circuit breakers
<i>Dimensions</i>	
<i>Instrument</i>	356 x 203 x 241 mm (14.0" x 8.0" x 9.5")
<i>Transport case</i>	610 x 290 x 360 mm (24.0" x 11.4" x 14.2")
<i>Weight</i>	21.9 kg (48 lbs) 38.3 kg (84.4 lbs) with accessories and carrying case
<i>Current cables</i>	2 x 5 m (16 ft), 50 mm <sup>2</sup>
Measurement section	
<i>Output for external ammeter</i>	600/6 A
<i>Inaccuracy</i>	±0.5%

Timer (only CSU600AT)				
<i>Range</i>	0-999.999 s			
<i>Resolution</i>	1 ms			
<i>Inaccuracy</i>	±0.02% of shown value + 0 to 2 ms			
<b>Other</b>	Output for starting external timer			
Outputs, AC, intermittent output <sup>1)</sup> (CAT I)				
	115 V mains voltage		230 V mains voltage	
Current	Load time	Minimum output voltage	Load time	Minimum output voltage
0 A	Cont.	6.0 V	Cont.	9.5 V
75 A	–	–	Cont.	9.3 V
100 A	Cont.	5.6 V	1 h	9.0 V
200 A	15 min	5.3 V	5 min	8.5 V
300 A	1.5 min	4.9 V	2 min	8.0 V
400 A	1 min	4.6 V	1 min	7.5 V
500 A	20 s	4.2 V	30 s	7.0 V
600 A	15 s	3.9 V	20 s	6.5 V

1) Maximum load time from cold state 25°C (77°F). Not valid for repeated tests.

Maximum cable lengths at 600 A	
115 V mains	2 x 5 m (16 ft), 70 mm <sup>2</sup>
230 V mains	2 x 5 m (16 ft), 50 mm <sup>2</sup>
	2 x 10 m (33 ft), 70 mm <sup>2</sup>
	2 x 15 m (49 ft), 95 mm <sup>2</sup>

Ordering information	Art.No.
<b>CSU600A</b>	
Complete with: Cable set GA-05052, Transport case GD-00182	
115 V Mains voltage	<b>BF-11190</b>
230 V Mains voltage	<b>BF-12290</b>
<b>CSU600AT</b>	
Complete with: Cable set GA-05052, Transport case GD-00182	
115 V Mains voltage	<b>BF-21190</b>
230 V Mains voltage	<b>BF-22290</b>
<b>Optional accessories</b>	
<b>Cable set 5 m (for 115 V)</b> 2 x 5 m (16 ft), 70 mm <sup>2</sup> Weight: 8.4 kg (18 lbs)	<b>GA-07052</b>
<b>Cable set 10 m</b> 2 x 10 m (33 ft), 70 mm <sup>2</sup> Weight: 16.8 kg (37 lbs)	<b>GA-07102</b>
<b>Cable set 15 m</b> 2 x 15 m (49 ft), 95 mm <sup>2</sup> Weight: 29.4 kg (65 lbs)	<b>GA-09152</b>
<b>TM200</b> External timer See the TM200 product pages for more information	<b>BE-29090</b>



Cable set GA-05052

NOTICE OF COPYRIGHT & PROPRIETARY RIGHTS

© 2007, Programma Electric AB. All rights reserved.

The contents of this document are the property of Programma Electric AB. No part of this work may be reproduced or transmitted in any form or by any means, except as permitted in written license agreement with Programma Electric AB.

Programma Electric AB has made every reasonable attempt to ensure the completeness and accuracy of this document. However, the information contained in this document is subject to change without notice, and does not represent a commitment on the part of Programma Electric AB.

TRADEMARK NOTICES

Programma® is a registered trademark of Programma Electric AB. All other brand and product names mentioned in this document are trademarks or registered trademarks of their respective companies. Programma Electric AB is certified according to ISO 9001 and 14001.

Programma Electric AB  
Eldarvägen 4  
Box 2970  
SE-187 29 TÄBY  
Sweden

T +46 8 510 195 00  
F +46 8 510 195 95  
info@programma.se  
www.programma.se