



## CALSOURCE 200

Portable Current and Voltage Source for Currents up to 120 A



CALSOURCE 200 is a powerful and portable current and voltage source. All test values are generated absolutely synthetically with a high degree of accuracy and stability. For this purpose, CALSOURCE 200 features an integrated function generator and three fully electronic current and voltage amplifiers.

The integrated RS232 interface can be utilised for the full-automatic control of CALSOURCE 200, for example in connection with portable measuring systems CALPORT 200 and PRS 1.3.

### Key-points of the CALSOURCE 200:

- Meter testing on-site and in the test laboratory
- Testing of instrument transformers, measurement converters and instrument panels
- Testing of standards and precision measuring systems
- Serial interface RS 232 C
- Screen LCD, backlight, 114 x 64 mm

### Basic technical data:

Three-phase generation of current and voltage based on a single-phase mains connection to the unstabilised mains supply (88<sub>min</sub> ... 264<sub>max</sub> VAC, 47 ... 65 Hz)

- Voltage: 3 x 0.1 V/0.17 V ... 3 x 300 V/520 V
- Current: 3 x 1 mA ... 3 x 120 A
- Phase angle: -180° ... +180°
- Frequency: 45 Hz ... 400 Hz
- Output power: Voltage 3 x 30 VA  
Current 3 x 60 VA

CALSOURCE 200 was designed for on-site use in adverse conditions. With a weight of approximately 19 kg, CALSOURCE 200 is the lightest current and voltage source for test currents up to 120 A.

### Options

- Generation of harmonics (voltage or current) up to 25<sup>st</sup>
- Generation of ripple control

## Software and Operation

### Main Menu

	<b>10 PLE</b>	<b>1</b>	<b>PRO-GRAM</b>
<b>⊞</b>	<b>230.0 V</b>	<b>U</b>	
<b>⊞</b>	<b>5.000 A</b>	<b>I</b>	
<b>⊞</b>	<b>0.0 °</b>	<b>φ</b>	
<b>MORE</b>	<b>50.0 Hz</b>	<b>f</b>	

After switching the CALSOURCE 200 on a self-test is carried out automatically. Following this, the main menu for the setting of the test conditions and the selection of the test functions is displayed.

### Technical Data

Supply voltage:	88 <sub>min</sub> ... 264 <sub>max</sub> VAC, 47 ... 65 Hz
Power consumption:	500 VA max. / fuse 2 x 6.3 AT
Dimensions:	Width 450 x Height 220 x Depth 365 mm
Weight:	approx. 19 kg
Operating temperature:	-10°C ... +60°C +10°C ... +40°C with specified accuracy

### Voltage

Range:	3 x 0.1 V/0.17 V ... 300 V/520 V
Power:	3 x 30 VA at end of range (75 V, 150 V, 300 V)
Resolution:	0.05 % of end of range, 0.1 V max
Accuracy:	≤ ± 0.3 % (10 ... 100 % of range, 45 ... 99 Hz)
Stability:	≤ ± 0.03 % (30 min), ≤ ± 0.1 % (1 h)
Distortion factor:	≤ 0.5 % (30 ... 300 V)
Bandwidth:	30 ... 2'000 Hz (3 dB)
Load factor:	0.5 cap – 1 – 0 ind

### Current

Range:	3 x 1 mA ... 120 A
Output 10 A / 1 A:	1 mA ... 10 A
Output 120 A:	50 mA ... 120 A
Power:	3 x 60 VA at end value of output
Output 10 A / 1 A:	30 VA at 10 A / 10 VA at 1 A
Output 120 A:	60 VA at 120 A
Resolution:	0.05 % of end of range (1 A, 10 A, 120 A), 1 mA max
Accuracy:	≤ ± 1 % (10 ... 100 % of range, 45 ... 99 Hz)
Stability:	≤ ± 0.03 % (30 min), ≤ ± 0.1 % (1 h)
Distortion factor:	≤ 0.5 % (10 A: I ≥ 10 mA, 120 A: I ≥ 1 A)
Bandwidth:	30 ... 1'000 Hz (3 dB)
Load factor:	0.7 cap – 1 – 0.7 ind

### Phase angle

Adjustment Range:	-180° ... +180°
Resolution:	0.1°
Accuracy:	≤ ± 0.3° (voltage, current: 10 ... 100 % of range)

### Frequency

Range:	45 ... 400 Hz
Resolution:	0.1 Hz (45 ... 100 Hz) / 1 Hz (101 ... 400 Hz)
Accuracy:	≤ ± 0.1 %

### Safety

CE certified	
Protective isolation:	EN 61010-1
Protection level:	IP 40
Relative humidity:	≤ 85 % at Ta ≤ 21 °C ≤ 95 % at Ta ≤ 25 °C at 30 days / year spread

### Setting the Test Conditions

<b>Exit</b>	<b>⊞</b>	<b>1</b>	<b>PRO-GRAM</b>
<b>U1</b>	<b>100.0 V</b>	<b>1.150 A</b>	<b>I1</b>
<b>U2</b>	<b>200.0 V</b>	<b>11.50 A</b>	<b>I2</b>
<b>U3</b>	<b>300.0 V</b>	<b>115.0 A</b>	<b>I3</b>
<b>φ</b>	<b>10.0 °</b>	<b>50.0 Hz</b>	<b>f</b>

The selection of **⊞** from the main menu allows the operator to enter into a submenu for the setting of any symmetrical or non-symmetrical test conditions.