

## VOLTCRAFT - TOP PERFORMANCE IN EVERY WAY

For more than 40 years, our product range has been dynamically adapting to the constant changes in the industry. We commit to offering first-class quality to our customers while delivering an excellent cost-performance ratio. This philosophy remains the cornerstone of Voltcraft's success.

# VC371

## 40 A AC/DC MINI CLAMP METER

CE

Item no: 2893199

The product is a clamp meter and can be used to measure and display various electrical parameters.

### CONTENTS

Product // 2 x 1.5 V AAA batteries //  
Test leads with removable probe tip covers // Storage bag //  
Operating instructions

### TECHNICAL DATA

#### General

Power supply	2x AAA 1.5 V batteries
Measuring categories	CAT III 600 V
Current measurement	max. 40 A (AC/DC)
Display	4000 counts (2 – 3 renewals/sec.)
Clamp opening range	width: max. 5.5 mm, height: max. 13 mm
Automatic shut-off	approx. 15 mins
Display type	EBTN colour
Operating altitude	max. 2000 m (above sea level)
Operating conditions	0 to +28 °C, ≤95 % RH (non-condensing) >+28 to +40 °C, ≤75 % RH (non-condensing) >+40 to +50 °C, ≤45 % RH (non-condensing)
Storage conditions	-10 to +50 °C, ≤80 % RH (non-condensing)



Dimensions (W x H x D)	188 x 51 x 36 mm
Weight	approx. 173 g

### Test leads and probes

Rated voltage	CAT III 1000 V
Rated current	10 A
Protection class	II

### Specifications

#### Accuracy

Specified accuracy  $\pm$  (% of the reading + display error in counts). //  
 Accuracy is maintained for 1 year at +23 °C ( $\pm$  5 °C),  $\leq$ 75 % RH (non-condensing). //  
 Temperature coefficient: +0.1 x (specified accuracy) / 1 °C. //  
 To avoid impaired measurements, do not operate the product in areas with electromagnetic field strengths  $>1$  V/m ( $\pm$ 5 %).

#### Calibration

The recommended calibration interval is 1 year. //  
 ⚠ Calibration should only be performed by qualified personnel.

#### Alternating current (AC)

Range	Resolution	Accuracy*
4.000 A	0.001 A	$\pm(4.0 \% +10)$ with a low-pass filter (VFC) $\pm(6.0 \% + 20)$
40.00 A	0.01 A	$\pm(4.0 \% +9)$ with a low-pass filter (VFC) $\pm(6.0 \% + 20)$

\*Accuracy: 5 - 100 % of the measuring range  
 Overload protection: 600 V 40 A // Frequency range: 50-60 Hz //  
 Permitted display with unused measuring input:  $\leq$ 5 counts (clamp closed)  
 True RMS Crest factor (CF) for non-sinusoidal signals: max. 3.0:  
 Crest factor 1.0 – 2.0 : +4 % deviation // Crest factor 2.0 – 2.5 : +5 % deviation //  
 Crest factor 2.5 – 3.0 : +7 % deviation

#### Direct current (DC)

Range	Resolution	Accuracy*
4.000 A	0.001 A	$\pm(3.5 \% +9)$
40.00 A	0.01 A	$\pm(3.5 \% +5)$

\*Accuracy: 5 - 100 % of the measuring range; after successful zero adjustment  
 Overload protection: 600 V, 40 A

#### AC voltage

Range	Resolution	Accuracy*
4.000 V	0.001 V	$\pm(1.2 \% +5)$
40.00 V	0.01 V	$\pm(1.5 \% +5)$
400.0 V	0.1 V	$\pm(1.5 \% +5)$ with a low-pass filter (VFC) $\pm(4.0 \% + 10)$
600 V	1 V	$\pm(2.0 \% +5)$ with a low-pass filter (VFC) $\pm(4.0 \% + 10)$

\*Accuracy: 5 - 100 % of the measuring range  
 Overload protection: 600 V // Frequency range: 45-400 Hz // Impedance:  $\geq$ 10 M $\Omega$  //  
 Permitted display with unused measuring input:  $\leq$ 5 counts (clamp closed)  
 True RMS Crest factor (CF) for non-sinusoidal signals: max. 3.0:

Range	Resolution	Accuracy*
Crest factor 1.0 – 2.0 : +4 % deviation // Crest factor 2.0 – 2.5 : +5 % deviation //		
Crest factor 2.5 – 3.0 : +7 % deviation		

## DC voltage

Range	Resolution	Accuracy*
400.0 mV	0.1 mV	±(0.8 % +8)
4.000 V	0.001 V	±(1.2 % +5)
40.00 V	0.01 V	±(1.2 % +5)
400.0 V	0.1 V	±(1.2 % +5)
600 V	1 V	±(1.5 % +5)

\*Accuracy: 5 - 100 % of the measuring range  
 Overload protection: 600 V // Impedance: ≥10 MΩ //  
 Permitted display with unused measuring input: ≤5 counts (clamp closed)

## Resistance

Range	Resolution	Accuracy*
400.0 Ω	0.1 Ω	±(1.2 % +5)
4.000 kΩ	0.001 kΩ	±(1.0 % +5)
40.00 kΩ	0.01 kΩ	±(1.2 % +5)
400.0 kΩ	0.1 kΩ	±(1.2 % +5)
4.000 MΩ	0.001 MΩ	±(1.2 % +5)
40.00 MΩ	0.01 MΩ	±(2.0 % +5)

\*Accuracy: 5 - 100 % of the measuring range, <400 Ω after successful zero adjustment  
 Overload protection: 600 V // Measuring voltage: approx. 0.5 V

## Capacitance

Range	Resolution	Accuracy*
4.000 nF	0.001 nF	±(4.0 % +10)
40.00 nF	0.01 nF	±(4.0 % +5)
400.0 nF	0.1 nF	±(3.0 % +5)
4.000 μF	0.001 μF	±(3.0 % +5)
40.00 μF	0.01 μF	±(3.0 % +5)
100.0 μF	0.1 μF	±(5.0 % +10)

\*Accuracy: 10 - 100 % of the measuring range, ≤1 μF after successful zero adjustment  
 Overload protection: 600 V // Measuring voltage: approx. 0.5 V //  
 Permitted display with unused measuring input: ≤5 counts (clamp closed)

## Diode test

Test voltage	Resolution
Approx. 3.2 V	0.001 V

## Acoustic continuity test

Test voltage	Resolution
Approx. 1 V	0.1 Ω

## Non-contact (AC) voltage test

Test voltage	Distance
≥100 V/AC	max. 5 mm

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