

VOLTCRAFT

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.

VC292 DIGITAL MULTIMETER

UK
CA CE

Item no. 2576863

A robust CAT III 600 V digital multimeter for professional, industrial and do-it-yourself applications.

FEATURES

- CAT III 600 V measuring category
- Complies with EN 61010-1 and EN 61010-2-033
- Measures direct and alternating voltages up to 600 V
- Direct measurement of direct/alternating currents up to 600 mA
- CLA60 clamp transformer to measure direct/alternating currents up to 60 A
- Measures frequency from 10 Hz to 10 MHz (max. 20 Vrms)
- Measures capacitance up to 60 mF
- Measures resistance up to 60 M Ω
- Continuity tests (<10 Ω acoustic)
- Diode tests



TECHNICAL DATA

Multimeter VC292

| | |
|--------------------------------|--|
| Display | 6000 Counts (digits) |
| Measuring rate | approx. 2 - 3 measurements/second |
| AC measurement method | True RMS, AC-coupled |
| Test lead length | approx. 90 cm |
| Measuring impedance | ≥10 MΩ (mV: ≥100 MΩ) |
| Measurement socket clearance | 19 mm (COM-V) |
| Low battery indicator | Battery voltage <3.6 ±0.2 V |
| “Dangerous voltage” indicator | ≥30 V/AC-DC |
| “Range exceeded” alarm | ≥600 V/AC-DC, >60 A/AC-DC |
| “OL” (overload) alarm | ≥610 V/AC-DC, ≥60,10 A/AC-DC or measurement >6000 counts |
| Automatic shut-off | after approx. 15 minutes (can be manually disabled) |
| Current consumption (auto off) | <50 µA |
| Operating voltage | 3x AAA 1.5 V batteries |
| Operating conditions | 0 to +40 °C (<75% RH) |
| Operating altitude | max. 2000 m above sea level |
| Storage temperature | -10 to +50 °C |
| Weight | approx. 375 g |
| Dimensions (L x W x H) | 190 x 90 x 43 mm |
| Measuring category | CAT III 600 V |
| Pollution degree | 2 |
| Operating environment | Indoor use |
| Compliance | EN 61010-1 and EN61010-2-033 |
| F2 FUSE | ø5×20 mm, FF 2.5 A, H 700 V, Breaking capacity: min 300 A |

CLA60 clamp transformer

| | |
|----------------------------|-----------------------------|
| Clamp opening | 25 mm |
| Maximum conductor diameter | 20 mm |
| Measurement function | DC, AC True RMS |
| Output | 10 mV/A |
| Test lead length | approx. 120 cm |
| Power supply voltage | 2x AAA 1.5 V batteries |
| Operating conditions | 0 to +40 °C (<75% RH) |
| Operating altitude | max. 2000 m above sea level |
| Storage temperature | -10 to +50 °C |
| Weight | approx. 184 g |
| Dimensions (L x W x H) | 195 x 50 x 29 mm |
| Measuring category | CAT III 600 V |
| Pollution degree | 2 |
| Compliance | EN 61010-1 |

Direct voltage (V/DC)

| Range | Resolution | Accuracy |
|--|------------|-------------|
| 60.00 mV* | 0.01 mV | ±(1.2% + 8) |
| 600.0 mV* | 0.1 mV | ±(0.9% + 8) |
| 6.000 V | 0.001 V | ±(0.8% + 4) |
| 60.00 V | 0.01 V | |
| 600.0 V | 0.1 V | |
| *Only available in "mV" mode Specified measurement range: 5 - 100% of the measurement range 600 V overload protection; Impedance: 10 MΩ (mV: ≥100 MΩ) The multimeter may display ≤5 counts if a measurement input is short-circuited. | | |

Direct voltage (V/DC) LoZ

| Range | Resolution | Accuracy |
|---|------------|-------------|
| 6.000 V | 0.001 V | ±(1.7% + 7) |
| 60.00 V | 0.01 V | |
| 600.0 V | 0.1 V | |
| Specified measurement range: 5 - 100% of the measurement range 600 V overload protection; Impedance: 400 kΩ (max. 250 V, 3 secs) The multimeter may display ≤5 counts if a measurement input is short-circuited. After using the LoZ feature, leave the multimeter for 1 minute before using it again. | | |

Alternating voltage (V/AC)

| Range | Resolution | Accuracy |
|--|------------|-------------|
| 60.00 mV* | 0.01 mV | ±(1.4% + 5) |
| 600.0 mV* | 0.1 mV | |
| 6.000 V | 0.001 V | ±(1.3% + 4) |
| 60.00 V | 0.01 V | |
| 600.0 V | 0.1 V | |
| *Only available in "mV" mode Specified measurement range: 5 - 100% of the measurement range Frequency range: 45 - 400 Hz; 600 V overload protection; Impedance: 10 MΩ (mV: ≤100 MΩ) The multimeter may display 5 counts if a measurement input is short-circuited. TrueRMS peak (Crest Factor (CF)) ≤3 CF to 600 V TrueRMS peak for non-sinusoidal signals plus tolerance CF >1.0 - 2.0 + 3% CF >2.0 - 2.5 + 5% CF >2.5 - 3.0 + 7% | | |

Alternating voltage (V/AC) LoZ

| Range | Resolution | Accuracy |
|---|------------|-------------|
| 6.000 V | 0.001 V | ±(2.2% + 7) |
| 60.00 V | 0.01 V | |
| 600.0 V | 0.1 V | |
| Specified measurement range: 5 - 100% of the measurement range Frequency range: 45 - 400 Hz; 600 V overload protection; Impedance: 400 kΩ (max. 250 V, 3 secs) The multimeter may display 5 counts if a measurement input is short-circuited. After using the LoZ feature, leave the multimeter for 1 minute before using it again. TrueRMS peak (Crest Factor (CF)) ≤3 CF to 600 V TrueRMS peak for non-sinusoidal signals plus tolerance CF >1.0 - 2.0 + 3% CF >2.0 - 2.5 + 5% CF >2.5 - 3.0 + 7% | | |

Direct current (A/DC)

| Range | Resolution | Accuracy |
|--|-------------|-------------------|
| 600.0 μ A | 0.1 μ A | $\pm(0.9\% + 7)$ |
| 6000 μ A | 1 μ A | |
| 60.00 mA | 0.01 mA | |
| 600.0 mA | 0.1 mA | |
| 6.000 A | 0.001 A | $\pm(3.2\% + 27)$ |
| 60.00 A | 0.01 A | $\pm(3.2\% + 5)$ |
| 600 V overload protection Fuses: μ A/mA = 2x 0.55 A/240 V resettable, 1x F2 2.5 A/700 V ceramic, internal resistance approx. <10 Ω 60 A transformer input: 10 mV/A, max. 600 mV, overload protection by PTC Specified measurement range with a clamp transformer: 0.6 - 60 A The multimeter may display 3 counts when a measurement input is open | | |

Alternating current (A/AC)

| Range | Resolution | Accuracy |
|---|-------------|-------------------|
| 600.0 μ A | 0.1 μ A | $\pm(1.3\% + 4)$ |
| 6000 μ A | 1 μ A | |
| 60.00 mA | 0.01 mA | |
| 600.0 mA | 0.1 mA | |
| 6.000 A | 0.001 A | $\pm(3.2\% + 27)$ |
| 60.00 A | 0.01 A | $\pm(3.2\% + 5)$ |
| Overload protection 600 V; frequency range 45 - 400 Hz Fuses: μ A/mA = 2x 0.55 A/240 V resettable, 1x F2 2.5 A/700 V ceramic, internal resistance approx. <10 Ω 60 A transformer input: 10 mV/A, max. 600 mV, overload protection by PTC Specified measurement range mA/ μ A: 5 - 100% of the measurement range Specified measurement range with a clamp transformer: 0.6 - 60 A The multimeter may display 3 counts when a measurement input is open | | |
| TrueRMS peak (Crest Factor (CF)) ≤ 3 CF over the entire range TrueRMS peak for non-sinusoidal signals plus tolerance CF >1.0 - 2.0 + 3% CF >2.0 - 2.5 + 5% CF >2.5 - 3.0 + 7% | | |

Resistance

| Range | Resolution | Accuracy |
|---|------------------|------------------|
| 600.0 Ω^* | 0.1 Ω | $\pm(1.3\% + 4)$ |
| 6.000 K Ω | 0.001 K Ω | $\pm(1.2\% + 7)$ |
| 60.00 K Ω | 0.01 K Ω | |
| 600.0 K Ω | 0.1 K Ω | |
| 6.000 M Ω | 0.001 M Ω | $\pm(1.5\% + 4)$ |
| 60.00 M Ω | 0.01 M Ω | $\pm(2.7\% + 7)$ |
| 600 V overload protection Measurement voltage: Approx. 1.0 V, measurement current approx. 0.7 mA *Accuracy for measurement range $\leq 600 \Omega$ was calculated after deducting lead resistance from the REL function | | |

Capacitance

| Range | Resolution | Accuracy |
|---|---------------|------------------|
| 6.000 nF* | 0.001 nF | $\pm(4.4\% + 9)$ |
| 60.00 nF* | 0.01 nF | $\pm(3.2\% + 9)$ |
| 600.0 nF* | 0.1 nF | $\pm(3.2\% + 5)$ |
| 6.000 μ F | 0.001 μ F | |
| 60.00 μ F | 0.01 μ F | |
| 600.0 μ F | 0.1 μ F | $\pm(4.4\% + 5)$ |
| 6.000 mF | 0.001 mF | |
| 60.00 mF | 0.01 mF | $\pm(7.0\% + 5)$ |
| 600 V overload protection *Accuracy for measurement range ≤ 600 nF only applies when the REL function is used | | |

Frequency "Hz" (electronic)

| Range | Resolution | Accuracy |
|-----------------------|------------|---------------|
| ≤9.999 Hz* | 0.001 Hz | Not specified |
| 10.00 Hz - 99.99 Hz | 0.01 Hz | ±(0.2% + 7) |
| 100.0 Hz - 999.9 Hz | 0.1 Hz | |
| 1.000 kHz - 9.999 kHz | 0.001 kHz | |
| 10.00 kHz - 99.99 kHz | 0.01 kHz | |
| 100.0 kHz - 999.9 kHz | 0.1 kHz | |
| 1.000 MHz - 9.999 MHz | 0.001 MHz | |
| >10.00 MHz* | 0.01 MHz | Not specified |

*The specified frequency range is 10.00 Hz - 10 MHz
Signal level (without direct voltage component):
≤100 kHz: 200 mVrms - 20 Vrms
>100 kHz to 1 MHz: 600 mVrms - 20 Vrms
>1 MHz ~ 5 MHz: 500mVrms - 20Vrms
>5 MHz ~ 10MHz: 900 mVrms - 20 Vrms
600 V overload protection

Pulse width / pulse ratio (duty cycle)

| Range | Resolution | Accuracy |
|--------------|------------|----------|
| 0.1% - 99.9% | 0.1% | ±(2.3%) |

Overload protection: 600 V
Signal level (without direct voltage component):
≤100 kHz: 1 mVrms - 20 Vrms
Frequency range pulse width: ≤100 kHz

Diode test

| Test voltage | Resolution |
|------------------|------------|
| Approx. 3.0 V/DC | 0.001 V |

Overload protection: 600 V; Test voltage: 2 mA typ.

Acoustic continuity tester

| Measurement range | Resolution |
|-------------------|------------|
| 600 Ω | 0.1 Ω |

≤10 Ω continuous tone; ≥100 Ω no tone
Overload protection: 600 V
Test voltage approx. 1 V
Test current <1.5 mA

PACKAGE CONTENTS

Digital multimeter // CLA60 clamp transformer // 2x safety test leads with CAT III protective caps // 5x AAA 1.5 V batteries // Operating instructions