

DIGITAL VOLTMETERS

4 1/2 Digit Autoranging DMM

Model 3466A

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Description

The 3466A is a 4 1/2 digit Multimeter with autoranging volts and ohms. Functional capability includes ACV, DCV, (ac + dc) V, ACI, DCI, (ac + dc) I, Ω , and diode test. AC measurements are True-RMS with selectable ac or dc coupling. Available with rechargeable batteries or ac power only, it has 1 μ V dc and 1 m Ω sensitivity with zero adjustment on lowest ranges to compensate for external offsets.

Specifications

DC Voltmeter

Voltage Range

Range	Maximum Display
20 mV	± 19.999 mV
200 mV	± 199.99 mV
2 V	± 1.9999 V
20 V	± 19.999 V
200 V	± 199.99 V
1200 V	± 1199.9 V

Maximum input: ± 1200 V maximum dc and peak ac.

Accuracy: (1 yr., 18 to 28°C)

Range	$\pm$ (% of reading + # of counts)
20 mV	(.05 + 3)
200 mV	(.04 + 2)
2 V $\rightarrow$ 200 V	(.03 + 1)
1200 V, <700 V input	(.035 + 1)
1200 V, >700 V input	(.055 + 1)

Input resistance: 10 meg Ω $\pm 0.5\%$ all ranges.

Input type: floating, 500 V maximum common to ground.

AC Voltmeter

AC converter: true-RMS Responding True-RMS Calibrated

Range	Maximum Display
200 mV	199.99 mV
2 V	1.9999 V
20 V	19.999 V
200 V	199.99 V
1200 V	1199.9 V

Maximum input: (ac + dc): ± 1200 V DC; ± 1700 V (dc + Peak ac), ac: ± 600 V dc; 1700 V (Peak ac + dc), 10^7 V $\cdot$ Hz.

Crest factor: 4:1 at Full Scale.

Accuracy: (with display of $\geq 10\%$ of range): 1 yr., 18 to 28°C sinusoid waveform.

AC TRMS: (20 Hz to 100 kHz)

Frequency Range	$\pm$ (% of reading + # of counts)
20 Hz to 30 Hz	(2 + 50)
30 Hz to 50 Hz	(1 + 30)
50 Hz to 10 kHz	(0.3 + 20)
10 kHz to 20 kHz	(1 + 40)
20 kHz to 100 kHz	(2 + 150)

DC + AC TRMS: dc + (20 Hz to 100 kHz).

Ohmmeter

Ohms Range	Maximum Display	Current Through Unknown	Accuracy: 1 yr., 18 to 28°C $\pm$ (% of reading + # of counts)
20 Ω	19.999 Ω	5 mA	.08 + 2
200 Ω	199.99 Ω	5 mA	.08 + 2
2 k Ω	1.9999 k Ω	1 mA	.03 + 1
20 k Ω	19.999 k Ω	100 μ A	.03 + 1
200 k Ω	199.99 k Ω	10 μ A	.03 + 1
2000 k Ω	1999.9 k Ω	1 μ A	.04 + 1
20 M Ω	19.999 M Ω	100 nA	.15 + 1

Input protection: 250 V RMS or 350 V (dc + peak ac).

DC Current and True RMS AC Current

Current Range	Maximum Display
200 μ A	± 199.99 μ A
2 mA	± 1.9999 mA
20 mA	± 19.999 mA
200 mA	± 199.99 mA
2000 mA	± 1999.9 mA

Maximum input: 2 amp rms from < 250 V source (fuse protected).

DC Current Accuracy: (1 yr., 18 to 28°C):

Range	$\pm$ (% reading + # of counts)
200 μ A through 20 mA	(.07 + 2)
200 mA	(0.15 + 2)
2000 mA	(0.5 + 2)

AC current accuracy: (with display $\geq 10\%$ of range) 1 yr., 18°C to 28°C, sinusoid waveform.

AC TRMS: 20 Hz to 10 kHz.

Range	Frequency	$\pm$ (% of reading + # of counts)
200 μ A–200 mA	20 Hz–30 Hz	2 + 50
	30 Hz–10 kHz	0.9 + 35
2000 mA	20 Hz–30 Hz	2 + 50
	30 Hz–10 kHz	1.2 + 20

(DC + AC) TRMS: dc + (20 Hz to 10 kHz).

Diode Test

Function: $\rightarrow$ (k Ω). **Range:** $\rightarrow$ (2k Ω).

Current source: 1 mA $\pm 1.5\%$.

Diode voltage drop displayed in volts: 1.9999 volts maximum.

General

Reading rate: 2.4 to 4.7/sec. depending on input level.

Operating temperature: (0 to 55)°C.

Humidity: 95% RH at +40°C.

Power: ac line; 48–440 Hz; 86–250 V.

Battery: rechargeable lead-acid 8 hours maximum continuous operation with full charge. Recharge time: 16 hours operating, 12 hours non-operating.

Size: 3466A: 98.4 mm H x 238.1 mm W x 276.2 mm D (3.88" x 9.38" x 10.88").

Weight: 3466A: 2.9 kg (6.31 lb). 3466A Opt 001: 2 kg (4.41 lb).

Ordering Information

3466A streamlined portable case with handle, AC line power. Batteries and charger included. Test leads included. (standard configuration)

3466A Opt. 001, streamlined portable case, AC line power only. less \$76

3466A Opt. 002, Rack and Stack case, AC line power only. (Rack mount kit not included.) less \$35

All orders must include one of the power options: 86–106 V Opt. 100; 190–233 V Opt. 210; 104–127 V Opt. 115; 208–250 V Opt. 230. N/C

3466A Digital Multimeter

\$900