

## **AMPROBE®**

Data Sheet

## ACDC-100 1000A AC/DC Clamp-On Multimeter

Where accuracy, quality, and the newest technology meet. The ACDC-100 offers superior AC/DC measurement capabilities, highest product quality and enhanced ergonomic design.

- 1000 Amp AC and DC current
- Capacitance test
- AC/DC voltage to 600V
- Resistance
- Continuity Beeper
- Relative zero mode
- Auto power off
- Data hold
- MAX capture function for in rush current measurements (30 mS response)
- Large, easy to read digital display
- Accommodates conductors up to 50mm (2.00") in diameter
- "Third hand" test probe holder
- Rubber over-molded case with built-in probes storage
- Carrying case, test leads, batteries (installed) and user manual included



# No hassle warranty

No waiting.



Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that an Amprobe Test Tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.









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**Electrical Specifications** Accuracy is  $\pm$  (% reading digits + number of digits) or otherwise specified, at 23°C  $\pm$  5°C & less than 75% R.H.

Function	Range	Accuracy
DC Voltage		
	400.0 mV	0.3% + 3d
	4.000V, 40.00V, 400.0V	0.5% + 3d
	600V	1.0% + 4d
NMRR:	>50dB @ 50/60Hz	
CMRR:	>120dB @ DC, 50/60Hz, Rs=1kΩ	
Input Impedance :	10M $\Omega$ , 30pF nominal (1000M $\Omega$ for 400.0mV range)	
AC Voltage		
50Hz ~ 500Hz	400.0mV 1)	4.0% + 4d
50Hz ~ 60Hz	4.000V, 40.00V, 400.0V	1.0% + 4d
60Hz ~ 500Hz	4.000V, 40.00V, 400.0V	1.5% + 4d
50Hz ~ 500Hz	600V	2.0% + 4d
CMRR:	>60dB @ DC to 60Hz, Rs=1kΩ	
Input Impedance:	10M $\Omega$ , 30pF nominal	
1) Selection by RANGE button manually	y, and is specified from AC 40mV and up	
Resistance		
	400.0Ω	0.8% + 6d
	4.000kΩ, 40.00kΩ, 400.0kΩ	0.6% + 4d
	4.000ΜΩ	1.0% + 4d
	40.00ΜΩ	2.0% + 4d
Open Circuit Voltage :	0.4VDC typical	
Audible Continuity Tester		
Open Circuit Voltage:	0.4VDC typical	
Range: 400.0Ω; Accuracy:	1.5% + 6d between 10 $\Omega$ and 120 $\Omega$ .	
Audible threshold:  Diode Tester	between 10s2 and 120s2.	
	Tost Correct (Tonical)	
Open Circuit Voltage < 1.6 VDC	Test Current (Typical)  0.4mA	
	0.4mA	
Capacitance	500 0 F 5 000 F 50 00 F	
	500.0nF, 5.000μF, 50.00μF, 500.0μF, 3000μF <sup>1)</sup>	3.5% + 6d <sup>2) 3)</sup>
1) Additional 50.00nF range accuracy is	·	3.370 1 00 1
2) Accuracies with film capacitor or bet		
· · · · · · · · · · · · · · · · · · ·		racy decreases gradually to 12% at low battery
warning voltage of approximately 2.4		
DC Current (Clamp-on)		
400.0A	0.0A ~ 400.0A	1.5% + 4d <sup>1) 2)</sup>
1000A	400A ~ 800A	1.5% + 4d <sup>1) 2)</sup>
	800A ~ 900A	2.0% + 4d <sup>1) 2)</sup>
	900A ~ 1000A	5.0% + 30d <sup>1) 2)</sup>
1) Induced error from adjacent current	-carrying conductor: < 0.01A/A	



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Function	Range	Accuracy
AC Current (Clamp-on)		
400.0A		
	15Hz ~ 40Hz	2.0% + 5d <sup>1)</sup>
	40Hz ~ 200Hz	1.5% + 5d <sup>1)</sup>
	200Hz ~ 400Hz @ <50A <sup>2)</sup>	1.5% + 5d <sup>1)</sup>
	400Hz ~ 1kHz @ <50A 2)	2.0% + 5d <sup>1)</sup>
800A		
	15Hz ~ 40Hz @ 400A ~ 600A	2.0% + 5d <sup>1)</sup>
	40Hz ~ 100Hz @ 400A ~ 600A	1.5% + 4d <sup>1)</sup>
	15Hz ~ 60Hz @ 600A ~ 800A	5.0% + 30d <sup>1)</sup>
Induced error from adjacent o	current-carrying conductor: < 0.01A/A	
Accuracy is specified at <50A	in this frequency bandwidth due to limited o	alibrator output capability for testing

## **General Specifications**

Display:	3-3/4 digits 4000 counts LCD display
Update Rate:	3 per second nominal
Polarity:	Automatic
Low Battery:	Below approx. 2.4V
Operating Temperature:	0°C to 40°C
Relative Humidity:	Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C
Altitude:	Operating below 2000m
Storage Temperature:	-20°C to 60°C, < 80% R.H. (with battery removed)
Temperature Coefficient:	nominal 0.15 x (specified accuracy)/ °C @(0°C -18°C or 28°C -40°C), or otherwise specified
Sensing:	Average sensing
Safety:	Meets EN61010-1:2001; IEC61010-2-032(2002), EN61010-2-032(2002), UL61010B-2-032(2003) Category III 600 Volts AC & DC.
Transient protection:	6.5kV (1.2/50µs surge) for all models
Pollution degree:	2
E.M.C.:	Meets EN61326-1
In an RF field of 3V/m: Capacitance function is not Performance above 3V/m is	specified Other function ranges: Total Accuracy = Specified Accuracy + 45 digits not specified

Overload Protections:	
Clamp-on jaws: DC 1000A or AC 80	0A rms continuous + & COM terminals (all functions) : 600VDC/VAC rms
Power Supply:	standard 1.5V AAA Size (NEDA 24G or IEC R03) battery X 2; or 1.5V AAA Size (NEDA 24A or IEC LR03) alkaline battery X 2
Power Consumption:	typical 11mA for ACA/DCA and 2.9mA for other functions
APO Timing:	Idle for 30 minutes
APO Consumption:	typical 10µA
Dimension:	L227mm X W78mm X H40mm
Weight:	290 gm approx
Jaw opening & Conductor diameter:	50mm max



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#### **Included Accessories**

Test leads; carrying case SV-U; users manual

#### **Optional Accessories**

ELS2A Line splitter (Energizer)

ACF-3000 AK 3000A AC Flexible Clamp-on Attachment

TMA-K Single Input Thermocouple Temperature Attachment

MTL-500 Test Lead Kit Test Lead Kit

#### **Replacement Accessories**

MTL-90B Test Leads w/Alligator Clips

#### Available with TRMS and Display Backlight

The ACDC-100 TRMS version addresses the needs of professionals who rely on performance and reliability. A large LCD for easy viewing.

### **Simplified Interface**

These full function clamp-ons have simplified interfaces to help your customers get their work done quickly. Easy-to-read oversize display screens feature the large digits. Each meter offers auto and manual ranging along relative zero mode functions.