# **AMPROBE®**

Data Sheet



# **ACD-14 PLUS 600A Clamp-On Multimeter** with Dual Display

The ACD-14 PLUS is the professionals' choice for both HVAC and Electrical applications due to its complete set of measuring features. Its dual displays allows viewing amperage and voltage simultaneously. The ACD-14 PLUS meter offers thinner jaws over standard clamp meters. Allowing access to tight measurement areas and still accommodating conductors up to 28 mm. Both meters also measure Capacitance and Frequency. Very versatile clamp multimeters to support all your daily measurement needs.

# No hassle warranty

No waiting.

#### No shipping charges.



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.

(note: \$500 MSLP limit)

- Dual Displays Permits simultaneous reading of Amperage & Voltage
- AC Current to 600A
- New thin jaws, 5mm thinner than others to access tight measurement spaces
- Micro Amps measurement for testing Flame Sensors
- Capacitance to 3000 µF
- Temperature with Type-K Thermocouple probe
- AC and DC Voltage to 600V
- Resistance to  $40M\Omega$
- Continuity Buzzer
- Frequency measurement
- Diode test
- Hold and Maximum reading functions
- In rush current
- Accommodates conductors up to 28 mm (1.1") in diameter
- Auto ranging
- Auto power off and low battery indication
- Rubber over-molded case











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### **General Specifications**

Display:	3-3/4 digits 4000 counts, dual LCD displays				
Update Rate:	3 per second nominal				
Polarity:	Automatic				
Low Battery Indication:	Below approx. 2.4V				
Operating Temperature:	0°C to 40°C (32°F to 104°F)				
Relative Humidity:	Maximum relative humidity $80\%$ for temperatures up to $31^{\circ}$ C ( $88^{\circ}$ F) decreasing linearly to $50\%$ relative humidity at $40^{\circ}$ C ( $104^{\circ}$ F)				
Altitude:	Indoor operation below 2000m (6,562 ft)				
Storage Temperature:	-20°C to $60$ °C (-4°F to $140$ °F), < $80$ % R.H. (with battery removed)				
Temperature Coefficient:	Nominal 0.15 x (specified accuracy)/°F @ 0°C - 18°C or 28°C - 40°C				
	(32°F -64°F or 82°F - 104°F), or otherwise specified				
Sensing:	Average sensing for ACD-14 PLUS				
Power Supply:	Two 3V alkaline button batteries (ANSI/NEDA-5004LC, IEC-CR2032).				
Battery Life:	95 hours approx. (in DCV mode)				
Power Consumption:	2.5 mA typical for ACD-14 PLUS				
Low Battery Indication:	Below approx. 2.4V (battery symbol appears in upper right)				
Auto Power Off:	After being idle for 30 minutes				
APO Consumption:	ACD-14 PLUS: 0.8µA typical except 25µA typical for temperature function				
Safety:	CE EN61010-1, EN61010-2-032 - Pollution Degree 2				
Transient Protection:	6.5kV (1.2/50µs surge) for all models				
E.M.C.:	Meets EN61326				
Overload Protections: RMS	ACA Clamp-on jaws: AC 600A RMS continuous "+" & "COM" terminals (all functions): 600VDC/VAC				
Dimension:	L190mm X W 63mm X H 32mm (L 7.48" X W 2.48" X H 1.25")				
Weight:	204 g (0.450 lb approx.)				
Jaw opening & Conductor diameter:	28 (1.1") max				

### Electrical Specifications 23°C ± 5°C (73°F ± 9°F) & < 75% R.H.

Function	Range	Accuracy
DC Voltage		
	400.0 mV	± (0.3% rdg + 4 digits)
	4.000V, 40.00V, 400.0V	± (0.5% rdg + 3 digits)
	600V	± (1.0% rdg + 4 digits)
	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 5	00Hz] Average sensing	
	4.000V, 40.00V, 400.0V	± (1.5% rdg + 5 digits)
	600V	± (2.0% rdg + 5 digits)
	CMRR:	>60dB @ DC to 60Hz, Rs=1k $\Omega$
	Input Impedance:	10M $\Omega$ , 30pF nominal
AC Current (Clamp-or	n) [50Hz / 60Hz]	
	40.00A	± (1.5% rdg + 8 digits)
	400.0A	± (1.5% rdg + 8 digits)
	600A	± (1.5% rdg + 8 digits)*
*Accuracy specified to 6	500A continuous.	



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Electrical Specification Accuracy (23 °C  $\pm$  5 °C & < 75% R.H.), cont.

Function	Range		Accuracy
Max/Hold (AC Current only)	Specified accuracy ± 50 digits for	or changes > 25ms	s in duration
Ohms	Specifica accaracy 2 30 digits in	or changes > 25mi	, in duration
	400.0Ω		± (0.8% rdg + 8 digits)
	4.000kΩ, 40.00kΩ, 400.0kΩ		± (0.6% rdg + 4 digits)
	4.000ΜΩ		± (1.0% rdg + 4 digits)
	40.00ΜΩ		± (2.0% rdg + 4 digits)
Open Circuit Voltage:	0.4VDC typical		
Audible Continuity Tester	Audible threshold: between 10	$\Omega$ and 120 $\Omega$ .	
Capacitance			
•	500.0nF, 5.000μF, 50.00μF,		
	500.0µF, 3000µF*		± (3.5% rdg + 6 digits)***
*Additional 50.00nF range accur	acy is not specified		
**Accuracies with film capacitor			
***Specified with battery voltag warning voltage of approximate		ull battery). Accur	racy decreases gradually to 12% at low batte
DC µA			
Range	Accuracy		Burden Voltage
400.0μΑ	± (2.0% rdg + 4 digits)		2.8mV/µA
2000μΑ	± (1.2% rdg + 3 digits)		2.8mV/µA
AC μA (50Hz - 500Hz)			
Range	Accuracy		Burden Voltage
400.0µA	± (2.0% rdg + 5 digits)		2.8mV/µA
2000μΑ	± (1.5% rdg + 5 digits )		2.8mV/µA
Frequency ( Voltage input on	ly)		
Volts	Range	Sensitivity	Accuracy
400.0mV	10Hz to 2kHz	300mV	± (0.5% rdg + 4 digits
4.000V	5Hz to 40kHz	4V	± (0.5% rdg + 4 digits)
40.00V	5Hz to 100kHz	28V	± (0.5% rdg + 4 digits)
			1 (0.5 % rag 1 raights)
400.0V	5Hz to 100kHz	100V	± (0.5% rdg + 4 digits)
400.0V 600V		La Propositional	
100 maria (100 maria)	5Hz to 100kHz	100V	± (0.5% rdg + 4 digits)
600V	5Hz to 100kHz	100V	± (0.5% rdg + 4 digits)
600V Diode Tester	5Hz to 100kHz 5Hz to 5kHz	100V	± (0.5% rdg + 4 digits)
600V <b>Diode Tester</b> Open Circuit Voltage	5Hz to 100kHz 5Hz to 5kHz  Test Current (Typical) 0.25mA	100V	± (0.5% rdg + 4 digits)
600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	5Hz to 100kHz 5Hz to 5kHz  Test Current (Typical) 0.25mA	100V 500V	± (0.5% rdg + 4 digits)
600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	5Hz to 100kHz 5Hz to 5kHz  Test Current (Typical) 0.25mA	100V 500V	± (0.5% rdg + 4 digits) ± (0.5% rdg + 4 digits)
600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	5Hz to 100kHz 5Hz to 5kHz  Test Current (Typical) 0.25mA couple) Range	100V 500V	± (0.5% rdg + 4 digits)  ± (0.5% rdg + 4 digits)  Accuracy*
600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	5Hz to 100kHz 5Hz to 5kHz  Test Current (Typical) 0.25mA couple) Range -20°C to 300°C	100V 500V	± (0.5% rdg + 4 digits) ± (0.5% rdg + 4 digits)  ± (0.5% rdg + 4 digits)  Accuracy* ± (2% rdg + 3 °C)



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#### **Included Accessories**

Test Leads, Carrying Case, Bead Type, Thermocouple with banana plug, Users Manual

#### **Optional Accessories**

ELS2A Line splitter

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

TA-1A Temperature Adapter

TL36A Heavy Duty Test Leads with Threaded Alligator Clips



