

**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.



(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°C (88°F) decreasing linearly to 50% relative humidity at 40°C (104°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 50	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:	10MΩ, 30pF nominal
AC Current (Clamp-on	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	00A continuous.	



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**Electrical Specification Accuracy** (23 °C ± 5 °C & < 75% R.H.), cont.

Function	Range		Accuracy	
Max/Hold (AC Current only)	Specified accuracy ± 50 digits for	r changes > 25r	ns in duration	
Ohms	, , ,			
	400.0Ω		± (0.8% rdg + 8 dig	its)
	4.000kΩ, 40.00kΩ, 400.0kΩ		± (0.6% rdg + 4 dig	its)
	4.000ΜΩ		± (1.0% rdg + 4 dig	its)
	40.00ΜΩ		± (2.0% rdg + 4 dig	its)
Open Circuit Voltage:	0.4VDC typical			
Audible Continuity Tester	Audible threshold: between 10s	$\Omega$ and 120 $\Omega$ .		
Capacitance				
	500.0nF, 5.000μF, 50.00μF,			
	500.0μF, 3000μF*		± (3.5% rdg + 6 dig	its)***
Additional 50.00nF range accura	acy is not specified			
**Accuracies with film capacitor o	<u> </u>			
***Specified with battery voltage warning voltage of approximatel	e above 2.8V (approximately half fu y 2.4V	ıll battery). Accı	uracy decreases grad	ually to 12% at low battery
DC μA				
Range	Accuracy		Burden Voltage	
400.0µA	± (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	
	± (2.0% rdg + 5 digits)		2.8mV/μA	
400.0µA	= (=:0,0:09:00,000,000,000,000,000,000,000,0			
400.0μA 2000μA	± (1.5% rdg + 5 digits )		2.8mV/μA	
2000μA	± (1.5% rdg + 5 digits )		2.8mV/μA	
2000μA	± (1.5% rdg + 5 digits )	Sensitivity	·	Accuracy
2000μΑ Frequency ( Voltage input onl	± (1.5% rdg + 5 digits ) y)	Sensitivity 300mV		Accuracy £ (0.5% rdg + 4 digits
2000µA Frequency ( Voltage input onl Volts	± (1.5% rdg + 5 digits ) <b>y)</b> Range			
2000μA Frequency ( Voltage input onl Volts 400.0mV	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz	300mV	, E E	(0.5% rdg + 4 digits
2000µA Frequency ( Voltage input onl Volts 400.0mV 4.000V	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz 5Hz to 40kHz	300mV 4V	± ±	(0.5% rdg + 4 digits (0.5% rdg + 4 digits)
2000µA  Frequency ( Voltage input onl  Volts  400.0mV  4.000V  40.00V	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz 5Hz to 40kHz 5Hz to 100kHz	300mV 4V 28V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA  Frequency ( Voltage input onl  Volts  400.0mV  4.000V  400.0V  400.0V  600V	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz 5Hz to 40kHz 5Hz to 100kHz 5Hz to 100kHz	300mV 4V 28V 100V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA Frequency ( Voltage input onl Volts 400.0mV 4.000V 40.00V 400.0V 600V	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz 5Hz to 40kHz 5Hz to 100kHz 5Hz to 100kHz	300mV 4V 28V 100V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA Frequency ( Voltage input onl Volts 400.0mV 4.000V 40.00V 400.0V 600V Diode Tester	± (1.5% rdg + 5 digits )  y)  Range 10Hz to 2kHz 5Hz to 40kHz 5Hz to 100kHz 5Hz to 100kHz 5Hz to 5kHz	300mV 4V 28V 100V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA Frequency ( Voltage input onl Volts 400.0mV 4.000V 40.00V 400.0V 600V Diode Tester Open Circuit Voltage < 1.6 VDC	± (1.5% rdg + 5 digits )  y)  Range  10Hz to 2kHz  5Hz to 40kHz  5Hz to 100kHz  5Hz to 100kHz  5Hz to 5kHz  Test Current (Typical)  0.25mA	300mV 4V 28V 100V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA Frequency ( Voltage input onl Volts 400.0mV 4.000V 40.00V 400.0V 600V Diode Tester Open Circuit Voltage < 1.6 VDC	± (1.5% rdg + 5 digits )  y)  Range  10Hz to 2kHz  5Hz to 40kHz  5Hz to 100kHz  5Hz to 100kHz  5Hz to 5kHz  Test Current (Typical)  0.25mA	300mV 4V 28V 100V	, E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA  Frequency ( Voltage input onl  Volts  400.0mV  4.000V  40.00V  400.0V  600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	± (1.5% rdg + 5 digits )  y)  Range  10Hz to 2kHz  5Hz to 40kHz  5Hz to 100kHz  5Hz to 100kHz  5Hz to 5kHz  Test Current (Typical)  0.25mA  couple)	300mV 4V 28V 100V	E E E E	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA  Frequency ( Voltage input onl  Volts  400.0mV  4.000V  40.00V  400.0V  600V  Diode Tester  Open Circuit Voltage	± (1.5% rdg + 5 digits )  y)  Range  10Hz to 2kHz  5Hz to 40kHz  5Hz to 100kHz  5Hz to 100kHz  5Hz to 5kHz  Test Current (Typical)  0.25mA  couple)  Range	300mV 4V 28V 100V	Accuracy* ± (2% rdg + 3 °C)	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)
2000µA  Frequency ( Voltage input onl  Volts  400.0mV  4.000V  40.00V  400.0V  600V  Diode Tester  Open Circuit Voltage  < 1.6 VDC	± (1.5% rdg + 5 digits )  y)  Range  10Hz to 2kHz  5Hz to 40kHz  5Hz to 100kHz  5Hz to 100kHz  5Hz to 5kHz  Test Current (Typical)  0.25mA  couple)  Range  -20°C to 300°C	300mV 4V 28V 100V	Accuracy*	e (0.5% rdg + 4 digits e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits) e (0.5% rdg + 4 digits)



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

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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





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