





# 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)

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

The ACD-14 TRMS-PLUS is the professionals' choice for both HVAC & Electrical applications due to its complete set of measuring features. Its dual displays allows viewing amperage and voltage simultaneously. True RMS voltage and current measurements for more precise results when measuring in noisy AC environments.

- Dual Displays Permits simultaneous reading of Amperage & Voltage
- Micro Amps measurement for testing Flame Sensors
- True RMS for precise measurement results
- Capacitance to 3000 μF
- New thin jaws, 5mm thinner than others to access tight measurement spaces
- Temperature with Type-K Thermocouple
- AC and DC Voltage to 600V
- AC Current to 600A
- Resistance to 40MΩ
- 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





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

Data Sheet

#### **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)<br>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<br>(32°F -64°F or 82°F - 104°F), or otherwise specified       |  |  |
| Sensing:                             | Average sensing for ACD-14 FX  |  |  |
| 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 FX   |  |  |
| 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 TRMS-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:                | ACA Clamp-on jaws: AC 600A RMS continuous "+" & "COM" terminals (all functions):<br>600VDC/VAC RMS                               |  |  |
| 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 &<br>Conductor diameter: | 28 mm ( 1.1") max  |  |  |
|                                      |  |  |  |

## Electrical Specification Accuracy (23 °C ± 5 °C & < 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 500Hz]                 |                        |  |
|   | 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   |
| TRMS sensing from 10% to 100% of range. |                        |  |
| AC Current (Clamp-on) [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 600A continuous. |                        |  |

TRMS sensing from 10% to 100% of range.

#### **Amprobe® Test Tools**



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

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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 $\pm$ 50 digits for changes > 25ms in duration |                          |   |  |
| Resistance  |   | <u> </u>                 |   |  |
|   | 400.0Ω  | ± (0.8% rd               | g + 8 digits)                             |  |
|   | 4.000kΩ, 40.00kΩ, 400.0k  | Ω ± (0.6% rd             | g + 4 digits)                             |  |
|   | 4.000MΩ   | ± (1.0% rd               | g + 4 digits)                             |  |
|   | 40.00MΩ   | ± (2.0% rd               | g + 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% rd               | g + 6 digits)***                          |  |
| *Additional 50.00nF range accuracy is not s                                     | pecified  |                          |   |  |
| **Accuracies with film capacitor or better                                      |   |                          |   |  |
| ***Specified with battery voltage above 2.<br>ing voltage of approximately 2.4V | 8V (approximately half full ba                                    | attery). Accuracy decrea | ises gradually to 12% at low battery warr |  |
| DC µA   |   |                          |   |  |
| Range   | Accuracy  | Burden Vo                | Burden Voltage                            |  |
| 400.0µA   | ± (2.0% rdg + 4 digits)   | 2.8mV/µA                 |   |  |
| 2000µA  | ± (1.2% rdg + 3 digits)   | 2.8mV/µA                 | 2.8mV/µA                                  |  |
| AC µA (50Hz - 500Hz)  |   |                          |   |  |
| Range   | Accuracy  | Burden Vo                | ltage                                     |  |
| 400.0µA   | ± (2.0% rdg + 5 digits)   | 2.8mV/µA                 |   |  |
| 2000µA  | ± (1.5% rdg + 5 digits )  | 2.8mV/µA                 | 2.8mV/µA                                  |  |
| Frequency ( Voltage input only)   |   |                          |   |  |
| 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)                   |  |
| 400.0V  | 5Hz to 100kHz   | 100V                     | ± (0.5% rdg + 4 digits)                   |  |
| 600V  | 5Hz to 5kHz   | 500V                     | ± (0.5% rdg + 4 digits)                   |  |
| Diode Tester  |   |                          |   |  |
| Open Circuit Voltage  | Test Current (Typical)  |                          |   |  |
| < 1.6 VDC   | 0.25mA  |                          |   |  |
| Temperature (Type-K Thermocouple)   |   |                          |   |  |
| Range   | Accuracy*   |                          |   |  |
| -20°C to 300°C  | ± (2% rdg + 3 °C)   |                          |   |  |
| 301 °C ~ 537 °C   | ± (3% rdg + 3 °C)   |                          |   |  |
| -4°F to 572°F   | ± (2% rdg + 6 °F)   |                          |   |  |
| 573 °F ~ 999 °F   | ± (3% rdg + 6 °F)   |                          |   |  |
| *Type-K thermocouple range & accuracy ne  | ot included   |                          |   |  |
|   |   |                          |   |  |



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

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#### **Included Accessories**

Test Leads, Carrying Case, Bead Type-K 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 |



