







Wide range of measuring features built into one, professional meter. The TRMS version with backlight display, improves performance and reliability.

- TRMS & Backlight Screen (ACD-15 TRMS Pro only)
- Measurements: AC/DC Voltage up to 600V, AC Current up to 2000A, Resistance, Frequency and Capacitance
- Non-contact Voltage Level Detection
- Diode Test
- Audible continuity
- Auto-check feature automatically selects DCV, ACV or Resistance (W)
- Auto and manual ranging
- Auto power off
- Automatic polarity

- Low battery indication
- Data hold
- · Large, easy to read LCD display
- Accommodates conductors up to 1.77" (45mm) in diameter
- Carrying case, test leads, batteries (installed) and manual included
- Voltage overload protection for all functions up to 600V AC/DC
- Safety CAT III 600V

FEATURES	ACD-15	ACD-15 TRMS	ACCURACY
TRMS Measuremaent	N/A	Yes	
AC Current	400.0 / 2000	A	+/-(1.5% Rdg + 5 LSD) @ 50 and 60Hz
AC/DC Voltage	6.000 / 60.00 / 600V		+/-(2.0% Rdg + 5 LSD) @ DC & 50 / 60 Hz**
Resistance	6.000 /60.00 / 600.0 kOhms 6.000 MOhms		+/-(1.0% Rdg + 4 LSD) @ 60.00 to 600.0 kOhms ranges**
Frequency	10Hz to 1kHz		0.5%+4d
Capacitance	100.0, 1000 nF 10.00, 100.0, 2000 _F		3.5%+5d
Non-contact Voltage	15V to 85V - 40V to 130V 60V to 210V 90V to 300V Above 120V		

OPTIONAL ACCESSORIES	PART NUMBER
Line splitter (Energizer)	A47L
5000A Clamp-on Current Transformer (50 to 1)	CT50-1
3000A Clamp-on Current Transformer (50 to 1)	CT50-2
3000A AC Flexible Clamp-On Attachment	ACF-3000AK
Temperature Adapter	TMA-K
Alligator Clips (For test leads)	VRC-320

\*\*For other ranges see website (http://www.AMPROBE.com)

REPLACEMENT PARTS (supplied with product)	PART NUMBER
Test leads with set of alligator clips (alligator clips are not supplied with product)	MTL-90B
Carrying case	SV-U
Instruction Manual	www.AMPROBE.com

# www.AMPROBE.com



### **GENERAL SPECIFICATIONS**

Display: 3-5/6 digits 6000 counts LCD display Update Rate: 5 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: -200C to 600C, < 80% R.H. (with battery removed)

Temperature Coefficient: nominal 0.15 x (specified accuracy)/OC @(0OC -18OC or 28OC -40OC), or otherwise specified

Sensing: Average sensing for ACD-15 PRO; True RMS sensing for ACD-15 TRMS PRO

Safety: Meets IEC61010-2-032(1994), EN61010-2-032(1995), UL3111-2-032(1999) 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(1997, 1998/A1), EN61000-4-2(1995), and EN61000-4-3(1996)

In an RF field of 3V/m: Capacitance function is not specified. Total Accuracy = Specified Accuracy + 45 digits Performance above 3V/m is not specified

Overload Protections: ACA Clamp-on jaws: AC 2000A rms continuous + & COM terminals (all functions): 600VDC/VAC RMS

Power Supply: standard 1.5V AAA Size (NEDA 24A or IEC LR03) battery X 2

Power Consumption: 2.2mA typical for ACD-15 PRO; 2.8mA typical for ACD-15 TRMS PRO

APO Timing: Idle for 3 minutes

APO Consumption: 40µA typical on all model functions except that 230µA typical on ACD-15 TRMS PRO voltage & current functions

Dimension: L224mm X W78mm X H40mm

Weight: 220 gm approx

Jaw opening & Conductor Diameter: 45mm max Accessories: Test leads (pair), batteries installed, user's manual, & soft carrying pouch

Electrical Specifications: Accuracy is ±(% reading digits + number of digits) or otherwise specified, at 23 OC ±5 OC & less than 75% R.H. True RMS Model ACD-15 TRMS PRO ACV & ACA clamp-on accuracies are specified from 5% to 100% of range or otherwise specified. Maximum Crest Factor are as specified below, and with frequency spectrums, besides fundamentals, fall within the meter specified AC bandwidth for non-sinusoidal waveforms.

#### Ohms RANGE Accuracy 1) 6.000kΩ <sup>2)</sup> 1.2% + 6d 3) 60.00kΩ, 600.0kΩ 1.0% + 4d 6.000MΩ 2.0% + 4d Open Circuit Voltage: 0.4VDC typical vCool down interval 2 minutes after over 50V measurements in Auto-V $\Omega$ position Beeper on while reading < $0.025 k\Omega$

3Add 40d to specified accuracy while reading is

DC Voltage		
RANGE	Accuracy	
6.000V	0.5% + 3d	
60.00V	1.0% + 5d	
600.0V	2.0% + 5d	

NMRR : >30dB @ 50/60Hz CMRR : >100dB @ DC, 50/60Hz, Rs=1kΩ Hi-Z DCV Input Impedance: 5MΩ, 90pF nominal AutoCheck™ Lo-Z DCV input impedance: Initially 1.6kΩ, 90pF nominal; Impedance increases significantly as display voltage increases from 50V (typical). Typical impedances vs display voltages for reference are: 210kO @ 600V

15kΩ @ 100V 100kΩ @ 300V AutoCheck<sup>™</sup> DCV Threshold:

> +1.5VDC or < -1.0VDC nominal

#### 600Ω with Continuity Beeper

RANGE	Accuracy
600.0Ω	2.0%+8d <sup>1)</sup>

Continuity Beeper Response: < 100µs Open Circuit Voltage: 0.4VDC typical Audible Threshold: between  $10\Omega$  and  $300\Omega$  <sup>1</sup> Add 40d to specified accuracy while reading is below 20% of range

Frequency		
Voltage Range	Sensitivity (Sine RMS)	Range
6.000V	4V	10Hz ~ 30kHz
60.00V	30V	10Hz ~ 1kHz
600.0V	60V	10Hz ~ 1kHz
Accuracy: 0.5%+4d Max display: 9999 counts		

AC Voltage		
RANGE	Accuracy	
50Hz / 60Hz		
6.000V, 60.00V	1.5% + 5d	
600.0V	2.0% + 5d	
50Hz ~ 500Hz		
6.000V, 60.00V	2.0% + 5d	
600.0V	2.5% + 5d	
CMRR: >60dB @ DC to 60Hz, Rs=1kΩ Hi-Z ACV Input Impedance: 5MΩ, 90pF nominal AutoCheck™ Lo-Z ACV input impedance: Initially 1.6kΩ, 90pF nominal; Impedance increases significantly as display voltage increases from 50V (typical). Typical impedances vs display voltages for reference are:		
15kΩ@100V 100kΩ@		
AutoCheck <sup>™</sup> ACV Threshold: > 2VAC (50/60Hz) nominal.		

True RMS model ACD-15 TRMS PRO Crest < 1.6 : 1 at full scale & < 3.3 : 1 at half scale

Diode Tester	-
Open Circuit Voltage	Test Current
	0.4mA (typical)
Audible Threshold: between 0.015V & 0.080V	

Capacitance		
Range	Accuracy <sup>1)</sup>	
100.0nF 2), 1000nF, 10.00µF, 100.0µF, 2000µF	3.5%+5d <sup>3)</sup>	
<ul> <li><sup>1)</sup> Accuracies with film capacitor or better</li> <li><sup>2)</sup> Accuracy below 50nF is not specified</li> <li><sup>3)</sup> Specified with battery voltage above 2.8V (approxmately half full battery). Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V</li> </ul>		
Non-Contact EF-Detection		

Typical Voltage	Bar Graph Indication	
15V TO 85V	-	
40V TO 130V		
60V TO 210V		
90V TO 300V		
ABOVE 120V		
Indication: Bar graph segments & audible beep tones proportional to the field strength Detection Frequency: 50/60Hz Detection Antenna: Top side of the stationary jaw Probe-Contact EF-Detection: For more precise indication of live wires, use the Red (+) probe for direct contact measurements		

#### ACA Current (Clamp-on)

RANGE	Accuracy <sup>1) 2) 3)</sup>		
50Hz / 60Hz			
400.0A, 2000A	1.5% + 5d		
400.0A, 2000A       1.5% + 5d         True RMS model ACD-15 TRMS PRO Crest Factor:       2.0:1 at full scale & < 4.0:1 at half scale			

Miramar, FL 33025 • Toll Free: 800-327-5060 • Phone: 954-499-5400 • Fax: 866-287-7222 • www.Amprobe.com

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