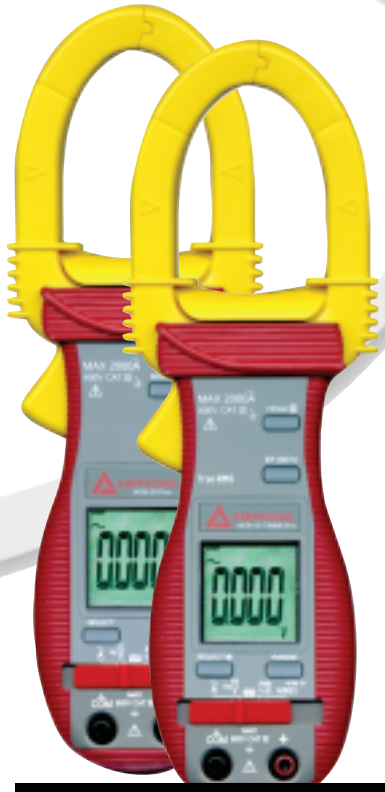
AMPROBE®

ACD-15 Pro & ACD-15 TRMS Pro
2000A Digital Clamp-on Multimeters



LIMITED LIFETIME WARRANTY

CAT III 600V

TRUE RMS ACD-15 TRMSPro

CE

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 - - - - -		

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

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

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*

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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: -20OC to 60OC, < 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 [2]	1.2% + 6d [3]
60.00kΩ, 600.0kΩ	1.0% + 4d
6.000MΩ	2.0% + 4d

Open Circuit Voltage: 0.4VDC typical
[1] Cool down interval 2 minutes after over 50V measurements in Auto-VΩ position
[2] Beeper on while reading < 0.025kΩ
[3] Add 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:

15kΩ @ 100V	100kΩ @ 300V	210kΩ @ 600V

AutoCheck™ DCV Threshold:
> +1.5VDC or < -1.0VDC nominal

600Ω with Continuity Beeper

RANGE	Accuracy
600.0Ω	2.0%+8d [1]

Continuity Beeper Response: < 100µs
Open Circuit Voltage: 0.4VDC typical
Audible Threshold: between 10Ω and 300Ω [1] 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 @ 300V	210kΩ @ 600V

AutoCheck™ 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
< 1.6 VDC	0.4mA (typical)

Audible Threshold: between 0.015V & 0.080V

Capacitance

Range	Accuracy [1]
100.0nF 2), 1000nF, 10.00µF, 100.0µF, 2000µF	3.5%+5d [3]

[1] Accuracies with film capacitor or better
[2] Accuracy below 50nF is not specified
[3] Specified with battery voltage above 2.8V (approximately half full battery). Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V

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 [1] [2] [3]
50Hz / 60Hz	
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
[1] Add 8d to specified accuracy while reading is below 10% of range [2] Induced error from adjacent current-carrying conductor: < 0.06A/A
[3] Specified accuracy is for measurements made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are: Add 1% to specified accuracy for measurements made within jaw marking lines (away from jaw opening) Add 4% to specified accuracy for measurements made beyond jaw marking lines (toward jaws opening)

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