



GENERATION TWO
PHOENIX
CLAMP METER SERIES™

DL389
G2PHOENIX PRO+
True RMS Clamp Meter

The DL389 G2 Phoenix PRO+ offers contractors better features, functions and safety making it the most complete clamp meter available with True-RMS precision. Don't spend money on a True-RMS meter until you compare it to the PRO+ and ensure it provides all the functionality your job requires.

**Also included in this
Data Sheet**

**DL379, DL369, DL235,
DL99B, DL49**



Functions

Features

Includes

DL389



- True-RMS
- 4000µF Capacitance
- 2000µA AC/DC
- Non-Contact Voltage 24-600V AC
- 750V AC/1000V DC
- 400A AC
- MIN/MAX
- -22° ~ 752°F (K type)
- 40MΩ Resistance/Continuity
- Frequency/Duty Cycle
- Diode
- Data Hold

- Dual Display
- Detachable Clamp Head
- Input Jack Lock
- Worklight
- Low Battery Display Lock
- EasyView High Contrast Backlight Display
- Magnetic Mount
- User Temperature Calibration
- Test Lead Storage
- Test Lead Holder on Clamp Head
- Auto Off
- Compatible with Common Industry Accessory Heads
- Three Year Limited Warranty

ATL59, AAC3, ATT29, 2(AA) Bat., Zippered Carrying Case

DL379



- 4000µF Capacitance
- 2000µA AC/DC
- Non-Contact Voltage 24-600V AC
- 750V AC/1000V DC
- 400A AC
- MIN/MAX
- -22° ~ 752°F Temperature (K type)
- 40MΩ Resistance/Continuity
- Frequency/Duty Cycle
- Diode
- Data Hold

- Dual Display
- Detachable Clamp Head
- Input Jack Lock
- Worklight
- Low Battery Display Lock
- EasyView High Contrast Backlight Display
- Magnetic Mount
- User Temperature Calibration
- Test Lead Storage
- Test Lead Holder on Clamp Head
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ATL59, AAC3, ATT29, 2(AA) Bat., Zippered Carrying Case

Specifications

G2 PHOENIX

Range	Resolution	Accuracy	Overload
DC Volts			
400mV	0.1mV	±0.5% + 4	600V
4V	1mV		
40V	10mV		
400V	100mV		
1000V	1V	±0.8% + 10	

AC Volts			
4V	1mV	±0.75% + 3	600V
40V	10mV		
400V	100mV		
1000V	1V		

DL389: 45Hz to 400Hz True RMS (Crest factor<3:1)

AC Amps Measurement - Jaw Input (45-400Hz)			
40A	0.01A	±2.9% + 15	600V
400A	0.1A	±1.9% + 8	

DL369: 400A range only

DL389: 45Hz to 400Hz True RMS (Crest factor<3:1)

DC Low Amps Measurement (Test Lead Input)			
400µA	0.01µA	±1.2% + 3	2000µA/600V
2000µA	0.1µA		

AC Low Amps Measurement (Test Lead Input)			
400µA	0.01µA	±2.0% + 5	2000µA/600V
2000µA	0.1µA	±1.5% + 5	

DL389: 45Hz to 400Hz True RMS (Crest factor<3:1)

Resistance			
400Ω	100mΩ	±1.0% + 4	600V
4kΩ	1Ω		
40kΩ	10Ω		
400kΩ	100Ω		
4MΩ	1kΩ		
40MΩ	10kΩ	±2.0% + 4	

Capacitance Measurement			
40nF	0.01nF	±3.5% + 6	600V
400nF	0.1nF		
4µF	0.001µF		
40µF	0.01µF		
400µF	0.1µF		
4000µF	1µF		

Diode Test			
Range	Open Circuit V	Test Current	Overload
2.0V	<3.0V DC	0.25mA	600V

Frequency Measurement			
9.999Hz	0.001Hz	±0.1% + 4	600V
99.99Hz	0.01Hz		
999.9Hz	0.1Hz		
9.999kHz	1Hz		
99.99kHz	10Hz		

Temperature Measurement (DL379 & DL389 ONLY)			
-22° ~ 14°F	0.1°F	±5.4°F	30V
(-30° ~ -10°C)	(0.1°C)	(±3.0°C)	
15° ~ 752°F	0.1°F	±1.0% + 3.6°F	
(-9° ~ 400°C)	(0.1°C)	(±1.0% + 2.0°C)	

Duty (%) Cycle Measurement		
Range	Accuracy	Overload
01. to 99.9%	±(0.2% per kHz + 0.1%) + 5	600V

Continuity Measurement		Overload 600V
Open Circuit Voltage <2.7V		
Threshold Approximately <20Ω		



DL369



- 4000 μ F Capacitance
- 2000 μ A AC/DC
- Non-Contact Voltage 24~600V AC
- 750V AC/1000V DC
- 400A AC
- MIN/MAX
- 40M Ω Resistance/Continuity
- Frequency/Duty Cycle
- Diode
- Data Hold

- Dual Display
- Low Battery Display Lock
- Test Lead Storage
- Test Lead Holder on Clamp Head
- Auto Off
- Three Year Limited Warranty

ATL59, AAC3, ATT29, 2(AA) Bat., Zippered Carrying Case



DL235



- True RMS
- 700 Amps AC and DC
- 750 Volts AC and DC
- Resistance to 4 kilohms
- Continuity
- Frequency to 10 kilohertz

- Auto or manual ranging
- Soft mode smooths amp, frequency or voltage readings
- Crest mode displays 1/2 wave peak to calculate crest factor
- MIN/MAX record
- 2 1/6" jaw capacity
- CE and CAT II
- Five year limited warranty

ATL55, AAC3, 9V Bat, Holster

DL235

Range	Resolution	Accuracy ^{*2}	Range	Resolution	Accuracy ^{*2}	Range	Resolution	Accuracy
AC Amps (RMS Amperes)^{*1}			Instantaneous Amperes (Crest Mode)^{*1}			Frequency^{*1}		
0.30 ~ 39.99 (40A scale)	0.01A	$\pm 3\% + 20$ $\pm 4\% + 30$ $\pm 4\% + 30$ $\pm 8\% + 30$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*3} @ 65Hz ~ 1kHz @ 20Hz ~ 30Hz ^{*4}	0.4 ~ 39.99A (40A scale)	0.2A $\pm 3\% + 30$ $\pm 4\% + 30$ $\pm 4\% + 30$ $\pm 8\% + 40$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*2} @ 65Hz ~ 1kHz @ 20Hz ~ 30Hz ^{*3}	0.5 ~ 999.9Hz 1,000 ~ 9,999Hz	0.1Hz 1Hz $\pm 0.2\% + 3$ $\pm 0.2\% + 3$
0.30 ~ 399.9A (400A scale)	0.1A	$\pm 3\% + 2$ $\pm 4\% + 3$ $\pm 4\% + 3$ $\pm 8\% + 3$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*3} @ 65Hz ~ 1kHz @ 20Hz ~ 30Hz ^{*4}	0.4 ~ 399.9A (400A scale)	2A $\pm 3\% + 3$ $\pm 4\% + 3$ $\pm 4\% + 3$ $\pm 4\% + 4$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*2} @ 65Hz ~ 45kHz @ 20Hz ~ 30Hz ^{*3}	0.30 ~ 399.9A (400A scale) 400 ~ 700A (400A scale)	0.01A 0.1A 1A $\pm 2\% + 30$ $\pm 2\% + 10$ $\pm 2\% + 10$
400 ~ 700A (400A scale)	1A	$\pm 5\%$ $\pm 7\%$ $\pm 7\%$ Not Specified	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*3} @ 20Hz ~ 30Hz @ 20Hz ~ 30Hz ^{*4}	400 ~ 699A (400A scale)	4A $\pm 3\%$ $\pm 4\%$ $\pm 4\%$ $\pm 4\%$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*2} @ 65Hz ~ 1kHz @ 20Hz ~ 30Hz ^{*3}	0 ~ 39.9V (40V scale) 0 ~ 399.9V (400V scale) 0 ~ 750V (400V scale)	0.01V 0.1V 1V $\pm 1.0\% + 3$ $\pm 1.0\% + 3$ $\pm 1.0\% + 5$ $\pm 1.0\% + 5$ $\pm 1.0\% + 3$ $\pm 1.0\% + 3$ $\pm 1.5\% + 5$
				400 ~ 699A (400A scale)	4A $\pm 7\%$ $\pm 7\%$ $\pm 7\%$ $\pm 7\%$	@ 45Hz ~ 65Hz @ 30Hz ~ 45Hz ^{*2} @ 65Hz ~ 1kHz @ 20Hz ~ 30Hz ^{*3}	0 ~ 39.9V (40V scale) 0 ~ 399.9V (400V scale) 0 ~ 750V (400V scale)	0.01V 0.1V 1V $\pm 1.0\% + 3$ $\pm 1.0\% + 3$ $\pm 1.5\% + 5$

*1. Sine wave, measured with conductor centered at alignment marks and battery life is greater than 40hrs on meter power up.

*2. RMS MIN/MAX: ADD 10 counts.

*3. 1A and above @ 30Hz ~ 45Hz

*4. Average only, 2.5A and above RMS MIN/MAX add 2% of reading



DL99B



- True RMS
- Work light and backlit display
- 1000 Amps AC and DC
- 1000 Volts AC and DC
- Resistance to 40 kilohms
- Continuity

- Push-button ranging
- Peak hold
- Data hold
- 0.1 mV DC resolution allows use of DMM adapters
- 1-3/8" jaw capacity
- CE and UL listed CAT III
- Three year limited warranty

ATL55, AAC3, 9V Bat.,
Holster



DL49



- 400 Amps AC and DC
- 600 Volt AC and DC
- Resistance to 40 Megohms
- Continuity

- Autoranging
- AC Amps peak hold
- Data hold
- 1 mV DC resolution allows use of DMM adapters
- 1 1/4" Jaw capacity
- CE and UL listed CAT III
- Three year limited warranty

ATL55, AAC3, 9V Bat.,
Carrying Case

DL99B

Range	Resolution	Accuracy	Overload
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AC Amps

400A	0.1A	±2.0% + 5	600V
1000A	1A		

DC Amps

400A	0.1A	±2.0% + 5	600V
1000A	1A		

AC Volts (50Hz ~ 400Hz)

400V	0.1V	±1.9% + 3	600V
1000V	1V		

DC Volts

400mV	0.1mV	±1.0% + 2	600V
400V	0.1V		
1000V	1V		

Volts AC & DC auto ranges to 600V scale when >400V

Resistance

400Ω	0.1Ω	±1.0% + 2	600V
40kΩ	0.01kΩ		

Continuity

400Ω	0.1Ω	Tone Sounds @ 40Ω	
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DL49

Range	Resolution	Accuracy	Overload
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AC Amps (50Hz ~ 400Hz)

40A	0.01A	±2.0% + 5	600V
400A	0.1A	±3.0% + 10	

DC Amps

40A	0.01A	±2.5% + 10	600V
400A	0.1A	±1.5% + 5	

AC Volts (50Hz ~ 400Hz)

4V	1mV	±1.5% + 3	600V
40V	10mV		
400V	100mV		
600V	1V		

DC Volts

4V	1mV	±0.9% + 2	600V
40V	10mV		
400V	100mV		
600V	1V		

Resistance

400Ω	0.1Ω	±0.9% + 2	600V
4kΩ	1Ω		
400kΩ	100Ω		
4MΩ	1kΩ	±1.2% + 5	
40MΩ	10kΩ		

QUICK COMPARISON



FUNCTIONS

	DL369	DL379	DL389	DL99B	DL235	DL49
AC Volts	750	750	750	1000	750	600
DC Volts	1000	1000	1000	1000	750	600
AC Amps	400	400	400	1000	700	400
DC Amps	-	-	-	1000	700	400
Frequency	.01~999.9kHz	.01~999.9kHz	.01~999.9kHz	-	.5~9,999Hz	-
AC/DC Micro Amps	0.1~2000μA	0.1~2000μA	0.1~2000μA	-	-	-
Capacitance	.01~4000μF	.01~4000μF	.01~4000μF	-	-	-
Temperature °F	-	-22~752°F	-22~752°F	-	-	--
Temperature °C	-	-30~400°C	-30~400°C	-	-	-
Resistance	0.1~40MΩ	0.1~40MΩ	0.1~40MΩ	40kΩ	4kΩ	40MΩ
Audible Continuity	<50Ω	<50Ω	<50Ω	<40Ω	<35Ω	<50Ω

FEATURES

True-RMS	-	-	X	X	X	-
Non Contact Voltage	24~600VAC	24~600VAC	24~600VAC	-	-	-
Dual Display	X	X	X	-	-	-
Detachable Clamp Head	-	X	X	-	-	-
Accepts Industry Accessory Heads	-	X	X	-	-	-
User Temperature Calibration	-	X	X	-	-	-
Worklight	-	X	X	X	-	-
Backlit Display	-	EasyView	EasyView	-	-	-
MIN/MAX	X	X	X	-	X	-
Autoranging	Auto/Man	Auto/Man	Auto/Man	Auto/Man	Auto/Man	Auto
Peak Hold	-	-	-	X	X	X
Data Hold	X	X	X	X	X	X
Auto Off	X	X	X	X	X	X
Low Battery Indicator	Display Lock	Display Lock	Display Lock	X	X	X

Standard Accessories

Test Leads	ATL59	ATL59	ATL59	ATL55	ATL55	ATL55
Alligator Clips	AAC3	AAC3	AAC3	AAC	AAC	AAC
Battery	"AA" (2)	"AA" (2)	"AA" (2)	9V	9V	9V
Temperature Probe	-	K-Type	K-Type	-	-	-
Thermocouple (K-type)	-	ATT29	ATT29	-	-	-
Case	X	X	X	X	X	X

Optional Accessories

Flame Safeguard Test Kit	ATLFSG	ATLFSG	ATLFSG	-	-	-
Microwave Diode Booster	ATL60	ATL60	ATL60	-	-	-
Line Splitter	ALS1	ALS1	ALS1	ALS1	ALS1	ALS1
Dual Temperature Adapter	TA2K	TA2K	TA2K	TA2K	TA2K	TA2K
Micro Amp Adapter	DLMAT2	DLMAT2	DLMAT2	DLMAT2	DLMAT2	DLMAT2
Capacitance Adapter	CPA1	CPA1	CPA1	CPA1	CPA1	CPA1
Optional Storage Case	AC519	AC519	AC519	AC519	AC519	AC519

Warranty & Safety Rating

Warranty	3yr	3yr	3yr	3yr	5yr	3yr
Safety Ratings	UL CAT III 600V CAT II 1000V	UL CAT III 600V CAT II 1000V	UL CAT III 600V CAT II 1000V	UL CAT III 600V	CAT II	UL CAT III 600V

G2PHOENIX HOOK: CH3 Extended Clamp Head

Introducing a revolutionary design for clamp-on current measurement, The Hook (CH3) snaps onto the Phoenix meter body providing contractors a new, safe and unique approach to measuring wires in tight wire bundles or hard-to-reach locations. The patented technology increases accuracy by shielding current from adjacent wires by providing a virtual closed core tip. The Hook works exclusively with the G2PHOENIX PRO and PRO+* Clamp Meters.

Functions

- Measures 100A AC
- Non-Contact Voltage in Tip
- Worklight
- Patented Virtual Closed Core Accuracy
- Three year limited warranty

Specifications

- Range: 0 – 100A
- Resolution: 0.1A
- Accuracy: 2.0% $\pm$ 20 dgts
- Interference from Adjacent Wires: 0.03 – 1.0A

*Hook does not measure True-RMS when used with the PRO+ (DL389)



INCLUDED

Test Leads

- ATL59** UL listed Insulated test leads for G2 Phoenix clamp meters. (DL369, DL379, DL389)
- ATL55** UL listed Insulated test leads for industry standard meters with 4mm jacks. (DL99B, DL49, DL250)
- AAC** Alligator clips (DL49, DL99B, DL235)
- AAC3** Screw-on alligator clips (DL369, DL379, DL389)



Temperature Probe (DL379, DL389)

- ATT29** 4' Standard fiber glass coated K-Type Temperature probe. (-40° to 950°F / -40° to 510°C)

Note: The DL379 and DL389 will work with any K type thermocouple using a standard mini connector.



Batteries

- AA For DL369, DL379, DL389
- 9V for DL49, DL99B, DL235.

OPTIONAL ACCESSORIES

Clips & Adapters

- ALS1** AC Line Splitter
- CPA1** Capacitance Adapter
- DLMAT2** Micro Amp Adapter



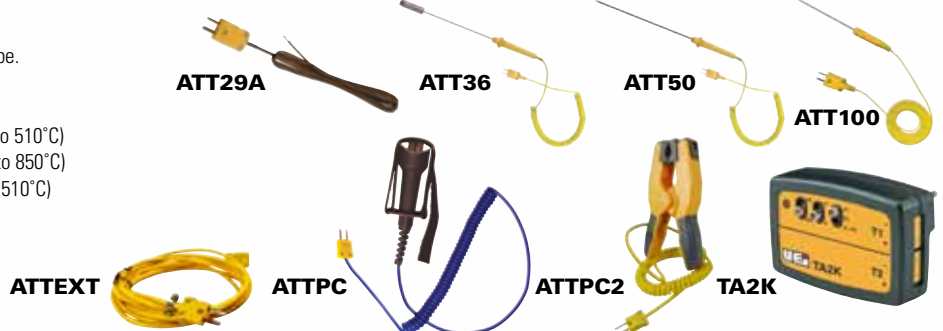
Test Leads

- ATL60** Test Lead, Microwave Diode booster for all DMM (DL369, DL379, DL389 only)
- ATL301KIT** Deluxe Test Lead Kit
- ATLFSG** Flame safeguard relay kit, w/ test lead and alligator clip (DL369, DL379, DL389 only)



Temperature Probes (DL379, DL389 ONLY)

- ATT29A** 4' Standard teflon coated K-Type Temperature probe. (-40° to 950°F / -40° to 510°C)
- ATT29APACK** ATT29A (10 Pack)
- ATT36** 8" Surface Probe and handle (-40° to 950°F / -40° to 510°C)
- ATT50** 8" Liquid Probe and handle (-40° to 1.550°F / -40° to 850°C)
- ATT100** 6" Liquid Probe and handle (-40° to 950°F / -40° to 510°C)
- ATTEXT** 10' K-Type extension
- ATTPC** K-Type Pipe Clamp Adapter (Wrap style)
- ATTPC2** K-Type Pipe Clamp Adapter (Grip style)
- TA2K** Dual input differential temperature adapter.



USA

1-800-547-5740 • Fax: (503) 643-6322
www.ueitest.com • Email: info@ueitest.com

8030 SW Nimbus Ave.
Beaverton, OR 97008

CANADA

1-877-475-0648 • Fax: (604) 278-8299
www.ueitest.com • Email: info@ueitest.com

150-13571 Verdun Place
Richmond, B.C.
V6V 1W6

EUROPE

+44 1707 375550 • Fax: +44 1707 393277