


## 3. SPECIFICATIONS

### 3.1 GENERAL

Maximum Input Current	1000A AC; 1000A DC
Maximum Input Voltage	750V AC (RMS); 1000V DC
AC Volts	6mV/600mV/6V/60V/600V/750V (+/- 0.6% reading); 750V (+/-0.8% reading)
DC Volts	6mV/600mV/6V/60V/600V/1000V (+/- 0.5% reading); 1000V (+/-0.8% reading)
AC Amps	60/600/1000 (+/- 2% reading)
DC Amps	60/600/1000 (+/- 2% reading)
OHMs	600/6K/60K/600K/6M/60M (+/- 2% reading)
Frequency (Through Jaw Clamp)	99.99 Hz to 999.9 Hz
Frequency (Through Mode V)	99.99 Hz to 9.999kHz
Frequency (Through Mode HZ/DUTY)	9.999 Hz to 9.999 MHz
Measuring Range Overload Protection	Yes (Full Range)
Sampling Rate	Approx. 3 times/sec.
LCD Display Auto-Off	After 15 minutes (if no operation)
Test Leads (Red, Black)	39" (1 m), Included
Battery Undervoltage Indication	Display shows 
Polarity Indication	Automatic ("-" = negative polarity)
Display Indication (Exceeds Max Range)	"OL" or "-OL"
Temperature Coefficient	<0.1 X accuracy/°C
Clamp, Max Opening	1.6" (42 mm)
Full measuring range overload protection	Yes
Battery	One 9V DC (Included)
Operation Temperature	32°F~122°F (0°C ~ 50°C)
Storage Temperature	-14°F~122°F (-10°C ~ 50°C)
Size (H x W x D)	9.4" x 1.9" x 3.6" (238 x 50 x 92 mm)
Weight (Including Battery)	0.92 lb (420 g)

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### 3.2.1 TRUE RMS ZERO INPUT CHARACTERISTIC

- 3.2.1.1 For measuring non-sinusoidal wave signals, use true RMS measuring method, which has less error than traditional average response measuring method.
- 3.2.1.2 This true RMS meter can accurately measure non-sinusoidal wave signals, but in AC function mode, when there is no signal to be measured (input terminal short circuit in AC voltage mode), clamp meter may show a reading from 1 to 50. These deviating readings are normal. In the designated measurement range, they will not affect the accuracy for multimeter measuring AC.
- 3.2.1.3 True RMS can be measured only when input signal reaches a certain level. Therefore, the measuring range of AC voltage and current should be specified at 2% ~100% of full range.

### 3.2.2 AC CURRENT

Measuring range	Resolution	Accuracy
60A	0.01A	±(2.5% reading + 8 digits)
600A	0.1A	
1000A	1A	

- Maximum input current: 1000A AC
- Maximum input current: 0~600A: 40~400Hz;  
600A~1000A: 40~60Hz

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### 3.2.3 DC CURRENT

Measuring range	Resolution	Accuracy
60A	0.01A	±(2.0% reading + 8 digits)
600A	0.1A	
1000A	1A	

- Maximum input current: 1000A DC

### 3.2.4 SURGE CURRENT

Measuring range	Resolution	Accuracy
60A	0.01A	< 60A for reference only
600A	0.1A	±(5% reading + 60 digits)
1000A	1A	

Time of integration: 100ms;  
Measurement range: 20-1000A  
Frequency range: 40-400Hz

### 3.2.5 DC VOLTAGE

Measuring range	Resolution	Accuracy
600mV	0.1mV	±(0.5% reading + 5 digits)
6V	0.001V	
60V	0.01V	
600V	0.1V	
1000V	1V	±(0.8% reading + 4 digits)

- Input impedance: 10MΩ
- Maximum input voltage: 750V AC (RMS) or 1000V DC

Note: In the small voltage measuring range, the probe is not connected with the circuit to be tested, and the meter may have fluctuating readings, which is normal and caused by the meter's high sensitivity. This does not affect actual measurement results.

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### 3.2.6 AC VOLTAGE

Measuring range	Resolution	Accuracy
600mV	0.1mV	±(0.8% reading + 5 digits)
6V	0.001V	
60V	0.01V	
600V	0.1V	
750V	1V	±(0.8% reading + 4 digits)

- Input impedance: 10M $\Omega$
- Maximum input voltage: 750V AC (RMS) or 1000V DC
- Frequency range: 40 - 400Hz

Note: In the small voltage measuring range, the probe is not connected with the circuit to be tested, and the meter may have fluctuating readings, which is normal and caused by the meter's high sensitivity. This does not affect actual measurement results.

### 3.2.7 FREQUENCY

#### 3.2.7.1 Clamp head measuring frequency (through range A):

Measuring range	Resolution	Accuracy
99.99Hz	0.01Hz	±(1.5% reading + 5 digits)
999.9Hz	0.1Hz	

- Measuring scope: 10Hz-1kHz
- Input signal range: 20A AC (RMS) (input current will increase when the frequency to be measured increases)
- Maximum input current: 1000A (RMS)

#### 3.2.7.2 Through mode V:

Measuring range	Resolution	Accuracy
99.99Hz	0.01Hz	±(1.5% reading + 5 digits)
999.9Hz	0.1Hz	
9.999Hz	0.001kHz	

- Measuring scope: 10Hz - 10kHz
  - Input signal range: 20A AC (RMS) (input current will increase when the frequency to be measured increases)
  - Input impedance: 10M $\Omega$
- 14 • Maximum input voltage :750V AC (RMS)

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### 3.2.7.3 Through mode HZ/DUTY:

Measuring range	Resolution	Accuracy
9.999Hz	0.01Hz	±(0.3% reading + 5 digits)
99.99Hz	0.1Hz	
999.9Hz	0.001kHz	
9.999kHz	0.01kHz	
99.99kHz	0.1kHz	
999.9kHz	0.001MHz	
9.999MHz	0.001kHz	

- Overload protection: 250V DC or AC (RMS)
- Input voltage range: 2V (input voltage will increase when the frequency to be measured increases)

### 3.2.8 Duty Ratio

Measuring range	Resolution	Accuracy
0.1-99.9%	0.1%	±3.0%

### 3.2.8.1 Through mode A (from clamp head):

- Frequency response: 10-1kHz
- Input current range: ≥ 20A AC (RMS)
- Maximum input current: AC 1000A

### 3.2.8.2 Through mode V:

- Frequency response: 10-10kHz
- Input voltage range: ≥ 60mV AC
- Input impedance: 10MΩ
- Maximum input voltage: 750V AC (RMS)

### 3.2.8.2 Through mode HZ/DUTY:

- Frequency response: 10 - 10MHz
- Input voltage range: ≥ 2V AC (RMS) (input voltage will increase when the frequency to be measured increases)
- Maximum input voltage: 250V AC (RMS)

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### 3.2.9 RESISTANCE

Measuring range	Resolution	Accuracy
600 $\Omega$	0.1 $\Omega$	$\pm(0.8\%$ reading + 3 digits)
6k $\Omega$	0.001k $\Omega$	
60k $\Omega$	0.01k $\Omega$	
600k $\Omega$	0.1k $\Omega$	
6M $\Omega$	0.001M $\Omega$	$\pm(2.0\%$ reading + 5 digits)
60M $\Omega$	0.1M $\Omega$	

- Open circuit voltage: about 0.4 V
- Overload protection: 250 V DC or AC (RMS)

### 3.2.10 CIRCUIT CONTINUITY TEST

Measuring range	Resolution	Function
••))	0.1 $\Omega$	If the resistance of circuit to be measured is less than 50 $\Omega$ , the meter's built-in buzzer may sound.

- Overload protection: 250 V DC or AC (RMS)

### 3.2.11 CAPACITANCE

Measuring range	Resolution	Accuracy
9.999nF	0.001nF	$\pm(3.0\%$ reading + 5 digits)
99.99nF	0.01nF	
999.9nF	0.1nF	
9.999 $\mu$ F	0.001 $\mu$ F	
99.99 $\mu$ F	0.01 $\mu$ F	
999.9 $\mu$ F	0.1 $\mu$ F	
9.999mF	0.001mF	
99.99mF	0.01mF	

- Overload protection: 250 V DC or AC (RMS)