

# TECHNI-PRO

## Product Data Sheet

# Heavy Duty True RMS Clamp Meter with Flex Probe


TNP477

## Features

- Heavy-duty, true RMS clamp meter
- Includes flexible probe attachment (3000A AC)
- 50,000-count LCD display
- 1.9" jaw opening (48mm)
- Testing functions include AC/DC voltage, resistance, continuity, diode test, capacitance, frequency, duty cycle and temperature
- Bluetooth connectivity for use with free Techni-Pro app
- Non-contact voltage detection
- Inrush current
- Maximum voltage: 1000V AC/DC
- Maximum current: 1000A AC/DC (3000A AC with flex probe)
- CAT III 1000V, CAT IV 600V



## General Specifications

Clamp Jaw Opening	1.9" (48mm) approx.
Display	50,000 count backlit LCD
Flexible Coil	140 x 180mm
Continuity Check	Threshold 50Ω; Test current <0.5mA
Diode Test	Test current of 0.3mA typical; Open circuit voltage 2.8VDC typical
Low Battery Indication	"  " symbol is displayed
Over Range Indication	"OL" display
Measurement Rate	2 readings per second, nominal
Peak Detector	>1ms
Thermocouple Sensor	Type K thermocouple required
Input Impedance	10MΩ (VDC and VAC)
AC Bandwidth	50 to 400Hz (AAC and VAC)
AC Response	True RMS (AAC and VAC)
Crest Factor	3.0 in 40A and 400A ranges, 1.4 in 1000A (50 / 60Hz and 5% to 100% of range)
Operating Temperature	5 to 40°C (41 to 104°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)
Operating Humidity	Max 80% up to 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)
Storage Humidity	<80%
Operating Altitude	2000 meters (7,000 ft.) maximum
Battery	One 9V Battery (NEDA 1604)
Auto Power Off	After approx. 30 minutes
Dimensions	230 x 76 x 40mm
Weight	315g
Safety	For indoor use and in accordance with the requirements for double insulation to IEC1010-1 (2001):EN61010-1 (2001) Overvoltage Category III 600V and Category II 1000V, Pollution Degree 2.
Approvals	CE

## Product Information

Discover the power and precision of the Techni-Pro **TNP477**, a heavy-duty clamp meter designed for professionals who demand accuracy and reliability in their electrical measurements.

## Included

- Meter
- Test leads
- Flexible current probe
- K-type thermocouple and adapter
- Carrying case
- Battery
- Instruction manual

## Accessories

- TNPAL286 alligator clips

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## Accuracy Specifications

### DC Current

Resolution	Accuracy
1000 A	$\pm (2.5\% + 5d)$

### AC True RMS Current

Range	Resolution	Accuracy
50 to 1000Hz	3000.0 A (Flexible Current Probe)	$\pm (2.8\% + 8d)$
	1000.0A	

All AC Current ranges are specified from 5% of range to 100% of range.

### DC Voltage

Resolution	Accuracy
500.0 mV	$\pm (0.1\% + 4d)$
5.0000V	
50.000V	
500.00V	
1000.0VDC	$\pm (0.2\% + 5d)$

### AC True RMS Voltage

Range	Resolution	Accuracy
50 to 1000Hz	400.00mV	$\pm (1.0 + 9d)$
	4.0000V	
	40.000V	
	400.00V	
	750.0V	

All AC Voltage ranges are specified from 5% of range to 100% of range.

### Resistance

Resolution	Accuracy
400.0 $\Omega$	$\pm (1.0\% + 9d)$
4.000k $\Omega$	$\pm (1.0\% + 4d)$
40.00k $\Omega$	
400.0k $\Omega$	$\pm (2.0\% + 9d)$
4.000M $\Omega$	
40.00M $\Omega$	$\pm (3.0\% + 9d)$

### Capacitance

Resolution	Accuracy
500.00nF	$\pm (3.5\% + 40d)$
5.0000 $\mu$ F	$\pm (3\% + 9d)$
50.000 $\mu$ F	
500.00 $\mu$ F	$\pm (5.0\% + 9d)$
5.0000mF	

### Frequency

Resolution	Accuracy
50.000Hz	$\pm (0.3\% + 2d)$
500.00Hz	
5.0000kHz	
50.000kHz	
500.00kHz	
5.0000MHz	
10.000MHz	

Sensitivity: 0.8Vrms min. at 20% to 80% Duty Cycle and <100kHz; 5Vrms min at 20% to 80% Duty Cycle and >100kHz.

### Duty Cycle

Range	Accuracy
5.0 to 95.0%	$\pm (1.0\% + 2d)$

Pulse width: 100 $\mu$ s-100ms; Frequency: 10Hz to 100kHz

### Temp (Type-K)

Range	Accuracy
-100.0 to 1000.0 $^{\circ}$ C	$\pm (1.0\% + 2.0^{\circ}$ C)
-148.0 to 1832.0 $^{\circ}$ F	$\pm (1.0\% + 3.6^{\circ}$ F)

Probe accuracy not included.

Note: Accuracy specifications consist of two elements:  
 • (% reading) -This is the accuracy of the measurement circuit.  
 • (+ digits) -This is the accuracy of the analog to digital converter.

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