



# MT766 IR Thermometer Clamp Meter *TRUERMS*

The MT766 is a CAT IV 600V True RMS 600A AC/DC digital clamp meter incorporating an Infrared Thermometer. This clamp meter has a large 6000 count negative LCD display that provides fast sampling times and high accuracy measurements. The meter measures 1000V AC/DC, frequency, capacitance and resistance measurements. The IR Thermometer has a spot ratio of 4:1 and measures temperature from -30°C to +350°C, plus there is a K-Type thermometer input for measurements up to 1000°C. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, MAX/MIN and Data hold function plus a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing with a rugged design. This meter is a useful measuring tool for electricians, maintenance and HVAC environments.

## Features

- 6000 count negative LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- IR Temperature Spot Ratio 4:1 & measurement from -30°C to 350°C
- VFD - Variable Frequency Drive voltage value
- NCV – Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Max, Min and Data Hold function
- Auto Power Off

Function	Range	Accuracy
Jaw Size	33mm	
DC Current	60.00A - 600A	±(2.8% +5)
AC Current	60.00A - 600A	±(1.5% +10)
DC Voltage	600.0mV – 1000V	±(1.2% +5)
AC Voltage	6.000V – 1000V	±(1.5% +5)
Resistance	600.0Ω – 60MΩ	±(2.0% +5)
Frequency	9.999Hz – 9.99kHz	±(1.5% +6)
Capacitance	999.9nF – 100mF	±(4.0% +6)
Temperature	-20°C – 1000°C	±(3.0% +3°C)
IR Temperature	-30°C – 350°C	±(2.0% +2°C)
Duty Cycle	20.0% - 80%	±(1.2% +5)
Size	236 x 66 x 44mm	
Weight	350g	



IEC  
61010-1  
CAT IV  
600V

IEC  
61010-1  
CAT III  
1000V



Red Light indicates detection of Non Contact Voltage (NCV)



6000 Count Backlit Negative Colour Display



Rear entry of standard 4mm Test Lead Terminals



Illuminated functions for easy selection in dimly lit areas



Meter includes flash light to light up area of test

**MT766** | 600A AC/DC Clamp Meter with IR Thermometer

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# MT329 Bluetooth Handheld Multifunction Tester

The MT329 is a handheld multifunction tester that combines Insulation and Continuity testing, Resistance, Loop Impedance, RCD, Voltage, and Phase Sequence tests in one device. The Loop Impedance test offers two methods: a high-current test up to 18.3A and a ZL-PE RCD range test that ensures RCDs rated above 30mA do not trip during the test. The MT329 features several RCD test functions, including Auto Test, Residual Current Test with various current settings, and RCD Test Time. The insulation test function operates at 250V, 500V, and 1000V, measuring insulation resistance up to 4000MΩ with automatic discharge after testing. It also provides Low Ohm Resistance measurements. Additional functions include AC and DC voltage measurement, an AC+DC auto-mode, Data Hold, and auto power-off. The large backlit multi-LCD displays simultaneous measurements, ensuring clear visibility. With a CAT IV 600V rating, the MT329 provides a high level of safety. The meter also features Bluetooth communication and internal memory for data storage and transfer. The Bluetooth app, compatible with both Android and iOS, enhances versatility, making the MT329 suitable for troubleshooting and preventative maintenance tasks for electricians.



**Ergonomically  
Designed for Easy,  
One-handed  
Measurements.**



**Easy to Identify  
Input Terminals**



**Magnetic Strap  
Enables Hands-Free  
Testing**



**Backlit LCD Display  
with Simultaneous  
Readings**

## Features

- 3 insulation test range 250V, 500V, 1000V
- Insulation Resistance up to 4000MΩ
- Measures AC and DC voltage up to 500V
- AC+DC Mode and Data Hold
- Loop Impedance testing with a high current of up to 18.3A
- Loop Impedance measurement of RCD not tripping above 30mA
- PFC and PEFC readings
- Phase Sequence Test
- Type-A, Type AC and Type-B RCD Testing
- RCD Trip time tA 0.5s, tA 1s, tA 2s, tA 5s,
- RCD AUTO test and RCD Trip level
- Auto discharge of voltage test signal
- Download stored data to iOS or Android App via Bluetooth
- Auto Power Off

Function	Range	Accuracy
AC Voltage	0.1V – 500.0V	±(2.0% +5)
DC Voltage	0.1V – 500.0V	±(2.0% +5)
Duty Cycle	0.0% – 100.0%	±(2.0% +5)
Low Voltage Continuity	0.01Ω – 400Ω	±(2.0% +5)
Low Current Resistance	0.1Ω – 1999Ω	±(2.0% +5)
Phase Sequence Test	100V – 550V (45Hz to 65Hz)	
<b>Insulation</b>		
Insulation Test Range	250V – 500V – 1000V	
Measuring Range	0.001MΩ – 4000MΩ	
Rated Current	1mA	
Low Ohm (Continuity)	0.01Ω - 400Ω	
Open Short Circuit Voltage	4 ... 9V DC	
Measurement Current	200mA	
<b>Loop Impedance</b>		
ZL-PE, ZL-N, ZL-L	0.1Ω – 9999Ω (Max 18.3A at 550V)±(5.0% +5)	
PSC / PEFC	0.001A – 40.0kA (Calculated based on Zs & rated Voltage)	
Voltage Range	180V to 550V AC	
ZL-PE RCD	0.1Ω – 9999Ω (No-Trip) ±(6.0% +5)	
PSC / PEFC	0.001A – 20.0kA (Calculated based on Zs & rated Voltage)	
Voltage Range	180V to 550V AC	
Size	210 x 97 x 68mm	
Weight	634g	



Download the Free App  
Major Tech Meter-X



**MT329**

**Handheld Multifunction Installation Tester**



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**RMS Leakage Current during RCD time measurements**

$I_{\Delta n}$	Multiplication Factor Setting											
	0.5			1			2			5		
10	5	3.5	5	10	20	20	20	40	40	50	100	100
30	15	10.5	15	30	42	60	60	84	120	150	210	300
100	50	35	50	100	140	200	200	280	400	500		
300	150	105	150	300	420	600						
500	250	175	250	500								
1000	500	350	500									

**RCD  $I_{\Delta n}$  tripping current measurement for sinusoidal residual current**

Selected RCD Rated Current	Measurement Range	Test Current	Step Size	Basic Uncertainty
10 mA	3.0 ~ 11.0 mA	$0.3 \times I_{\Delta n} \sim 1.1 \times I_{\Delta n}$	10% of $I_{\Delta n}$	$\pm 10\% I_{\Delta n}$
30 mA	9.0 ~ 33.0 mA			
100 mA	30 ~ 110 mA			
300 mA	90 ~ 330 mA			
500 mA	150 ~ 550 mA			

**RCD tripping test and  $t_A$  tripping time measurement**

RCD Type	Multiplication Factor Setting	Measurement Range	Accuracy
General	$0.5 I_{\Delta n}$	10.0ms-300ms	$\pm(2\%+10\text{digits})$
	$1 I_{\Delta n}$	10.0ms-300ms	
	$2 I_{\Delta n}$	10.0ms-150ms	
	$5 I_{\Delta n}$	10.0ms-40ms	
Selective	$0.5 I_{\Delta n}$	10.0ms-500ms	
	$1 I_{\Delta n}$	10.0ms-500ms	
	$2 I_{\Delta n}$	10.0ms-200ms	
	$5 I_{\Delta n}$	10.0ms-150ms	

**RE-protective conductor resistance for RCD**

Selected RCD Rated Current	Measurement Range	Test Current	Accuracy
10mA	10 $\Omega$ - 5000 $\Omega$	4 mA	0 ~ +10% $\pm 8$ digits
30mA	10 $\Omega$ - 1660 $\Omega$	12 mA	0 ~ +10% $\pm 5$ digits
100mA	1 $\Omega$ - 500 $\Omega$	40 mA	0 ~ +5% $\pm 5$ digits
300mA	1 $\Omega$ - 166 $\Omega$	120 mA	
500mA	1 $\Omega$ - 100 $\Omega$	200 mA	
1000mA	1 $\Omega$ - 50 $\Omega$	400mA	

**Measurement of Touch Voltage  $U_B$  Referred to Rated Residual Current**

Range	Test Current	Basic uncertainty
0.1V – 99.9V	$0.4 \times I_{\Delta n}$	0 to 10% $\pm 5$