



CLAMP METERS



Power clamps

Who?

- › Technicians and maintenance operators in the industry sector
- › Power Quality Professionals
- › Energy managers
- › Maintenance operator in the photovoltaic field

Where?

- › Transformer cabinets
- › Electric switchboards
- › Electric motors
- › Measurements near inverters
- › Photovoltaic installations

Why?

They carry out the main function of mobile equipment and, in this case, offer the possibility of quickly displaying quantities such as **Power, Cosphi, Harmonics, Inrush Currents (INRUSH)** which are functions generally carried out by proper power analyzers.

AC/DC clamps

Who?

- › Installers and electricians of industrial and domestic electric systems
- › Maintenance operators in the electric sector in general, and in the photovoltaic field

Where?

- › Domestic and industrial electric systems
- › Electric panels
- › Electric motors
- › Photovoltaic installations

Why?

Ordinary and preventive maintenance of distribution (also photovoltaic) systems is mainly based on ammetric absorption; in industrial systems it is good practice to use **TRMS** equipment.

Leakage clamps

Who?

- › Installers and maintenance operators in the domestic and industrial sector
- › Safety verification authorities of domestic and industrial electric systems

Where?

- › Electric panels
- › Electric motors
- › Earthing systems

Why?

A correct mapping of all leakage currents to earth can only be carried out with clamps like HT77N, capable of detecting currents as small as μA , and HT78 which, due to the exceptional size of its jaws, is suitable for tests on very big loads.



MAIN MEASUREMENTS

TRMS

Current measuring range

AC/DC current

AC/DC voltage

Leakage current

Frequency

Resistance and continuity test with buzzer

Capacitance

Diode test

Duty Cycle (%)

Temperature with K-type probe

Phase sequence and phase concordance

Automatic recognition of internal functions

MAINS ANALYSIS

AC/DC voltage, current measurement/recording

AC/DC power measurement/recording

AC/DC energy measurement/recording

Cosphi, PF measurement/recording

UI + THD% harmonics measurement/recording

Inrush current measurement (INRUSH)

ADDITIONAL CHARACTERISTICS

Measurement category	AC			AC/DC					HARMONICS AND/OR POWER				LEAKAGE					
	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 600V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 300V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 300V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 600V	CAT IV 300V	CAT II 600V CAT III 300V	CAT III 300V
Maximum cable diameter	45mm	30mm	30mm	30mm	30mm	110mm	16mm	20mm	45mm	30mm	30mm	20mm	45mm	30mm	30mm	23mm	108mm	40mm
Measuring counts	6000	6000	2000	4000	2000	3000	10000	4000	6000	6000	4000	4000	9999	10000	10000	5000	3200	6000
Backlight	•	•	•	-	•	•	•	•	•	•	-	•	•	•	•	•	-	•
Bargraph	•	•	•	-	-	-	-	-	•	•	-	•	•	•	•	-	-	•
Autorange	•	•	•	•	•	•	•	•	•	•	-	•	•	•	•	•	•	•
Auto power off	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Contactless AC voltage detection	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Data HOLD function	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MIN/MAX function	•	•	• MAX	-	• MAX	-	-	-	•	•	-	-	•	•	•	•	•	-
AVG function (AVERAGE)	-	-	-	-	-	-	-	-	-	-	-	-	-	•	•	-	-	-
PEAK function	•	•	•	-	-	-	-	-	•	•	-	-	•	•	•	-	-	•
Relative measurement (ZERO)	-	•	-	•	-	-	-	-	-	-	•	-	-	-	-	-	•	-
Low-pass filter for harmonic reduction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	• 150Hz	• 100Hz
Analogue output	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•
Electrical parameter logging	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Memory for data saving	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
PC / Smartphone or Tablet interface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Power supply	1x 9V 6F22	1x 9V 6F22	1x 9V 6F22	2x 1.5V AAA	1x 9V 6F22	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	1x 9V 6F22	1x 9V 6F22	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA
Size in mm (L x W x H)	252x88x44	215x74x43	215x74x43	200x66x37	197x70x40	280x120x25	193x54x31	160x55x30	252x88x44	215x74x43	200x66x37	160x55x30	252x88x44	205x64x39	205x64x39	206x63x34	341x194x52	200x70x40
Weight in grams (batteries included)	402	285	285	205	180	170	280	140	442	285	205	140	420	280	280	262	1900	265
Reference standard for safety	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1
Order code	HP009019	HP009014	HP009012	HP004011	HP004010	HP030000	HP000100	HP007004	HP009021	HP009015	HP004013	HP007005	HP009020	HP004022	HP004020	HP000079	HP000078	HP00077N



ORDER CODE **HP009019**
HT9019

PROFESSIONAL CLAMP METERS
AC 1000A TRMS, CAT IV 600V

Professional clamp meter HT9019 has been designed to measure **AC current up to 1000A and AC/DC voltage up to 1000V in TRMS** to reach **CAT IV 600V** according to standard **IEC/EN61010-1**. The clamp is provided with a wide display with **6000 measuring spots, backlight** and analogue **bargraph** to allow for a simple reading even in poorly lit environments. Clamp HT9019 is also provided with the auto power off function to preserve its own battery.



ORDER CODE **HP009014**
HT9014

PROFESSIONAL CLAMP METER AC 600A TRMS, CAT IV 600V

Professional clamp meter HT9014 has been designed to measure **AC current up to 600A and AC/DC voltage up to 1000V TRMS** to reach **CAT IV 600V** and **CAT III 1000V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with a wide **backlight display with 6000 measuring spots** and an auto power off function to preserve its battery.

Functions

- TRMS measurements
- AC current up to 1000A
- AC/DC voltage up to 1000V
- Resistance and Continuity test
- "Voltsense" for AC voltage detection
- Autorange
- Data HOLD
- MAX/MIN
- PEAK CURRENT (<10ms)
- Bargraph
- Backlight
- AutoPowerOFF

Technical Specifications

- DC voltage (Autorange)**
- Measuring range: 3mV ÷ 1000V
 - Resolution: 0.01mV ÷ 1V
 - Basic accuracy: ±(1.0%reading + 3digits)
 - Protection against overcharge: 1000VDC/ACrms
- AC TRMS voltage (Autorange)**
- Measuring range: 0.03V ÷ 1000V
 - Frequency band: 50Hz ÷ 400Hz
 - Resolution: 0.001V ÷ 1V
 - Basic accuracy: ±(1.0%reading + 4digits)
 - Protection against overcharge: 1000VDC/ACrms
- AC TRMS current**
- Measuring range: 0.3A ÷ 1000A
 - Frequency band: 50Hz ÷ 400Hz
 - Resolution: 0.01A ÷ 1A
 - Basic accuracy: ±(2.8%reading + 8digits)
 - Protection against overcharge: 1000Arms
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60MΩ
 - Resolution: 0.1Ω ÷ 0.01MΩ
 - Basic accuracy: ±(1.0%reading + 5digits)
 - Continuity buzzer: <500

Included accessories

YAAMK0000HTO	Pair of test leads
YABRS0000NNO	Soft carrying bag
Batteries and user manual	

Functions

- Measurements in TRMS, DC/AC voltage, AC current
- Resistance / Continuity test, Frequency
- "Voltsense" sensor
- Diode test, Temperature with K-type probe
- Capacity, Duty Cycle
- Autorange, Data HOLD, MAX/MIN
- PEAK CURRENT (<10ms)
- Relative measurement, Bargraph, Backlight, AutoPowerOFF

Main features

- Display:** LCD, 4 digits, 6000 dots
Conversion type: TRMS
Power supply: 1x9V battery type IEC 622 after 30 minutes' idling
Auto Power OFF: 30min
Clamp jaw internal diameter Safety: IEC/EN61010-1
Measurement category: CAT IV 600V – CAT III 1000V
Size (LxWxH): 210x75x45mm
Weight (batteries included): 400g

Included accessories

YAAMK0000HTO	Pair of test leads
T10	Adaptor for K-type wire probe
TK101	K-type wire probe
Battery, User manual and Soft carrying bag	

Technical Specifications

- DC voltage**
- Measuring range: 3mV ÷ 1000V
 - Resolution: 0.1V ÷ 1V
 - Basic accuracy: ±(1.0%reading + 3digits)
 - Protection: 1000VDC/AC
- AC voltage**
- Measuring range: 0.03V ÷ 1000V
 - Frequency band: 50 ÷ 400Hz
 - Resolution: 0.01V ÷ 1V
 - Basic accuracy: ±(1.0%reading + 10digits)
 - Protection: 600Vrms
- AC current**
- Measuring range: 0.3A ÷ 600A
 - Frequency band: 50 ÷ 400Hz
 - Resolution: 0.1A ÷ 1A
 - Basic accuracy: ±(2.8%reading + 8digits)
 - Protection: 600Arms
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60kΩ
 - Resolution: 0.1Ω ÷ 0.01kΩ
 - Basic accuracy: ±(1.0%reading + 5digits)
 - Continuity test: <60Ω
- Capacity**
- Measuring range: 0.2nF ÷ 4mF
 - Resolution: 0.01µF ÷ 1µF
 - Basic accuracy: ±(2.5%reading + 5digits)
- Temperature with K-type probe**
- Measuring range: -20°C ÷ 760°C
 - Resolution: 0.1°C
 - Basic accuracy: ±(2.0%reading + 3°C)
- Frequency with test leads and clamp jaws**
- Measuring range: 0.5Hz ÷ 60kHz
 - Resolution: 0.01Hz ÷ 0.01kHz
 - Basic accuracy: ±(1.0%reading + 5digits)
 - Protection: 600A/600V



ORDER CODE **HP009012**

HT9012

PROFESSIONAL CLAMP METER AC 600A, CAT IV 600V

Professional clamp meter HT9012 has been designed to measure **AC current up to 600A and AC/DC voltage up to 1000V** to reach **CAT IV 600V and CAT III 1000V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with a wide **backlight display with 6000 measuring spots** and an auto power off function to preserve its battery.



ORDER CODE **HP004011**

HT4011

CLAMP METER AC 400A

Clamp meter HT4011 has been designed to measure **AC current up to 400A and AC/DC voltage up to 600V** to reach **CAT III 600V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with an internal sensor to detect AC voltage also without contact, through a red LED turning on. HT4011 also carries out measurements of **Resistance, Continuity tests, Frequency, Capacity, Diode test, Duty Cycle and Temperature with K-type probe**, among others. The clamp is also provided with the auto power off function to preserve its own battery.

Functions

- DC/AC voltage
- AC current
- Resistance / Continuity test
- "Voltsense" sensor
- Diode test
- Data HOLD
- MAX function
- Backlight
- AutoPowerOFF

Main features

Display: LCD, 3½ digits, 2000 dots average value
Conversion type: 1x9V battery type IEC 622
Power supply: after 30 minutes' idling
AutoPowerOFF: 30mm
Clamp jaw internal diameter: IEC/EN61010-1
Safety: CAT IV 600V – CAT III 1000V
Measurement category: 210x75x45mm
Size (LxWxH): 400g
Weight (batteries included):

Technical Specifications

DC voltage

- Measuring range: 1mV ÷ 1000V
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(1%reading + 3digits)
- Protection: 1000V DC/AC

AC voltage

- Measuring range: 1mV ÷ 1000V
- Frequency band: 50 ÷ 60Hz
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(1%reading + 4digits)
- Protection: 1000V DC/AC

AC current

- Measuring range: 0.01A ÷ 600A
- Frequency band: 50 ÷ 60Hz
- Resolution: 1mA ÷ 1A
- Basic accuracy: ±(2,5%reading + 4digits)
- Protection: 600Arms

Resistance and Continuity test

- Measuring range: 1Ω ÷ 20MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1,0%reading + 5digits)
- Continuity buzzer: <100Ω

Included accessories

YAAMK0000HT0	Pair of test leads
	Battery
	User manual and Soft carrying bag

Functions

- AC current up to 400A
- AC/DC voltage up to 600V
- "Voltsense" for AC voltage detection
- Resistance and continuity test with buzzer
- Frequency with leads, Capacity, Diode test
- Duty Cycle (%)
- Temperature with K-type probe
- Autorange, Data HOLD, MAX/MIN/Relative measurement

Main features

Display: LCD, 4 digits, 4000 dots average value
Conversion type: 2x1.5V batteries type AAA LR03
Power supply: after 30 minutes' idling
Auto Power OFF: 30mm
Max diameter of clamp: IEC/EN61010-1
Safety: CAT III 600V
Measurement category: double insulation
Insulation: 2
Pollution level: 200x66x37mm
Size (LxWxH): 205g
Weight (batteries included):

Included accessories

KIT4000A	Pair of leads with 2mm tip
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag

Technical Specifications

DC voltage (Autorange)

- Measuring range: 400mV ÷ 600V
- Resolution: 0.1mV ÷ 0.1V
- Basic accuracy: ±(0,8%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms

AC voltage (Autorange)

- Measuring range: 4V ÷ 600V
- Frequency band: 50Hz ÷ 400Hz
- Resolution: 0,001V ÷ 1V
- Basic accuracy: ±(1,8%reading + 8digits)
- Protection against overcharge: 600VDC/ACrms

AC current

- Measuring range: 0.2A ÷ 400A
- Resolution: 0,01A ÷ 1A
- Frequency range: 50Hz ÷ 60Hz
- Basic accuracy: ±(2,5%reading + 8digits)
- Protection against overcharge: 400Arms

Resistance and Continuity test

- Measuring range: 2Ω ÷ 40MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1,0%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms
- Continuity buzzer: <60Ω

Capacity

- Measuring range: 0.2nF ÷ 400µF
- Resolution: 0,01nF ÷ 0,1µF
- Basic accuracy: ±(3,0%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms

Frequency and Duty Cycle

- Measuring range: 10Hz ÷ 10kHz
- Resolution: 0.01Hz ÷ 0,01kHz
- Basic accuracy: ±(1,5%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms
- Duty Cycle: Measuring range 0.5% ÷ 99%

Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C
- Resolution: 0,1°C ÷ 1°C
- Basic accuracy: ±(3%reading + 5°C)



ORDER CODE **HP004010**

HT4010

CLAMP METER AC 600A

Clamp meter HT4010 can carry out measurements of **AC current up to 600A** and **AC/DC voltage, Resistance, Continuity** and **Diode test**. The device is provided with an internal sensor capable of detecting, through a LED turning on and a buzzer sounding, the presence of AC voltage in a spot without contact. This device complies with standard **IEC/EN61010-1** in **CAT III 600V** and it is the ideal solution for measurements to be carried out both in domestic and in industrial environments.



ORDER CODE **HP030000**

F3000

CLAMP METER WITH FLEXIBLE CLAMP JAWS
AC 3000A

Professional clamp meter F3000 has been designed to measure **AC current up to 3000A** in **TRMS** in **total autorange** to reach **CAT IV 600V, CAT III 1000V** according to standard **IEC/EN61010-1**. The clamp is provided with innovative **flexible jaws** capable of reaching a **maximum diameter of 110mm** and allowing for an easy reading in any condition. The clamp is provided with a wide display with **3000 measuring spots**, **Data HOLD** function and **Backlight** to allow for a simple reading even in poorly lit environments. The clamp is also provided with the auto power off function to preserve its own battery.

Functions

- AC current up to 600A
- AC/DC voltage up to 600V
- Detection of AC voltage without contact
- Resistance / Continuity test
- Diode test
- Data HOLD
- MAX
- Backlight
- Auto Power OFF



Technical Specifications

DC voltage

- Measuring range: 1mV ÷ 600V
- Resolution: 0.1mV±1V
- Basic accuracy: ±(0.8%reading + 2 digits)
- Protection against overcharge: 600Vrms

AC voltage

- Measuring range: 1mV ÷ 600V
- Resolution: 0.1mV±1V
- Frequency band: 50Hz ÷ 60Hz
- Basic accuracy: ±(1.5%reading+ 3.5mV)
- Protection against overcharge: 600Vrms

AC current

- Measuring range: 0.01A ÷ 600A
- Resolution: 1mA ÷ 0.1A
- Frequency band: 50Hz ÷ 60Hz
- Basic accuracy: ±(2.5%reading + 4digits)
- Protection against overcharge: 600Arms

Resistance and continuity test with buzzer

- Measuring range: 1Ω ÷ 20MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 4digits)
- Continuity buzzer: <150Ω



Included accessories

KIT4000A Pair of test leads
Soft carrying bag, battery and user manual

Functions

- TRMS measurements
- AC TRMS current up to 3000A
- Flexible jaws with big diameter
- Autorange
- Data HOLD
- MAX/MIN
- Backlight
- Auto Power OFF



Main features

Display: LCD, 4 digits, 3000 dots
Conversion type: TRMS
Power supply: 2x1.5V alkaline batteries type AAA LR03 after 20 minutes' idling
Auto Power OFF: 110mm
Max diameter of clamp: IEC/EN61010-1
Safety: CAT IV 600V - CAT III 1000V
Measurement category: double insulation
Insulation: 2
Pollution level: 280x120x25mm
Size (LxWxH): 170g
Weight (batteries included):



Technical Specifications

AC TRMS current

- Measuring range: 0.1A ÷ 3000A
- Resolution: 0.01 ÷ 1A
- Frequency range: 45Hz ÷ 500Hz
- Basic accuracy: ±(3%reading + 5digits)



Included accessories

Batteries
Soft carrying bag
User Manual

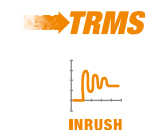


ORDER CODE **HP000100**

HT100

FORK CLAMP METER
AC 200A TRMS

Professional clamp meter HT100 is provided with automatic recognition of functions. The measurement of **AC current up to 200A and AC/DC voltage up to 1000V in TRMS** reaches **CAT IV 600V and CAT III 1000V** in compliance with standard IEC/EN61010-1. The clamp is provided with "open" jaws, with a wide display with 9999 measuring spots, "Voltsense" phase detector function, Data HOLD and backlight to allow for a simple reading even in poorly lit environments. HT100 also carries out measurements of **Resistance, Continuity test and Diode test**. The clamp is also provided with the auto power off function to preserve its own battery.



ORDER CODE **HP007004 | HP007005**

HT7004 HT7005

POCKET CLAMP METERS
FOR TRMS AC CURRENT UP TO 400A
WITH MEASUREMENT OF INRUSH CURRENT



Clamp meter **HT7005** can measure **DC and AC TRMS** current up to **400A** in Autorange, in compliance with standard IEC/EN61010-1, CAT III 300V, **further to measuring the inrush current of electric motors** with a response time of **100ms**. Model **HT 7004** can measure **only AC TRMS current** up to **300A**. Both devices are provided with Data HOLD function and Auto Power Off function, in order to preserve the internal battery when not in use. Thanks to its **extremely small size**, these models are very practical and they are the ideal solution for simple measurements in the most common domestic and industrial environments.

Functions

- TRMS measurements
- AC TRMS current up to 200A
- DC/AC TRMS voltage up to 1000V
- "Voltsense" for AC voltage detection
- Resistance
- Continuity test with buzzer
- Diode test
- Autorange
- Autorecognition function
- Data HOLD
- Backlight
- Auto Power OFF

Main features

Display: LCD, 4 digits, 10000 dots, backlight
Conversion type: TRMS
Power supply: 2x1.5V alkaline batteries type AAA LR03
Auto Power OFF: after 20 minutes' idling
Max diameter of clamp: 16mm
Safety: IEC/EN61010-1
Measurement category: CAT IV 600V, CAT III 600V
Insulation: double insulation
Pollution level: 2
Size (LxWxH): 193x54x31mm
Weight (batteries included): 280g

Technical Specifications

- DC voltage (Autorange)**
- Measuring range: 2.2V ÷ 1000V
 - Resolution: 0.1V
 - Basic accuracy: ±(0.3%reading + 2digits)
 - Protection against overcharge: 1000VDC/ACrms
- AC TRMS voltage (Autorange)**
- Measuring range: 1.3V ÷ 1000V
 - Frequency band: 50Hz ÷ 500Hz
 - Resolution: 0.1V
 - Basic accuracy: ±(0.9%reading + 3digits)
 - Protection against overcharge: 1000VDC/ACrms
- AC TRMS current (Autorange)**
- Measuring range: 1.5A ÷ 200A
 - Resolution: 0.1A
 - Frequency range: 50Hz ÷ 60Hz
 - Basic accuracy: ±(3%reading + 5digits)
 - Protection against overcharge: 200Arms
- Resistance and Continuity test**
- Measuring range: 0Ω ÷ 9999Ω
 - Resolution: 1Ω
 - Basic accuracy: ±(0.9%reading + 2digits)
 - Protection against overcharge: 1000VDC/ACrms
 - Continuity buzzer: <25Ω

- Diode test**
- Measuring range: 0.4V ÷ 0.8V
 - Resolution: 0.1V
 - Basic accuracy: ±(1%reading + 3digits)
 - Protection against overcharge: 1000VDC/ACrms

Included accessories

- 4413-2** Pair of test leads
 Batteries and user manual

Functions

	HT7004	HT7005
AC TRMS current	300A •	400A •
DC current	-	400A •
Inrush current (INRUSH)	-	•
AC voltage detection without contact	•	•
Autorange	•	•
Data HOLD	•	•
ZERO function (zeroing)	-	•
Backlight	•	•
Auto Power OFF	•	•

Main features

Power supply: 2x1.5V batteries type AAA LR03
Safety: IEC/EN61010-1
Measurement category: CAT III 300V
Insulation: double insulation
Pollution level: 2
Max operating altitude: 2000m
Display: 3¼ LCD, 4000 dots, decimal sign and point
Max cable diameter: 20mm
Size (LxWxH): 155x60x25mm
Weight (batteries included): 140g

Included accessories

- Soft carrying bag
- Batteries
- User Manual



ORDER CODE HP009021

HT9021

AC/DC TRMS CAT IV 600V CLAMP METER WITH TEMPERATURE MEASUREMENT

HT9021 has been designed to measure AC/DC current up to 1000A in TRMS reaching CAT IV 600V and CAT III 1000V in compliance with safety standard IEC/EN61010-1. The clamp is provided with a display with 6000 measuring spots with backlight and bargraph to allow for a simple reading even in poorly lit environments. HT9021 also carries out measurements of voltage up to 1000V, Resistance, Frequency, Capacity and Temperature with K-type probe.



ORDER CODE HP009015

HT9015

AC/DC TRMS 600A CAT IV CLAMP METER WITH TEMPERATURE MEASUREMENT

HT9015 has been designed to measure AC/DC current up to 600A and AC/DC voltage up to 1000V in TRMS reaching CAT IV 600V and CAT III 1000V in compliance with safety standard IEC/EN61010-1. The clamp is provided with a display with 6000 measuring spots with backlight and bargraph to allow for a simple reading even in poorly lit environments. HT9015 also measures Resistance, Frequency, Capacity and Temperature with K-type probe.

Functions

- TRMS measurements
- AC/DC voltage up to 1000V
- AC/DC current up to 1000A
- Resistance and Continuity test
- "Voltsense" for AC voltage recognition
- Frequency with clamp jaws and leads
- Capacity, Duty cycle, Diode test
- Temperature with K-type probe
- Autorange, Data HOLD
- MAX/MIN, PEAK (<10ms)
- Relative measurements
- Backlight, Bargraph
- Auto Power OFF



Technical Specifications

DC voltage (Autorange)

- Measuring range: 3mV ÷ 1000V
- Basic accuracy: ±(1.0%reading + 3digits)

AC TRMS voltage (Autorange)

- Measuring range: 0.03V ÷ 1000V
- Frequency range: 50Hz ÷ 400Hz
- Basic accuracy: ±(1.0%reading + 4digits)

DC current

- Measuring range: 0.3A ÷ 1000A
- Basic accuracy: ±(2.0%reading + 8digits)

AC TRMS current

- Measuring range: 0.3A ÷ 1000A
- Frequency range: 50Hz ÷ 400Hz
- Basic accuracy: ±(2.8%reading + 8digits)

Resistance and Continuity test

- Measuring range: 3Ω ÷ 60MΩ
- Basic accuracy: ±(1.0%reading + 5 digits)
- Buzzer: <50Ω

Frequency with clamp jaws and leads

- Measuring range: 0.5Hz ÷ 60kHz
- Basic accuracy: ±(1.0%reading + 5digits)

Capacity

- Measuring range: 0.2nF ÷ 4mF
- Basic accuracy: ±(2.5%reading + 5digits)

Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C;
- Basic accuracy: ±(2.0%reading + 3°C)



Included accessories

YAAMK0000HTO	Pair of test leads
T10	Adapter for K-type wire probe
TK101	K-type wire probe
YABRS0000NNO	Soft carrying bag
	Batteries and user manual

Functions

- TRMS measurements
- AC/DC voltage up to 1000V
- AC/DC current up to 600A
- Resistance and Continuity test
- "Voltsense" for AC voltage recognition
- Frequency with clamp jaws and leads
- Capacity
- Duty cycle
- Diode test
- Temperature with K-type probe
- Autorange
- Data HOLD
- MAX/MIN
- PEAK (<10ms)
- Relative measurements
- Backlight and Bargraph
- Auto Power OFF



Technical Specifications

DC voltage (Autorange)

- Measuring range: 3mV ÷ 1000V
- Basic accuracy: ±(1.0%reading + 3digits)

AC TRMS voltage (Autorange)

- Measuring range: 0.03V ÷ 1000V
- Frequency range: 50Hz ÷ 400Hz
- Basic accuracy: ±(1.0%reading + 4digits)

DC current

- Measuring range: 0.3A ÷ 600A
- Basic accuracy: ±(2.0%reading + 8digits)

AC TRMS current

- Measuring range: 0.3A ÷ 600A
- Frequency range: 50Hz ÷ 400Hz
- Basic accuracy: ±(2.8%reading + 8digits)

Resistance and Continuity test

- Measuring range: 3Ω ÷ 60MΩ
- Basic accuracy: ±(1.0%reading + 5 digits)
- Buzzer: <50Ω

Frequency with clamp jaws and leads

- Measuring range: 0.5Hz ÷ 60kHz
- Basic accuracy: ±(1.0%reading + 5digits)

Capacity

- Measuring range: 0.2nF ÷ 4mF
- Basic accuracy: ±(2.5%reading + 5digits)

Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C; -4°F ÷ 1400°F
- Basic accuracy: ±(2.0%reading + 6°F)

Main features

- Display:** LCD, 4 digits, 6000 dots
- Conversion type:** TRMS
- Power supply:** 1x9V battery type IEC6F22
- Auto Power OFF:** after 15 minutes' idling
- Max diameter of clamp:** 30mm
- Safety:** IEC/EN61010-1
- Measurement category:** CAT IV 600V - CAT III 1000V
- Insulation:** double insulation
- Pollution level:** 2
- Size (LxWxH):** 210x75x45mm
- Weight (batteries included):** 400g



Included accessories

YAAMK0000HTO	Pair of test leads
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag



ORDER CODE **HP004013**

HT4013

CLAMP METER AC/DC 400A

Clamp meter HT4013 has been designed to measure **AC/DC current up to 400A and AC/DC voltage up to 600V** to reach **CAT III 600V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with an internal sensor to detect AC voltage also without contact, through a red LED turning on. This model also carries out measurements of **Resistance, Continuity tests, Frequency, Capacity, Diode test, Duty Cycle and Temperature with K-type probe**, among others. The clamp is also provided with the auto power off function to preserve its own battery.



CAT III 1000V



YouTube



ORDER CODE **HP009020**

HT9020

PROFESSIONAL CLAMP METERS WITH POWER/HARMONIC AND INRUSH MEASUREMENT

HT9020 have been designed for measuring DC, AC+DC TRMS current up to 1000A to obtain CAT IV 600V in compliance with standard IEC/EN61010-1. It also measures **Active, Reactive and Apparent Power, Energy, voltage/current harmonic analysis up to the 25th with THD% calculation** in single-phase or balanced three-phase systems. It allows testing phase sequence and concordance with the 1-terminal measuring method. It is also possible to detect the events linked to **motor starting (INRUSH) currents**. HT9020 is provided with a wide graphic dot-matrix screen (128x128pxl) with backlight, in order to allow reading data even in poorly lit environments. Auto power off function preserves internal battery.

Functions

- AC/DC current up to 400A
- AC/DC voltage up to 600V
- "Volsense" for AC voltage detection
- Resistance and continuity test with buzzer
- Frequency with leads, Capacity, Diode test
- Duty Cycle (%)
- Temperature with K-type probe
- Autorange, Data HOLD, MAX/MIN/Relative measurement



Technical Specifications

DC voltage (Autorange)

- Measuring range: 2mV ÷ 600V
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(0.8%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms

AC voltage (Autorange)

- Measuring range: 0.02V ÷ 600V
- Frequency band: 50Hz ÷ 400Hz
- Resolution: 0.001V ÷ 1V
- Basic accuracy: ±(1.5%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms

AC/DC current

- Measuring range: 0.2A ÷ 400A
- Resolution: 0.01A ÷ 1A
- Frequency range: 50Hz ÷ 60Hz
- Basic accuracy: ±(2.5%reading + 5digits)
- Protection against overcharge: 400Arms

Resistance and Continuity test

- Measuring range: 2Ω ÷ 40MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 4digits)
- Protection against overcharge: 600VDC/ACrms
- Continuity buzzer: <30Ω

Capacity

- Measuring range: 0.2nF ÷ 100μF
- Resolution: 0.01nF ÷ 0.1μF
- Basic accuracy: ±(3.0%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms

Frequency and Duty Cycle

- Measuring range: 10Hz ÷ 10kHz
- Resolution: 0.01Hz ÷ 0.01kHz
- Basic accuracy: ±(1.5%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms
- Duty Cycle: Measuring range 0.5% ÷ 99%;

Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C
- Resolution: 0.1°C ÷ 1°C
- Basic accuracy: ±(3%reading + 5°C)

Functions

- DC, AC + DC TRMS current up to 1000A
- DC, AC + DC TRMS voltage up to 1000V
- Frequency with test leads and clamp jaws
- Phase sequence / phase concordance
- Resistance and Continuity test
- Measurement of DC power and energy
- Active, reactive, apparent power measurement on single-phase systems
- Power factor measurement on single-phase systems
- Voltage/current harmonic measurement up to the 25th and THD%
- Motor starting (INRUSH) current detection
- Autorange
- Backlight
- Auto Power OFF
- Data HOLD, MAX/MIN/CREST



Main features

- Display:** dot-matrix 128x128pxl with backlight
- Power supply:** 2x1.5V batteries type AAA
- Duration:** > 50 hours
- Safety:** IEC/EN61010-1
- Insulation:** Double insulation
- Pollution level:** 2
- Measurement category:** CAT IV 600V to earth, max 1000V between inputs
- Max diameter of cable:** 45mm
- Size (LxWxH):** 252x88x44mm
- Weight (batteries included):** 0.42kg



Main features

- Display:** LCD, 4 digits, 4000 dots
- Conversion type:** RMS
- Power supply:** 2x1.5V alkaline batteries type AAA LR03
- Auto Power OFF:** after 30 minutes' idling
- Max diameter of clamp:** 30mm
- Safety:** IEC/EN61010-1
- Measurement category:** CAT III 600V
- Insulation:** double insulation
- Pollution level:** 2
- Size (LxWxH):** 200x66x37mm
- Weight (batteries included):** 205g



Included accessories

- KIT4000A** Pair of leads with 2mm tip
 - T10** Adapter for K-type wire probe
 - TK101** K-type wire probe
- Battery, User manual and Soft carrying bag



Included accessories

- YAAMK0000HT0** Pair of test leads
- YAAMK0001HT0** Pair of alligator clips
- YABRS0000NN0** Soft carrying bag
- Batteries
- User manual on CD-ROM
- ISO9000 calibration certificate
- Quick user guide



ORDER CODE **HP004022** | **HP004020**

HT4022 HT4020

AC TRMS 400A CLAMP METERS
WITH POWER/HARMONICS MEASUREMENT

Professional clamp meters HT4020 and HT4022 carry out measurements in **TRMS** of AC current up to 400A, AC/DC voltage up to 600V. Frequency, Resistance, Continuity test, Active, Reactive, Apparent Power, $\cos\phi$, Energy for balanced single-phase and/or three-phase systems, further to the detection of phase sequence by 1-terminal method. Model HT4022 also carries out the absolute/percentage measurement of voltage and current harmonic components with calculation of THD%. Each device complies with IEC/EN61010-1 in CAT III 600V and is the ideal solution or troubleshooting typical problems in industrial environments such as non-linear loads, frequency-controlled motors.



Functions

	HT4022	HT4020
DC/AC TRMS voltage	•	•
AC TRMS current	•	•
Resistance and Continuity test	•	•
Frequency with test leads and clamp jaws	•	•
Active, Reactive, Apparent power	•	•
Active, Reactive, Apparent energy	•	•
Power factor and $\cos\phi$	•	•
V/I harmonics up to the 25th and THD%	•	-
Phase sequence with 1 terminal	•	•
Autorange	•	•
Data HOLD	•	•
MAX/MIN/AVG/PEAK	•	•
Backlight	•	•
AutoPowerOFF	•	•

Main features

Display:	LCD, 4 digits, 10000 dots
Conversion type:	TRMS, 64 samples in 20ms
Power supply:	2x1.5V batteries type AAA LR03
Auto Power OFF:	after 5 minutes' idling
Safety:	IEC/EN 61010-1
Measurement category:	CAT III 600V
Pollution level:	2
Insulation:	double insulation
Max height:	2000mm
Clamp jaw internal diameter	30mm
Size (LxWxH):	205x64x39mm
Weight (batteries included):	approx 280g

Included accessories

4413-2	Pair of test leads
YAAMK0001HTO	Pair of alligator clips
B80	Soft carrying bag
	Rubber cap for test lead
	ISO9000 calibration certificate
	Batteries and user manual

Technical Specifications

	HT4022	HT4020
DC voltage		
Measuring range:	0.1V ÷ 600V	0.1V ÷ 600V
Resolution:	0.1V	0.1V
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Vrms	600Vrms
AC TRMS voltage		
Measuring range:	1.6V ÷ 600V	1.6V ÷ 600V
Resolution:	0.1V	0.1V
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Vrms	600Vrms
AC TRMS current		
Measuring range:	0.1A ÷ 400A	0.1A ÷ 400A
Resolution:	0.1A	0.1A
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Arms	600Arms
Active, Reactive, Apparent AC power [kW, kVAR, kVA]		
Measuring range:	0.01 ÷ 1000	0.01 ÷ 1000
Resolution:	0.01 ÷ 0.1	0.01 ÷ 0.1
Basic accuracy:	±(3.5%read. + 3digits)	±(3.5%read. + 3digits)
Protection:	600V/600Arms	600V/600Arms

	HT4022	HT4020
Power factor and $\cos\phi$		
Measuring range:	0.20 ÷ 1.00	0.20 ÷ 1.00
Resolution:	0.01	0.01
Basic accuracy:	±3°	±3°
voltage and current harmonics		
Harmonic order:	1 ÷ 25	-
Resolution [V, A]:	0.1	-
Basic accuracy:	±(10%read. + 5digits)	-
Resistance and Continuity test		
Measuring range:	0.1Ω ÷ 2kΩ	0.1Ω ÷ 2kΩ
Resolution:	0.1Ω ÷ 3Ω	0.1Ω ÷ 3Ω
Basic accuracy:	±(1.0%read. + 5digits)	±(1.0%read. + 5digits)
Continuity test	<40Ω	<40Ω
Protection:	600Vrms	600Vrms
Frequency with test leads and clamp jaws		
Measuring range:	40Hz ÷ 400Hz	40Hz ÷ 400Hz
Resolution:	0.1Hz	0.1Hz
Basic accuracy:	±(0.5%read. + 1digit)	±(0.5%read. + 1digit)
Protection:	600Vrms/600Arms	600Vrms/600Arms
Phase sequence with 1 terminal		
Measuring range:	50V ÷ 600V	50V ÷ 600V
Frequency range:	40Hz ÷ 69Hz	40Hz ÷ 69Hz
Protection:	600Vrms	600Vrms



TRMS

ORDER CODE **HP000079** | **HP000078** | **HP00077N**

HT79 | HT78 HT77N

CLAMP METERS
FOR MEASURING LEAKAGE CURRENT

Models HT77N, HT78 and HT79 are clamp meters designed for an **accurate measurement of very low values of AC and DC currents** (only HT79) and, therefore, they are mainly employed in detecting and defining **leakage currents in domestic and industrial electric systems**, which typically cause the RCDs' tripping. Devices HT77N and HT78 are provided with an **in-built low-pass filter to eliminate harmonic components**. HT78 is provided with an analogue output for the connection to possible external data loggers and, thanks to its big jaws (108mm), it is possible to measure leakage currents even in installations with cables having a big cross-section. Model HT79 also allows measuring **AC/DC voltage** and resistance/continuity test.



Functions

	HT77N	HT78	HT79
TRMS measurements	•	•	•
AC/DC voltage	-	-	• (300V)
DC Current	-	-	• (10A)
AC Current	• (100A)	• (3000A)	• (20A)
Resistance and Continuity test	-	-	•
Low-pass filter	• (150Hz)	• (100Hz)	-
Analogue DC output	-	•	•
Data HOLD	•	•	•
Auto HOLD	•	•	-
Peak HOLD	•	•	-
Relative measurements (ZERO)	-	-	•
Autorange	•	-	•
Backlight	•	-	•
Bargraph	•	-	-
Auto Power OFF	•	•	•

Technical Specifications

	HT77N	HT78	HT79
AC TRMS current			
Measuring range:	0.01mA ÷ 100A	0.1mA ÷ 3000A	0.1mA ÷ 20A
Resolution:	0.001mA ÷ 0.1A	0.1mA ÷ 1A	0.1mA ÷ 0.01A
Basic accuracy:	±(1.0read + 8digit)	±(1.5read + 8digit)	±(1.0read + 5digit)
Protection:	max 120Arms	3000Arms	max 20Arms
DC current			
Measuring range:	-	-	0.1mA ÷ 20A
Resolution:	-	-	0.1mA ÷ 0.01A
Basic accuracy:	-	-	±(1.0read + 10digit)
Protection:	-	-	max 10ADC

Main features

Display:	LCD 4 digits, 6000 dots (HT77N) LCD 4 digits, 3200 dots (HT78) LCD 4 digits, 5000 dots (HT79)
Conversion type:	TRMS
Power supply:	2x1.5V batteries type AAA LR03
Safety:	IEC/EN 61010-1
Measurement category:	CAT III 300V (HT77N) CAT II 600V, CAT III 300V (HT78) CAT IV 300V (HT79)
Insulation:	double insulation
Pollution level:	2
Max height:	2000m
Clamp jaw internal diameter	40mm (HT77N), 108mm (HT78) 23mm (HT79)
Auto Power OFF:	after 20 minutes' idling (HT77N) after 10 minutes' idling (HT78)
Size (LxWxH):	202x75x42mm (HT77N) 341x194x52mm (HT78) 206x76x34mm (HT79)
Weight (batteries included):	265g (HT77N), 1.9kg (HT78), 262g (HT79)

Included accessories

Pair of test leads (HT79)
Soft carrying bag
Batteries
Non-slip strap (HT78)
User Manual

