



HT4022

Rel. 1.03 of 06/06/08

AC TRMS clamp meter 400A with power/harmonics measurements Page 1 of 3

1. ELECTRICAL SPECIFICATIONS

Accuracy is given as $\pm$ (% of reading + no. of least significant digits) at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$, with relative humidity Less than 80% R.H.

DC VOLTAGE

Range	Resolution	Accuracy	Overload Protection
1.6 ÷ 599.9V	0.1V	$\pm(1.0\%\text{rdg}+3\text{dgt})$	600V RMS

Input Impedance: $1\text{M}\Omega$

AC VOLTAGE (TRMS)

Range	Resolution	Accuracy		Overload Protection
		40 ~ 200Hz	200 ~ 400Hz	
1.6 ÷ 599.9V	0.1V	$\pm(1.0\%\text{rdg}+3\text{dgt})$	$\pm(5.0\%\text{rdg}+3\text{dgt})$	600V RMS

Input Impedance: $1\text{M}\Omega$; Max crest factor: 1.5

AC/DC VOLTAGE : MAX / MIN / AVG/ PEAK MEASUREMENT

Function	Range	Resolution	Accuracy	Response time	Overload Protection
MAX/MIN/AVG	10.0 ÷ 599.9V	0.1V	$\pm(5.0\%\text{rdg}+10\text{dgt})$	500ms	600V RMS
PICCO	10 ÷ 850V	1V	$\pm(5.0\%\text{rdg}+10\text{dgt})$	1ms	600V RMS

AC CURRENT (TRMS)

Range	Resolution	Accuracy		Overload Protection
		40 ~ 200Hz	200 ~ 400Hz	
0.0 ÷ 399.9A	0.1A	$\pm(1.0\%\text{rdg}+3\text{dgt})$	$\pm(5.0\%\text{rdg}+3\text{dgt})$	600A RMS

Max crest factor: 2

AC CURRENT:PEAK MEASUREMENT

Function	Range	Resolution	Accuracy	Response time	Overload Protection
MAX/MIN/AVG	10.0 ÷ 399.9A	0.1A	$\pm(5.0\%\text{rdg}+10\text{dgt})$	500ms	600A RMS
PEAK	10 ÷ 800A	1A	$\pm(5.0\%\text{rdg}+10\text{dgt})$	15ms	600A RMS

RESISTANCE

Range	Resolution	Accuracy	Overload Protection
0.0 ÷ 499.9 Ω	0.1 Ω	$\pm(1.0\%\text{rdg}+5\text{dgt})$	600V RMS
500 ÷ 999 Ω	1 Ω		
1000 ÷ 1999 Ω	3 Ω		

FREQUENCY (TEST LEADS / CLAMP'S JAWS)

Range	Resolution	Accuracy	Overload Protection
40 ÷ 399.9Hz	0.1Hz	$\pm(5.0\%\text{rdg}+1\text{dgt})$	600V/A RMS

Voltage range: 0.5 ÷ 600V (test leads)

Current range: 0.5 ÷ 400A (clamp's jaws)



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ACTIVE POWER, REACTIVE POWER, APPARENT POWER

Range	Resolution [kW], [kVAR],[kVA]	Accuracy
0.00 ÷ 99.99	0.01	±(3.5%rdg+3dgt)
100 ÷ 999.9	0.1	

Accuracy defined for: sine waves, voltage 100V-600V, current ≥ 1A, Freq. 50-60Hz, Power Factor: 0.8i ÷ 0.8c

POWER FACTOR

Range	Resolution	Accuracy
0.20 ÷ 1.00	0.01	±3°

Current range for Power Factor measurement ≥ 2A

VOLTAGE & CURRENT HARMONICS

Harmonic Order	Resolution [V], [A]	Accuracy
1 ÷ 15	0.1	±(10.0%rdg+5dgt)
16 ÷ 25		±(15.0%rdg+5dgt)

PHASE ROTATION TEST AND PHASE COINCIDENCE TEST*

Range	Input Impedance	Overload Protection
50 ÷ 600V	1MΩ	600V RMS

Frequency range: 40 ÷ 69Hz

(*): Measure executed in following normally conditions: instrument handle hard, standard shoes, standard floors, etc.

AUDIBLE CONTINUITY TEST

Range	Accuracy	Test Voltage
Continuity	Built-in buzzer sounds when reading is below approx. 40Ω, the buzzer turns off when reading is greater than 40Ω.	<1.5VDC

Overload protection: 600V RMS



2. GENERAL SPECIFICATIONS

Display:

- The liquid crystal display (LCD) is 4 digits with maximum reading 9999 counts.
- Backlight function.
- Automatic polarity indication.

Function:

- DCV, ACV, ACA, OHM, W, W3, HV, HA, PHASE SEQ, Audible continuity tests.

Measuring rate:

- 64 samples/period

Low battery indicator:

- The "  " appears when the battery voltage drops is low

Operating temperature:

- 5°C to 40 °C, 0 - 80 % R.H.

Storage temperature:

- -10°C to 60°C, 0 - 70 % R.H.

General informations:

- Indoor use
- Altitude up to 2000m
- Pollution degree: 2
- Insulation: class 2 (double insulation)
- Max. diameter conductor size : 30 mm

Power supply:

- 2 x 1.5V IEC R03 AAA carbon-zinc or alkaline type batteries
- AutoPowerOFF function

Dimension:

- 205 (H) x 64 (W) x 39 (L) mm

Weight:

- 280 grams with batteries included.

Applied standards:

- LVD: EN 61010-1 CAT III 600V
- EMC: EN60326

This product conforms to the prescriptions of the European directive on low voltage 2006/95/EEC and to EMC directive 2004/108/EEC