

1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as $\pm[\% \text{reading} + (\text{number of dgt} * \text{resolution})]$ referred to 23°C±5°C, <80%RH

DC VOLTAGE (Autorange)

Range	Resolution	Accuracy	Input impedance	Overload protection
400.0mV	0.1mV	$\pm(0.8\% \text{rdg} + 2 \text{dgt})$	10M Ω	600VDC/ACrms
4.000V	0.001V	$\pm(1.5\% \text{rdg} + 2 \text{dgt})$		
40.00V	0.01V			
400.0V	0.1V			
600V	1V	$\pm(2.0\% \text{rdg} + 2 \text{dgt})$		

AC TRMS VOLTAGE (Autorange)

Range	Resolution	Accuracy (*)	Input impedance	Frequency range	Overload protection
400.0mV	0.1mV	$\pm(1.0\% \text{rdg} + 10 \text{dgt})$	10M Ω	50Hz ÷ 60Hz	600VDC/ACrms
4.000V	0.001V				
40.00V	0.01V				
400.0V	0.1V	$\pm(1.5\% \text{rdg} + 5 \text{dgt})$			
600V	1V	$\pm(2.0\% \text{rdg} + 5 \text{dgt})$			

(*) Referred to crest factor (CF): 1.4 (sinusoidal waveform)

Accuracy for not sinusoidal waveforms: add 1%rdg (1.5 < CF < 2.0), add 2.5%rdg (2.1 < CF < 2.5), add 4%rdg (2.6 < CF < 3.0)
 Frequency range: 50Hz ÷ 60Hz; Response time PEAK function: 1ms

DC CURRENT

Range	Resolution	Accuracy (*)	Overload protection
40.00A	0.01A	$\pm(2.5\% \text{rdg} + 5 \text{dgt})$	400ADC/ACrms
400.0A	0.1A	$\pm(2.8\% \text{rdg} + 5 \text{dgt})$	

(*) Accuracy for cable not centered in the jaws: add 1%rdg

AC TRMS CURRENT

Range	Resolution	Accuracy (*)	Frequency range	Overload protection
40.00A	0.01A	$\pm(2.5\% \text{rdg} + 8 \text{dgt})$	50Hz ÷ 60Hz	400ADC/ACrms
400.0A	0.1A	$\pm(2.8\% \text{rdg} + 5 \text{dgt})$		

(*) Referred to crest factor (CF): 1.4 (sinusoidal waveform) and cable centered in the jaws

Accuracy for not sinusoidal waveforms: add 1%rdg (1.5 < CF < 2.0), add 2.5%rdg (2.1 < CF < 2.5), add 4%rdg (2.6 < CF < 3.0)
 Accuracy for cable not centered in the jaws: add 1%rdg
 Frequency range: 50Hz ÷ 60Hz; Response time PEAK function: 1ms

RESISTANCE AND CONTINUITY TEST (Autorange)

Range	Resolution	Accuracy	Buzzer	Overload protection
400.0 Ω	0.1 Ω	$\pm(1.0\% \text{rdg} + 5 \text{dgt})$	$\leq 50\Omega$	250VDC/ACrms
4.000k Ω	0.001k Ω	$\pm(1.5\% \text{rdg} + 2 \text{dgt})$		
40.00k Ω	0.01k Ω			
400.0k Ω	0.1k Ω			
4.000M Ω	0.001M Ω	$\pm(2.5\% \text{rdg} + 3 \text{dgt})$		
40.00M Ω	0.01M Ω	$\pm(3.5\% \text{rdg} + 5 \text{dgt})$		

DIODE TEST

Function	Test current/va	Open voltage	Overload protection
	0.3mA typical	2VDC	250VDC/ACrms



HT3013

Rel. 3.01 of 05/09/24

AC/DC TRMS clamp meter up to 400A

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FREQUENCY WITH TEST LEADS (Aurorange)

Range	Resolution	Accuracy	Overload protection
0.01kHz ÷ 100.0kHz	0.01kHz÷0.1kHz	±(1.5%rdg + 2dgt)	250VDC/ACrms

Sensitivity: 100V (<50Hz); 50V (50Hz + 400Hz); 15V (401Hz + 100kHz)

CAPACITANCE (Aurorange)

Range	Resolution	Accuracy	Overload protection
40.00nF	0.01nF	±(5.0%rdg + 20dgt)	250VDC/ACrms
400.0nF	0.1nF	±(3.0%rdg + 5dgt)	
4.000µF	0.001µF		
40.00µF	0.01µF		
400.0µF	0.1µF	±(4.0%rdg + 10dgt)	
4.000mF	0.001mF	±(5.0%rdg + 10dgt)	

TEMPERATURE WITH TYPE K PROBE (Aurorange)

Range	Resolution	Accuracy (*)	Overload protection
-20°C ÷ 760°C	1°C	±(3.0%rdg+5°C)	250VDC/ACrms
-4°F ÷ 1400°F	1°F	±(3.0%rdg+9°F)	

(*) Accuracy only meter without probe




2. GENERAL SPECIFICATIONS

Mechanical characteristics

Dimensions (L x W x H):	197 x 70 x 40mm (8 x 3 x 2in)
Weight (including battery):	183g (6 ounces)
Max conductor size:	30mm (1in)
Mechanical protection:	IP20

Supply

Battery type:	1x9V battery type IEC 6F22
Battery life:	ca 150 hours (backlight OFF), ca 50 hours (backlight ON)
Low battery indication:	“  ” symbol is displayed
Auto Power OFF:	after 30 minutes of idleness

Display

Characteristics:	4 LCD, max 4000 counts, sign, point, backlight, bargraph
Sample rate:	2 times/sec
Conversion mode:	TRMS

Environmental conditions

Reference temperature:	23°C±5°C (73°F±41°F)
Operating temperature:	5°C ÷ 40°C (41°F ÷ 103°F)
Operating humidity:	<80%RH
Storage temperature:	-20°C ÷ 60°C (-4°F ÷ 140°F)
Storage humidity:	<80%RH
Max height of use:	2000m (6562ft)

Reference guidelines

Safety:	IEC/EN61010-1, IEC/EN61010-031, IEC/EN61010-2-033
EMC:	IEC/EN61326-1
Insulation:	double insulation
Pollution level:	2
Measurement category:	CAT III 600V to ground

**This instrument satisfies the requirements of Low Voltage Directive 2014/35/EU (LVD)
and of EMC Directive 2014/30/EU**

**This instrument satisfies the requirements of 2011/65/EU (RoHS) directive
and 2012/19/EU (WEEE) directive**