

3102·3103 CLAMP ON HI TESTER
3107 CLAMP ON LEAK HI TESTER
3206 DIGITAL CLAMP HI TESTER

HIOKI
CLAMP ON CURRENT METER

3102·3103
3107·3206

Handy Type Hioki Clamp-on AC Current Meter Series



Four Models Available to Meet Your Specific Needs

- Clamp-on probe simply clamps over current-carrying conductor—no lines to cut, no service interruptions.
- Certain models also feature AC voltage and ohms measurement capability with separate meter scales for reading convenience. These handy type meters give you a powerful tool for use at repair or construction sites, or for maintenance-inspection and quality-control applications.

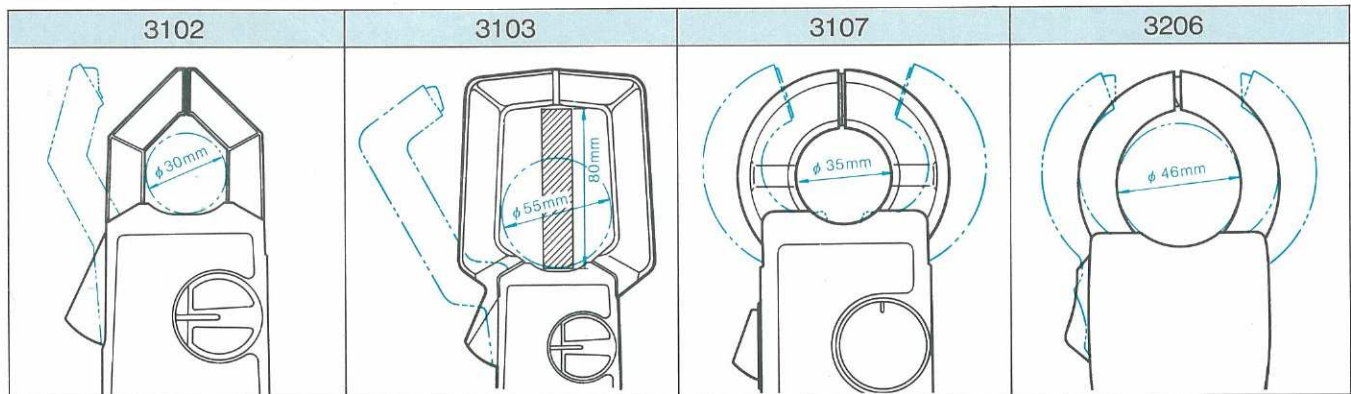
	3102	3103	3107	3107-01	3206
Display	Analog (Meter)		Digital (LCD)		
Range	6A ~ 300A	15A ~ 1500A	0.2A ~ 200A		20A ~ 1000A
Resolution	0.2A	0.5A	0.1mA		10mA
AC Voltage	150V ~ 600V	150V ~ 600V	200· 600V	×	200·1000V
Resistance	1k Ω	1k Ω	×		200·2000 Ω
Leak Current	×	×	○		×
Surge Current	×	×	×		○
Busbars	×	○	×		×
Recording out	×	×	×	○	×

The HIOKI Clamp-on AC Current Meter Series includes four hand-held, handy type meters featuring analog or digital type displays; with measurement capability ranging from extremely low to high amperage.

Measurement Range

	0.1mA	1mA	10mA	0.1A	1A	10A	100A	1000A
3102					300A			
3103					1500A			
3107					200A			
3206					1000A			

Clamp Core Jaw Dimensions



3102 CLAMP ON HI TESTER



Drop-Proof

Tested to withstand drops of one meter onto a concrete floor. A few surface mars won't affect its internal accuracy!

Safety Test Lead Plugs

A guard provides complete insulation of the test lead plug. You are protected from electrical shock, and the equipment around you is protected from short-circuits should the test lead come unplugged during a measurement.

Overload Protected Ohms Range

The ohms range circuit is protected by a non-arcing glass-tube fuse. Accidental input of voltages up to AC 250V (50/60Hz) will not burn the

resistors or damage other components within the circuit.

Meter Lock

A sliding meter lock lets you take the measurement, lock the pointer, then take the reading later. Great for those hard-to-reach places.

50 or 60Hz Readings Equally Accurate

A built-in frequency correction circuit performs the necessary computations to make readings taken at 50 or 60Hz equally accurate.

Compact-Lightweight

The meter is both compact and light-placing it truly in the "hand-held" category.

3103 CLAMP ON HI TESTER



High Current Measurement Capability

Features an extremely wide measurement range; handling amperage values from AC 15A to 1500A. This far exceeds the capability of other clamp-on current meters.

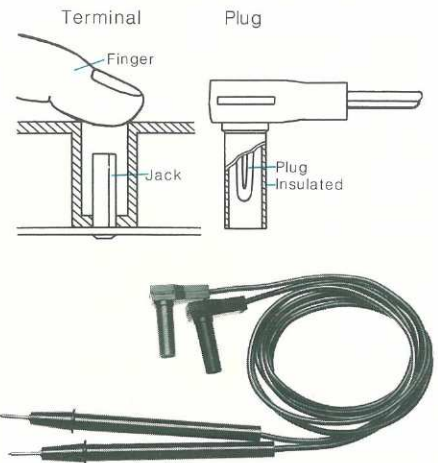
Extra-Large Clamp-on Probe

The clamp-on probe provided with the 3103 will accommodate conductors up to 55mm in diameter, or busbars up to 80mm wide.

Same Features as 3102

Drop-proof
Overload Protected Ohms Range
Meter Lock
50 or 60Hz Readings Equally Accurate

Safety Test Lead Plugs (For Model 3102-3103)



3107 CLAMP ON LEAK HI TESTER



Extremely High Meter Sensitivity

The lowest range of the 3107 is 0.2A full-scale, with a resolution of 0.1mA. In addition to small current measurement, this high sensitivity gives the meter the capability to accurately measure leak current and zero-phase current.

Accuracy Not Affected by External Fields

The clamp core and magnetic shield are constructed from high permeability magnetic materials. Measurements taken in the vicinity of transformers or other high current lines remain extremely accurate.

Affect of Conductor Positioning Minimal

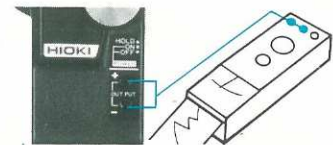
Since reading accuracy is practically unaffected by conductor positioning within the core, residual current will be minimal even when using the meter as a zero-phase current transformer. Consequently, the indicated value will always be accurate.

Wide Range Frequency Response

The meter is designed to measure AC current with assured accuracy over a frequency range extending from 40 to 500Hz.

Recorder Output (3107-01)

The 3107-01 produces a DC analog output for driving an optional recorder



3206 DIGITAL CLAMP HI TESTER



Digital Display (LCD)

Use of a digital display eliminates any chance of reading errors. The FE type LCD features good contrast for easy reading and no eye-strain.

Three Practical Measurement Ranges

Measurement ranges of 20A (manual ranging), 200A, and 1000A permit accurate measurement of current ranging from low to high amperage.

Autorangeing Function

With the exception of the AC 20A range, all ranging is done automatically. Operation is simple, and there is practically no chance for reading errors.

Surge-Hold Function

Motors and other equipment producing a surge current at start-up are virtually impossible to measure with an analog type meter. However, the surge-hold function of the 3206 automatically holds the surge current peak on the display for later reference in calculations. Surge Current: 1000A range only ($\pm 1\%$ f.s. ± 1 dgt.)

Display-Hold Function

Simply using the hold switch stops the display at its present reading for later reference. Great for cramped-quarter measurements.

Dual-Hinge Clamp Jaws

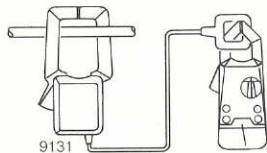
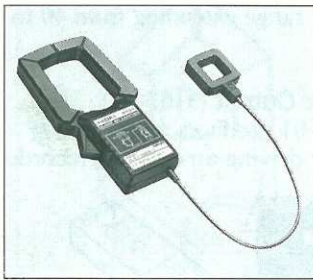
Both jaws on the clamp-on probe open up for easy clamping over the conductor.

Specifications
3102·3103

	3102	3103
AC Current	6·15·60·150·300A ±3% of f.s.	15·60·150·600·1500A ±3% of f.s.
AC Voltage	150·300·600V ±3% of f.s.	
Resistance	0~1kΩ (mid-scale: 30Ω) ±3% of scale length	
Clamp Core Jaw Dia.	Approx. 30 φ	Approx. 55 φ or busbars up to 80mm wide
Measurement Time	Continuous	Current > 1000A; 2 minutes or less
Max. Circuit Voltage	600V AC	
Range Protection	Fuse protected to withstand input of 250V AC commercial line voltage. (0.5A non-arcing)	
Dielectric Strength	2200V AC	
Battery	One size AA	
Dimensions	190H×63W×34D mm	237H×99W×34D mm
Weight	340g	570g
Accessories	Fuse 0.5A (non-arcing) 9067 Test leads 9087 Carrying case	Fuse 0.5A (non-arcing) 9067 Test leads Carrying case

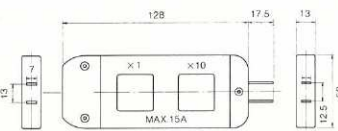
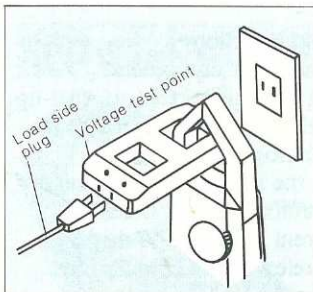
Optional Accessories

9131 CLAMP ON ADAPTER (With carrying case)
Magnifies current—Clamps over busbars



Measurement Range: AC0~1500A
CT Ratio: 10:1
Measurement Time: > 1000A; 2 minutes or less
Jaw Dimension: Same as 3103

CT-101A Line Splitter
Practical Flexibility



Using the CT-101A Line Splitter increases meter sensitivity by factor of 10; and permits readings directly from appliance line cords. Max. Rating: 15A

Compatible Models 9131: 3102·3107·3206
CT-101A: 3102·3103·3107·3206

Specifications
3107·3206

	3107	3107-01	3206
AC Current	0.2·2·20·200A		20·200·1000A
AC Voltage	200·600V	—	200·1000V
Resistance	—		200·2000Ω
Output	— DC 200mV f.s.		—
Accuracy	AC Current	±1% rdg. ±0.3% f.s. ±1dgt. (20·200A range) ±1.4% rdg. ±0.3% f.s. ±1dgt. (1000A range)	
	AC Voltage	±1% rdg. ±0.3% f.s. ±1dgt. (200V range) ±1.4% rdg. ±0.3% f.s. ±1dgt. (1000V range)	
	Resistance	— ±1% rdg. ±0.3% f.s. ±1dgt.	
Display	3-1/2 digit LCD (1999)		
Ranging	Manual	Automatic (Except AC 20A)	
Overrange Indication	Digits other than the max. value are extinguished	The "1" of maximum figure blinks	
Battery Warning	The mark light up	Unused decimal points blinks	
Sampling Rate	2 samples per second		
Frequency Characteristics	Less than ±0.5% at 40~500Hz		50/60Hz
Clamp Core Jaw Dia.	Approx. 35 φ	Approx. 46 φ	
Max. Circuit Voltage	600V AC		
Operating Temperature	0°C~40°C Less than ±1%	0°C~40°C Less than ±0.5%	
Storage Temperature	-10°C~50°C		-10°C~60°C
Dielectric Strength	2200V AC 1 min.		1500V AC 1 min.
Power Source	One 006P	Four size AA	
Power Consumption	Approx. 20mW (100 hours continuous use)	Approx. 100mW (100 hours continuous use)	
Dimensions	230H×64W×37D mm		230H×80W×38D mm
Weight	Approx. 550g		Approx. 450g
Accessories	9046 Test leads Carrying case		9042 Test leads Fuse 0.3A (non-arcing) Carrying case

Standard Packing (double carton box)

Model	Sets	N.W.kg	G.W.kg	M ³
3102	20	12	14	0.10
3103	25	22	25	0.13
3107	25	25	28	0.13
3206	25	21	24	0.13

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