



CLAMP ON Hi TESTER



3105 · 3106

DC AND AC CURRENT CAN BE MEASURED WITH THE LIVE WIRE INTACT.

- To 250A(3105), to 1000A(3106) can be measured without separating the circuit.
- AC and DC current can be measured separately.
- Direction of current can be discerned.
- Voltage can be measured.
- Sturdy and very safe.
- Handy to carry about.
- 3106 out put terminal provided.

MAINTENANCE AND INSPECTION OF VARIOUS ELECTRIC FACILITIES CAN BE MEASURED QUICKLY, ACCURATELY AND SAFELY.

This Clamp-on Tester is so designed that DC and AC amperages running in optional circuits can be easily measured with the live wire intact without separating the circuits. Incorporating a highly permeable magnetic material and Hall elements, the clamp has outstanding linearity and little reading

error due to the position of the line on which reading. Because of the built-in power source, it is handy to carry about and is ideal for maintenance inspection work on a wide range of electrical equipment, including chemical plant equipment, motor vehicles, welding equipment and railway installations.

FEATURES

- DC and AC current can be measured without separating the circuit.

By just inserting the wire to be measured into the clamp part of this tester, you can easily and quickly measure DC and AC current.

- DC and AC current can be measured separately.

Even if DC and AC current are overlapped in the wire to be measured, they can be measured separately without one being affected by the other.

- Direction of current can be discerned.

As it is possible to discern the polarity (direction of current), the tester can be used to analyze an unknown circuit and a complicated circuit.

- Frequency characteristic of AC current is good.

AC current up to 20 to 500 Hz, scarcely produces any error. The tester can be used satisfactorily with a circuit of other than commercial power source frequency.

- Magnetic erasing operation is not required.

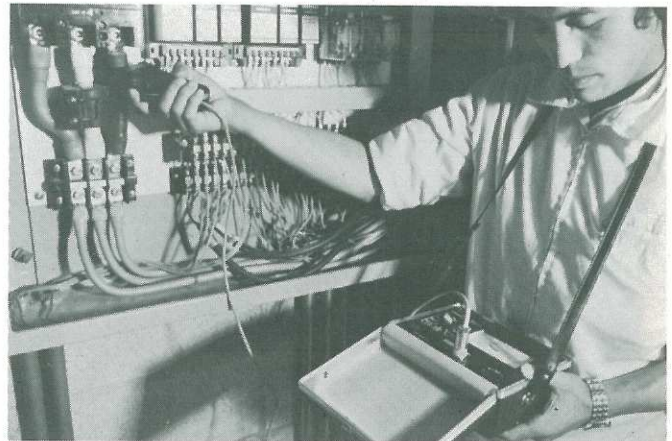
As the case of the clamp part is made of a highly permeable magnetic material, the influence of magnetization of the core is small in DC amperage measurement and core magnetic erasing operation is unnecessary.

- Influence according to position of measured wire is small.

By virtue of the shape, structure and properties of the core of clamp part, influence by the position of wire is small and accurate measurement can be made.

- Handy to carry about

With the power source built in and the clamp part made compact, the tester can be used even in a confined place.



- Clamp part is made sturdy and safe.

The case of clamp part is made of a plastic material mechanically and thermally strong and electrically highly insulated. It is sturdy and no injury to the user is ensured.

- Withstands excessive input

The tester can be safely used as its internal circuit is so made as to fully withstand even when an excessive input is applied.

- Voltage measurement also is possible.

As DC and AC voltages can be measured, the tester is convenient in maintaining and inspecting circuits. It is multipurpose.

GENERAL COMMON SPECIFICATIONS

Operating temperature range: -10°C to $+50^{\circ}\text{C}$

Temperature characteristics:

Amperage measurement: Temperature coefficient is about $0.1\%/^{\circ}\text{C}$ against 0 to 40°C temperature.

Voltage measurement: Temperature change is within $\pm 1\%$ against 0 to 40°C temperature.

Influence by outside magnetic field: Against 400A/m outside magnetic field in all measurements

3105; within $\pm 1\%$ of maximum scale value

3106; within $\pm 2\%$ of maximum scale value

Frequency characteristics:

AC amperage: Deviation from 50, 60Hz against frequency of 20 to 500Hz is within $\pm 2\%$.

AC voltage: Deviation from 50, 60Hz against frequency of 20 to 5KHz is within $\pm 2\%$.

Influence by position of lead wire: The lead wire may be changed in whatever position within the clamp core, the deviation of the indicated value:

3105; within $\pm 1\%$ of maximum scale value

3106; within $\pm 2\%$ of maximum scale value

Highest voltage of circuit to be used:

3105; 250V r.m.s. 3106; 500V r.m.s.

Insulation resistance: Over $20\text{M}\Omega$ at DC 500V between the tip metal of clamp core and clamp part and surface metal of tester proper.

Batteries used: 2 pieces dry cell batteries 006P (9V)

Influence of battery voltage: Within the above mentioned tolerance at 12 to 20V of battery voltage (2 pcs. of 006P in series)

OUT PUT Terminal (monitor out): Out put 0.5V ($\pm 3\%$) against maximum scale value of the each range.

SPECIFICATIONS

Function	Measuring range		Tolerance
	3105	3106	
DC Amperage	25, 50, 100, 250A	100, 250, 500, 1000A	$\pm 3\%$ of rated value
AC Amperage	25, 50, 100, 250A	100, 250, 500, 1000A	"
DC Voltage	25, 50, 250, 500V	25, 50, 250, 500V	"
AC Voltage	25, 50, 250, 500V	25, 50, 250, 500V	"
Dimensions and Weight	Tester: $130\text{H} \times 185\text{W} \times 80\text{D}$ mm · Approx. 650 g		
	Clamp: $175\text{H} \times 85\text{W} \times 40\text{D}$ mm Approx. 600 g	Clamp: $190\text{H} \times 90\text{W} \times 40\text{D}$ mm Approx. 650 g	
Diameter of conductor measurable	Less than about 30 mm ϕ	Less than about 46 mm ϕ	
Accessories	Carrying case Measuring leads for voltage.	Carrying case, Measuring leads for voltage Connector cord for out put terminal	

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