

# PINZA AMPEROMETRICA C107

## Current clamp C107

*Pinza amperometrica per correnti alternate da 0.1 A a 1000 A caratterizzata da un'ottima precisione e stabilità di misura in tutto il range.*

*Amperometric mini-clamp for AC currents from 0.1 A to 1000 A with high measurement precision and stability all over the range.*



La forma rotonda delle ganasce garantisce una elevata precisione e uno sfasamento minimo.

Dispone di un sistema di regolazione degli elementi magnetici e una struttura particolarmente resistente.

La **capacità di serraggio** di conduttori con diametro fino a fino a **52 mm** permette di realizzare misure di corrente sulla maggior parte dei conduttori installati sugli impianti industriali in Cat.III 600V.

**EN** The C107 round jaw shape and the uniformly-distributed winding guarantee **accuracy and minimum phase difference**.

It is equipped with an oscillating magnetic element adjustment system. Its **Ø 52 mm clamping capacity** allows current measurements on most conductors on CAT III 600 V industrial applications.

### ROBUSTA, PRECISA E AFFIDABILE

- ✓ Utilizzabile su analizzatori della famiglia NanoVIP® senza necessità di alimentazione o amplificazione esterna.
- ✓ Dotata di sistema di riconoscimento automatico se utilizzata sui più recenti analizzatori della serie NanoVIP®: TWO™, CUBE™ e QUADRA™
- ✓ Progettato per la misura di correnti alternate in un ampio range di valori: da 0.1A a 1000A
- ✓ Minimo sfasamento
- ✓ Resistente e affidabile
- ✓ Le ganasce possono afferrare conduttori fino a 52 mm di diametro.
- ✓ Dotata di un sistema di controllo dell'apertura progressiva delle ganasce
- ✓ Dotata di sistema di regolazione degli elementi magnetici
- ✓ La precisione che offre su tutto il campo di misura le consente un utilizzo molto ampio (dal civile all'industriale)
- ✓ La conformazione ne permette un uso sicuro anche indossando i guanti di sicurezza
- ✓ Dispone opzionalmente di adattatori per l'utilizzo con analizzatori Elcontrol di vecchia generazione, cioè privi di riconoscimento automatico delle pinze

### COMPACT, STRONG AND PRECISE

- ✓ Can be used on NanoVIP® family analyzers without the need for external power supply or amplification.
- ✓ Equipped with automatic recognition system if used on the latest NanoVIP® series analyzers: TWO™, CUBE™ and QUADRA™
- ✓ Designed for the measurement of alternating currents in a wide range of values: from 0.1A to 1000A
- ✓ Minimum phase difference
- ✓ Robust and reliable
- ✓ The grippers can grip conductors up to 52 mm in diameter.
- ✓ Progressive grippers opening control system
- ✓ Oscillating magnetic element adjustment system
- ✓ The precision that it offers on the whole measuring range allows it a very wide use (from civil to industrial)
- ✓ The shape allows a safe use even when wearing safety gloves
- ✓ Optionally adapters are available to use it on older generation of Elcontrol analyzers, without automatic clamp recognition

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### ELECTRICAL SPECIFICATIONS<sup>(1)</sup>:

Measured range	0,1 A up to 1200A																										
Operating voltage	600V rms																										
Output signal	1 mV AC / A AC (1 V for 1000A)																										
Accuracy and Phase shift	<table border="1"> <thead> <tr> <th>Primary current</th> <th>0.1 A ...10 A</th> <th>10 A</th> <th>50 A</th> <th>200 A</th> <th>1000 A</th> <th>1200 A</th> </tr> </thead> <tbody> <tr> <td>% Accuracy of output signal</td> <td>≤ 3 % + 0.1 mV</td> <td>≤ 3 %</td> <td>≤ 1.5 %</td> <td>≤ 0.75 %</td> <td>≤ 0.5 %</td> <td>≤ 0.5 %</td> </tr> <tr> <td>Phase shift</td> <td>not specified</td> <td>≤ 3°</td> <td>≤ 1.5°</td> <td>≤ 0.75°</td> <td>≤ 0.5°</td> <td>≤ 0.5°</td> </tr> </tbody> </table>						Primary current	0.1 A ...10 A	10 A	50 A	200 A	1000 A	1200 A	% Accuracy of output signal	≤ 3 % + 0.1 mV	≤ 3 %	≤ 1.5 %	≤ 0.75 %	≤ 0.5 %	≤ 0.5 %	Phase shift	not specified	≤ 3°	≤ 1.5°	≤ 0.75°	≤ 0.5°	≤ 0.5°
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Bandwidth	30 Hz ...10 kHz																										
Crest factor	≤ 6 for a current ≤ 3000 A peak (500 A rms)																										
Maximum currents	1000 A continuous for a frequency ≤ 1 kHz (limitation proportional to the inverse frequency beyond)																										
Common mode voltage	600 V category III and pollution degree 2																										
Influence of adjacent conductor:	≤ 1 μV / A at 50 Hz																										
Influence of conductor position in jaws:	≤ 0.1 % of output signal for frequencies ≤ 400 Hz																										
Influence of DC current >20A overlying on the nominal current:	< 1% of output signal for a current ≤ 30A DC																										
Influence of frequency <sup>(2)</sup> :	< 1% of output signal from 30Hz...48Hz < 0,5% of output signal from 56Hz...1kHz < 1% of output signal from 1kHz...5kHz																										
Influence of crest factor:	< 1% of output signal for crest factor ≤ 6 with current ≤ 3000A peak (500A rms)																										
<sup>(1)</sup> Conditions of reference	23 °C ± 5 °K, 20% to 75% RH Continuous external DC magnetic field (earth field) < 40 A/m Absence of external AC magnetic field External electrical field < 1 V/m Position of conductor measured: centred in the measurement coil Shape of measurement coil: quasi-circular Measurement instrument input impedance (oscilloscope) ≥ 1 MΩ Frequency and form of signal measured: 40 to 400 Hz sinusoidal																										
<sup>(2)</sup>	Out of reference domain																										

### MECHANICAL SPECIFICATIONS:

Dimensions	216 x 111 x 45 mm	
Weight	550g	
Operating temperature	-10 °C to +55 °C	
Storage temperature	-40 °C to +70 °C	
Influence of temperature:	≤ 0.1 % of output signal per 10 °K	
Relative humidity for operation:	0 to 85% RH decreasing linearly above 35 °C	
Influence of relative humidity:	< 0.1 % of output signal from 10% to 85% RH	
Operating altitude	0 to 2000 m (for 600V CAT III)	
Storage altitude	≤ 12000m	
Clamping capacity:	Cable: Ø max 52 mm Busbar: 1 busbar of 50 x 5 mm / 4 busbars of 30 x 5 mm	
Drop test:	1 m (IEC 68-2-32)	
Shock resistance:	100 g 6 ms ½ period (IEC 68-2-27)	
Vibration resistance:	5/15 Hz 1.5 mm; 15/25 Hz 1 mm; 25/55 Hz 0.25 mm; (IEC 68-2-6)	
Self-extinguishing capability	Casing: UL94 V2 Jaws: UL94 V0	

### SAFETY

Electrical safety	Class II equipment with double or reinforced insulation between the primary and the secondary (winding connected to the connection cable) as per EN 61010-1 & EN 61010-2-032: - 1000V CAT III, pollution degree 2 - 600V ACT III, pollution degree 2 - Type-B sensor
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