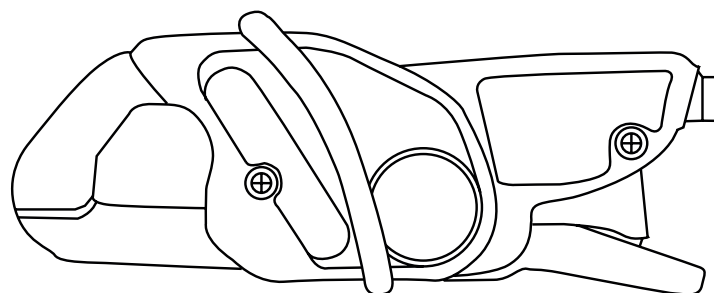


Current clamps for AC current

Models MN12 and MN13

MN series

Current	200 A AC
Output	10 mV/A



Electrical specifications

Current calibre:

0.5 A AC ... 240 A AC

Output signal:

10 mVAC/A AC (2.4 V for 240 A)

Accuracy and phase shift ⁽¹⁾:

Primary current	0.5 A...10 A	10 A...40 A	40 A...100 A	100 A...240 A
% Accuracy of output signal	≤ 3.5 % + 5 mV	≤ 2.5 % + 5 mV	≤ 2 % + 5 mV	≤ 1 % + 5 mV
Phase shift	not specified	≤ 5°	≤ 3°	≤ 2.5°

Bandwidth:

40 Hz ... 10 kHz

Crest factor:

3 for a current of 200 Arms

Maximum currents:

200 A continuous for a frequency ≤ 1 kHz (derating proportional to the inverse of frequency beyond)

Load impedance:

> 1 MΩ

Operating voltage:

600 V rms

Common mode voltage:

600 V category III and pollution degree 2

Influence of adjacent conductor:

≤ 15 mA/A at 50 Hz

Influence of conductor position in jaws:

≤ 0.5 % of output signal at 50/60 Hz

Influence of frequency ⁽²⁾:

< 3 % of output signal from 40 Hz ... 1 kHz
< 12 % of output signal from 1 kHz ... 10 kHz

Influence of crest factor:

< 3 % of output signal for a crest factor of 3 and current of 200 A rms

Mechanical specifications

Operating temperature:

-10 °C to +55 °C

Storage temperature:

-40 °C to +70 °C

Influence of temperature:

≤ 0.15 % of output signal per 10 °K

Relative humidity for operation:

0 to 85 % RH decreasing linearly above 35 °C

Influence of relative humidity:

< 0.2 % of output signal from 10 % to 85 % RH

Operating altitude:

0 to 2,000 m

Max. jaw opening:

20 mm

Clamping capacity:

Cable: Ø max 20 mm
Busbar: 1 busbar of 20 x 5 mm

Casing protection rating:

IP40 (IEC 529)

Drop test: 1 m (IEC 68-2-32)

Shock resistance:

100 g (IEC 68-2-27)

Vibration resistance:

10/55/10Hz, 0.15 mm (IEC 68-2-6)

Self-extinguishing capability:

Casing: UL94 V2
Jaws: UL94 V0

Dimensions:

135 x 51 x 30 mm

Weight:

180 g

Colours:

Dark grey case with red jaws

Output:

■ MN12:

Safety sockets (4 mm)

■ MN13:

1.5 m two-wire lead with double or reinforced insulation terminated by 2 elbowed male safety plugs (4 mm)

Safety specifications

Electrical safety:

Instrument with double insulation or reinforced insulation between the primary, the secondary and the grippable part located under the guard as per IEC 1010-1 & IEC 1010-2-032

- 600 V category III, pollution degree 2

- 300 V category IV, pollution degree 2

Electromagnetic compatibility (EMC):

EN 50081-1: class B

EN 50082-2:

- Electrostatic discharge: IEC 1000-4-2

- Radiated field: IEC 1000-4-3

- Fast transients: IEC 1000-4-4

- Magnetic field at 50/60 Hz: IEC 1000-4-8

(1) Conditions of reference: 23 °C ± 3 °K, 20 to 70 % RH, sinusoidal signal with frequency of 48 Hz to 65 Hz, external magnetic field < 40 A/m, no DC components, no external conductor with circulating current, conductor centred for measurement, load impedance > 1 MΩ.

(2) Out of reference domain

To order	Reference
AC current clamp model MN12 with operating manual	P01120405
AC current clamp model MN13 with operating manual	P01120406