

GENERAL DESCRIPTION

The MN probe is the latest in compact AC Current probes. Designed to meet the most stringent demands in industry and electrical contracting, they also meet the latest safety and performance standards.



ELECTRICAL SPECIFICATIONS

Operating Range: 150A

Measurement Range: 0.1 to 150A

Transformation Ratio: Voltage output

Output Signal: 10mV/A (1V at 100AAC)

Range	Accuracy
0.1 to 1A	≤ 3% of Reading ± 0.2mV
1 to 20A	≤ 2% of Reading ± 0.2mV
20 to 80A	≤ 1% of Reading
80 to 150A	≤ 3% of Reading
150 to 200A	≤ 7% of Reading

Range	Phase Shift
0.1 to 1A	N/A
1 to 20A	≤3°
20 to 80A	≤2°
80 to 150A	≤3°
150 to 200A	≤4°

Overload: 240A for 10 min ON, 30 min OFF

**Reference conditions: 18°C to 28°C, 20 to 75% RH, external magnetic field <40 A/m, 48 to 65 Hz sine wave, distortion factor less than 1%, no DC component, no external current carrying conductor, test sample centered. Load impedance> 1MΩ.*

Frequency Range: 40 to 10kHz

Limit Operating Conditions: 200A permanently to 1kHz;
 Derating above 3 kHz: 200 A x (1/0.333F), F in kHz

Crest Factor: 3 @ 150Arms with an error (due to CF) of 3%

Working Voltage: 600Vrms

Common Mode Voltage: 600Vrms

Influence of Adjacent Conductor: <15mA/A at 50Hz

Influence of DC on AC signal: DC current <20A, < 5%

Influence of Conductor Position in Jaw:

0.5% of mV output @ 50/60Hz

Influence of Frequency:

40 Hz to 1 kHz: 3% of mV output

1 kHz to 10 kHz: 12% of mV output

Influence of Load:

< 3% of mA output from 40 Hz to 1 kHz

< 12% of mA output from 1 kHz to 10 kHz

MECHANICAL SPECIFICATIONS

Dimensions: 5.47 x 2.00 x 1.18" (139 x 51 x 30 mm)

Weight: 180 g (6.5 oz)

Jaw Opening: 0.83" (21mm)

Maximum Conductor Size:

Cable: 0.78" (20mm)

Bus Bar: 0.78 x 0.19 (20 x 5mm)

Case Protection: IP 40 (IEC 529)

Drop Test: 1.0 m (IEC 68-2-32)

Mechanical Shock: IEC 68-2-27

Vibration: IEC 68-2-6

Polycarbonate Material:

Jaws: Polycarbonate with 10% fiberglass charge, Red UL 94 V0

Case: Polycarbonate 920A Gray

Opening Operations - Life: > 50,000

Output:

MN352: Two standard safety banana jacks (4 mm)

MN353: Double/reinforced insulated 5 ft (1.5 m) lead with 4mm safety banana plug

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 14° to 131°F (-10° to +55°C)

Storage Temperature: -40° to 158°F (-40° to +70°C)

Altitude: Non-operating: 0 to 12,000 m

Operating: 0 to 2000 m

Operating Relative Humidity:

10-35°C 85% RH (without roll-off above 35°C)

Influence of Temperature:

≤ 150 ppm/°K, or 0.15% of mV output per 10°K

Influence of Humidity (10 to 90% RH):

≤ 0.2% of mV output per 10°K @ 18°C to 28°C

SAFETY SPECIFICATIONS

Electrical:

Double insulation or reinforced insulation between the primary or secondary and the outer case of the handle conforms to IEC 1010-2-32.

600V Cat. III, Pollution Degree 2

Dielectric Strength:

5550 V, 50/60 Hz between primary, secondary and the outer case of the handle

Electromagnetic Compatibility:

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

ORDERING INFORMATION

AC Current Probe MN352 **Cat #2116.26**

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Accessories:

MN352 - Leads, set of 2, 5 ft safety (1000V)..... **Cat #2111.29**

Banana plug adapter (to non-recessed plug) **Cat #1017.45**

