

# AMP-200-EUR Series TRMS Clamp Meters

## The Modern Evolution of the Professional Clamp Meter

Beha-Amprobe's AMP-210-EUR and AMP-220-EUR 600 A TRMS Clamp Meters offer a complete range of measuring functions for today's modern electrical environments. Both models feature True-RMS sensing, low pass filters and fast response processors for quick, error-free measurements. The Amp-Tip function allows for precise measurement of current down to the tenth of an Amp, enabling accurate current measurement of both large and small diameter wires.

### AMP-200-EUR Series Features

- **True-RMS**
- **Low Pass Filter**
- **Amp-Tip Functions**
- **Non-Contact Voltage Detection (NCV)**
- **Audible Continuity and Diode Test**
- **Data Hold, Relative Zero**
- **Large LCD Backlit Display**
- **Safety Rated:  
CAT III 600 V**



**AMP-210-EUR**  
AC Clamp Meter



**AMP-220-EUR**  
AC/DC Clamp Meter

## AMP-200-EUR Series Product Details

**True-RMS** for accurate voltage measurements in noisy environments.

**Low pass filter** for current and voltage measurements on variable frequency drives.

**Amp-Tip function** for precise low current measurement of small diameter wires down to 0.1 Amp to help with electrical system troubleshooting.

**Non-contact voltage detection (NCV)**

**Audible continuity and diode test**

**Data hold, relative zero, MAX/MIN/AVG mode**

**Large LCD backlit display**

**Safety rated**  
CAT III 600 V



**Measurements:**

**Voltage**  
Up to 600 V AC/DC

**AC current**  
Up to 600 A

**DC Current**  
Up to 600 A  
(AMP-220-EUR only)

**Frequency**  
5.00 to 999.9 Hz

**Resistance**  
Up to 60.00 k $\Omega$

**Capacitance**  
Up to 2500  $\mu$ F



## AMP-200-EUR Series Applications



AMP-210-EUR AC Clamp Meter



AMP-220-EUR AC/DC Clamp Meter

- **Accurate measurement of current, voltage and frequency** on all electrical systems including distorted, non-sinusoidal signals (True-RMS function) and variable frequency drives (low-pass filter).
- **Capacitance measurement** for start and run motor capacitors.
- **Resistance and continuity** functions to verify quality of electrical connections and to check if motor and transformer coils are working properly.
- **Low pass filter** allows measurement of current and voltage on variable frequency drives (motors with speed controlled by frequency). Without this feature, the meter would provide erroneous readings when measuring voltage and current.

## AMP-200-EUR and AMP-300-EUR Detailed Specifications

Model	AMP-210-EUR	AMP-220-EUR	AMP-310-EUR	AMP-320-EUR	AMP-330-EUR
	AC Clamp Meter <b>Electrical</b>	AC/DC Clamp Meter <b>Electrical</b>	AC Clamp Meter <b>HVAC</b>	AC/DC Clamp Meter <b>Electrical Motor Maintenance</b>	AC/DC 1000 A Clamp Meter <b>Industrial Motor Maintenance</b>
Safety Rating	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT IV 600 V, CAT III 1000 V
Jaw Opening	1.18 in (30 mm)	1.37 in (35 mm)	1.18 in (30 mm)	1.37 in (35 mm)	2.0 in (51 mm)
AC Voltage (True-RMS)	Range: 0 to 600.0 V Accuracy: $\pm 1.0\%$ + 5LSD (50 to 60 Hz)		Range: 0 to 600.0 V Accuracy: $\pm 1.0\%$ + 5LSD (50 to 60 Hz)		Range: 0 to 1000 V Accuracy: $\pm 0.8\%$ + 5LSD (50 to 60 Hz) $\pm 1.5\%$ + 5LSD (20 to 200 Hz) $\pm 10\%$ + 5LSD (200 to 400 Hz)
DC Voltage	Range: 0 to 600.0 V Accuracy: $\pm 1.0\%$ + 5LSD		Range: 0 to 600.0 V Accuracy: $\pm 1.0\%$ + 5LSD		Range: 0 to 1000 V Accuracy: $\pm 0.8\%$ + 5LSD
AC+DC Voltage	–	Range: 0 to 600.0 V Accuracy: $1.2\% \pm 7\text{LSD}$ (DC, 50 to 60 Hz)	–	Range: 0 to 600.0 V Accuracy: $1.2\% \pm 7\text{LSD}$ (DC, 50 to 60 Hz)	Range: 0 to 1000 V Accuracy: $\pm 1.0\% \pm 7\text{LSD}$ (50 to 60 Hz) $\pm 1.8\% \pm 7\text{LSD}$ (DC, 40 to 200 Hz) $\pm 12\% \pm 7\text{LSD}$ (200 to 400 Hz)
AC Current (True-RMS)	Range: 0 to 600.0 A Accuracy: $\pm 1.8\%$ + 5LSD (50 to 100 Hz) $\pm 2.0\%$ + 5LSD (100 to 400 Hz)		Range: 0 to 600.0 A Accuracy: $\pm 1.8\%$ + 5LSD (50 to 100 Hz) $\pm 2.0\%$ + 5LSD (100 to 400 Hz)		Range: 0 to 1000 A Accuracy: $\pm 1.8\%$ + 5LSD (40 to 100 Hz) $\pm 2.2\%$ + 5LSD (100 to 400 Hz)
DC Current	–	Range: 0 to 600.0 A Accuracy: $\pm 2.0\%$ + 5LSD	–	Range: 0 to 600.0 A Accuracy: $\pm 2.0\%$ + 5LSD	Range: 0 to 1000 A Accuracy: $\pm 1.8\%$ + 5LSD
AC+DC Current	–	Range: 0 to 600.0 A Accuracy: $\pm 2.2\%$ + 7LSD (DC, 50 to 100 Hz) $\pm 2.7\%$ + 7LSD (100 to 400 Hz)	–	Range: 0 to 600.0 A Accuracy: $\pm 2.2\%$ + 7LSD (DC, 50 to 100 Hz) $\pm 2.7\%$ + 7LSD (100 to 400 Hz)	Range: 0 to 1000 A Accuracy: $\pm 2.2\%$ + 7LSD (DC, 40 to 100 Hz) $\pm 2.5\%$ + 7LSD (100 to 400 Hz)
Precise Low Current AC	Range: 0 to 60.00 A Accuracy: $\pm 1.5\%$ + 5LSD (50 to 60 Hz)		Range: 0 to 60.00 A Accuracy: $\pm 1.5\%$ + 5LSD (50 to 60 Hz)		Range: 0 to 60.00 A Accuracy: $\pm 1.5\%$ + 5LSD (0.00 to 20.00 A, 40 to 100 Hz) $\pm 2.0\%$ + 5LSD (0.00 to 20.00 A, 100 to 400 Hz) $\pm 3.0\%$ + 5LSD (20.00 to 60.00 A, 40 to 100 Hz) $\pm 3.0\%$ + 5LSD (20.00 to 60.00 A, 100 to 400 Hz)
Precise Low Current DC	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\%$ + 5LSD	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\%$ + 5LSD	Range: 0 to 60.00 A Accuracy: $\pm 1.5\%$ + 5LSD (0.00 to 20.00 A) $\pm 3.0\%$ + 5LSD (20.00 to 60.00 A)
Precise Low Current AC+DC	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\%$ + 5LSD (DC, 50 to 60 Hz)	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\%$ + 5LSD (DC, 50 to 60 Hz)	Range: 0 to 60.00 A Accuracy: $\pm 2.0\%$ + 7LSD (0.00 to 20.00 A, DC, 40 to 100 Hz) $\pm 2.2\%$ + 7LSD (0.00 to 20.00 A, 100 to 400 Hz) $\pm 3.0\%$ + 7LSD (20.00 to 60.00 A, DC, 40 to 100 Hz) $\pm 3.0\%$ + 7LSD (20.00 to 60.00 A, 100 to 400 Hz)
Frequency	Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\%$ + 5LSD (600 V range) Range: 50.0 to 400.0 Hz Accuracy: $\pm 1.0\%$ + 5LSD (600 A range)		Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\%$ + 5LSD (600 V range) Range: 50.0 to 400.0 Hz Accuracy: $\pm 1.0\%$ + 5LSD (600 A range)		Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\%$ + 5LSD (1000 V range) Range: 40.0 to 400.0 Hz Accuracy: $\pm 1.0\%$ + 5LSD (1000 A range)
Resistance	Range: 0.0 to 60.00 k $\Omega$ Accuracy: $\pm 1.0\%$ + 5LSD		Range: 0.0 to 60.00 k $\Omega$ Accuracy: $\pm 1.0\%$ + 5LSD		
Capacitance	Range: 0.0 to 2500 $\mu\text{F}$ Accuracy: $\pm 2.0\%$ + 4LSD		Range: 0.0 to 2500 $\mu\text{F}$ Accuracy: $\pm 2.0\%$ + 4LSD		
Continuity Beeper	ON $\leq 10 \Omega$ OFF $> 250 \Omega$		ON $\leq 10 \Omega$ OFF $> 250 \Omega$		
Non-Contact Voltage	20 to 440 V, 50/60 Hz		20 to 440 V, 50/60 Hz		
True-RMS	•	•	•	•	•
Low Pass Filter	•	•	•	•	•
Autoranging	•	•	•	•	•
Relative Zero	•	•	•	•	•
MAX/MIN/AVG	•	•	•	•	•
Diode Test	•	•	•	•	•
Data Hold	•	•	•	•	•
Backlight	•	•	•	•	•
Auto Power Off	•	•	•	•	•
<b>AMP-300-EUR Series:</b>					
DC Microamps	–	–	Range: 0.0 to 2000 $\mu\text{A}$ Accuracy: $\pm 1.0\%$ + 5LSD		
Temperature* (Type K thermocouple) <small>*Error does not include Type-K thermocouple errors</small>	–	–	Range: $-40.0$ to $752^\circ\text{F}$ , $-40.0$ to $400^\circ\text{C}$ Accuracy: $-40.0$ to $14.0^\circ\text{F}$ ( $\pm 1.0\%$ + $3.0^\circ\text{F}$ ), $>14.0$ to $99.9^\circ\text{F}$ ( $\pm 1.0\%$ + $1.5^\circ\text{F}$ ) $100$ to $752^\circ\text{F}$ ( $\pm 1.0\%$ + $2^\circ\text{F}$ ), $-40.0$ to $-10.0^\circ\text{C}$ ( $\pm 1.0\%$ + $1.5^\circ\text{C}$ ) $>-10.0$ to $99.9^\circ\text{C}$ ( $\pm 1.0\%$ + $0.8^\circ\text{C}$ ), $100$ to $400^\circ\text{C}$ ( $\pm 1.0\%$ + $1^\circ\text{C}$ )		
3-Phase and Motor Rotation Indication	–	–	Rotation-R for mains supply Rotation-M for motors		
Inrush Current	–	–	•	•	•
Peak Hold (Crest)	–	–	–	–	•
Work Light	–	–	–	–	•



Model	AMP-210-EUR	AMP-220-EUR	AMP-310-EUR	AMP-320-EUR	AMP-330-EUR
<b>Display</b>	3-5/6 digits 6000 counts	3-5/6 digits 6000 counts	3-5/6 digits 6000 counts	3-5/6 digits 6000 counts	3-5/6 digits 6000 counts
<b>Polarity</b>	Automatic	Automatic	Automatic	Automatic	Automatic
<b>Update Rate</b>	5 per second nominal	5 per second nominal	5 per second nominal	5 per second nominal	5 per second nominal
<b>Operating Temperature</b>	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)	14 to 122°F (-10 to 50°C)
<b>Relative Humidity</b>	80% at 30°C, 50% at 40°C	80% at 30°C, 50% at 40°C	80% at 30°C, 50% at 40°C	80% at 30°C, 50% at 40°C	Non condensing at ≤10°C 90% at 10 to 30°C 75% at 30 to 40°C 45% at 40 to 50°C
<b>Operating Altitude</b>	0 to 2000 m	0 to 2000 m	0 to 2000 m	0 to 2000 m	0 to 2000 m
<b>Pollution Degree</b>	2	2	2	2	2
<b>Storage Temperature</b>	-4 to 140°F (-20°C to 60°C), < 80% RH	-4 to 140°F (-20°C to 60°C), < 80% RH	-4 to 140°F (-20°C to 60°C), < 80% RH	-4 to 140°F (-20°C to 60°C), < 80% RH	-4 to 140°F (-20°C to 60°C), < 80% RH
<b>Temperature Coefficient</b>	Nominal 0.15 x (specified accuracy)/ °C @ (0°C to 18°C or 28°C to 40°C)	Nominal 0.15 x (specified accuracy)/ °C @ (0°C to 18°C or 28°C to 40°C)	Nominal 0.15 x (specified accuracy)/ °C @ (0°C to 18°C or 28°C to 40°C)	Nominal 0.15 x (specified accuracy)/ °C @ (0°C to 18°C or 28°C to 40°C)	Nominal 0.10 x (specified accuracy)/ °C @ (0°C to 18°C or 28°C to 50°C)
<b>Battery</b>	Two AAA 1.5 V battery	Two AAA 1.5 V battery	Two AAA 1.5 V battery	Two AAA 1.5 V battery	Two AA 1.5 V battery
<b>EMC</b>	Meets EN 61326-1:2006	Meets EN 61326-1:2006	Meets EN 61326-1:2006	Meets EN 61326-1:2006	Meets EN 61326-1:2006
<b>Safety Compliance</b>	UL/IEC/EN 61010-1 ed. 3.0, IEC/EN 61010-2-033 ed. 1.0, CAN/CSA C22.2 NO. 61010-1 ed. 3.0, IEC/EN 61010-2-032 ed. 3.0 & IEC/EN 61010-031 ed. 1.1	UL/IEC/EN 61010-1 ed. 3.0, IEC/EN 61010-2-033 ed. 1.0, CAN/CSA C22.2 NO. 61010-1 ed. 3.0, IEC/EN 61010-2-032 ed. 3.0 & IEC/EN 61010-031 ed. 1.1	UL/IEC/EN 61010-1 ed. 3.0, IEC/EN 61010-2-033 ed. 1.0, CAN/CSA C22.2 NO. 61010-1 ed. 3.0, IEC/EN 61010-2-032 ed. 3.0 & IEC/EN 61010-031 ed. 1.1	UL/IEC/EN 61010-1 ed. 3.0, IEC/EN 61010-2-033 ed. 1.0, CAN/CSA C22.2 NO. 61010-1 ed. 3.0, IEC/EN 61010-2-032 ed. 3.0 & IEC/EN 61010-031 ed. 1.1	UL/IEC/EN 61010-1 ed. 3.0, IEC/EN 61010-2-033 ed. 1.0, CAN/CSA C22.2 NO. 61010-1 ed. 3.0, IEC/EN 61010-2-032 ed. 3.0 & IEC/EN 61010-031 ed. 1.1
<b>Certification</b>	UL (c/us) and CE	UL (c/us) and CE	UL (c/us) and CE	UL (c/us) and CE	UL (c/us) and CE
<b>Dimensions (L x W x H):</b>	8.62 x 3.03 x 1.46 in (219 x 77 x 37 mm)	8.82 x 3.03 x 1.46 in (224 x 77 x 37 mm)	8.62 x 3.03 x 1.46 in (219 x 77 x 37 mm)	8.82 x 3.03 x 1.46 in (224 x 77 x 37 mm)	10.16 x 3.70 x 1.73 in (258 x 94 x 44 mm)
<b>Weight:</b>	208 g (0.46 lb)	254 g (0.56 lb)	208 g (0.46 lb)	254 g (0.56 lb)	420 g (0.93 lb)

Accessories Included:					
<b>User's Manual</b>	•	•	•	•	•
<b>Test Leads</b>	•	•	•	•	•
<b>Carrying Case</b>	•	•	•	•	•
<b>Batteries</b>	AAA (2)		AAA (2)		AA (2)
<b>Alligator Clip Set</b>	-	-	•	•	•
<b>Banana plug K-type Thermocouple</b>	-	-	•	•	•