

2100 Series Two Pole Voltage Testers

2100-Alpha | 2100-Beta | 2100-Gamma

The Beha-Amprobe 2100-Alpha, 2100-Beta and 2100-Gamma are rugged and reliable two pole voltage testers for voltage and continuity checks. Built tough for use in industrial and commercial environments, the 2100 Series is safety rated up to CAT III 1000 V / CAT IV 600 V and measures voltage range up to 1000 V AC and 1200 V DC (2100-Gamma only). Designed with reinforced components for dependable performance, the 2100 Series has an ingress protection degree of IP 64 and is built according to voltage tester standard EN 61243-3:2014 and is GS approved.



2100 Series Features

- **Colored LED display** to make different voltage levels more visible
- **Automatic AC/DC voltage detection** with polarity indication
- **Voltage test** up to 1000 V AC / 1200 V DC (2100-Gamma)
- **Switchable load** and 10 mA or 30 mA RCD trip test with two push buttons
- **Automatic continuity test** with visual (LED)
- **Low resistance indication** to check wiring in contactor and relay application without influence of the coils (2100-Gamma)
- **Single pole test** to check phase polarity
- **Two pole phase rotation indication** with indicator for right and left rotation
- **Robust, double insulated cable** with wear indication shows when the test leads are excessively worn or damaged and need replacement
- **Backlight** (2100-Beta/2100-Gamma)
- **Torch light / measurement area illumination** for working in poorly lit areas
- **Audible indication** when detected voltages above 50 V AC and 120 V DC
- **Auto power ON/OFF** and ON/OFF button
- **Non contact cable break detector / EF** (electric field)
- **Resistance measurement** - to 1999 ohms (2100-Gamma)
- **Data Hold** (2100-Beta/2100-Gamma)
- **IP 64 splash and dust proof**
- **GS approved**, built according to IEC 61243-3:2014, EN 61243-3:2014, DIN VDE 0682-401:2015
- **Safety rated CAT IV 600 V / CAT III 690** (CAT III 1000 V 2100-Gamma)


2100-Gamma




Two Button Switchable Load/RCD Trip Test

When the two buttons are not pressed the unit is in high impedance mode, providing additional safety protection when testing live power sources, and avoiding accidental tripping of residual-current devices (RCD). When the buttons are pressed the unit is in low impedance mode, eliminating inaccurate readings as result of ghost voltage. Additionally, in systems with RCDs you can press the buttons to intentionally trip 10 mA or 30 mA RCDs and determine if they are wired correctly.



Long, durable test leads with wear indicator

Extra-long 1.5 m test leads make testing fast and convenient. The two pole tester's rugged, durable test leads have two layers of insulation for added durability and safety. If the inner, contrasting-colored layer is showing, that's a sign that the test leads require replacement.



Test probe protector cover with accessory storage

Store the 4 mm test probe extensions and GS38 protective probe caps, ensuring you always have them when needed. The test probe protector cover tip also helps to open UK electrical safety outlets.

Quick Guide



Features:	2100-Alpha	2100-Beta	2100-Gamma
Safety Rating (measurement category)	CAT III 690 / CAT IV 600	CAT III 690 / CAT IV 600	CAT III 1000 / CAT IV 600
Voltage Test	•	•	•
Voltage Indication - LCD		6 - 690 V AC/DC	6 - 1000 V AC, 6 - 1200 V DC
Voltage Indication - LED	12 - 690 V AC/DC	12 - 690 V AC/DC	12 - ≥690 V AC/DC
Continuity Test (visual and audible indication)	< 500 kΩ	< 500 kΩ	< 500 kΩ
RCD Trip Test (10 mA or 30 mA)	•	•	•
Single Pole Phase Test	•	•	•
Full Range Polarity Detection	•	•	•
Two Pole Phase Rotation Indication	Right/Left	Right/Left	Right/Left
IP 64 Splash and Dust Proof	•	•	•
Backlight		•	•
Torch Light/Measurement Area Illumination	•	•	•
Double Insulated Cable with Wear Indication	•	•	•
4 mm Test Probe Extensions (screwable) and protective probe caps GS38	•	•	•
Data Hold Function		•	•
Resistance Measurement			0...1999 Ω
Low Resistance Indication			Sound < 10 Ω
Non contact cable break detector / EF (electric field)			•

	2100-Alpha	2100-Beta	2100-Gamma
Voltage Test			
LED voltage range	12... 690 V AC/DC	12... 690 V AC/DC	12... ≥690 V AC/DC
LED indicator	±12, ±24, 50, 120, 230, 400, 690 V		±12, 24, 50, 120, 230, 400, ≥690 V
LED tolerances	acc. to EN 61243-3:2014		
LCD voltage range	—	6... 690 V AC/DC	6...1000 V AC / 6...1200 V DC
LCD resolution	—	1 V	
LCD tolerance	—	± (3% rdg + 3 LSD)	
Frequency range	DC, 16 2/3 Hz...1000 Hz		
LED and LCD response time	<1s		
Acoustic indication	≥50 V AC, ≥120 V DC		
Voltage detection	Automatic (AC/DC)		
Polarity detection	Full range		
Range detection	Automatic		
Current I (load buttons not activated)	≤3.5 mA AC/DC at 690 V AC/DC		≤3.5 mAAC at 1000 VAC / ≤4.5 mADC at 1200 VDC
Internal load (load buttons not activated)	Approximately 2.4 W at 690 V AC/DC		Approximately 3.5 W at 1000 VAC / Approximately 5.4 W at 1200 VDC
Test current switchable load (load buttons activated)	≤250 mA AC/DC at 690 V AC/DC		≤350 mAAC at 1000 VAC / ≤420 mADC at 1200 VDC
Switchable load (load buttons activated)	Approximately 170 W at 690 V AC/DC		Approximately 350 W at 1000 VAC / Approximately 500 W at 1200 VDC
Automatic power ON	LED: >10 V	LED: >10 V LCD: >10 V	LED: >10 V LCD: > 10 V
Impedance at ELV level	270 kΩ @ 50 VAC	270 kΩ @ 50 VAC	320 kΩ @ 50 VAC
Impedance at ELV level and switched load	5 kΩ @ 50 VAC	5 kΩ @ 50 VAC	5 kΩ @ 50 VAC
Trip Test of RCD (earth leakage circuit breaker)			
Test current switchable load (load buttons activated)	>30 mAAC at 230 VAC		
Single Pole Phase Test			
Voltage range	100...690 VAC against earth		100...1000 VAC against earth
Frequency range	40 Hz...70 Hz		
Acoustic indication	yes		
Indication	Red LED		
Continuity Test (Rx) / Diode Test			
Range	0...500 kΩ		
Tolerance	0% to +50%		
Test current	<5 μA		
Acoustic indication	yes		
Diode test	yes		
Indication	Yellow LED		
Overvoltage protection	690 V AC/DC		1000 VAC/1200 VDC
Automatic power ON	< 500 kΩ		
Phase Rotation Indication			
Voltage range	170...690 V AC phase to phase		170...1000 V AC phase to phase
Frequency range	40...70 Hz		40...70 Hz
Indication	Green LEDs		
Resistance Measurement (Ω) / Low Resistance Indication “ •) ” (2100-Gamma only)			
Resistance range on LCD	0...1999 Ω		
Resolution	1 Ω		
Tolerance	± (5% rdg + 10 LSD) at 20°C		
Temperature coefficient	± (5 LSD / 10 K)		
Test current	<30 μA		
Low resistance indication	Acoustic indication <10...50 Ω		
Overvoltage protection	690 V AC/DC		1000 VAC/1200 VDC
Non contact cable break detector / EF (electric field)			
Voltage range	—		100...1000 VAC
Frequency range	—		50...60 Hz
Indication	—		3 levels shown by LCD segments: — — = — = =
Data Hold			
	—	only voltage measurement (12...690V AC/DC)	voltage and resistance measurement, Non contact cable break detector / EF
Measurement Area Illumination / Torch Light			
Torch light	White LED		
Backlight	White LED		
General Specifications			
Operation time (DT)	30 s		
Recovery time	240 s		
Operating temperature	-15°C to +55°C		
Storage temperature	-15°C to +55°C		
Humidity	Max. 95% RH		
Operating altitude	Up to 2000 m		
Safety rating (measurement category)	CAT IV / 600V, CAT III / 690V		CAT IV / 600V, CAT III / 1000V
Pollution degree	2		
Protection degree	IP 64		
Safety regulations	IEC 61243-3:2014, EN 61243-3:2014, DIN VDE 0682-401:2015		
Approvals, compliance	GS mark from TÜV Rheinland, CE		
Power Supply	Battery 2 x 1.5V (AAA/ IEC LR03)		
Power consumption	Approximately 90 mA		
Battery lifetime	More than 10000 measurements (<5 s / per measurement)		
Dimensions (HxWxD)	Approximately 280 x 78 x 35 mm (11.0 x 3.1 x 1.4 in)		
Weight	Approximately 320 g (0.71 lb)		

AM-500-EUR Series Digital Multimeters

Feature-rich, reliable and rugged solutions

The Beha-Amprobe AM-500-EUR Digital Multimeter Series is a full line of digital multimeters that offer functions for every application. These tough meters are designed to be a reliable, feature-rich and rugged solution for taking critical measurements in residential, HVAC, electrical and industrial settings at breakthrough affordability.



... Backlit dual display for readability in low-light conditions

... Measures AC/DC voltage up to 1000V, ac/dc current

... Dual thermocouples for differential temperature measurements



AM-555-EUR
Advanced Industrial
Multimeter with True-RMS



AM-500-EUR series selection guide

			AM-510-EUR	AM-520-EUR	AM-535-EUR	AM-540-EUR	AM-555-EUR
Functions	Application:	Feature:	CAT III 600V	CAT III 600V	CAT III 600V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V
	Measure voltage in noisy environments	True-rms			•		•
	Electrical panels, AC outlets	AC Voltage (V)	600	600	600	1000	1000
	DC systems, auto/marine batteries	DC Voltage (V)	600	600	600	1000	1000
	AC Current - electrical panels, appliances	AC Current (A)	10	10	20	10	20
	DC Current - electronics, DC motors	DC Current (A)	10	10	20	10	20
	Specified resistance and continuity	Resistance (MOhms)	40	40	40	60	60
	Flame sensors	Microamps	•	•	•	•	•
	Diodes in AC to DC converters	Diode test	•	•	•	•	•
	Fuses, lightbulbs, wire connections	Continuity	•	•	•	•	•
	Household batteries	Battery test	•				
	Motor startup or run capacitors	Capacitance	•	•	•	•	•
	Frequency verification	Frequency	•	•	•	•	•
	Non-contact voltage detection	VolTect Plus™	•	•	•	•	•
Features	Electrical load-time on vs. time off	Duty cycle	•			•	•
	Temp of air vents, fuses, transformers	Temperature inputs		1	1	2	2
	Automatically selects measurement range	Autoranging	•	•	•	•	•
	Manually select measurement range	Manual ranging	•	•	•	•	•
	Voltage on variable frequency drives	Low pass filter				•	•
Display	Detect stray voltages	Low Z					•
	Dimly lit areas	Built-in flashlight	•	•	•	•	•
	Meter resolution	LCD Counts	4,000	4,000	4,000	6,000	6,000
	Dimly lit areas	Backlight	•	•	•	•	•
Events	Monitoring fast changing signals	Bar graph		•	•	•	•
	Two relative measurements on one screen	Dual display				•	•
	Data memory	Data hold	•	•	•	•	•
	Difference between two measurements	Relative reading	•	•	•	•	•
	Max/min peak measurement	Max/min hold		•	•	•	•
	Specialized signal measurements	Peak hold (crest)				•	•



Specifications

	AM-510-EUR	AM-520-EUR	AM-535-EUR	AM-540-EUR	AM-555-EUR
Measurement category	CAT III / 600V	CAT III / 600V	CAT III / 600V	CAT IV / 600V, CAT III / 1000V	CAT IV / 600V, CAT III / 1000V
AC voltage	1 mV...600V	1 mV...600V	1 mV...600V	1 mV...1000 V	1 mV...1000 V
Basic accuracy *	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)
Frequency range	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...1 kHz	45 Hz...1 kHz
DC voltage	1 mV...600V	0.1 mV...600V	0.1 mV...600V	0.1 mV...1000 V	0.1 mV...1000 V
Basic accuracy *	± (0.8 % rgd. + 1 digits)	± (0.8 % rgd. + 1 digits)	± (0.8 % rgd. + 1 digits)	± (0.5 % rgd. + 2 digits)	± (0.5 % rgd. + 2 digits)
Input resistance	10 MΩ	10 MΩ	10 MΩ	10 MΩ	10 MΩ
Current AC	0.1 μA...10A	0.1 μA...10A	0.1 μA...20A**	0.1 μA...10A	0.1 μA...20A**
Basic accuracy *	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)
Frequency range	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...1 kHz	45 Hz...1 kHz
Current DC	0.1 μA...10A	0.1 μA...10A	0.1 μA...20A**	0.1 μA...10A	0.1 μA...20A**
Basic accuracy *	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)
Resistance	0.1 Ω...40 MΩ	0.1 Ω...40 MΩ	0.1 Ω...40 MΩ	0.1 Ω...60 MΩ	0.1 Ω...60 MΩ
Basic accuracy *	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)
Capacitance	10 pF...100.0 μF	10 pF...4000 μF	10 pF...4000 μF	60.00 nF...60 mF	60.00 nF...60 mF
Basic accuracy *	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)
Frequency	1,00 Hz...10 MHz	1,00 Hz...10 MHz	1,00 Hz...10 MHz	1,00 Hz...60 MHz	1,00 Hz...60 MHz
Basic accuracy *	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 3 digits)	± (0.1 % rgd. + 3 digits)
Temperature	-	-40...1000 °C	-40...1000 °C	-40...1000 °C	-40...1000 °C
Basic accuracy *	-	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)
Continuity	R < 10 Ω	R < 10 Ω	R < 10 Ω	R < 10 Ω	R < 10 Ω
General Specifications					
Display	3999 Digits	3999 Digits	3999 Digits	5999 Digits	5999 Digits
Pollution degree	2				
Safety	EN 61010, IEC 61010				
Power supply	9 V (6F22)				
Dimensions	182 x 90 x 45 mm				
Weight	approx. 354 g (incl. battery)				
Scope of supply	2 x test leads, 1 x 9 V battery, 1 x user manual	2 x test leads, 1 x temperature probe, 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 1 x temperature probe, 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 2 x temperature probe, 1 x temperature adaptor 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 2 x temperature probe, 1 x temperature adaptor 1 x strap, 1 x 9 V battery, 1 x user manual

*Basic accuracy refers to the best accuracy in the respective function

**Max duration of measurement:

8 to 10A: measure up to 20 minutes, 10 minutes off minimum between measurements

> 10 to 20A: measure up to 30 seconds, 10 minutes off minimum between measurements

Order information

Order number	Description
AM-510-EUR	Digital Multimeter
AM-520-EUR	Digital Multimeter
AM-535-EUR	Digital Multimeter TRMS
AM-540-EUR	Digital Multimeter
AM-555-EUR	Digital Multimeter TRMS

All Beha-Amprobe tools, including the AM-500-EUR Series, are rigorously tested for safety, accuracy, reliability, and ruggedness. In addition, Beha-Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Beha-Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.



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 Ω

Capacitance
Up to 2500 μ 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 Electrical	AC/DC Clamp Meter Electrical	AC Clamp Meter HVAC	AC/DC Clamp Meter Electrical Motor Maintenance	AC/DC 1000 A Clamp Meter Industrial Motor Maintenance
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: $\pm 1.0\% + 5\text{LSD}$ (50 to 60 Hz)		Range: 0 to 600.0 V Accuracy: $\pm 1.0\% + 5\text{LSD}$ (50 to 60 Hz)		Range: 0 to 1000 V Accuracy: $\pm 0.8\% + 5\text{LSD}$ (50 to 60 Hz) $\pm 1.5\% + 5\text{LSD}$ (20 to 200 Hz) $\pm 10\% + 5\text{LSD}$ (200 to 400 Hz)
DC Voltage	Range: 0 to 600.0 V Accuracy: $\pm 1.0\% + 5\text{LSD}$		Range: 0 to 600.0 V Accuracy: $\pm 1.0\% + 5\text{LSD}$		Range: 0 to 1000 V Accuracy: $\pm 0.8\% + 5\text{LSD}$
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: $\pm 1.0\% + 7\text{LSD}$ (50 to 60 Hz) $\pm 1.8\% + 7\text{LSD}$ (DC, 40 to 200 Hz) $\pm 12\% + 7\text{LSD}$ (200 to 400 Hz)
AC Current (True-RMS)	Range: 0 to 600.0 A Accuracy: $\pm 1.8\% + 5\text{LSD}$ (50 to 100 Hz) $\pm 2.0\% + 5\text{LSD}$ (100 to 400 Hz)		Range: 0 to 600.0 A Accuracy: $\pm 1.8\% + 5\text{LSD}$ (50 to 100 Hz) $\pm 2.0\% + 5\text{LSD}$ (100 to 400 Hz)		Range: 0 to 1000 A Accuracy: $\pm 1.8\% + 5\text{LSD}$ (40 to 100 Hz) $\pm 2.2\% + 5\text{LSD}$ (100 to 400 Hz)
DC Current	–	Range: 0 to 600.0 A Accuracy: $\pm 2.0\% + 5\text{LSD}$	–	Range: 0 to 600.0 A Accuracy: $\pm 2.0\% + 5\text{LSD}$	Range: 0 to 1000 A Accuracy: $\pm 1.8\% + 5\text{LSD}$
AC+DC Current	–	Range: 0 to 600.0 A Accuracy: $\pm 2.2\% + 7\text{LSD}$ (DC, 50 to 100 Hz) $\pm 2.7\% + 7\text{LSD}$ (100 to 400 Hz)	–	Range: 0 to 600.0 A Accuracy: $\pm 2.2\% + 7\text{LSD}$ (DC, 50 to 100 Hz) $\pm 2.7\% + 7\text{LSD}$ (100 to 400 Hz)	Range: 0 to 1000 A Accuracy: $\pm 2.2\% + 7\text{LSD}$ (DC, 40 to 100 Hz) $\pm 2.5\% + 7\text{LSD}$ (100 to 400 Hz)
Precise Low Current AC	Range: 0 to 60.00 A Accuracy: $\pm 1.5\% + 5\text{LSD}$ (50 to 60 Hz)		Range: 0 to 60.00 A Accuracy: $\pm 1.5\% + 5\text{LSD}$ (50 to 60 Hz)		Range: 0 to 60.00 A Accuracy: $\pm 1.5\% + 5\text{LSD}$ (0.00 to 20.00 A, 40 to 100 Hz) $\pm 2.0\% + 5\text{LSD}$ (0.00 to 20.00 A, 100 to 400 Hz) $\pm 3.0\% + 5\text{LSD}$ (20.00 to 60.00 A, 40 to 100 Hz) $\pm 3.0\% + 5\text{LSD}$ (20.00 to 60.00 A, 100 to 400 Hz)
Precise Low Current DC	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\% + 5\text{LSD}$	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\% + 5\text{LSD}$	Range: 0 to 60.00 A Accuracy: $\pm 1.5\% + 5\text{LSD}$ (0.00 to 20.00 A) $\pm 3.0\% + 5\text{LSD}$ (20.00 to 60.00 A)
Precise Low Current AC+DC	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\% + 5\text{LSD}$ (DC, 50 to 60 Hz)	–	Range: 0 to 60.00 A Accuracy: $\pm 2.0\% + 5\text{LSD}$ (DC, 50 to 60 Hz)	Range: 0 to 60.00 A Accuracy: $\pm 2.0\% + 7\text{LSD}$ (0.00 to 20.00 A, DC, 40 to 100 Hz) $\pm 2.2\% + 7\text{LSD}$ (0.00 to 20.00 A, 100 to 400 Hz) $\pm 3.0\% + 7\text{LSD}$ (20.00 to 60.00 A, DC, 40 to 100 Hz) $\pm 3.0\% + 7\text{LSD}$ (20.00 to 60.00 A, 100 to 400 Hz)
Frequency	Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (600 V range) Range: 50.0 to 400.0 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (600 A range)		Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (600 V range) Range: 50.0 to 400.0 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (600 A range)		Range: 5.00 to 999.9 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (1000 V range) Range: 40.0 to 400.0 Hz Accuracy: $\pm 1.0\% + 5\text{LSD}$ (1000 A range)
Resistance	Range: 0.0 to 60.00 k Ω Accuracy: $\pm 1.0\% + 5\text{LSD}$		Range: 0.0 to 60.00 k Ω Accuracy: $\pm 1.0\% + 5\text{LSD}$		
Capacitance	Range: 0.0 to 2500 μF Accuracy: $\pm 2.0\% + 4\text{LSD}$		Range: 0.0 to 2500 μF Accuracy: $\pm 2.0\% + 4\text{LSD}$		
Continuity Buzzer	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	•	•	•	•	•
AMP-300-EUR Series:					
DC Microamps	–	–	Range: 0.0 to 2000 μA Accuracy: $\pm 1.0\% + 5\text{LSD}$		
Temperature* (Type K thermocouple) *Error does not include Type-K thermocouple errors	–	–	Range: -40.0 to 752°F, -40.0 to 400°C Accuracy: -40.0 to 14.0°F ($\pm 1.0\% + 3.0^\circ\text{F}$), >14.0 to 99.9°F ($\pm 1.0\% + 1.5^\circ\text{F}$) 100 to 752°F ($\pm 1.0\% + 2^\circ\text{F}$), -40.0 to -10.0°C ($\pm 1.0\% + 1.5^\circ\text{C}$) >-10.0 to 99.9°C ($\pm 1.0\% + 0.8^\circ\text{C}$), 100 to 400°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
Display	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
Polarity	Automatic	Automatic	Automatic	Automatic	Automatic
Update Rate	5 per second nominal	5 per second nominal	5 per second nominal	5 per second nominal	5 per second nominal
Operating Temperature	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)
Relative Humidity	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
Operating Altitude	0 to 2000 m	0 to 2000 m	0 to 2000 m	0 to 2000 m	0 to 2000 m
Pollution Degree	2	2	2	2	2
Storage Temperature	-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
Temperature Coefficient	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)
Battery	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
EMC	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
Safety Compliance	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
Certification	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
Dimensions (L x W x H):	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)
Weight:	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:					
User's Manual	•	•	•	•	•
Test Leads	•	•	•	•	•
Carrying Case	•	•	•	•	•
Batteries	AAA (2)		AAA (2)		AA (2)
Alligator Clip Set	–	–	•	•	•
Banana plug K-type Thermocouple	–	–	•	•	•