

# 1000 Amp AC Clamp-on Multimeters LH20 Series

- LH1020 Standard Model or LH1025 True RMS measuring
- AC Amps, AC and DC Volts, Ohms, Diode and Continuity Test
- Jaw accommodates 50 mm Ø or 2 x 30mm Ø cables
- Auto-ranging and Auto-zeroing
- Display-Hold for convenience in use
- Conformance to IEC1010 and EMC standards

### Additional Features LH1025

- True RMS measurement of distorted or non-sinusoidal AC waveforms
- Max-Hold mode displays highest measured value



### High Accuracy

Advanced jaw design means that 20-series accuracy is little affected by external magnetic fields or off-centre conductor positioning.

### True RMS measurement (LH1025)

By using True RMS measurement techniques the LH1025 gives maximum accuracy for non-sinusoidal waveform measurements often found with today's complex loads.

### IEC 1010 and EMC Conformance

IEC 1010 safety features including a tactile barrier and special jaw design provide the user with confidence when making measurements in hazardous voltage areas. Conformance to EMC standards ensures high reliability through reduced susceptibility to electromagnetic interference.

SPECIFICATION		
Model	LH1020	LH1025
NON-INVASIVE CURRENT MEASUREMENT		
Ranges (auto-ranging)	400A, 1000A	
Method	AC RMS-responding	AC True RMS (2)
Resolution	100mA (400A range) 1A (1000A range)	
Accuracy	10-700A, 50-60Hz ± 1.5% of reading ± 5 digits (1)	
Crest Factor	4 maximum for True RMS measurements	
Maximum measurable load	1000A AC RMS (3)	
Maximum permissible overload	1,200 Amps	
VOLTAGE MEASUREMENT		
Method	AC RMS-responding, DC	AC True RMS, DC

## Voltage Measurement

Ranges (auto-ranging)	400V, 600V
Maximum overload	1,000V
Accuracy	± 1% of reading ± 3 digits (1)
Resolution	100mV (400V range) 1V (600V range)
Crest Factor	6 for V < 1,000 V peak
Input impedance	1 MΩ

## Resistance, Continuity and Diode Testing

Ω ranges (auto-ranging)	400 Ω, 4 kΩ
Ω resolution	0.1 Ω(400 Ω range) 1 Ω(4 kΩ range)
Ω accuracy	± 1% of reading ±3 digits (1)
Continuity sounder (Ω range only)	Toggled on & off by ))) button; Sounds when resistance < 50Ω
Input protection, Ω & diode-test	To 600 V, DC or sine wave RMS
Diode-test 3.2V max. open circuit, 0.3mA short-circuit	Reads forward-biased diode voltage to 2,000 mV
Diode-test accuracy	± 1% of reading ± 2 digits (1)

## Frequency Response

AC only V and A	LH1020 50 Hz – 400 Hz LH1025 50 Hz – 1000 Hz
DC V	DC only

## Display

Size and type	4000-count LCD 12mm / 0.5-inch characters
Status indication (as appropriate to model)	Low Battery, Data Hold, Pk (MAX Hold), AC, DC, Diode Test, Ω, ))) (Continuity)
Refresh rate	3 times per second

## Power Supply

Battery type	9 V Alkaline: MN1604, PP3 IEC 6LR61 or equivalent
Battery life (LH1025)	Typically 60 hours

## Mechanical Data

Dimensions (H x W x D):	260 x 98 x 52 mm 10.25 x 3.86 x 2.05 inches
Weight:	520 gm / 1.1 lbs
Jaw Capacity:	1 x 50 mm/ 1.97-inch Ø cables or 2 x 30mm/ 1.18-inch Ø cables
Jaw Opening:	52mm / 2.05 inches

## Environmental Data

Operating Temperature:	0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature:	-20° to 60° (-4 °F to 140 °F)

## Safety

All models comply with IEC1010-1, 600V working, Installation category III, Pollution degree 2.

## Maximum Safe Voltages

Current measurement (bare conductors)	600V AC RMS or DC between uninsulated conductor & ground
Voltage measurement	600V AC RMS or DC between input terminals or between live terminal & local ground.

## LEM

LEM offers a comprehensive range of electrical test products to ensure the safe and efficient operation of electrical equipment and installations. Other products from the LEM group includes systems and analysers for power quality and power quality monitoring and transducers for current and voltage measurement. LEM provides complete measurement solutions in current, voltage and power quality.

## Notes:

1. All accuracies stated at 23°C ± 1°C (73.4 ± 1.8°F)
2. True RMS measurements taken over 100ms
3. Dependant on duty cycle



LEM NORMA GmbH  
Export department  
Palmerstrasse 2  
A-2351 WIENER NEUDORF  
TEL: +43(0)2236 691 0  
FAX: +43(0)2236 63 080  
E-mail: lno@lem.com

GREAT BRITAIN & IRELAND  
LEM UK LTD  
Geneva Court  
1 Penketh Place  
West Pimbo  
Skelmersdale, Lancashire WN8 9QX  
TEL: +44(0)1 695 72 07 77  
FAX: +44(0)1 695 50 704  
E-mail: luk@lem.com

NAFTA  
LEM Instruments Inc.  
23822 Hawthorne Boulevard #100  
US-TORRANCE, CA 90505  
TEL: +1 310 373 09 66  
FAX: +1 310 373 90 56  
E-mail: liu@lem.com

NETHERLANDS  
LEM Nederland B.V.  
Rijzendeweg 5  
NL-4634 TV WOENSRECHT  
TEL: +31(0)16 46 154 62  
FAX: +31(0)16 46 166 06  
E-mail: lne@lem.com

BELGIUM & LUXEMBURG  
LEM Belgium sprl-bvba  
Route de Petit-Roeux, 95  
B-7090 BRAINE-LE-COMTE  
TEL: +32(0)67 55 01 14  
FAX: +32(0)67 55 01 15  
E-mail: lbe@lem.com

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