

## FEATURES

- 6000 Count large-scale LCD display with backlit
- AC-DC current measuring capability up to 300 A
- Automatically detect DCA/ACA with AC True RMS reading mode
- 10 mA Resolution
- 1.5% basic DCA/ACA accuracy
- Inrush Current Measurement for monitoring motor start-up current
- Smart Data Hold
- Low Pass Filter for variable speed drive applications
- DCA Zeroing
- Auto Power Off (20 min.)
- VoltSense™ feature (Non-contact voltage detecting)
- Up to 25 mm dia. Conductor size

# RS PRO Clamp Meter - ICMA1 Current Clamp Meter

RS Stock No.: 1233256



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

### RS PRO ICMA1 Current Clamp Meter

From RS PRO, this ICMA1 Clamp meter is a high performing solution for current measurement. The clampmeter utilises Hall Effect technology and nickel steel alloy jaws for precise measurement of ac and dc current up to 300 A.

It functions as a current meter and can measure inrush current and low pass filter.

Battery-powered for maximum portability, and with a large backlit screen, this current clamp meter is ideal for on-the-go applications in almost any environment.

It is also supplied in a carry case to keep the clampmeter safe and secure during transit.

## General Specifications

<b>Model Number</b>	ICMA1
<b>Clamp Meter Type</b>	Current Clamp
<b>Functions Measured</b>	AC Current, DC Current, Inrush Current, Low Pass Filter
<b>Display Type</b>	LCD
<b>Number of Display Digits</b>	6000 Count large-scale LCD display with backlit
<b>Sampling Rate</b>	4 times/sec
<b>True RMS</b>	Yes
<b>Auto power OFF</b>	Yes (20 min.)
<b>Temperature coefficient</b>	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C
<b>Applications</b>	Used for measuring high levels of current in service and maintenance applications. It can also be used when installing electrical equipment.

## Measurement

Parameter	Range	Accuracy	Resolution
<b>Absolute Current (AC)</b>	300A ac	±(1.5% rdg + 5dgts)	10mA
<b>Absolute Current (DC)</b>	300A dc	±(1.5% rdg + 5dgts)	10mA
<b>Absolute Temperature</b>	0°C to +50°C		

### Electrical Specifications

<b>Power Source</b>	Battery
<b>Battery Type</b>	A76, LR44
<b>Battery Life</b>	20 h
<b>Safety Category Level and Voltage</b>	CAT III 600V

### Mechanical Specifications

<b>Jaw Capacity (Busbars)</b>	25mm
<b>Maximum Conductor Size</b>	25 (Dia.)mm
<b>Dimensions</b>	60 x 31 x 147mm
<b>Width</b>	31mm
<b>Length</b>	60mm
<b>Height</b>	147mm
<b>Weight</b>	140g

### Operation Environment Specifications

<b>Altitude</b>	2000m (6562 ft)
<b>Relative Humidity</b>	0° C ~ 30° C, ≅ 80%RH 30° C ~ 40° C, ≅ 75%RH 40° C ~ 50° C, ≅ 45%RH
<b>Operating Temperature Range</b>	0° C ~ 30° C, ≅ 80%RH 30° C ~ 40° C, ≅ 75%RH 40° C ~ 50° C, ≅ 45%RH
<b>Storage Temperature Range</b>	--20 to +60°C, 0 to 80% RH (no batteries).

### Approvals

<b>Compliance/Certifications</b>	IEC 61010-1
<b>Declarations</b>	RoHS Certificate of Compliance

### Accessories Includes

Item Name	Qty
Button cells (installed)	1
User Manual	1
Carrying Pouch	1

### Similar Products

Stock No.	RS#1233228	RS#1233230	RS#1233252	RS#1233231
<b>Model Number</b>	ICM134	ICM20	ICM30R	ICM33II
<b>Clamp Meter Type</b>	Multifunction Clamp	Current Clamp	Multifunction Clamp	Multifunction Clamp
<b>Functions Measured</b>	AC Current, AC Voltage, Capacitance, Continuity, DC Current, DC Voltage, Diode Test, Resistance, Temperature	AC Current, Continuity, Diode Test		
<b>Display Type</b>	LCD	LCD	LCD	LCD
<b>Sampling Rate</b>	1.5 times/sec	2.5 times/sec	2.5 times/sec	4 times/sec
<b>Absolute Current (AC)</b>	600A ac	400A ac	300A ac	600A ac
<b>Absolute Current (DC)</b>	4mA dc		300A dc	
<b>Absolute Voltage (AC)</b>	750V ac		600V ac	600V ac
<b>Absolute Voltage (DC)</b>	1000V dc		600V dc	
<b>Temperature coefficient</b>	0.2×(spec. Acc'y)/°C 28°C	0° C ~ 30° C (≅ 80% RH) 30° C ~ 40° C (≅ 75% RH) 40° C ~ 50° C (≅ 45%RH)	0.2×(spec. Acc'y)/°C <18°C, >28°C	0° C ~30° C (≅ 80% R.H.), 30° C ~40° C (≅ 75% R.H.), 40° C ~50° C (≅ 45% R.H.)

**Specifications: (All at 23°C ±5°C, ≤80% R.H.)**

- Accuracy is ± (% reading + number of digits)
- Position Error of Clamp: ±1.5% of LCD reading

**DC Current:**

Range	OL Reading	Resolution	Accuracy
60.00A(1)	66.00A	0.01A	±(1.5% + 10D) (2)
300.0A	330.0A	0.1A	±(1.5% + 5D)

All specifications are valid from 5% to 100% of each range.

(1) There is less than 0.3A variation when measuring in different directions.

(2) Add 10D to accuracy in Auto AC & DC Sense Mode

**AC Current:**

Range	OL Reading	Resolution	Accuracy (50Hz~100Hz)	Accuracy (100Hz~400Hz)
60.00A	66.00A	0.01A	±(1.5% + 5D)	±(2.5% + 5D)
300.0A	330.0A	0.1A	±(1.5% + 5D)	±(2.5% + 5D)

All specifications are valid from 5% to 100% of each range.

LCD displays 0 counts when the reading < 20 counts.

Frequency Response: 50 ~ 400Hz (Sine Wave)

ACA specifications are ac coupled, true R.M.S. The crest factor may be up to 3.0 as 4000 counts.

For non-sinusoidal waveforms, Additional Accuracy by Crest Factor (C.F.):

Add 3.0% for C.F. 1.0 ~ 2.0

Add 5.0% for C.F. 2.0 ~ 2.5

Add 7.0% for C.F. 2.5 ~ 3.0

**Low-pass Filter:**

Range	OL Reading	Resolution	Accuracy (50 ~ 60Hz)
60.00A	66.00A	0.01A	±(3.5% + 5D)
300.0A	330.0A	0.1A	±(3.5% + 5D)

All specifications are valid from 5% to 100% of each range.

LCD displays 0 counts when the reading < 20 counts.

Cut-off Frequency (-3dB): Approx. 160Hz

Attenuation Characteristic: Approx. -24dB / Oct

**Inrush Current:**

Range	OL Reading	Resolution
300.0A	330.0A	0.1A


**Integration Time:** 100ms

**Trigger Current:** 5.0

**VoltSense™:**

**Voltage Range:** 80V ~ 600V (At the tip of the meter)

**General**

<b>Sampling Rate:</b>	2 times/sec
<b>Overload Indication:</b>	"OL" or "-OL"
<b>Low Battery Indication:</b>	
<b>Auto Power Off:</b>	Approx. 20 minutes after last operation
<b>Operating Temperature:</b>	0 °C ~ 30 °C ( $\leq 80\%$ RH) 30 °C ~ 40 °C ( $\leq 75\%$ RH) 40 °C ~ 50 °C ( $\leq 45\%$ RH)
<b>Storage Temperature:</b>	-20°C to 60°C, 0% RH to 80% RH (batteries not fitted)
<b>Temperature Coefficient:</b>	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C .
<b>Safety:</b>	IEC 61010-1: CAT III 600V
<b>Maximum Conductor Size</b>	25mm dia.
<b>Power Requirement:</b>	LR44 or A76 x 2 pcs button cell
<b>Battery Life: (Alkaline)</b>	20 hours for 60.00A or 300.0A range only
<b>Size:</b>	60mm(W) x 147mm(L) x 31mm(D)
<b>Weight:</b>	Approx. 140g (with battery)
<b>Accessories:</b>	Button cells (installed), User Manual and Carrying Pouch