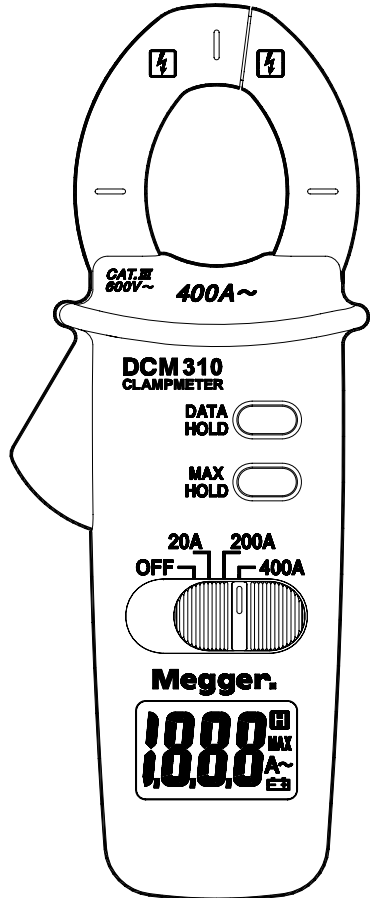


Megger.

DCM310 Clampmeter User Guide



⚠ Read First

⚠ Safety Information

- To ensure safe operation and service of the Meter, follow these instructions. Failure to observe warnings can result in severe **injury** or **death**.
- Avoid working alone so assistance can be rendered.
 - To enhance safety, test leads should be disconnected from instrument when not in use.
 - Do not use test leads or the Clamp Meter if they look damaged.
 - Do not use the Meter if the Clamp Meter is not operating properly or if it is wet.
 - Use the Clamp Meter only as specified in the Instruction card or the protection provided by the Clamp Meter might be impaired.
 - Special precautions are necessary when operating in situations where exposed live parts at dangerous voltages may be encountered. Personal protective equipment (not supplied with this instrument) should be used.

Symbols as marked on the Tester and Instruction card

⚠	Risk of electric shock
📄	See instruction card
🛡	Equipment protected by double or reinforced insulation
🔋	Battery
⚡	Earth
CE	Conforms to EU directives
🔌	Application around and removal from hazardous live conductors is permitted
🗑	Do not discard this product or throw away

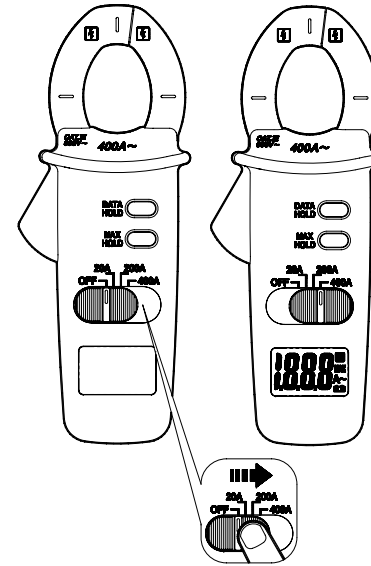
Maintenance

Do not attempt to repair this Clamp Meter. It contains no user-serviceable parts. Repair or serving should only be performed by qualified personal.

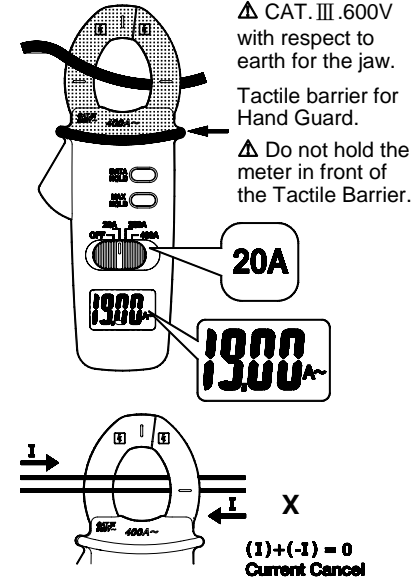
Cleaning

Periodically wipe the case with a dry cloth and detergent do not use abrasives or solvents.

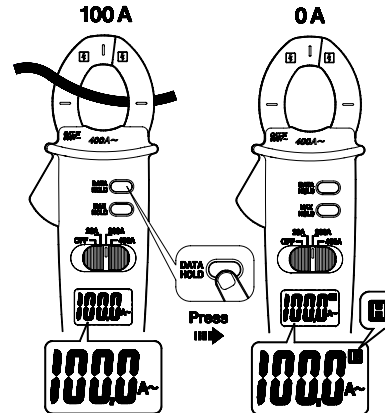
Power On / Off



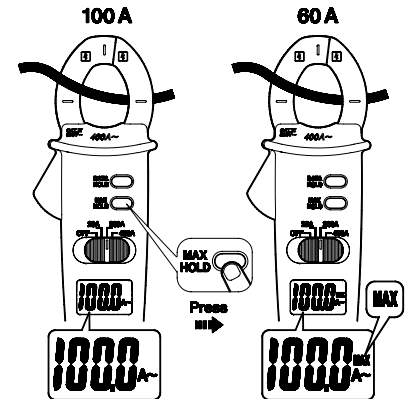
ACA 20A



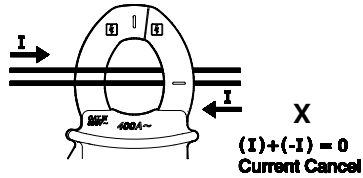
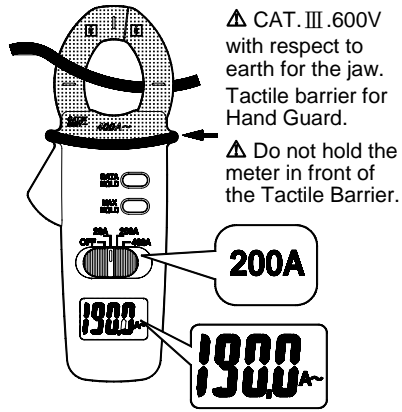
Data Hold



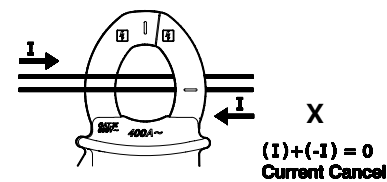
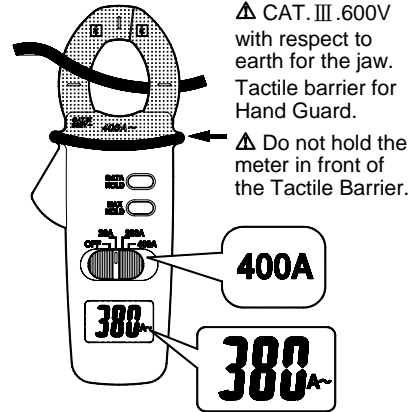
MAX Hold



ACA 200A



ACA 400A



Specifications

1-1 General Specifications

LCD display digits :

2000 digit large scale LCD readout.

Measuring rate : 2.5 times / sec.

Overrange display :

“OL” is displayed for “20A” and “200A” range, shows the real value when bigger than “400A” range.

Low battery indicator :

⊖ is displayed. Replace the battery when the indicator ⊖ appears in the display.

Power requirement :

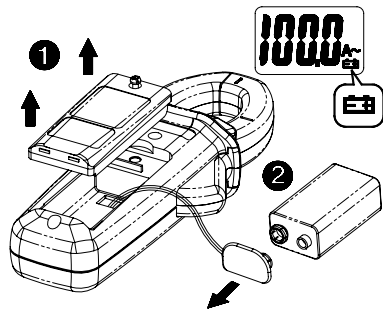
9V PP3/6LR61 battery.

Battery type and life :

ALKALINE 580 hours.

Rechargeable batteries are not suitable for use with this instrument.

Battery Replacement



1-2 Environmental Conditions

Indoor Use.

Calibration :

One year calibration cycle.

Operating temperature :

0°C ~ 30°C ($\leq 80\%$ RH)

30°C ~ 40°C ($\leq 75\%$ RH)

40°C ~ 50°C ($\leq 45\%$ RH)

Storage temperature :

-20 to +60°C, 0 to 80% RH (batteries not fitted).

Operating altitude : 2000m (6562 ft)

Overvoltage category :

IEC 61010-1 600V CAT. III,

CAT. III equipment is designed to protect against the transients in the equipment in fixed installations, such as distribution panels, feeders and short branch circuits and lighting systems in large buildings.

Conductor Size : 27mm diameter.

Pollution degree : 2

EMC : EN 61326-1

Shock vibration :

Sinusoidal vibration per MIL-T-28800E (5 ~ 55 Hz, 3g maximum).

Dimensions (W x H x D) :

56mm x 180mm x 32mm

Weight : 250g including battery.

Accessories : Battery (installed), Carrying case and User manual.

1-3 Electrical Specifications

Accuracy is \pm (% reading + number of digits) at 23°C \pm 5°C < 80%RH.

Temperature coefficient :

0.2 x (Specified accuracy) / °C, < 18°C, > 28°C.

AC Current

Function	Range	Accuracy
A~ (50-60Hz)	0 ~ 19.99A	$\pm(3.0\% + 0.05 \text{ A})$
	20.00~199.9A	$\pm(2.0\% + 0.5 \text{ A})$
	200~400A	$\pm(2.0\% + 5 \text{ A})$

Limited Warranty

This Meter is warranted to the original purchaser against defects in material and workmanship for 1 year from the date of purchase. During this warranty period, manufacturer will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction. This warranty does not cover disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling.

Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. The manufacturer shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expense or economic loss. Some states or countries laws vary, so the above limitations or exclusions may not apply to you.

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 Web www.megger.com

DCM310 and DCM320

Digital clamp meter



- **Current only and multimeter models**
- **Measures up to 400 A a.c. with low current ranges for improved resolution**
- **600 V ac/dc (DCM320)**
- **Max Hold (DCM310)**
- **20 M Ω Resistance (DCM320)**
- **IEC61010 CAT III 600 V**

DESCRIPTION

The DCM310 and DCM320 are ideal clamp meters for use during the installation, maintenance and checking of electrical systems and equipment.

Both meters will measure AC current (50 - 60 Hz) up to 400 A, with a Data-hold feature to freeze the displayed value for use in confined situations where the display may be difficult to read. The DCM310 also has a max-hold feature to automatically store and display the maximum value measured over a period of time.

The DCM320 has the benefit of measurement ranges for a.c. and d.c. voltages up to 600 V, and resistance up to 20 M Ω , via the terminals and supplied test leads. It also has a continuity buzzer that operates up to 20 Ω .

Both meters are safety rated to IEC 61010 CAT III 600 V, so offering high levels of protection to the operator. Carrying cases are included, and even without the case, the instruments are rated to withstand a 1.2 m drop onto a hard surface without damage.

The compact clamp jaw enables cables to be measured as large as 27 mm diameter, so covering the majority of applications within the electrical system installation industry.

Ideal for use by anyone working on basic electrical systems or equipment, these instruments are also suitable for the majority of applications encountered by the electrical contractor.

ADDITIONAL FEATURES

- **Data Hold**
- **Small pocket-size design**
- **Exceptional battery lifetime**
- **Supplied with carry case**

SPECIFICATION

All accuracies specified at 23°C ±5° 85% RH

DCM310		DCM320	
AC current (50 - 60 Hz)	Range	Accuracy	
	0-19.99 A	±3% ±0.05 A	0-40.0 A ±1.9% ±10 digits
	20.0-199.9 A	±2% ±0.5 A	40.0-200.0 A ±1.9% ±5 digits
	200-400 A	±2% ±0.5 A	201-400 A ±1.9% ±5 digits
Position error:	±1.5% of reading		
DC and AC volts	Ranges 0 - 200.0 V 200.0 - 600.0 V		
Accuracy	DC ±1.0% ±2 dgts	AC ±1.5% ±5 dgts (50-500 Hz)	
Continuity buzzer	On:	<20 Ω	
	Off:	>50 Ω	
	Response time:	<50 ms	
Resistance	Range	Accuracy	
	200.0 Ω	±1% ±5 digits	
	2.000 KΩ	±0.7% ±2 digits	
	20.00 KΩ	±0.7% ±2 digits	
	200.0 KΩ	±0.7% ±2 digits	
	2.000 MΩ	±1.0% ±2 digits	
20.00 MΩ	±1.9% ±5 digits		
Sample rate:	2.5 times per second	1.5 times per second	
Overrange display	"OL"		
Power requirements	1 x PP3 9 V alkaline battery	2 x AAA 1.5 A alkaline battery	
Battery life:	580 hours	200 hours	
Auto off:		10 mins. after power off	
Operating temperature	0 - 30°C	80% RH	
	30 - 40°C	75% RH	
	40 - 50°C	45% RH	

Applies to both clampmeters

Safety rating

IEC/EN61010-1 CAT III 600 V

Temperature coefficient

0.2 x (specified accuracy) / °C (<18 °C >28 °C)

Maximum conductor size

27 mm diameter

LCD

2000 digit large scale readout

Storage temperature

-20 °C - +60 °C (80% RH) (batteries removed)

Operating altitude

2000 m

EMC

IEC/EN 61326-1

Dimensions

DCM310 - 56 mm (W) x 180 mm (H) x 32 mm (D)

DCM320 - 56 mm (W) x 188 mm (H) x 28 mm (D)

Weight

DCM310 - 250 g including battery

DCM320 - 225 g including batteries

Warranty

1 year

ORDERING INFORMATION

Item (Qty)	Order Code	Item (Qty)	Order Code
DCM310-EN Digital clamp meter, 400 A a.c.	1000-303	Replacement test leads	
DCM320-EN Digital clamp meter, 600 V a.c. and d.c.; 20 MΩ	1000-304	Red/black test leads with croc clips	6220-779
Included accessories		Red/black fused test leads (500 mA) with croc clips	6220-789
Battery			
Pouch			
User guide			
Test leads (DCM320 only)			

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and Conjure THAILAND.

Registered to ISO 9001:2008 Cert no. Q 09250
Registered to ISO 14001:2004 Cert no. EMS 61597

DCM310_DCM320_DS_en_V04

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