

TRUE  
RMSCAT III  
600VCAT IV  
300V**Key features**

- Auto ranging from 6.000mA to 60.00A
- True RMS measurement
- Low pass filter and peak hold
- Shielded jaw for high repeatability
- Voltage, resistance & continuity
- Auto power off & low battery indicator
- Display backlight

The CM69 is a high performance TRMS AC Leakage Clamp meter with excellent low current capability able to resolve down to 1µA. This pocket sized clamp also measures AC/DC voltage and resistance.

The advanced jaw design minimises the influence of conductor position and shields against external fields from other conductors to give more accurate and consistent results. The CM69 is capable of accurate AC current measurement from 0.1mA right up to 60A with a resolution of 0.001mA in the 6mA range.

Peak hold, a switchable low pass filter and TRMS measurement make the CM69 ideal for many applications including:

- Troubleshooting of RCD nuisance tripping
- Periodic measurement of leakage current at 50Hz to check for insulation deterioration
- Accurate measurement of triplen neutral currents and other distorted waveforms
- Differential current measurement for appliance testing

Earth leakage clamps operate by clamping around both the live and neutral conductors and measuring the difference between the currents flowing, allowing the "leakage value" to be displayed. Alternatively clamping around the earth conductor will also display the earth leakage current, but this will not include leakage through any parallel earth paths.

### ELECTRICAL

#### AC Current (True RMS)

Range	Resolution	Accuracy	
		(50 to 60Hz)	60 to 500Hz or LPF selected
6mA	0.001mA	1.0% + 8	2.0% + 8
60mA	0.01mA	1.0% + 5	2.0% + 5
600mA	0.1mA		
6A	0.001A		
60A	0.01A		

Crest factor: 2.0

Overload protection: 100A DC or AC rms

Low pass filter:

Cut-off frequency: 160Hz approx

Attenuation characteristic: -24dB/octave approx

#### AC Voltage (True RMS)

Range	Resolution	Input impedance	Accuracy (50 to 500Hz)
60V	0.01V	2MΩ	1.0% + 3
600V	0.1V		

Crest factor: 2.0

Overload protection: 660V DC or AC rms

#### DC Voltage

Range	Resolution	Input impedance	Accuracy
60V	0.01V	2MΩ	1.0% + 2
600V	0.1V		

Overload protection: 660V DC or AC rms

#### Resistance

Range	Resolution	Open circuit voltage	Accuracy
600Ω	0.1Ω	2.2V DC	1.0% + 2
6kΩ	0.001kΩ		
60kΩ	0.01kΩ		
600kΩ	0.1kΩ		

Overload protection: 600V DC or AC rms

#### Continuity

Open circuit voltage	Audible indication
2.8V DC	<55Ω±10Ω

Overload protection: 600V DC or AC rms

All accuracies expressed as ± (percentage of reading + digits)

All specified accuracies are at 23°C ± 5°C, <80% RH for 1 year.

Temperature coefficient: Add 0.1 x (specified accuracy) per °C.

(0°C to 18°C, 28°C to 40°C).

### GENERAL

Display: Liquid crystal display with maximum reading 6000  
 Sample rate 2 times/sec  
 Polarity: automatic, positive implied, '-' for negative polarity indication  
 Overrange: (OL) is displayed

Power:

2 x 1.5V, AAA alkaline batteries (IEC LR03, NEDA 24A)

Battery life (alkaline):

40 hours typical for ACV, ACmA and ACA ranges

60 hours typical for DCV and resistance ranges

Low battery indication:  symbol is displayed

Auto power off: after 30 minutes

Jaw opening capability: 23mm

Dimensions: 206 x 76 x 33.5mm

Weight: 262g approx. including batteries

### ENVIRONMENTAL

Temperature & Humidity

(Operating): 0°C to 40°C <80% R.H., non-condensing

(Storage): -10°C to 60°C <70% R.H., batteries removed

Altitude: up to 2000m

Pollution degree: 2

### SAFETY

Conforms to: BS EN 61010-1, BS EN 61010-2-032, CAT IV 300V, CAT III 600V

Class II, double insulation

### EMC

Conforms to BS EN 61326-1

### SPECIFICATION FOR TL16 TEST LEADS

Maximum voltage: 1000V AC/DC

Maximum current: 10A continuous

Connector: 4mm banana plug with fixed shroud

### SAFETY

Conforms to BS EN 61010-031, CAT IV 600V, CAT III 1000V, 10A (Probe tip covers fitted), CAT II 1000V, 10A (Probe tip covers removed)

Class II, double insulation

#### Included

TL16 lead set, batteries, carry case, manual

#### Related products

TL45 lead set with croc clips, TL55 fused lead set with croc clips

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