

# DCM2033, 2039

## Digital Clampmeters



- **Excellent Price Performance**
- **Two Models 600 A and 1000 A**
- **Drop Proof**
- **EMC & IEC1010 Compliance**

### DESCRIPTION

The DCM clampmeters are the ideal instruments for use in the installation, maintenance, monitoring or checking of electrical systems and equipment.

There are two different current clamps in the DCM range covering many applications. The series starts with a volt plus current unit where the user needs the flexibility of being able to make voltage measurements as well as current measurements and a high current a.c./d.c. unit.

The traditional measuring method for taking current measurements by inserting a shunt resistor or a current transformer has inherent disadvantages, like the necessity to break the circuit conductor. These competitively priced clamp-on instruments offer the user many advantages depending on the unit selected such as the measurement of d.c. as well as a.c. currents or the capability of measuring voltages and resistances.

The DCM2033 can be used for measuring volts, resistance and current. It offers the flexibility of a multimeter with the advantages of a current clamp. The L.C.D. display has a readout of 4000 counts with measurement capabilities of up to 600 A, 600 V and 40 k $\Omega$ . This versatile model also features a continuity buzzer on the resistance range and a data hold button for freezing the reading.

The highest current unit available in the series is the DCM2039. This instrument has a specified accuracy for measurements to 1000 A but has an over-range capability of up to 2000 A. As the clamp incorporates Hall Effect technology it can measure d.c. currents as well as a.c. currents. Additional features are the peak hold button and the frequency counter which will measure frequencies between 20 Hz and 10 kHz.

### Safety

The tactile barrier indicates to the operator a safe working distance for his hand to be from live uninsulated conductors, providing added confidence when making measurements in hazardous voltage areas.

### APPLICATIONS

These current clamps can be used to simplify current measurements since there is no need to switch off or break the circuit carrying the current. Instead, the clamp jaws surround the conductor while it remains energised. This makes the units ideal for commissioning and maintenance work and for routine testing or fault finding in electrical machinery, plant equipment or on cable installations.

Typical applications include measuring current when balancing the load on three phase supplies or checking feeder lines in the electrical supply industry.

**FEATURES AND BENEFITS**

- Measurement of high current made easier by retaining the circuit intact
- a.c. & a.c./d.c. models for various applications
- Jaw size up to 51 mm diameter for large conductors
- Hand Guard designed for operator safety

	<b>DCM2033</b>	<b>DCM2039</b>
<b>a.c. CURRENT</b>		
Ranges	400 A, 600 A	400 A, 1000 A
Resolution	0,1 A	0,1 A
Accuracy	50Hz - 60Hz ±(1,9% rdg +5d), 0 - 400 A ±(2,9% rdg +5d), 400 - 600 A	40Hz - 400Hz ±(1,9% rdg +8d), 0 - 40 A ±(1,9% rdg +7d), 40 - 400 A ±(2,9% rdg +5d), 400 - 1000 A
Conversion Type	Average sensing RMS indicating	Average sensing RMS indicating
<b>a.c. VOLTAGE</b>		
Ranges	400 V, 600 V	
Resolution	0,1 V in the 400 V range:	
Accuracy	±(1,2% rdg + 5d), 40Hz - 500Hz	
Input Impedance	10 MΩ//<100pF	
Protection	a.c. 850 V rms	
Conversion Type	Average sensing RMS indicating	
<b>RESISTANCE</b>		
Ranges	4 kΩ, 40 kΩ,	
Resolution	1 Ω in the 4 kΩ range	
Accuracy	±(2% rdg +9d)	
Overload Protection	500 V rms	
<b>CONTINUITY TEST</b>		
Threshold	<200 Ω approximate	
Indicator	2 kHz tone buzzer	
<b>d.c. CURRENT</b>		
Ranges		400 A, 1000 A
Resolution		0,1 A
Accuracy		±(2,9% rdg +8d), 0 - 40 A ±(1,9% rdg +4d), 40 - 400 A ±(2,9% rdg +5d), 400 - 1000 A
<b>FREQUENCY COUNT</b>		
Ranges		20 Hz to 10 kHz
Accuracy		±(0,5% rdg+ 3d)
<b>GENERAL</b>		
Display	4000 count L.C.D.	4000 count LCD
Measuring Rate Times per second	4 T/sec	2 T/sec
Position Error		
Output Voltage a.c./d.c., 10 mV/A in 100 A, 1 mV/A in 600 A		
Type of Sensing	• current transformer	• Hall Effect (for a.c. & d.c.)
Overrange indication	"OL"	"OL"
Low Battery Indicator	+ -	+ -
Auto Power	30 minutes non-use	30 minutes non-use
Operating Temperature	0°C ~ 45°C, <75% R.H.	
Storage Temperature	-20°C ~ 60°C, <80% R.H.	
Temperature Coefficient	0,2 x (spec. Acc'y)/°C, <18°C or >28°C	
Shock Proof	4 feet drop	
Safety: Designed to IEC1010 -2:032	600 V Cat. II to Earth	1 kV Cat. III
Maximum Conductor size	dia.40mm	dia.51 mm
Maximum Jaw Opening	42mm	53 mm
Maximum Busbar Size		24 x 60 mm
Power Requirement	9 V PP3 (IEC 6LR61)	9 V PP3 (IEC 6LR61)
Battery Life (Alkaline battery)	200 hrs	40 hrs
Size W x L x D in mm	88 x 215 x 36	106 x 240 x 40
Weight	320 g	420 g

**ORDERING INFORMATION**

<b>Item</b>	<b>Order Code</b>	<b>Included Accessories</b>
600 A Current Clamp Multimeter	DCM2033	Test Leads (DCM 2033 only)
1000 A a.c./d.c. Clampmeter	DCM2039	Holster

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