DCM340
Digital clampmeter

- **DC and AC current and voltage**
- **600 A and 600 V**
- **Resistance and continuity**
- **3½ digit, 4000 count display with backlight**
- **High resolution digital bargraph**
- **Peak, min/max and data-hold functions**

DESCRIPTION

The DCM340 is a highly versatile instrument and ideal for use in the installation, maintenance, monitoring or checking of a.c. or d.c. electrical systems and equipment.

There are four instruments in the DCM series of clampmeters, including the 400 A a.c. current-only DCM310; the DCM320 which includes voltage and resistance measurement; the DCM330 Fork-Multimeter, which is an open fixed jaw design; and this, the DCM340. Capable of measuring a.c. and d.c. current up to 600 A; a.c. and d.c. voltage up to 600 V; resistance up to 400 Ω; and frequency up to 400 Hz, the DCM340 is the most versatile in the range.

Current measurement combined with the comprehensive and accurate multimeter functions of the DCM340 eliminate the need to carry around both a clampmeter and multimeter – this instrument does it all.

The large clear digits of the numeric display are complemented by the high-resolution digital bar graph, useful for indicating trending and fluctuation of measurement. The backlight assists use in poorly lit areas such as distribution cupboards and corners of switchrooms; and the data-hold feature enables use on difficult access cables where otherwise the display may be impossible to see.

Min/Max hold provides the ability to store the maximum and minimum d.c. or rms values over a period of time. While storage is taking place, either the present, maximum or minimum value can be displayed. Peak hold stores the maximum and minimum peak value of an a.c. signal at a 10 ms sample rate. The auto-off feature automatically places the meter in power-save mode after 30 minutes from power-on, but this can be disabled if required for min/max measurements.

Using the Relative mode (REL), a stable value can be stored, the instrument zeroed at that point, and then any variation from that value is displayed as a direct measurement relative to it.

The DCM340 is safety rated to IEC 61010-1 Cat III 600 V, and is drop-tested to 1.2 m onto a hard floor. It is supplied with test leads and a carry case, and a full 1-year manufacturer's warranty.

APPLICATIONS

The DCM340 is designed to be used on electrical systems and equipment where there is a need to measure current, volts, resistance and frequency. It is therefore intended for use while installing, maintaining, fault-finding or monitoring those systems.

The min/max and peak-hold enable maximum load currents from equipment to be identified such as start-up currents to motors and heaters.

With the added benefit of d.c. current measurement, it can also be used in applications including domestic power generation from solar panels and wind-turbines; battery monitoring; automotive uses for charging and load circuits; electric vehicle servicing such as fork-lift trucks; lift maintenance; UPS commissioning, servicing and maintenance; electro-plating plants and welding equipment servicing.

SPECIFICATION

Base specifications only. For detailed specification, refer to User Guide

All accuracies specified at 23°C ±5° <80%Rh

AC Current

Range	Accuracy 50 - 60Hz	Accuracy 61 - 400Hz
0-60.0 A	±1.9% ±7 digits	±2.5% ±7 digits
60.0 - 400.0 A	±1.9% ±5 digits	±2.5% ±5 digits
400 - 600 A	±2.5% ±5 digits	±2.9% ±5 digits

DC Current

Range	Accuracy
0 - 60.0A	±1.5% ±10 digits
60.0 - 400.0A	±1.9% ±5 digits
400 - 600 A	±1.9% ±10 digits

Voltage

Range	50 - 500Hz Accuracy	DC Accuracy
0 - 400.0 V	±1.0% ±5 digits	±0.7% ±2 digits
400 - 600 V	±1.0% ±5 digits	±0.7% ±2 digits

Input impedance: 1 MΩ // < 100pF

Resistance and Continuity

Range	Accuracy
0 - 400.0 Ω	±1% ±3 digits

Open circuit voltage: 3 V

Continuity Check: beeper sounds @ < 30 Ω

Frequency

Range	Resolution	Accuracy
20 - 400 Hz	1 Hz	±0.1 % ±2 digtits

Sensitivity: 3 A

Peak Hold: ±3% ±15 digits

Sample time: 10 ms

MIN/MAX Hold: add 15 digits to accuracy for a.c. & d.c. A

Positional error: ±1% of reading

Overload protection: 600 V & 600 A rms

AC conversion: Average sensing rms indication calibrated to the rms value of a sine wave input

Auto power-off: 30 minutes after power-on

LCD

Display: 3½ digit large-scale readout

Count: 40,000

Sample Rate: 1.5 per second

Overrange: "OL"

Power Requirement

1 x 9V PP3 MN1604 6LR61 alkaline cell

Battery life: 200 hours (alkaline)

Operating Temperature

0°C - 30°C <80% Rh

30°C - 40°C <75% Rh

400°C - 50°C <45% Rh

Storage Temperature

-20°C - +60°C (<81% Rh)

(batteries removed)

Safety

Overvoltage safety category: IEC 61010-1 600V CAT III

Operating Altitude: 2000 m

Drop-protection: 1.2 m onto a hardwood surface

Jaw size/maximum conductor: 35 mm diameter

Calibration period: 12 month recommended

Dimensions 68 mm (W) x 237 mm (H) x 42 mm (D)

Weight 225 g including batteries

ORDERING INFORMATION

Item (Qty)	Order Code
DCM340 Digital clampmeter; 600 A ac & dc; 600 V a.c. & d.c.; 400 Ω; 400Hz	1000-305
Included accessories	
Batteries	
Pouch	
Test leads	
User guide	
Replacement test leads	
Red/black test leads with croc clips	6220-779
Red/black fused test leads (500 mA) with croc clips	6220-789

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Registered to ISO 14001-1996 Cert no. EMS 61597