

# MMC850

## Multi-core AC digital clamp meter



- **Single, two or three core cable measurement**
- **Flat or round section cables**
- **No need to split wires**
- **Cable centralising clamp**
- **Backlit display**
- **50Hz and 60Hz supplies**
- **IEC 1010-2-032, CAT III 600 V safety protection**

### DESCRIPTION

The NEW Megger MMC850 offers a unique solution to current measurement in multi-core cables, without the need to split cores. Simply clamp the MMC850 to a multicore cable and read the current flowing.

Conventional current clamp meters have been available for many years and are an accepted method of non-intrusive current measurement. However these instruments can only measure current in a single core cable, requiring multi-core cables to be split before a core can be measured.

Unlike conventional clamp meters, the MMC850 has a complex array of Planer magnetic sensor coils to calculate the current flowing in the conductors of multicore cables with either 2 or 3 cores, and in either flat or round section cable, up to 100 A. The convenience and potential time saving from using the multi-core clamp is considerable.

A single button switches the clamp between multi-core and single core operation, ensuring the MMC850 is the only clamp meter you need to carry.

The MMC850 has a tough and lightweight clamp head, allow good access to awkward locations and cables.

The inner jaw clamp centralises the cable to be measured ensuring best accuracy.

The MMC850 is suitable for supply frequencies from 45Hz to 400Hz. Current measurement to 200 A on single core and 100 A on multi-core cables is possible, with a resolution to 0.1 A, so covering the majority of power applications including Military/Aviation.

### SAFETY

The tough case is manufactured in ABS and the contoured design fits comfortably in the hand with a positive finger guard.

The MMC850 meets the requirements of IEC1010-2-032, Cat III 600 V, and is rated as safe for connection and disconnection to live conductors.

### APPLICATIONS

Use it anywhere where you want to measure current without breaking a circuit or splitting cables. The MMC850 can also be used in place of traditional clamp meters, when commissioning, or for general maintenance work in electrical machinery and installations.

In many applications, the indication of voltage alone is insufficient to verify that an appliance is working.

For instance, having fitted a new thermostat to a water heater, a neon may indicate voltage, but the element may be open-circuit. With the MMC850 you can verify and measure the current simply by clamping round the outer cable sheath.

When fault-finding, a voltmeter may indicate a voltage at the terminals of a single-phase motor, but not help diagnose the problem any further. With the MMC850, the distinction may be made between a high current potentially indicating a shorted winding or locked rotor and an open-circuit fault, such as a disconnected termination or burnt-out winding.

**OPTIMISED CABLE TYPES**

The advanced measuring techniques used by the MMC850 enables the measurement of current in 1-, 2- or 3-core cables of most configurations. It is optimised for the most commonly encountered cable types (see table), and will give an approximation of the current in others.

**Optimised Cables**

**European**

- H05VV-F (3-core) 1.5mm<sup>2</sup>
- H05VV-F (3-core) 2.5mm<sup>2</sup>
- A05VVH2-RU 2.5mm<sup>2</sup>
- A05VVH2-RU 4.0mm<sup>2</sup>
- A05VVH2-RU 6.0mm<sup>2</sup>
- H05VV-F (2-core) 0.75mm<sup>2</sup>
- H03VV-F (2-core) 0.75mm<sup>2</sup>
- T4 6004 (Flat Triple) 2.5mm<sup>2</sup>
- T4 6004 (Flat Triple) 3.5mm<sup>2</sup>
- T4 6004 (Flat Triple) 10mm<sup>2</sup>
- T4 6004 (Flat Triple) 16mm<sup>2</sup>
- 6193Y (Flat Triple) 1.5mm<sup>2</sup>
- 6193Y (Flat Triple) 2.5mm<sup>2</sup>
- 6193Y (Flat Triple) 4.0mm<sup>2</sup>

**North American**

- 1277 CVTC Wire 12 AWG
- 1277 CVTC Wire 10 AWG
- 1277 CVTC 2 Wire Flat D10
- 1277 CVTC 2 Wire Flat D14
- 1277 CVTC 2 Wire Flat D16
- 1277 CVTC 2 Wire Flat D18
- 1277 CVTC 2 Wire 10 AWG
- 1277 CVTC Wire 14 AWG
- 1277 CVTC Wire 18 AWG
- 1277 CVTC Wire 16 AWG
- 1277 VNTC 3 Wire 10 round

- 1277 VNTC 3 Wire 18 round
- 1277 CVTC 3 Wire 16 AWG
- 1277 VNTC 3 Wire 16 round
- 1277 VNTC 3 Wire 12 round
- 62 SO 2 wire round 14 AWG
- 62 SO 3 wire round 14 AWG
- 1277 CVTC 3 Wire 12 AWG
- UF-B Unshielded 12 AWG
- UF-B Unshielded 10 AWG
- NM-B Unshielded 14 AWG
- SPT-2 Insulated 18 AWG

**SPECIFICATIONS**

(at 23° C ±5° C : < 80% RH)

**ac Amps Mode**  
**Range**  
**Resolution**  
**Accuracy**  
**Frequency Response**

**Single-Core Mode**

200 A  
0.1 A  
1.5% + 3 d  
45 hz - 1 kHz

**Multi-Core Mode**

100 A  
0.1 A  
5% + 10 d  
45 hz - 400 Hz

**Frequency**

45Hz to 400Hz

**Battery**

Single PP3 9V Alkaline

**Battery life**

180hrs typical

**Main jaw capacity**

13mm (0.51")

**Inner jaw capacity**

22mm (0.87")

**Display**

3<sup>1</sup>/<sub>2</sub> digit  
2000 count

**Refresh**

3 times/sec

**Operating temp**

0° C to +40° C

**Storage temp**

-20° C to +60° C

**Altitude**

2000m

**Dimensions**

H 227 mm x W 94 mm x D44.5mm  
(8.94" x 3.7" x 1.75")

**Safety**

IEC1010-2-032  
CATIII 600 V

**EMC**

EN61326: 1997 Am:1998 Am:2001

The MMC850 is supplied complete with carry case and user guide.

**ORDERING INFORMATION**

Item (Qty)	Cat No.
MMC850 Multicore Clampmeter	MMC850-EN