

# True RMS 1000A AC Power Clamp Meter



## Technical Data

### MT790

The MT790 is a three phase handheld digital power clamp meter. The meter can measure voltage, current, active power, apparent power, reactive power and phase angle.

#### Features Include:

- True RMS
- Ø55mm Cable
- Measures AC current up to 1000 Amps
- Measures AC voltage to 750V
- USB interface
- Analysis for single phase and balanced three phase system
- Manual data memory
- KW/KVA/KVAC/Pf

#### General Specifications

|                        |                                                                                                                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clamp Size             | : Opening 1.2" (30mm) approx                                                                                                                                                                                                    |
| Diode Test             | : Test current of 0.3mA typical; Open circuit voltage 1.5 DC typical.                                                                                                                                                           |
| Continuity Check       | : Threshold <100Ω; Test current < 1mA                                                                                                                                                                                           |
| Low Battery Indication | : "BATT" is displayed                                                                                                                                                                                                           |
| Overrange Indication   | : "OL" is displayed                                                                                                                                                                                                             |
| Measurement Rate       | : 2 per second, nominal                                                                                                                                                                                                         |
| Input Impedance        | : 7.8MΩ (VDC and VAC)                                                                                                                                                                                                           |
| Display                | : 4000 counts LCD                                                                                                                                                                                                               |
| AC Current             | : 50/60Hz True RMS (AAC)                                                                                                                                                                                                        |
| AC Voltage bandwidth   | : 50/60Hz True RMS (VAC)                                                                                                                                                                                                        |
| Operating Temperature  | : -10 to 50°C (14 to 122°F)                                                                                                                                                                                                     |
| Storage Temperature    | : -30 to 60°C (-14 to 140°F)                                                                                                                                                                                                    |
| Relative Humidity      | : 90%(0°C to 30°C); 75%(30°C to 40°C); 45%(40°C to 50°C)                                                                                                                                                                        |
| Altitude               | : Operating: 3000m; Storage 10 000m                                                                                                                                                                                             |
| Over Voltage           | : Category III 600V                                                                                                                                                                                                             |
| Battery                | : One "9V" Battery                                                                                                                                                                                                              |
| Auto Off               | : Approx 35 minutes                                                                                                                                                                                                             |
| Dimensions/Weight      | : 229 X 80 X 49mm/303g                                                                                                                                                                                                          |
| Safety                 | : For indoor use and in accordance with Overvoltage Category II,<br>Pollution Degree 2. Category II includes local level, appliance, portable<br>equipment, etc., with transient overvoltages less than Overvoltage<br>Cat. III |



| Measurement                                          | Range and Resolution                                      | Accuracy (% of reading)                                 |
|------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------|
| <b>DC Current</b>                                    | 1000 ADC                                                  | ± (1.8% + 5 digits)                                     |
| <b>AC Current</b>                                    | 1000 AAC                                                  | ± (2.0% + 5 digits)                                     |
| <b>DC Voltage</b>                                    | 400.0 mVDC                                                | ± (0.8% + 3 digits)                                     |
|                                                      | 4.000 VDC                                                 | ± (1.5% + 3 digits)                                     |
|                                                      | 40.00 VDC                                                 |                                                         |
|                                                      | 400.0 VDC                                                 |                                                         |
|                                                      | 600 VDC                                                   | ± (2.0% + 3 digits)                                     |
| <b>AC Voltage</b>                                    | 400.0 mVAC                                                | ± (0.8% + 20 digits)                                    |
|                                                      | 4.000 VAC                                                 | ± (1.8 % + 5 digits)                                    |
|                                                      | 40.00 VAC                                                 |                                                         |
|                                                      | 400.0 VAC                                                 |                                                         |
|                                                      | 600 VAC                                                   | ± (2.5% + 5 digits)                                     |
| <b>Resistance</b>                                    | 400.0Ω                                                    | ± (1.0% + 4 digits)                                     |
|                                                      | 4.000KΩ                                                   | ± (1.5% + 2 digits)                                     |
|                                                      | 40.00KΩ                                                   |                                                         |
|                                                      | 400.0KΩ                                                   |                                                         |
|                                                      | 4.000MΩ                                                   | ± (2.5% + 3 digits)                                     |
|                                                      | 40.00MΩ                                                   | ± (3.5% + 5 digits)                                     |
| <b>Frequency</b>                                     | 5.000Hz                                                   | ± (1.5% reading + 5 digits)                             |
|                                                      | 50.00Hz                                                   | ± (1.2% reading + 2 digits)<br>Sensitivity: 10Vrms min. |
|                                                      | 500.0Hz                                                   |                                                         |
|                                                      | 5.000kHz                                                  |                                                         |
|                                                      | 50.00kHz                                                  |                                                         |
|                                                      | 100.0kHz                                                  |                                                         |
| <b>Duty Cycle</b>                                    | 0.5 to 99.0%                                              | ± (1.2% reading + 2 digits)                             |
|                                                      | Pulse width: 100µs - 100ms, Frequency; 5.000Hz ~ 100.0kHz |                                                         |
| <b>AC WATT</b><br>(0 - 250V, 0 - 400A, 50/60Hz TRMS) | 40KW                                                      | ± (2.5% + 5 digits)                                     |
| <b>AC WATT</b><br>(0 - 600V, 0 - 400A, 50/60Hz TRMS) | 240KW                                                     | ± (2.5% + 5 digits)                                     |
| <b>DC WATT</b><br>(0 - 250V, 0 - 400A)               | 40KW                                                      | ± (2.0% + 5 digits)                                     |
| <b>DC WATT</b><br>(0 - 250V, 0 - 400A)               | 240KW                                                     | ± (2.0% + 5 digits)                                     |

## Ordering Information

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