## MI 2230 VAFMeter



MI 2230 VAFMeter is handheld multifunction instrument which can accurately measure voltage, current, power, harmonic distortion and phase angles in single, two and three phase systems.

## MEASURING FUNCTIONS

- TRMS Two channel voltage measurements, up to 600 Vac
- TRMS Two channel current measurements, up to 3000 Aac
- U-U, I-I, U-I angle measurement, phase diagram
- Support for three-phase (Aaron) systems
- Active, reactive and apparent power, PF, cos , THD, frequency
- Continuity/resistance of conductors with 200 mA test current with polarity change and with pass/fail functionality


## KEY FEATURES

- Simultaneous measurement and display of voltage, current phase angles and frequency on two or three-phase systems
- Accurate phase angle measurement at low current levels
- Easy to use: large bright LCD display and large buttons enable easy handling of the instrument
- Memory storage for storing up to 1500 measurements
- Safe: built for CAT II / 600V environments
- Portable: rugged carrying case with a handle and lightweight design enable easy moving the instrument between sites.
- Built in charger \& rechargeable batteries: instrument has a built-in charging circuit and comes with a set of rechargeable NiMH batteries.
- Downloadable: downloads test results via RS232 or USB cable directly to the PC with the help of the Metrel EuroLink software.


## TYPICAL APPLICATIONS:

- VAFMeter instrument is designed to be used in general electrical systems maintenance and commissioning, protective relay testing, electrical machine repairs or in monitoring power at the electrical service entrance.
- For meter installations, unit measures phase-to-phase voltage and single-phase current amplitudes and phase angles.
- Combined with a voltage or current source, instrument also becomes an excellent tool for testing and calibrating virtually any type of protective relay.

Voltuge,
current frequenay and phase angle meter


## APPLICATIONS

- Protection relays testing
- Instrument transformers testing
- Power measurement
- Continuity measurement


## STANDARDS

Functionality:

- IEC 61000-4-7
- IEC 61557-12

Electromagnetic compatibility:

- IEC 61326-1
- IEC 61326-2-2

Safety (LVD):

- EN 61010-1
- EN 61010-031


## Technical Specification

| Function | Measuring range | Basic accuracy |
| :---: | :---: | :---: |
| Voltage | 6 V ... 600 V | $\pm(0,5 \%$ of reading +3 digits |
| $\begin{aligned} & \text { Current } \\ & \text { A 1398-10 A } \\ & \text { A 1395-30 A } \\ & \text { A 1395-300 A } \\ & \text { A } 1395-3000 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 0.1 \mathrm{~A} \ldots 20 \mathrm{~A} \\ & 3 \mathrm{~A} \ldots 30 \mathrm{~A} \\ & 30 \mathrm{~A} \ldots 300 \mathrm{~A} \\ & 300 \mathrm{~A} \ldots 3000 \mathrm{~A} \end{aligned}$ | $\pm(1.5 \%$ of reading +2 digits) <br> $\pm$ ( $1.5 \%$ of reading +2 digits) <br> $\pm(1.5 \%$ of reading +2 digits) <br> $\pm$ (1.5 \% of reading +2 digits) |
| Phase angle | $-180.0 \ldots+180.0$ | $\pm 0.5^{\circ}$ |
| Power <br> Active <br> Reactive <br> Apparent | 0.000 W ... 9999 kW 0.000 VAr ... 9999 kVAr 0.000 VA ... 9999 kVA | $\begin{aligned} & \pm(1.5 \% \text { of reading. }+4 \text { digts }) \\ & \pm(1.5 \% \text { of reading. }+4 \text { digts) } \\ & \pm(1.5 \% \text { of reading. }+4 \text { digts }) \end{aligned}$ |
| PF | -1.00 ... 1.00 | $\pm 0.04$ |
| Cos $\phi$ | $0.00 \ldots 1.00$ | $\pm 0.04$ |
| THD | 0.0 ... 20.0 \% | $\pm 0.5$ |
| Resistance | $\begin{aligned} & 0.0 \Omega \ldots 19.9 \Omega \\ & 20.0 \Omega \ldots 199.9 \Omega \\ & 200 \Omega \ldots 1999 \Omega \end{aligned}$ | $\pm$ (3 \% of reading +3 digits) <br> $\pm(5$ \% of reading) <br> $\pm(5$ \% of reading) |
| Continuity | $\begin{array}{\|l\|l\|l\|} \hline 0.0 \Omega \ldots & 19.9 \Omega \\ 20 \Omega & \ldots & 1999 \Omega \end{array}$ | $\pm(5 \%$ of reading +3 digits) <br> $\pm(5 \%$ of reading +3 digits) |

## METREL

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Ordering information
Standard set
MI 2230 F


- Instrument MI 2230 VAFMeter
- Test lead $4 \times 1.5 \mathrm{~m}$
- Test probe, 4 pcs
- A 1395 Flexible current clamps 30 A / 300 A / 3000 A
- Crocodile clip, 4 pcs
- Set of NiMH battery cells
- Power supply adapter
- Instruction manual
- Calibration Certificate
- CD with instruction manual, PC Software EuroLink
- Set of carrying straps
- Soft carrying bag


## Optional accessories

| Photo | Order No. | Decription |
| :---: | :---: | :---: |
|  | A 1398 | 10 A current clamps |

