

## MAR83s

### Three-Phase Power Quality Analyzer

Measures and calculates the main electrical parameters: voltage, current, frequency, active and reactive power, power factor, total harmonic distortion (THD), neutral current and phase sequence



Image merely illustrative.

#### Features

- Single-phase or three-phase balanced / unbalanced
- Simultaneous three-phase (real-time) measurement of the three phase currents and the neutral current (with four sensors)
- Voltage measurement up to 500 V
- Current measurement up to 5 A (optional clamps), 600 A or 3000 A (Rogowsky coils, flexibles, optionals)
- Active power
- Reactive power
- Frequency
- Phase sequence
- Harmonics (THD)
- Graphic display of 128 x 64 px
- Built-in rechargeable battery
- IP54 protection (with closed lid)

#### Description

The **MAR83s** is a portable instrument that measures and calculates the main electrical parameters of industrial networks: voltage, current, frequency, active and reactive power, power factor, total harmonic distortion (THD), neutral current and phase sequence, in balanced / unbalanced single-phase or three-phase networks.

The automatic detection system of the current sensor type (clamps or Rogowsky coil) that is being used eliminates the need to program the constant, avoiding operating errors.

The equipment is small, lightweight, robust and easy to transport. For technicians and the electrical maintenance sectors, it is an extremely powerful tool for evaluation the quality of the energy supply, as well as for the design of reactive and harmonic compensation systems in consumption.



Image merely illustrative. Optional current clamps.

## Technical specifications

# MAR 83s

### INPUT

4 voltage / 4 current

### VOLTAGE MEASUREMENT

50 - 500 Vac

### RESOLUTION

0.1 V

### ACCURACY IN VOLTAGE MEASUREMENT

0.5%  $\pm$  2 digits

### CURRENT MEASUREMENT

Up to 5 A (optional clamp)

Up to 600 A (optional Rogowsky coils)

Up to 3000 A (optional Rogowsky coils)

### RESOLUTION

0.01 A (with sensor up to 5 A)

### CURRENT MEASUREMENT ACCURACY

0.5%  $\pm$  2 digits

### FREQUENCY MEASUREMENT

45 - 65 Hz

### ACTIVE POWER MEASUREMENT

Up to 1.5 MW per phase (current sensor dependant)

### RESOLUTION

1 W (with sensor up to 5 A)

### REACTIVE POWER MEASUREMENT

Up to 1.5 MVAR per phase (current sensor dependant)

### RESOLUTION

1 VAR (with sensor up to 5 A)

### ACCURACY IN POWER MEASUREMENT

1%  $\pm$  2 digits

### POWER FACTOR MEASUREMENT

-1.00 to 1.00

### RESOLUTION

0.01

### PHASE SEQUENCE

Direct or inverse sequence indication

### ENVIRONMENTAL PROTECTION INDEX

IP54 (with closed lid)

### SAFETY

Meets the requirements of IEC 61010-1

### OPERATING TEMPERATURE RANGE

-10 °C to 50 °C

### STORAGE TEMPERATURE RANGE

-25 °C a 65 °C

### HUMIDITY RANGE

95 % RH (non condensing)

### POWER SUPPLY

Internal NiMH rechargeable battery, 6 x HR6 (AA)

### BUILT-IN BATTERY CHARGER

AC adapter 12 V - 1 A or 5 V - 2 A

### DISPLAY

Graphic LCD of 128 x 64 px

### EQUIPMENT WEIGHT

Approx. 1.7 kg

### DIMENSIONS

221 x 189 x 99 mm

## Included accessories

- 4 voltage test leads
- AC adapter
- Carrying bag
- User manual

## Available accessories

- Set of 3 clamps for measuring phase currents up to 5 A
- Clamp for measuring neutral current up to 5 A
- Set of 3 or 4 Rogowsky coils for measuring currents up to 600 A
- Set of 3 or 4 Rogowsky coils for measuring currents up to 3000 A