

# DIGITAL PHASE ANGLE METER

▶ **PME-20-PH**



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# PME-20-PH



## Digital Phase Angle Meter



### STANDARD ACCESORIES

- 1 Battery charger
- 4 NiMH Batteries
- 4 Test Connection cables, 2 m. length
- 4 Crocodile Clips
- 1 Nylon Protection Bag
- 1 Instruction Manual

### OPTIONAL ACCESORIES

- External adapter up to 750 V RMS
- Current clamp 1000/5 A

### TECHNICAL SPECIFICATION

Inputs:	Voltage Input: 0.2 to 500 V RMS Current Input: 0.1 to 25 A RMS Number of Inputs: 2 Voltages or Currents
Phase Angle Measurement:	Measurement Range - Mode 1: 000.0 to 359.9° Measurement Range - Mode 2: 000.0 a ± 180.0° Resolution: 0.1° Accuracy: ± 0.1°, ± 1 digit in all the input range* Angle direction measurement: Can be configured as lagging or leading
Frequency Measurement:	Measurement Range: 40.00 to 500.0 Hz Resolution: 0.001 Hz Accuracy: ± 0.002 Hz
LCD Graphic Display:	Color: Black and White Back light: Yes Contrast: Adjustable Battery Charge Indicator: Yes Dimensions: 62 x 44 mm.
Temperature:	Working Range: 0 to 50° C Storage Range: -10 to 70° Celsius
Batteries:	Type: NiMh Size: Standard AA Capacity: 1500 mA/Hour Number required: 4 Duration: 3 hours of use Recharge Time: 6 hours
Dimensions:	Height: 226 mm / 9" - Width: 115 mm / 4,5" - Depth: 45 mm / 1,8"
Weight:	0.65 kg / 1.45 lb (including batteries)

\* Between 10% and 100% of the input range

### DESCRIPTION

Based on microprocessor technology, the PME-20-PH is an instrument designed mainly as a phase angle meter, although other parameters, such as Frequency and Power Factor can be measured. The instrument has an analogic scale that enables it to be used as a synchroscope.

The instrument is mounted in a high resistance plastic box, reduced in size and weight. The instrument has two inputs, which are individually isolated galvanically. This allows for a voltage input up to 500 V RMS and current input up to 25 A RMS, to be connected directly into the input taps. It is not necessary to change measurement ranges and scales. The phase angle is measured between these 2 inputs, with a resolution of 0.1°, regardless of the input values, magnitude (Voltage, Current), or the combinations used.

With external optional accessories the input values can be raised up to 750V and 1000 A.

The instrument is powered with 4 rechargeable batteries, with a capacity of 1.5 V and 1500 A/H, having a use of 6 hours, with a recharge time of 3 hours. An External battery charger is supplied with the instrument.

There is an RS-232 port connector that enables the instrument to be connected to a computer to be calibrated, to download measurements, and update the internal firmware, with corresponding software.

As well, there is a BUS PME connector, which enables the equipment to be connected to other equipment in the PME Range, enhancing the application of the instrument.

The display is a Graphic LCD, with a back light that can be adjusted to suit the ambient conditions. The measurement results are presented simultaneously with the necessary complimentary data, and in the case of the Power Factor measurement, the instrument indicates the phase angle quadrant.

The selection of the measurement modes and connection to the instrument are clearly indicated and made with a membrane keyboard with a strong resilience.

The equipment is supplied with a transport bag, connection cables, clips, batteries, and a battery charger.

### CHARACTERISTICS

- Phase angle accuracy: ± 0.1°
- Voltage input: 0.2 to 500 V RMS direct.
- Current input: 0.1 to 25 A RMS direct.
- Selected Measurement Modes:
  - Phase Angle displayed as ± 180°
  - Phase Angle displayed as 0-360°
  - Frequency: 40 to 500 Hz
  - Power Factor: 0 to ± 1, indicates phase angle quadrant.
- Can be used as a synchroscope.
- RS-232 port.
- Battery Powered.
- Reduced size and weight.

### APPLICATIONS

- Measures the phase angle between two Voltages, or two Currents, or Voltage-Current.
- Measures Frequency.
- Measures Power Factor.
- Synchroscope.
- In general, for Maintenance in Transmission and Distribution Systems, all well as industrial or commercial centers.

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