

## ⇒ Description

The Electricity Meter Test Equipment ELMA is designed to provide automated calibration and testing of electricity meters. It can be used also as energy standard test equipment to verify and calibrate energy standards and reference meters in laboratories. The Electricity Meter Test Equipment ELMA conforms to IEC 60736.

Due to its modular concept enables to tailor specifications to specific laboratory demand.

## ⇒ Highlights

- The accuracy of the power and energy reference meter is available up to 0.01 %. The reference meter measures all main and influencing quantities inclusive harmonic analysis and distortion of the test signals.
- The available power and the maximum current of 240 A of extremely pure synthesized 4-quadrant test signal covers the needs of both precision and high capacity testing laboratories. The test signal can be created with user defined harmonic content and predefined signal shapes.
- The intelligent high resolution Local Evaluation Units use reflective optical sensors scanning the marks on meter's disk and passive sensors scanning the LED output of electronic meters. The sensors are insensitive to external light condition and possess auto-calibration capability eliminating manual adjustment. System enables to use 2 optical sensors to sense active and reactive LED of the meter. The built-in remotely controlled dividers enable to evaluate high constant meters with light impulses up to 2.5 kHz.
- The optional optical communication channel enables simultaneous data exchange with electronic meters.
- The handling system has capacity of several mobile meter trolleys with 8, 10, 12, 16, 20 or 24 tested meters each. The trolleys are prepared either for manual wiring of heavy current meters or can be equipped with quick-acting connectors for lower currents. Static version of handling system is also available.
- The optional precision electronically compensated transformers enable simultaneous test of electricity meters with interconnected current and voltage circuits.
- The optional wireless data acquisition Hand-Held Unit with integrated barcode laser scanner enables versatile local data acquisition from the tested meters.
- The supplied Control Software for Microsoft Windows enables multilingual operation with user definable vocabularies, user friendly configuration of testing procedures, database operations and Microsoft Office compatible user defined form of output documents to any system output device.
- Local net and database ensures automated data interchange, central evaluation and archiving in laboratories with multiple test equipments.

## Model information of ELMA (recommended)

ELMA 8XYYP /NNpos.

where:

X – number of phases:

3 – three-phase system

1 – single-phase system

YY – output power per channel:

01 – 100 VA

03 – 300 VA

06 – 600 VA

10 – 1000 VA

15 – 1500 VA

20 – 2000 VA

25 – 2500 VA

P – precision (accuracy)

A – 0.05 %

E – 0.02 %

S – 0.01 %

NN – number of positions with modulo 8, 10, 12, 16, 20 or 24

# Electricity Meter Test Equipment ELMA

Automated equipment for electricity meters testing



*Electricity Meter Test Equipment ELMA with Fixed Meter Handling System  
(standard, vertical meter placement)*



*Electricity Meter Test Equipment ELMA with horizontal meter placing - fully automatic  
(customized, horizontal meter placement)*