

METES

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METES 340 REF

High-Precision Meter Test System

The meter test systems of the **METES** range can perform all manner of tests on electricity meters quickly, efficiently and extremely precisely.

METES 340 REF is the new benchmark for on-site tests related to the installation or inspection of electricity meters. Automated test procedures can either be provided via a PC installed with ergonomically designed software or can be run by means of menus displayed on the built-in screen.

For the purpose of comprehensive analysis, the latest version of the **METES** software does not only measure meter accuracies but can also record signal shapes and other power quality values.



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Many manufacturers of electricity meters have turned to state-of-the-art technologies to meet the growing demands placed on the performance and functionality of their products. It follows that the demands on equipment used to test electricity meters are no less exacting. METES 340 REF has been designed to meet these requirements.

System Description

METES 340 REF features three voltage inputs and three current inputs. The two current inputs for direct measurement have measuring ranges of 12 A and 120 A respectively. The inclusion of an additional input for the connection of error-compensated current clamps makes this test system suitable for a wide range of applications.

Configurable impulse inputs allow the connection of all commonly used scanning heads. Not only is it possible to select various different input voltages for these inputs, but the meter constant, energy type and impulse length can also be set individually. The same also holds true for the impulse output.

In addition to determining meter accuracy, METES 340 REF can also measure power quality. A multitude of other electrical quantities can be calculated and analysed on the basis of the measured values, including the full complement of power quantities, DC content, harmonics and flicker analysis.

Easy to Operate

METES 340 REF is operated and controlled using just four

function keys and a jog dial. The control elements are located on the front panel together with an LCD screen. Great emphasis has been placed on the ergonomics of the display menu enabling the device to be operated simply and intuitively with the jog dial. METES 340 REF is also equipped with an interface for connecting an EPOS 300 power source. This makes it possible to control the source fully automatically during tests.

User-friendly Test Software

A PC or laptop computer can also be connected directly to METES 340 REF. As a result the device can also be operated and controlled via the powerful METES software for manual and automatic tests on electricity meters. Using the software it is easy to create an individual

test plan for each test object which can then be run any number of times under identical test conditions.

Test results can either be displayed in the form of fault curves or clearly structured value tables and can also be presented in individually configurable test reports.

Programming Interface

The software also features a simple programming interface with a self-explanatory library for special requirements, e.g. for use with test stands developed by customers for their own use. This programming interface can be used in environments which support COM/ActiveX or in .NET environments.

Analog inputs	Voltage	3 x 480 VAC
	Direct current	3 x 12 AAC
		3 x 120 AAC
	Current clamps	3
	Accuracy classes	METES 340 REF (0.05)
	METES 340 REF (0.02)	0.02%
Impulse inputs	6	Input level up to 24 VDC, power supply 12 VDC / 24 VDC
Impulse outputs	6	Proportional to energy
Binary inputs	4	Trigger range 24 to 300 VDC
Binary outputs	3	Potential-free (dry) output relays
Time synchronisation	■	Internal GPS receiver module
Operation	■	Membrane keypad with 4 function keys, jog dial, PC
Display	■	Alphanumeric LCD, 4 x 20 characters
Communication	1 x Ethernet ■	1 x RS232, 1 x USB, 1 x Interlink (EPOS 300)
Housing (WxHxD) [mm]	470 x 162 x 316	19", 3 HU

Technical specifications subject to change without prior notice | 200711 | © KoCoS Messtechnik AG

■ standard ■ optional