

ARTES testing software

As a rule, all test tasks can be carried out using the integrated control panel. The ARTES PC software is a tool which can really simplify, automate and speed up tests for complex protection functions. For this purpose, the ARTES testing software provides a wide range of practical test monitors which are all included in the scope of delivery, in addition to the basic software:

■ VD-Monitor

Test any protection function by setting the test quantities manually. In addition, the output signals can be run as linear or staircase ramps within the configured range.

■ IT-Monitor

Check the operating times and directional sensitivity of overcurrent relays

■ IMP-Monitor

Check the operating times and impedance zones of distance protection devices

■ DIFF-Monitor

Check the tripping characteristic and operating times of differential protection relays

■ QU-Monitor

Check the Q-U protection function

■ SYNC-Monitor

Test paralleling devices and synchronizers

■ PIC-Monitor

Check the pick-up and drop-off values of protection relays

■ TD-Monitor

Determine measuring transducer error

■ SmartSequencer

Event-controlled output of test sequences

■ TRANSIG-Monitor

Display and output COMTRADE records and generate any signal characteristic

TECHNICAL DATA

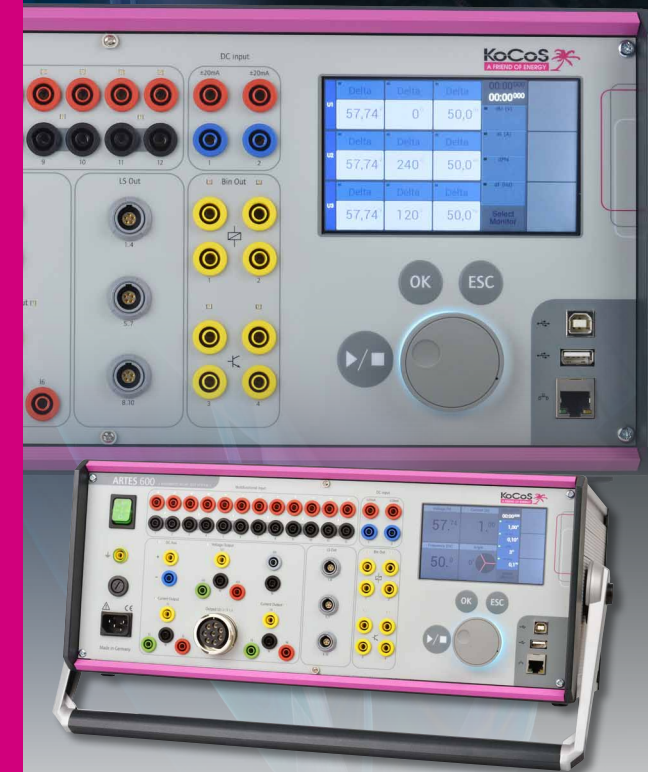
Sources	4 voltage and 6 current sources, separately and independently adjustable
Frequency range	DC...3 kHz
Transient signals	DC...4 kHz
Phase angle	0...360°
Voltage amplifiers	2 output ranges, switchable
300 V output range	4-ph.: 4 x 0...300 V / 75 VA 1-ph.: 1 x 0...600 V / 150 VA
150 V output range	4-ph.: 4 x 0...150 V / 75 VA 1-ph.: 1 x 0...300 V / 150 VA
Current amplifiers	6-ph.: 6 x 0...32 A / 250 VA 3-ph.: 3 x 0...64 A / 500 VA
Low-level signal outputs	10 separately and independently adjustable outputs, output range 0...10 Vpk
DC output	12...260 V, 50 W across the entire output range overload and short-circuit protection
Analog inputs	2 x 0...±20 mA
Multi-function inputs	12 inputs in 6 galvanically isolated groups Measurement of analog and binary signals Freely adjustable trigger threshold and trigger range Configurable for the measurement of potential-free contacts
Binary outputs	2 potential-free, galvanically isolated output relays, 2 transistor outputs
Time synchronisation	Internal GPS receiver module for exact time synchronisation
Operation	PC ARTES software for Windows® XP/7/8/10 Stand-alone 5" touch screen, high-resolution, resistive, 2 function keys and jog wheel
Measurement connections	4 mm safety sockets 3 low-level signal output sockets Generator socket
Supply voltage	100...265 VAC, 47...63 Hz / 120...265 VDC
Interfaces	USB, 3x Ethernet, GPS, Wi-Fi
Housing	19" 4U portable Dimensions (mm) 470 x 202 x 326 (W x H x D) Weight 15.9 kg

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[ENG]

ARTES RELAY TEST SYSTEMS



ARTES 600 ■

The universal relay testing solution

ARTES 600 is the compact and universal solution for testing all types of protection relays. Its built-in control panel, light weight and low noise level make this robust test system equally suitable for use on site and in the lab.

ARTES 600 makes light work of highly complex test tasks. 4 voltage outputs and 6 current outputs which can provide particularly high output power allow three-phase tests on static, digital and self-powered relays. Even three-phase tests on differential protection relays can be carried out without additional equipment.

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HIGH POWER, PRECISE AND VERSATILE

The new amplifier and measuring units

ARTES 600 is the perfect answer to the need to combine high output power and high amplifier accuracy in one device. With powerful, high-precision amplifiers, multifunctional measurement inputs and, last but not least, simple handling and operation, ARTES 600 is the ideal solution for professional 3-phase relay testing.

ERGONOMIC, SIMPLE AND FAST

The new TJCP operator interface

The new internal TJCP operator interface is a special feature. Its high-resolution 5" touch screen with smart touch technology enables many tests to be carried out quickly and easily without having to connect an external PC. The clear, restructured user interface guides the user intuitively to complete the task in hand.

User actions carried out with the ergonomic jog wheel, such as amplitude, phase angle or frequency adjustments, are processed in real time and executed without delay. An illuminated ring integrated in the jog wheel and additional acoustic signals indicate system status during settings and tests.

The new TJCP operator interface also provides a wide range of communication interfaces, such as USB, 3 x Ethernet, Wi-Fi and an internal GPS receiver unit.



ARTES 600

COMPACT, ROBUST AND INNOVATIVE

Key features of the new hardware architecture

More than 20 years of experience in developing and manufacturing automatic relay test systems have gone into creating the fourth generation of ARTES test instruments. Despite increasing the power and the number of channels, it was possible to retain the positive features of its predecessor, including the compact and robust design, low weight and low noise level. However, the new hardware does not only provide higher power, it also offers a number of special features which provide added value and make ARTES 600 even more versatile.

- **Multi-function inputs for measurement of analog and binary signals**

12 multi-function inputs are assigned to 6 galvanically separated groups. These inputs can be used for analog quantities as well as for binary signals. The trigger range and the trigger threshold can be freely configured for evaluation purposes.

- **Test currents of up to 3 x 64 A / 500 VA**

The current amplifiers provide a maximum test current of 6 X 32 A / 250 VA. Parallel operation of the 6 current outputs allows output of up to 3 x 64 A / 500 VA for 3-phase applications.

- **Generator socket for connection of the device to be tested**

Three voltages and three currents can alternatively be picked up via the generator socket. The device to be tested and the test instrument can be connected to the test instrument simply, correctly and quickly using a generator connection cable.

- **High-accuracy low-level signal outputs**

Special low-level outputs with very high accuracy make it possible to test protection devices with low-level signal inputs. The behaviour of various different sensors, such as Rogowski coils, is reproduced precisely.

- **Separate DC output**

The separate DC supply can be used to power the test object, for example. The range is between 12...260 VDC.

- **Output of control commands via 4 binary outputs**

During output, 4 binary signals can be output in real time parallel to the analog quantities

- **LEDs for status indication**

The user can tell at a glance which outputs are active and can easily identify the states of the binary inputs and outputs.

- **Operation in a vertical position**

All connections and interfaces are located on the front panel. This means that ARTES 600 can be operated in an upright position if there is not enough space or if no table is available.

