

ARTES testing software

As a rule, all test tasks can be carried out using the integrated control panel. However, 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

■ QU-Monitor

Check the Q-V protection function

■ SYNC-Monitor

Test paralleling devices and synchronizers

■ PIC-Monitor

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

■ SmartSequencer

Event-controlled output of test sequences

■ TRANSIG-Monitor

Display and output COMTRADE records and generate any signal characteristic

Technical data

Sources	3 voltage and 3 current outputs
Frequency range	DC...3 kHz
Transient signals	DC...4 kHz
Phase angle	0...360°
Voltage outputs	
3-phase (L-N)	3 x 0...300 V / 75 VA
1-phase (L-L)	1 x 0...600 V / 150 VA
Current outputs	
3-phase	3 x 0...16 A / 40 VA
1-phase	1 x 0...32 A / 80 VA
DC output	12...260 VDC, 50 W, max. 2 A
Binary inputs	
Quantity	4 inputs configurable for measuring dry / wet contacts
Binary outputs	2 potential-free, galvanically isolated relays Operation via software or function keys
Operation	
PC	ARTES testing software for Windows® 7/8/10
Stand-alone	5" touch screen, 6 function keys, jog wheel
Measurement connections	All the connections are located in the Control panel
Interfaces	USB, 3x Ethernet, Wi-Fi
Status LEDs	Indication of active current and voltage outputs and of the status of the binary inputs and outputs by LEDs
Supply voltage	100...265 VAC, 47...63 Hz / 120...265 VDC
Housing	Hard shell case in accordance with ATA 300, ASTM D-4169, MIL-STD-810FF
Dimensions (mm)	505 x 257 x 409 (W x H x D)
Weight	15.8 kg

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[ENG]

ARTES RELAY TEST SYSTEMS

**The robust
all-round talent!**



ARTES RC3 ■

The robust multi-functional relay test system

ARTES RC3 is the robust and universal solution for testing protection relays. Packed in a handy, extremely robust and resistant hard shell case, the versatile test system is also ideally suited for challenging outdoor use, for example in the sector of renewable energies.

ARTES RC3 makes light work of highly complex test tasks. 3 voltage and 3 current outputs and the built-in control panel allow three-phase tests on static and digital relays also without external PC.

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COMPACT, PRECISE AND VERSATILE

High-accuracy amplifier and measuring units

With high-accuracy amplifiers, a wide range of measurement inputs and, last but not least, simple handling and operation, ARTES RC3 is the ideal solution for professional 3-phase relay testing.

The outputs of the 3 voltage and 3 current amplifiers are completely independent with regard to phase, amplitude and frequency and have full overload and short-circuit protection. The current amplifiers provide a maximum test current of 3 x 16 A. Parallel operation of the current outputs allows output of up to 32 A for 1-phase applications.

LEDs for status indication

The interior shows the ergonomic Control Panel with the TJCP interface and all connections for linking up to the device under test. As with all other devices in the ARTES family, the states and operating modes of the inputs and outputs of the new RC3 are indicated via numerous LEDs in the Control Panel. The user can tell at a glance which outputs are active and can easily identify the status of the binary inputs and outputs.



ARTES RC3

ERGONOMIC, SIMPLE AND FAST

The integrated TJCP operator interface

The 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 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 also provides information on the current status of the system during settings and tests

ROBUST, RELIABLE AND DURABLE

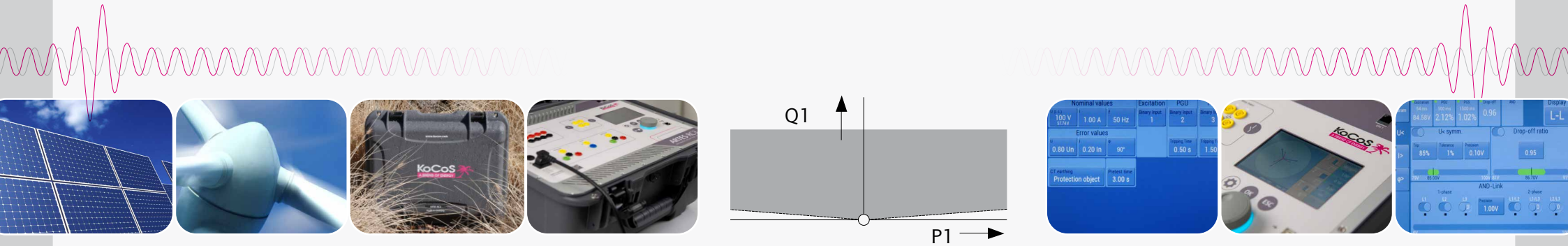
Precision measurement technology in robust package

ARTES RC3 is housed in a handy extremely robust and resistant hard shell case. When closed, the IP67 water- and dust-proof case absorbs even hard impacts without damage and reliably protects the valuable electronics of the test system. And even the case lid provides a special feature. The cable compartment integrated in the case lid also offers sufficient space for the cable set included in the scope of delivery.

Applications in the renewable energy sector

In addition to an excellent price-performance ratio, robustness, reliability and longevity were top priorities during development. ARTES RC3 is therefore also ideally suited for sophisticated outdoor use, for example in the renewable energies sector.

Especially for this purpose, the device software was extended by a very helpful tool. The QU module also provides a solution for on-site operation with which the Q-V protection function can be checked fully automatically. Quickly and easily, completely without PC. Time-consuming calculations and settings of the test parameters are not necessary, and the results are clearly documented in a test report after the test.



Nominal values		Excitation		PGU	
100 V	1.00 A	50 Hz	1	2	3
Error values					
0.80 Un	0.20 In	90°	0.50 s	1.50 s	
Protection object					
3.00 s					

Uk symm		Drop-off ratio		Display	
84.58V	2.12%	1.02%	0.96	L-L	
Uk	8%	1%	0.10V	0.95	
AND-Link					
1-phase	1.00V	1.00V	1.00V	1.00V	1.00V