

Specifications ARTES 100



System concept The signals are generated by a signal processor and fully electronically regulated amplifiers with internal feedback measurement of output signals. All connections and controls are located on the front panel together with an LCD screen. ARTES 100 is operated and controlled with function keys and a jog dial or the ARTES GO testing software. Test objects are connected to the device via 4 mm/6 mm safety sockets. The states and operating modes of the inputs and outputs are indicated by LEDs on the front panel.

Sources The three built-in signal sources work entirely independently of each other and can be used as either current or voltage sources. Phase displacements between the output quantities and different signal frequencies can be set independently of the supply voltage. The amplifiers are virtually loss-less and can output signals for a practically unlimited period of time without cooling phases. All outputs have overload and short-circuit protection.

General	Total power	Max. 1500 VA	Phase resolution	0.2°
	Phase angle	0 to 360°	Phase accuracy	Error < 1°
Voltage outputs	The maximum amplitude of the two independent voltage sources is 300 V. When used as current sources, the amplifiers can provide a constant test current of up to 3 A. The voltage amplifiers can also be used as an auxiliary voltage source which can be controlled independently of the other sources.			
	Constant voltage	0 to 300 VAC/300 VA	Constant current	0 to 3 AAC/300 VA
	Resolution	0.05 V	Resolution	0.01 A
	Accuracy	Error < ±0.5%	Frequency range	45 to 200 Hz
	Output duration	Unlimited	Frequency resolution	0.01 Hz
		Frequency accuracy	Error < ±0.01%	
	Aux. voltage source	0 to 260 VDC/260 W	Resolution	0.05 V
	DC AUX			
Current output	The high-current source can deliver an output current of up to 250 AAC. It can be operated in three different output ranges and provides a compliance voltage of up to 90 VAC. When used as a voltage source, the amplifier can provide a constant output voltage of up to 90 VAC and a maximum power of 1,000 VA.			
	Ranges	10 A	40 A	100 A
Constant current	0 to 10 AAC/900 VA	0 to 40 AAC/1000 VA	0 to 100 AAC/1000 VA	
I short ²⁾	0 to 20 AAC/900 VA	0 to 80 AAC/1000 VA	0 to 250 AAC/1000 VA	
Constant voltage	0 to 90 VAC/900 VA			
Accuracy	Error < ±0.5%			
Resolution I	0.01 A ¹⁾			
Resolution U	0.05 V			
Frequency range	45 to 200 Hz			
Frequency resolution	0.01 Hz			
Frequency accuracy	Error < ±0.01%			

¹⁾ Depending on the output range used and the burden of the connected test object

²⁾ Short-time output (1 sec)

Analog inputs	General	Number Meas. quantities Frequency range Protection	1 x voltage input, 1 x current input U, I, ϕ , f, S, P, Q, $\cos\phi$, Z, $\phi_{(z)}$ DC/45 to 70 Hz Galvanic isolation, overload protection
	Voltage input	Measuring range Resolution Accuracy	0 to ± 10 VAC/VDC 0.01 V Error < $\pm 0.1\%$
	Current input	Measuring ranges Resolution Accuracy	0 to ± 20 mAAC/mADC 0.1 mA Error < $\pm 0.1\%$
Binary inputs	The four binary inputs are arranged in two groups. The groups can be configured for wet or dry contacts.		
		Number Activation range Max. meas. duration Protection	4 24 to 300 VDC single range for wet contacts Unlimited Transient protection, polarity protection and galvanic isolation
Binary outputs		Number Switching capacity AC Switching capacity DC Protection	2 0 to 250 V, 8 A, resistive load 0 to 300 V, $I_{max} = 8$ A, 50 W, resistive load Potential-free and galvanically isolated output relays
Complete system	User interface	Manual operation using the membrane keypad with 8 function keys and a jog dial, alpha-numeric LCD screen, 4 x 20 characters. PC-controlled operation with the ARTES GO testing software	
	Power supply	Rated voltage Power consumption	110 to 265 VAC, 47 to 63 Hz, 120 to 265 VDC Max. 1800 VA
	Connections	4 mm/6 mm safety sockets located on the front panel	
	Interfaces	RS232, USB	
	Housing	Portable $\frac{3}{4}$ 19" housing 4 U, carrying handle can also be used as a stand Dimensions (W x H x D) without handle 360 x 200 x 355 mm Weight 18 kg	
	Environment	Operating temperature Storage temperature Relative humidity Protection class Safety standard EMC requirements	0 to 50°C -20 to 60°C 5 to 90%, non-condensing IP20 EN 61010-1: 2001 EN 61326-1: 2006

Scope of delivery ARTES 100 is delivered in a high-quality, robust case. The scope of delivery includes the ARTES GO testing software, USB and RS232 communication cables, connecting leads for 2 voltage outputs, one high-current output and 2 binary inputs. Also included are 8 terminal adapters with insulated 2.5 mm² Cu-wire for connecting into rail-mounted terminals and 8 plug adapters for connecting safety measuring leads to conventional \varnothing 4 mm sockets. The 10 mm² high-current lead can be connected to the test object using the \varnothing 4 mm contact pins or fork-type cable lug adapters provided.

Connection clamps are available as an optional extra. They have a load rating of 300 A and can be attached to the 10 mm² high-current leads by means of a push-pull connection.