

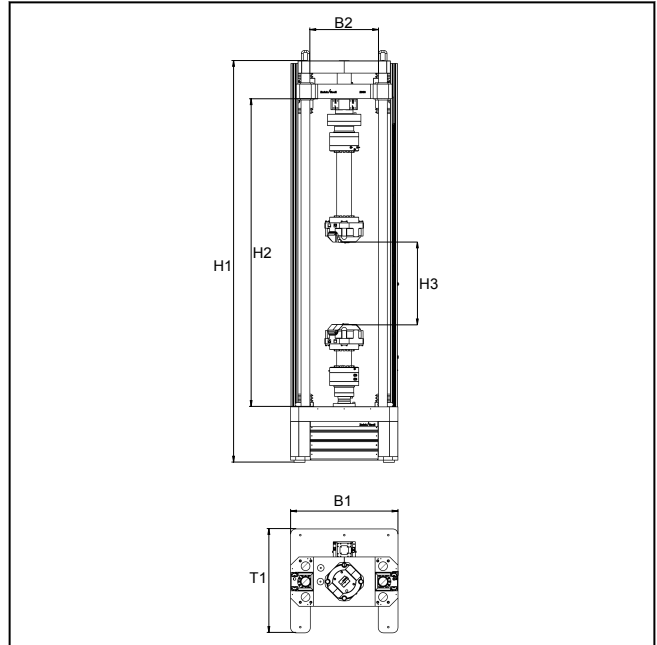
## Product Information

### Materials testing machine Z600E with testControl II

CTA: 248294 248636



Z600E – Testing on Composite



Drawing: Z600E – Testing on Composite

#### Advantages and features

##### Modern load-frame design

- The robust load-frame features four hard-chromed guide-columns and massive base and moving cross-heads, ensuring excellent guidance properties and a high level of machine stiffness.
- Maintenance-free digitally controlled AC drive technology combined with an innovative motor feedback system allows excellent constant speed characteristics to be achieved even at extremely low speeds.
- The backlash-free pre-stressed precision ball-screws with digitally controlled AC servo drive allow virtually maintenance-free operation.
- The large test area combined with low overall height enables specimens and components with a wide range of lengths to be tested.
- The testing machine is positioned directly on the ground with no foundation.

##### Operator convenience

- Convenient operating height for specimen insertion with grips installed.
- testXpert III's intelligent test environment concept reduces set-up times and increases productivity.

#### Innovative electronics

- The new testControl II measurement and control electronics provide the ideal basis for precise, reproducible test results.
- Developed in-house by ZwickRoell, the electronics impress through maximum accuracy, high measured-value rates and flexible modularity.

#### Satisfying the most demanding safety requirements

- Compliance with the statutory safety requirements of the EC Machinery Directive is ensured in all materials testing machines, while an EC Declaration of Conformity accompanies every machine supplied.
- Only the latest safety technology and proven industrial components are used.
- The highest degree of safety for the operator, test results, specimen material, and testing system are guaranteed.

#### Future-proof

- Modular design means that the testing system can be re-equipped or upgraded whenever required.
- Moreover, testControl II control electronics are compatible with future-generation ZwickRoell software.
- Even after a product has been discontinued, spare parts remain available for a minimum of 10 years.

## Product Information

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Description	Value	
<b>Load frame</b>		
Paint finish	RAL 7011 iron gray and RAL7038 agate gray	
Ambient temperature	+10 ... +35	°C
Humidity (non-condensing)	20 ... 90	%
<b>Drive</b>		
Motor	AC servo motor with concentrated windings, Hiperface® motor feedback system	
motor holding brake	yes	
Control, set-value specification	digital (real-time Ethernet, EtherCAT®)	
Controller/cycle time	adaptive / 1000	Hz
Repeat positioning accuracy on crosshead	± 1.0	µm
<b>Measurement and control electronics</b>		
Number of slots available for measurement and control module	5 synchronized module bus slots, 1 synchronized PCIe slot <sup>1)</sup>	
Force measurement	Class 0.5 from 1% of Fmax / Class 1 from 0.2 % of Fmax, as per EN ISO 7500-1, ASTM E4, JIS B 7721	
Calculated resolution (e.g. load cell in tensile/compression direction)	24	bit
Measured-value sampling-rate, internal	400	kHz
Measured-value transmission rate to PC	500 (optionally 2000)	Hz
Zero-point correction	automatic, at start of measurement	
Measurement signal runtime correction for all channels	yes	
Interface to PC	Ethernet	
Eco mode?	yes, power unit automatically switched off (time adjustable)	
CE compliance?	yes, as per Machinery Directive 2006/42EC	
<b>Electrical supply data</b>		
Mains supply frequency	50/60	Hz
Electrical supply	400 +/- 10 %	V, 3Ph/PE
Power consumption	9	kVA

1) A high-quality DCSC measurement module for one load cell is included in delivery (occupies one module bus slot).

#### Options<sup>1)</sup>

Description
Display-equipped remote control for testControl II
Measured-value transmission-rate increase from standard 500 Hz to 2000Hz
Add-on table unit for electronics cabinet, with CPU-holder
ZwickRoell extensometer attachment (see catalog)
Front/rear safety device
Lead-screw guard

1) See catalog for item numbers and further details

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#### Product data

Type	H1+1500	
Item number	3009545	
<b>Load frame</b>		
Test load $F_N$ in tensile and compression directions	600	kN
Number of guide columns	4	
Number of lead screw drives	2	
Height - H1	4565	mm
Width - B1	1220	mm
Depth - T1	1180	mm
Test area width - B2	780	mm
Test area height - H2	3497	mm
Test stroke - H3 (with hydraulic grips)	934	mm
Weight without accessories	3420	kg
With hydraulic grips	4080	kg
Specific floor loading (with hydraulic grips)	80	kN/m <sup>2</sup>
Noise level at maximum test speed	<70	dBA
<b>Drive</b>		
Crosshead speed	0,00005 ... 400	mm/min
Increased crosshead return speed (at reduced force)	520	mm/min
Drive system's travel resolution	0,000193	μm

#### Overview of load frame

