BRUGG CABLES
Well connected.

Terna Energy Solutions

Exciting possibilities

Impressive testing facilities

Our laboratory – working for you

Use our 19 000 m³ Faraday cage

For experts by experts

Coupling capacitor 350 kV / 190 nF
Rated voltage 350 kV
PD level = < 2 pc @ rated voltage
Dimension = 430 × 3000 mm
Weight 680 kg

350 kV AC-Generator
on special base frame

A high-voltage test laboratory in a Faraday cage

Our laboratory – working for you. This impressive high-voltage test laboratory provides you with space for limitless verification and testing in the fields of high-voltage and power engineering. Make use of our scientific expertise as part of your research and development projects, and take advantage of our highly qualified employees' years of experience in testing and verification.

The equipment and spatial volume of the Faraday cage are ideal for testing a wide range of objects, such as capability testing of insulators for use in electrical networks. The Faraday cage, with a total volume of 19 000 m³, is one of Europe's largest test plants, which means that it can handle and test even very large components or systems.

For industrial customers, the high-voltage test areas are used, for example, for quality assurance and for ensuring the rated voltage of power transformers and circuit-breakers along with general power engineering equipment.

A wide range of test and research opportunities await you.

Maximum dimensioning of test systems

- Power frequency test voltages up to 1200 kV
- Lightning impulse voltages up to 3000 kV
- Switching impulse voltages up to 2000 kV
- Switching impulse voltages in positive polarity up to 1250 kV
- D. C. voltages up to +/– 800 kV
- Inductive heating transformers up to 4000 A
- Partial discharge measurements level < 2 pC at 1200 kV

Thanks to a partial discharge detection instrument designed to the latest standard and the high shielding capacity of the Faraday cage, measurements can be carried out with a very low noise level.

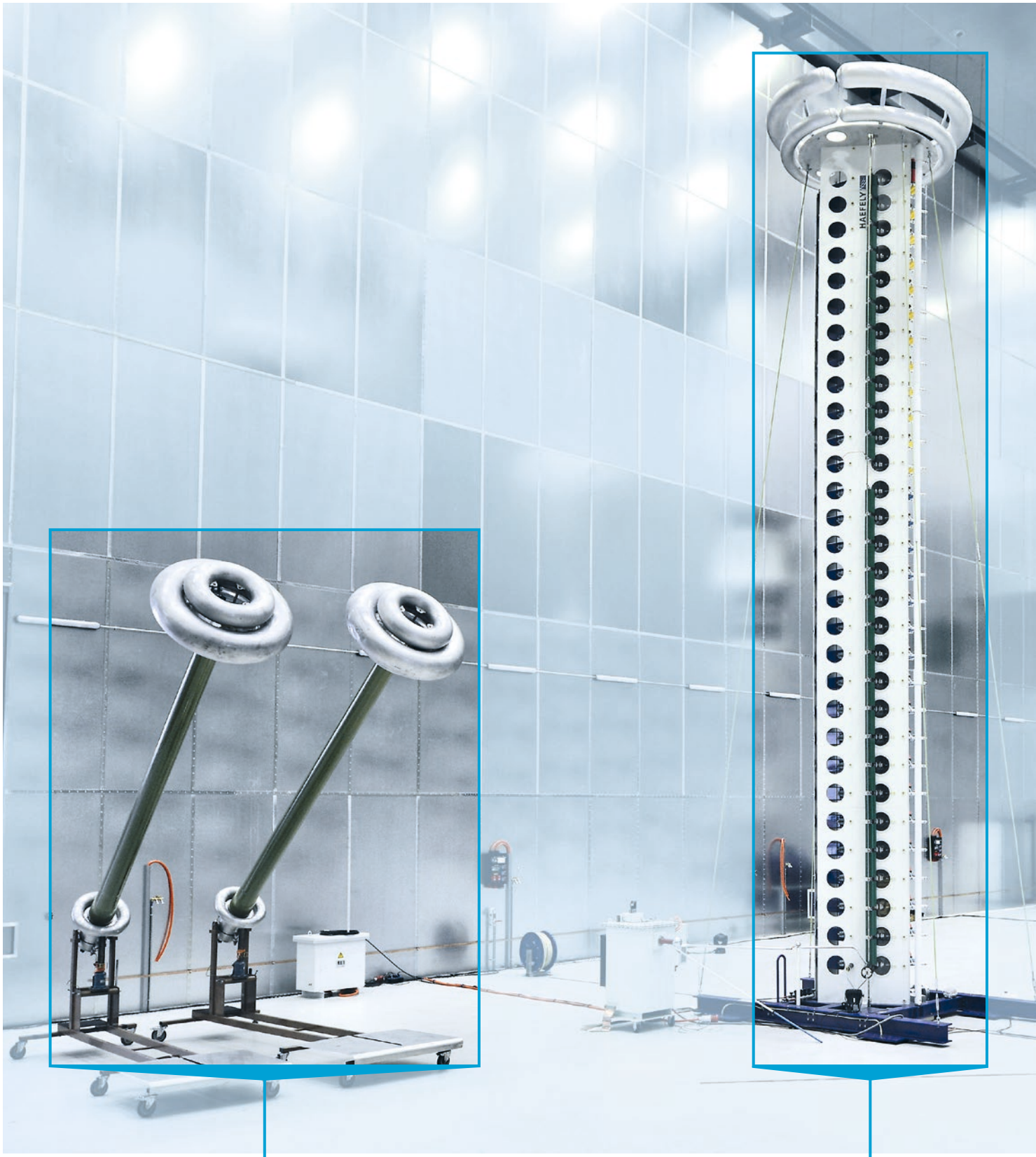
The options for testing can be carried out in accordance with a variety of European, American and Chinese standards, among others. The test reports are issued either by Brugg Cables itself or by an internationally recognized, accredited testing institute.

As part of the range of services offered by the test laboratory, we also include the assembly and disassembly of customerspecific systems. Tests are carried out and supported to the highest quality standards by research and development experts responsible for the systems. Our motto is: Testing by experts for experts.

Faraday cage – dimensions / data

Length	36 m
Width	22 m
Height	24 m
Noise level	< 2 pC
Loading crane	10 t
Floor loading	4 t / m²
Maximum door opening	6 × 6 m

Quiet please – we're testing!
1200 kV at a noise level of less than 2 pC

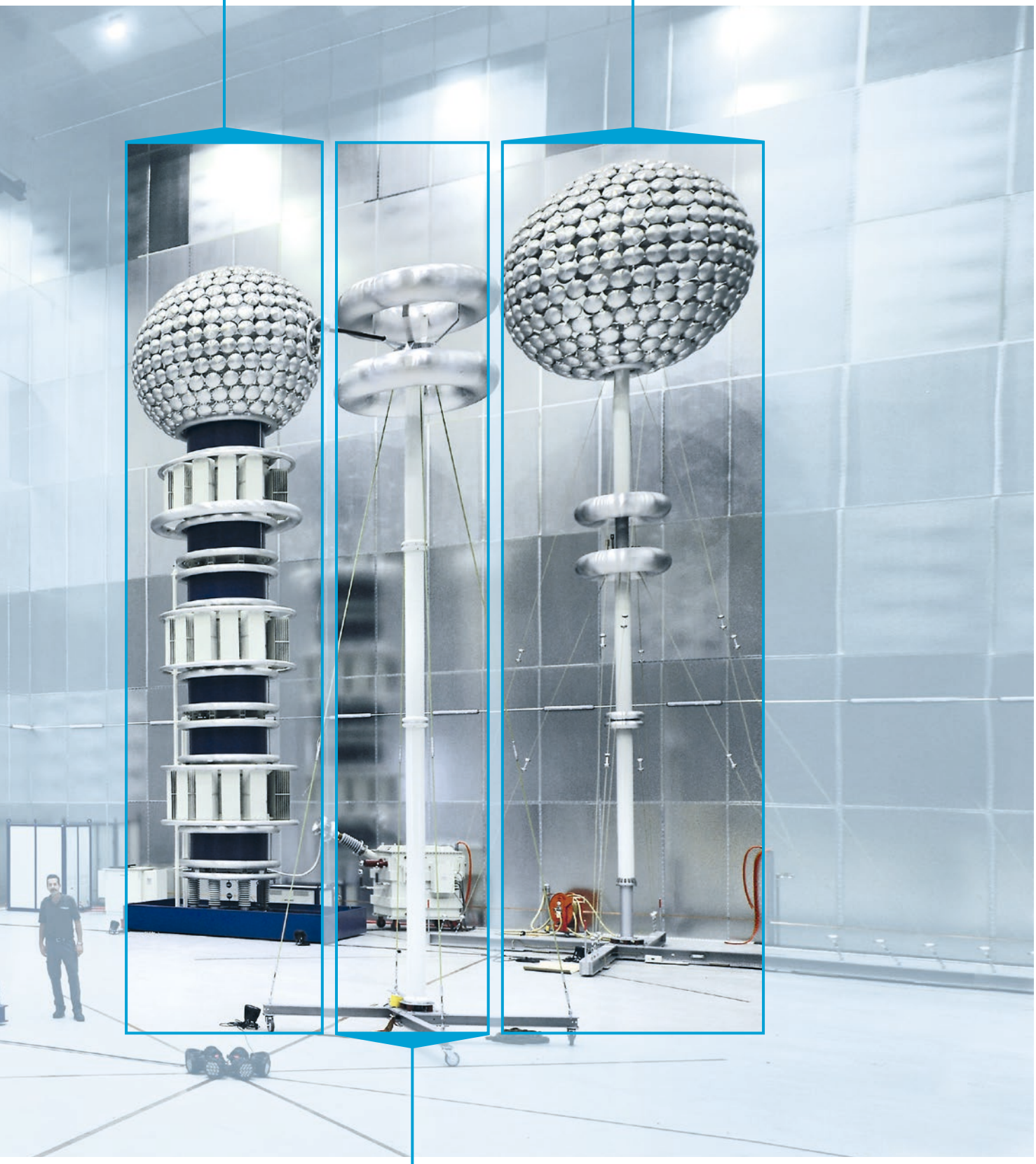


Water-insulated cable termination system CTT 800
AC voltage: 800 kV
Lightning impulse voltage: 1900 kV
Switching impulse voltage: 1200 kV
Dimensions: 5.2 × 1.9 × 1.5 m

Impulse generator SGDA 3000-300
Lightning impulse voltage: 3000 kV, 300 kJ
Switching impulse voltage: 2000 kV
Base: 4 × 2.7 m, Height: 12 m

High-voltage AC resonance generator, MSR 1200-3M6
Max. voltage: 1200 kV
Max. current at 1200 kV: 6.5 A
Base: 4.5 × 3 m, Height: 15.8 m

High-voltage AC divider for AC high-voltage generator
Voltage: 1200 kV
Base: 7 × 7 m, Height: 15.8 m



Damped capacitive impulse voltage divider CR 2800-300
Lightning impulse voltage: 3000 kV, 300 kJ
Switching impulse voltage: 2000 kV
Base: 3 × 3 m, Height: 11.5 m

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