

Currents with no limits

The **largest** independent high-current test lab for permanent current tests up to **50,000 amps** at any power **frequency** from 15 Hz to 65 Hz.
All in one.

CESI, through its German subsidiary IPH, presents its newest variable frequency very high AC current test laboratory, where with one single current source it's possible to test at any desired test frequency between 15 Hz and 65 Hz.

Any large equipment can be tested with permanent current up to 50,000 A, thanks to the very large 960 m³ test bay.



CESI is worldwide leader in third party Conformity Assessment Services, Testing, Inspection and Certification of electromechanical components. Our certificates and reports are internationally recognized by first parties (manufacturers or seller) and second parties (purchaser or user).

CESI is a well-recognized Conformity Assessment Body accredited according to ISO / IEC 17020, ISO / IEC 17025 as well as ISO / IEC 17065. Furthermore CESI is notified body for IECEx Certification Scheme and ATEX.

CESI

Trust the Power of Experience

Testing • Consulting • Engineering • Environment

Features:

- Tests with permanent current up to 50,000 A
- Test frequency suitable for railway equipment application at 16.66 Hz, for T&D equipment at 50 Hz and 60 Hz and for any special application at frequencies from 15 Hz to 65 Hz
- Only one single current source: easy connecting, easy testing
- Large test bay: width 10 m, depth 12 m, height 8 m, crane (12.5 t)

Products to be tested

Any equipment that requires either a high test current or a special test frequency (or a combination of both) can be tested in the new IPH variable frequency very high current test laboratory. Tests can be done in three-phase or single-phase.

Some examples of test equipment:

- Generator bus duct systems
- Generator Switchgear
- Large / HV Gas Insulated Switchgear
- Large LV / MV Switchgear and Controlgear assemblies
- Gas Insulated Lines
- Current transformers and instrument transformers for high current applications
- HV / LV prefabricated substation
- Prefabricated Switchgear

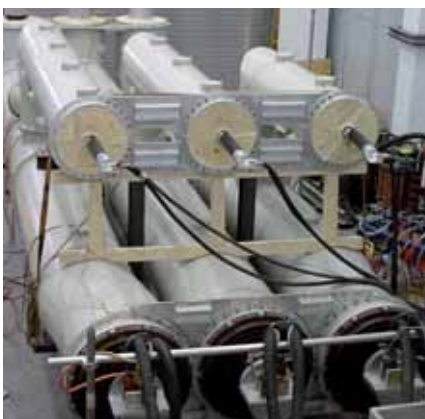
Selected applicable standards:

- IEC 62271 – High-voltage Switchgear and Controlgear
- IEC 60076 – Power transformers
- IEC 61439 – Low-voltage Switchgear and Controlgear assemblies
- IEC 60947 – Low-voltage Switchgear and Controlgear
- IEC 60353 – Line traps for a.c. power systems
- IEC 61869 – Instrument transformers

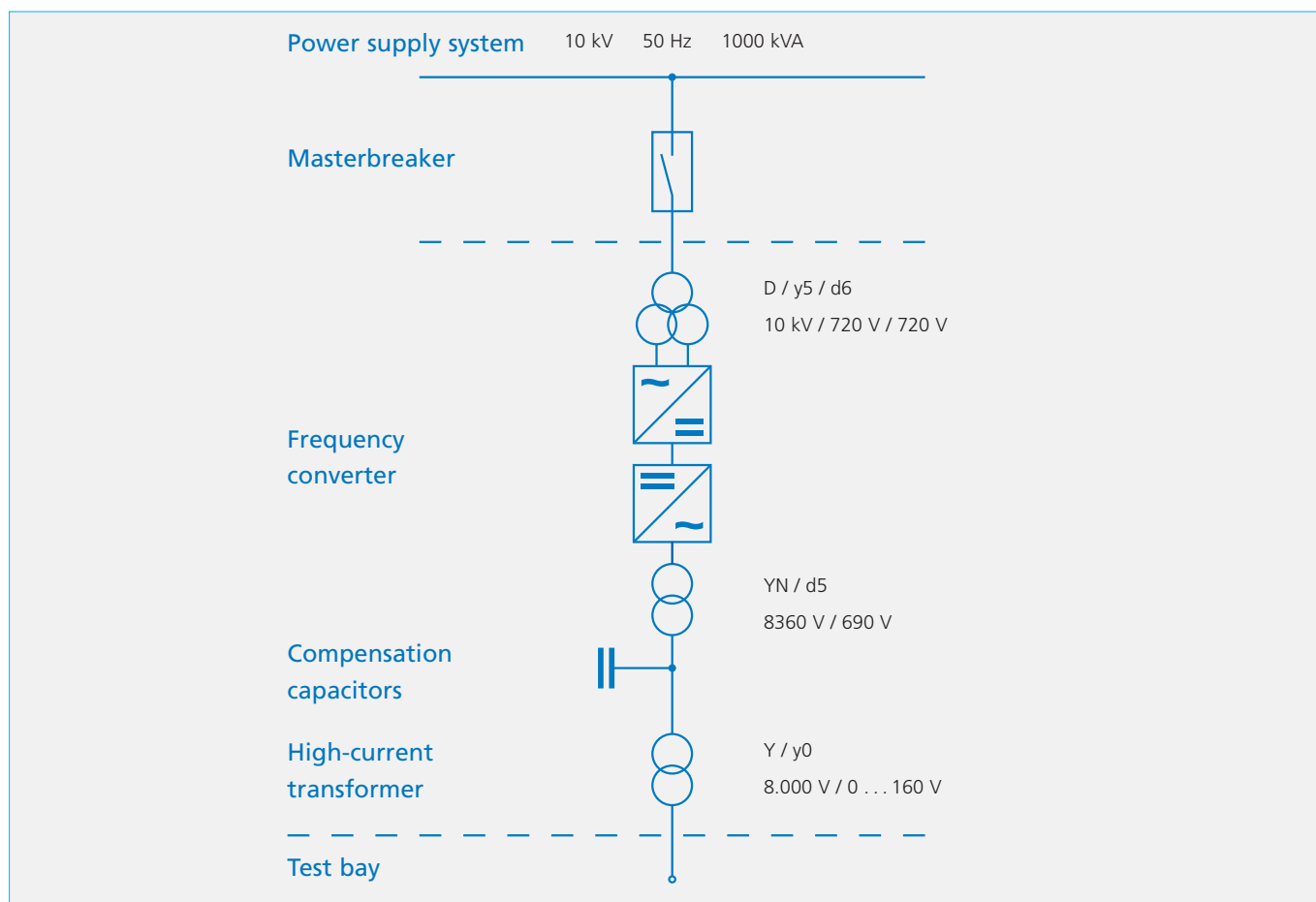
Calibration services according to IEC 62475

As an additional service for high current applications, IPH offers calibration services for your high current measurement devices, such as:

- Current transformers
- Measurement resistors



Single line diagram



Technical specifications

Test current	0 ... 40,000 A unlimited*
Test frequency	15 ... 65 Hz
Test voltage	0 ... 160 V

* The value of 50,000 A is possible depending on the impedance of the test object; unlimited testing is possible up to 40,000 A. In any case the effect of test object impedance is reduced by the high test voltage (for a high current test laboratory) and the use of the compensation capacitors.

Test bay dimensions

Width	10 m
Length	12 m
Height	8 m
Entrance gate width	5 m
Entrance gate height	8 m

CESI's Business Areas:

- **Testing, Inspection and Certification** services for HV, MV and LV electrical components;
- **Engineering and Consulting** services for power systems and markets, transmission and distribution grids, generation plants, renewable and hydro plants;
- **Environmental Consulting and Structural Engineering** services for Energy, T&D, Industry and Transport sectors;
- Production of **Solar Cells** for Space and Terrestrial (CPV) applications.

For further information please visit www.cesi.it or e-mail at info@cesi.it.

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