

Specification

High-current test system

Item	Functionality.
1.	The heating transformer system must be capable of performing heating cycle tests according to IEC 60840; IEC 62067 standards, including surge voltage tests. The system must have appropriate protection against breakdown during AC voltage tests and surge voltage tests.
2.	The system must be made in an indoor version.
3.	The control system must enable stepless, smooth regulation of the output current in the full range.
4.	Current control in automatic operation must be related to the temperature value taken from the temperature sensor installed on the test loop.
5.	The control system must be equipped with a control panel with the option of switching on the Polish language.
6.	The heating transformer system must be equipped with a control panel with a minimum range of displayed parameters: <ul style="list-style-type: none">• current value in the tested objects,• regulator current value,• regulator voltage value,• supply current value,• test stand configuration diagram (arrangement of loop elements, arrangement of measuring probes).
7.	Heating coils must be universal with the possibility of migration between sets depending on the user's needs.
8.	Heating coils must have a split core enabling the cable to be placed inside the dedicated window.
9.	Heating coils should have rotating wheels (360°) enabling their free movement. They should be appropriately selected for the weight of the coils.
10.	The measurement system must provide the possibility of recording and visualizing temperatures from temperature probes and the possibility of connecting a signal recording the voltage waveform from an external high-voltage system along with data archiving.
11.	The length of the measuring probe cables should be at least 20 m. Traditional thermocouples and fiber optic sensors are required.
12.	The temperature measurement system should have calibration certificates.

13.	<p>The heating transformer system must be equipped with an industrial computer:</p> <ul style="list-style-type: none"> • with the ability to generate test reports, • with control elements (keyboard, mouse), • with an operating system in Polish.
14.	The heating transformer system must enable manual and automatic control.
15.	The system must have a signal indicating the system is on/off (red/green).
16.	<p>The heating transformer system must be equipped with a portable computer for archiving test results with an operating system for professional use.</p> <p>The supplied portable computer must be able to control the heating transformer system in the event of a failure of the industrial computer.</p>
17.	The heating transformer system should be equipped with a color laser printer that allows for A4 printouts intended for printing reports.
18.	All types of standard parts (screws, nuts, etc.) used to build the heating transformer system must be made in the metric system.
19.	The system should be delivered with technical documentation in paper (2 copies) and electronic versions.
20.	The system should be delivered with operating instructions in Polish, in paper (2 copies) and electronic versions.
21.	The system should have declarations of conformity with all EU Directives to which the system is subject.
22.	The Contractor must provide free updates of the software controlling the heating transformer system within 5 years from the signing of the final acceptance protocol. If a given update requires updating or replacing other software, the Contractor must also provide this update or replacement free of charge.
23.	The Supplier will provide calibration of measurement paths (on request, i.e. at the time of installation of the measurement object)

Item	Technical Parameters	Value
1.	System supply voltage	400 V
2.	Supply current	max. 630 A
3.	Maximum output current	min. 5000 A

4.	Minimum main loop length	min. 30 m
5.	Minimum reference loop length	min. 15 m
6.	Number of controllers	2
7.	Number of power supply cabinets	1
8.	Minimum number of connections for main loop/reference loop	min. 12/6
9.	Number of main loop coils	min. 8
10.	Number of main loop coils	min. 4
11.	Minimum window size of heating coils	min. 250 x 250 mm
12.	Number of coil winding taps of heating transformers	2
13.	Minimum rated coil power	min. 120 kVA
14.	Minimum number of continuous operating hours (heating)	min. 16 h
15.	Number of thermocouple + fiber optic measuring probes	50
16.	Operating temperature range	min. 5°C ÷ 40°C