

KERI, the Most Confident Solution to Energy Future

Testing & Certification Services



KERI

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GLOBAL PARTNER in TESTING & CERTIFICATION

KERI Inspires Confidence to Your Business

Realizing the value of energy future beyond technology

Numerous types of electrical power components are being used for generation, transmission, and distribution in the energy industry. In the rapid development of this industry, apparatus functions are becoming increasingly complex and proper operation, so the proper operation is more important than ever. More recently, the demand for clean and smart energy has been leading us into a new era in the future of energy.

KERI has been promoting the domestic electric industry by developing cutting-edge electrotechnologies as well as offering high-quality testing and certification services for electrical power equipment in a relatively short period of time. KERI's impressive achievements have continued and have led to its providing the world's highest quality of electricity supply to the electrical industry in Korea.

KERI is committed to carrying out world-class testing and certification services all based on successful past experiences and is now marching forward to provide a brighter present and tomorrow in the future of energy.

An independent third-party testing and certification body, KERI

As an independent third-party testing and certification body in compliance with ISO/IEC 17025 and 17065, KERI has provided its customers around the world with testing, certification, and inspection services for electrical power equipment ranging from low voltage to ultra-high voltage based on its internationally acknowledged technical capabilities. KERI meets global standards in impartiality, effectively responding to growing demand at home and abroad.

Testing objects

Circuit-breakers, GIS, Switchgear, Reclosers, Switches, Power transformers, Reactors, Fuses, Power cables and accessories, Surge Arresters, Insulators, Bushings, Instrumental transformers, EMC, Information Technology(IT) equipment, Inverters, Batteries, etc.

Applicable standard

An international, regional and national standards such as IEC, IEEE, ANSI, UL, NEMA, JIS, JEC, KS, ES, etc.

40 YEARS of EXPERIENCES

Integration of 40 years of Expertise for Guaranteed
Quality, Reliability and Impartiality

Qualified experience in electrical Industry

KERI has extensive experience leading the electrical industry over the past 40 years with outstanding testing and certification services that guarantee quality, reliability, and impartiality. KERI has inspired confidence in its customers while contributing greatly to their improved competitiveness at home and abroad.

Full member of STL

KERI is a member of the Short-Circuit Testing Liaison (STL) and issues STL Certificates exclusively according to the STL guide.

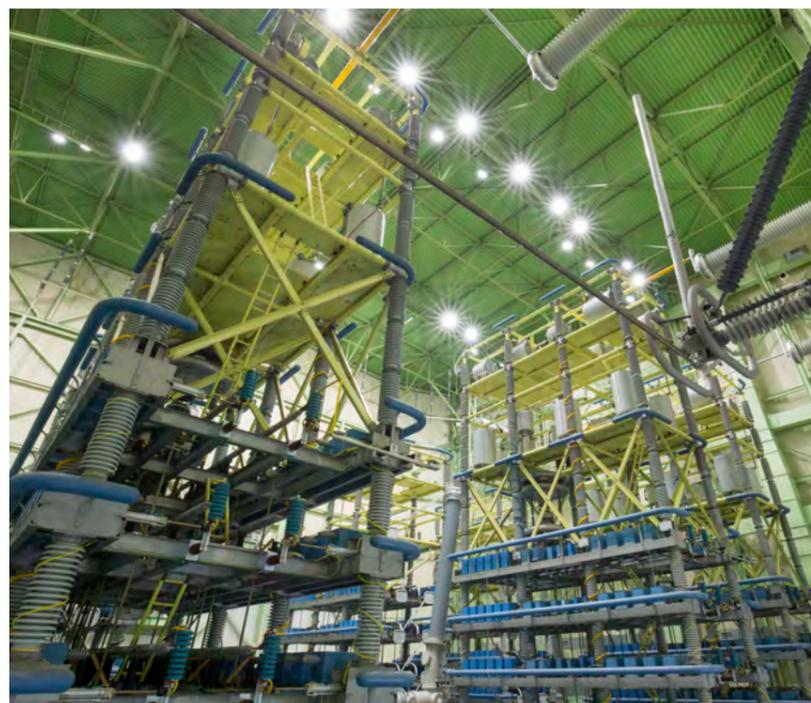
Advanced testing facilities by own technology

KERI has comprehensive engineering technology capable of establishing High power and High voltage laboratories. Its new High power laboratory recently completed through the use of its own engineering technology allows its testing capacities to cover up to 1100 kV class circuit breakers with 80 kA of short-circuit making and breaking current.



HIGH POWER TESTING

Electric power accidents, which are directly connected to people's safety and national economic losses, can only be prevented by operating reliable power equipment with outstanding quality. High power tests that verify switching capacity, thermal stress, and dynamic performance of electrical power equipment under identical accident conditions are compulsory around the globe. KERI always stands with you to offer world-class advanced High power testing services.



High power tests

- Short-circuit tests for AC and DC
- Short-line fault tests
- Out-of-phase making and breaking tests
- Short-time withstand current and peak withstand current tests
- Capacitive current switching tests
- Magnetizing and small inductive current switching tests
- Making tests
- Mainly active load current switching tests
- Shunt reactor current switching tests
- Internal arc tests, etc.



HIGH VOLTAGE TESTING

High voltage electrical power components, which is widely used in electrical power transmission and distribution lines, must meet specified continuous operation conditions according to international standards. High voltage test is one of the most fundamental requirements to evaluate the effectiveness of insulation performance. KERI provides high-quality and comprehensive High voltage testing services with the hope of safe and long-term operation of electrical power equipment.



High voltage tests

- Lightning impulse voltage tests
- Switching impulse voltage tests
- AC withstand voltage tests
- DC voltage tests
- Partial discharge tests, RIV tests, etc.



CIRCUIT BREAKER TESTING

Electrical power equipment failures can still occur despite thorough preventive actions. It is crucial to stop power line destruction by breaking the faulty section of the network to avoid long-term power outages. A circuit breaker is an essential part of a stable power supply and a finger line to protect electrical power network from power outages and cascading failures.



World-class circuit breaker testing service

KERI has proven its top professional and technical competence in Type tests for circuit breakers ranging from low voltage and medium voltage to ultra-high voltage. You can experience the world's most impartial and reliable High power testing through KERI. If you are concerned about the performance and safety of the circuit breaker that you have produced or purchased, KERI is the ultimate choice for addressing these concerns.

Testing capabilities

- For the rated voltages up to 1100kV and the rated short-circuit breaking and making current up to 80kA for AC
- For the rated voltages up to 1500V and the rated short-circuit breaking and making current up to 100kA for DC



CABLE TESTING

A power cable is like a blood vessel for a stable power supply. Even if demand for power cables continues to increase due to overpopulation, the environment, and mass transfer capability, its faults lead to high upfront costs for civil works. An accurate and reliable power cable test is crucial to maintain stable electricity during the cable's life cycle in an electrical power network.



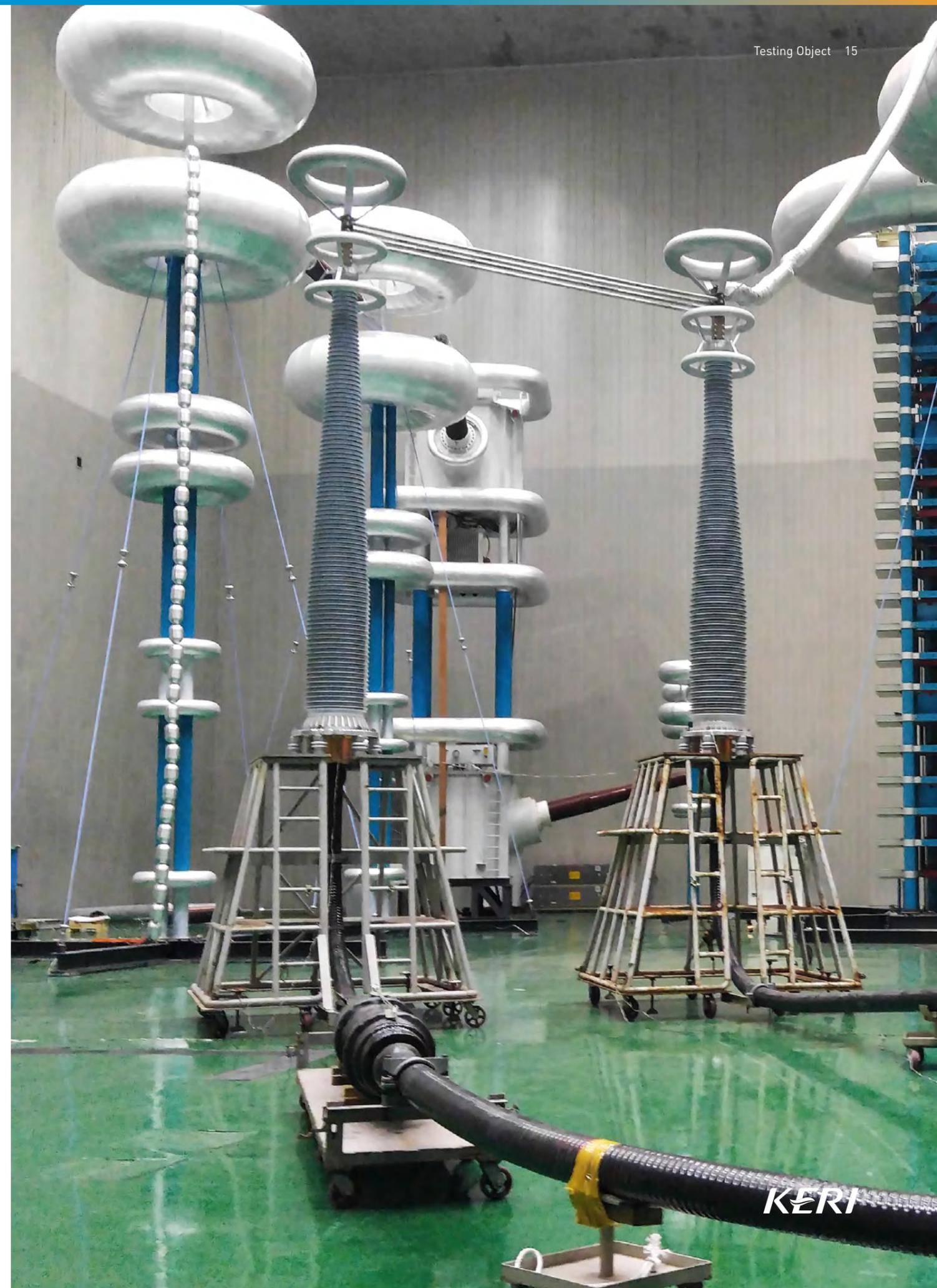
High-quality cable testing service based on years of experience

KERI offers high-quality electric power cable tests from low voltage range to extra-high voltage range as well as accessories compliant with international standards including IEC, IEEE, etc. You can have your goods comprehensively evaluated through impulse voltage

tests, AC withstand tests, heating cycle tests, heating cycle and voltage tests, accelerated water treeing tests, etc. at KERI's own facilities.

Testing capabilities

For the rated volages of XLPE cable system up to 380kV



SURGE ARRESTER TESTING

A surge arrester is required to protect instantaneously from abnormal surge voltages by diverting the surge current. Ensuring fully qualified surge arresters through high-quality testing and evaluation is one of the most economical and effective measures for protecting electrical power equipment.

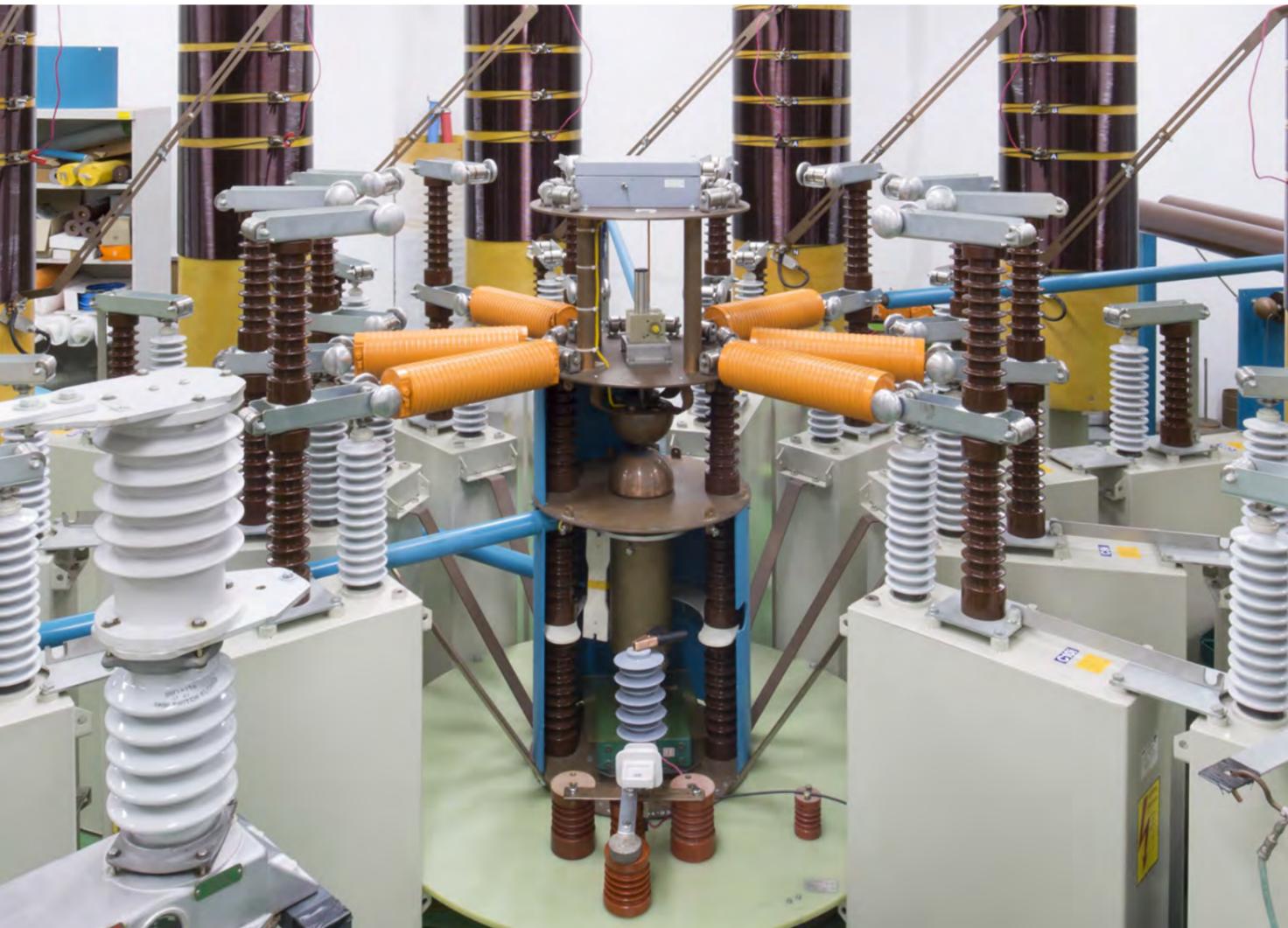
Testing service optimized to the international standard

KERI can test the arrester's performance against steep/lightning/switching current impulse, etc. using our own ICG equipment. We can also test the charge transfer rating and thermal stability as well as weather aging

including salt, fog, and UV light tests on the arrester in compliance with up-to-date IEC 60099-4.

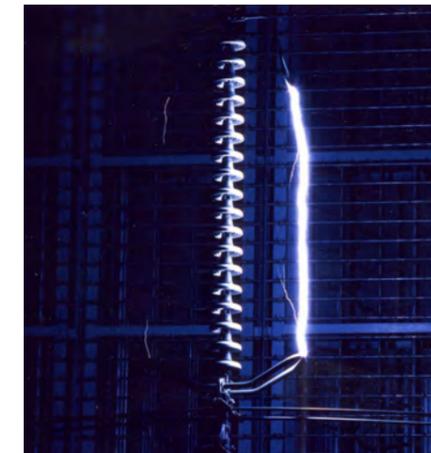
Testing capabilities

- For the applied maximum system voltages up to 800kV
- For the rated voltages of arrester section up to 12kV



INSULATOR TESTING

Insulators are widely used to support and separate electrical conductors and their insulation. Unqualified insulators can easily lead to severe accidents since insulators are placed between energized parts of a system or between any live part and the ground. Ensuring performance of an insulator through reliable and comprehensive testing for a stable electrical power supply in an electric power network is not an option; it's a must.



Comprehensive testing service for insulator

KERI owns all types of facilities from electrical tests to mechanical strength tests as well as material property tests. KERI offers Type tests according to the standards that you require, including IEC/IEEE/ANSI.

Testing capabilities

For the rated voltages of an insulator up to 765kV

BATTERY & ENERGY STORAGE SYSTEM TESTING

Batteries and energy storage systems are emerging as a core area leading the 4th Industrial Revolution as well as an alternative for continuous growth in the electrical industry. KERI provides its customers with all kinds of tests including safety tests from small batteries to large scaled batteries and energy storage systems for better energy in the future.



Preparing for the future

KERI offers safety and performance tests from small batteries to energy storage systems on electric ships, submarines, substations, smart buildings, etc. and is committed to develop new testing field for the future.

Testing capabilities

- Batteries for mobile, portable device, etc.
- Batteries for XEV (HEV, PHEV, EV)
- ESS (Energy Storage System)

IEC 61850 CONFORMANCE TESTING

IEC 61850 is a key standard to realize the interoperability of system integration in electrical substation automation systems. KERI is well qualified as a Level A testing laboratory by UCAIug and provides its customers with world-class conformance testing services in line with IEC 61850.



UCAIug approved Level A testing lab

- IEC 61850 Ed 1.0 & 2.0 server
- IEC 61850 Ed 1.0 & 2.0 client
- IEC 61850-9-2 merging unit
- IED, controller(Station/Bay), DER, gateway

IEC 61850-3 based Type tests

EMC, mechanical, environmental

IEC 61850 related protection tests

Grid simulation tests



AVAILABLE TESTING

KERI Offers All the Power Apparatus Tests You Need



Temperature Rise tests



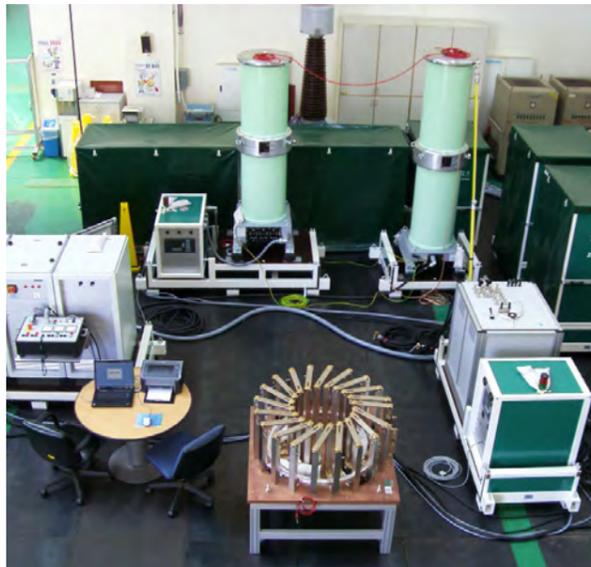
EMC tests



GIS Components tests



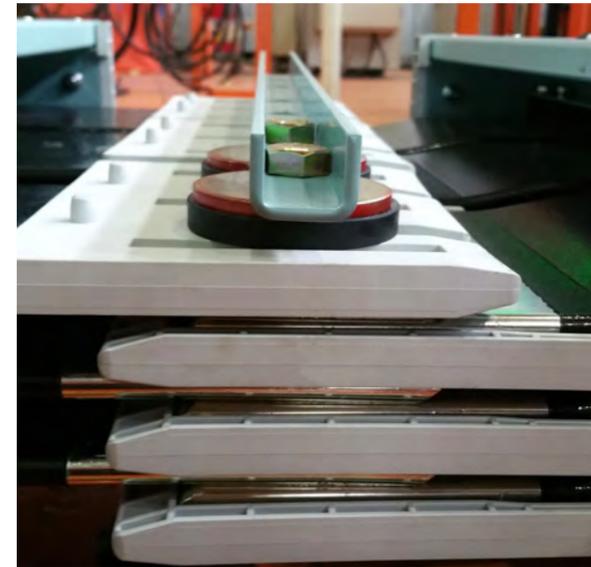
Medium-voltage Switchgear tests



Current Transformer tests



Transformer tests



Busducts tests



Fuse tests

TEST CERTIFICATE & TEST REPORT

After testing according to the recognized standards, Type test certificate or Test report is issued.

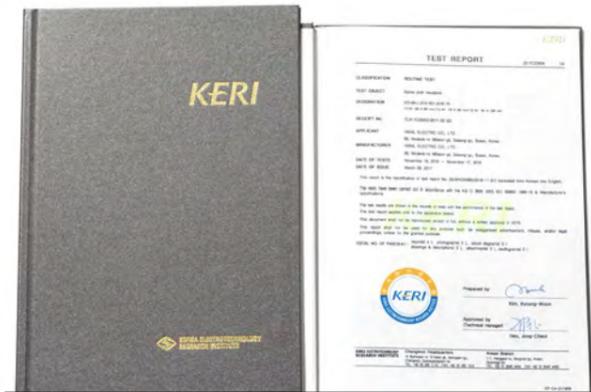


Type test certificate

A series of records that keeps the history of Type tests required by recognized standards and STL guides performed strictly

Type Test report

A series of records that include the history of Type tests required by recognized standards performed suitably



Test Report of Performance

Test records that include the history of performance tests required by recognized standards performed suitably

Record of test results

Records of tests that were performed in accordance with the customer's instruction



PRODUCT CERTIFICATION

A third-party certification body guarantees and certifies in document that the product meets the requirements of the relevant standards or regulations.

KERI product certificates

KERI conducts electric product certification services as an internationally recognized product certification body accredited by ACCREDIA, KAS and IECEE in accordance with ISO/IEC 17065.



ACCREDIA



IECEE NCB



KAS



LOCATION & SERVICE SECTOR

KERI's proximity to international airport and major ports contribute to the time and cost savings through ease of customs and transportation.



Changwon, Korea

- Ultra-high voltage tests
- High power tests (8000 MVA)
- Battery tests
- Inverter and motor tests
- Power cable tests
- Arrester tests
- Routine and Type test (KOLAS)
- Type test certification (STL)

Product Certification Service

- Product certification (KAS and ACCREDIA)
- IECEE NCB

E-mail: hpl@keri.re.kr, cert@keri.re.kr
Tel: 82-55-280-2401, 2503
Fax: 82-55-280-1512, 1167



Ansan, Korea

- National safety certification (Testing)
- IECEE CBTL
- EMC tests
- Material analysis tests
- High efficiency equipment tests
- Korea standards certification
- Routine and Type test (KOLAS)
- Type test certification (STL)
- IEC 61850 Conformance tests (UCAIug, Level A)

E-mail: dtl@keri.re.kr
Tel: 82-31-8040-4405
Fax: 82-31-8040-4499



Uiwang, Korea

- High power tests (600 MVA)

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