GIS
Gas Insulated Switchgear Up to 245kV
Growing into a World’s Best from Nation’s First!

The company that serves its customer!

Leading company in the industrial electric, electronics, materials and energy field following its separation from LG in 2003. LS aims to develop into a company that provides its clients with leading solutions, contributes to the overall society, and offers a business environment where employees can realize their dreams.

LS Cable & System
LS-Nikko Copper
Gaon Cable
E1
Yesco
Innovators in industrial electrical and automation systems

LSIS goes toward a global leading company in the Industrial electric & Automation field, providing customers with the total solution.

We provide customers with distinctive and eco-friendly products & Win-Win Strategy in the various fields such as Power Transmission & Distribution ; Electric Equipment ; Automation Equipment & Systems and Smart Grid.
245kV GIS General Introduction

Indoor and outdoor GIS are generally selected for many types of power plants and substations to satisfy high requirement and various needs.

Compact Design Through State-of-the-art Technologies
A design highly optimized to provide maximum efficiency mechanically and electrically. Space-saving design is ideal for use in compact places especially in urban or industrial zone.

High Reliability
GIS is less affected from pollution, climatic changes and dielectric deterioration in consequence of time than air insulated switchgear(AIS). Our GIS is given early life test and full life test for customers to ensure safety and reliability.

Long Life and Minimal Operation Cost
From design to test operation, our GIS is fully tested and supervised to ensure maximum performance and highest level of quality. Built to last over 30 years, it provides long service life at minimal operating cost.

Environmental Friendly
Minimal use of SF₆ gas is realized by compact design and our high technology. Gas leakage barely occurs, so that much environmental friendly solution can be realized.

Configuration
- 1. Gas to air bushing
- 2. Current transformer
- 3. Line disconnector and earthing switch
- 4. Main Bus
- 5. Operating mechanism and control panel
- 6. Circuit Breaker
- 7. High Speed Earthing switch
- 8. Potential transformer
- 9. Lightning Arrester
**Mechanism**
The operating mechanism for circuit breaker is spring stored-energy type that is installed in front of circuit breaker for easy access. The circuit breaker mechanism is composed of separate module which make it a simple design, highly reliable apparatus. The lifetime of circuit breaker ensures over 20,000 use if mechanical life, with minimal use of parts to ensure.

**Circuit Breaker**
The circuit breaker is consisted of three independent sing-phase switching devices. The breaker adopts the puffer assisted self-blast type for arc quenching method and is equipped with spring mechanism which has powerful driving force.

**Disconnector & Earthing Switch**
Optimized design of disconnecting and earthing system guarantees reliability of system and safety of users.
Double bus system (Indoor)

Top View

Single Line Diagram
Transformer Bay with cable connection

T/L Bay with Gas to air bushing

Bus-Coupler Bay
The Quality Assurance Program by LSIS provides strict quality control from promotion, manufacture and delivery in compliance to ISO 9001. It is our goal to provide world-best product to our customers, only to be done by maintaining the latest quality system and service.

The outstanding quality of our products is based on manufacturing in accordance with international standards. We also provide the Total Solution that encompasses design, engineering, efficient production and installation as well as highly accurate testing and analysis of power equipment.
## Technical Data

### Gas Insulated Switchgear 245kV

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>GESG 2450NS</th>
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<tbody>
<tr>
<td>1</td>
<td>Rated Voltage</td>
<td>245</td>
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<tr>
<td>2</td>
<td>Rated Short-time Withstand Current</td>
<td>50 / 3</td>
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<tr>
<td>3</td>
<td>Rated Normal Current</td>
<td>~ 3150</td>
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<tr>
<td>4</td>
<td>Rated Peak Withstand Current</td>
<td>130</td>
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<tr>
<td>5</td>
<td>Power Frequency Withstand Voltage</td>
<td>460 / 530</td>
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<td>6</td>
<td>Lightning Impulse Withstand Voltage</td>
<td>1050 / 1200</td>
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<tr>
<td>7</td>
<td>Operating Sequence</td>
<td>0-0.3 sec-CO-3 min-CO</td>
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<tr>
<td>8</td>
<td>Phase Arrangement</td>
<td>1 Phase Encapsulated</td>
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<td>9</td>
<td>Operating Mechanism</td>
<td>Motor spring</td>
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<tr>
<td>10</td>
<td>Ambient Temperature Range</td>
<td>-25°C ~ +40°C</td>
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<td>11</td>
<td>Applicable Standard</td>
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</table>
Worldwide Network

LSIS offers unique value proposition

- Strong commitment to R&D with numerous international certifications and approvals
- Equipped with unparalleled R&D capability allowing fast and flexible product development; ready to assist customers if they want to export current system to other regions
- Achieved numerous international approvals

Wide assortment of products with unparalleled cost competitiveness
- Cutting-edge technology with wide assortment from low and medium to high voltage for circuit breakers
- In-house power testing lab (PT&T) for quality assurance

Global infra and networks enabling JIT manufacturing and supplying
- Global warehouses – Korea, China, Netherland, UAE and America
- Sales and service networks in all over the world.
- 7 manufacturing sites in Korea/China/Vietnam

Readily available technical support and well designed training programs
- On-site technical support and on-line web-based assistance to meet end-customer needs
- Tailored training programs, to be offered via multiple channels
We are the first domestic private enterprise with a short-circuit test equipment of 1,600MVA capacity, high-voltage test equipment, reliability test equipment and a KOLAS recognition, providing global-standard test assessment services. The institute enjoys a global public confidence, through strategic cooperation, and reciprocal recognition of test reports, with UL (American safety standards), CE (EU recognition logo), The Netherland’s KEMA, Italy’s CESI and other overseas accredited testing institutes.
For your safety, please read user’s manual thoroughly before operating.

Contact the nearest authorized service facility for examination, repair, or adjustment.

Please contact qualified service technician when you need maintenance.

Do not disassemble or repair by yourself!

Any maintenance and inspection shall be performed by the personnel having expertise concerned.

Specifications in this catalog are subject to change without notice due to continuous product development and improvement.