# The Great Beginning, The Great Change

**HD HYUNDAI ELECTRIC**
CORPORATE BROCHURE

HD HYUNDAI ELECTRIC

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**RESEARCH & DEVELOPMENT**

**QUALITY ASSURANCE**

**GLOBAL NETWORK**

# Powering progress with innovative technologies and energy solutions, we are committed to contributing to the progress of humanity and society

Since its establishment in 1977, HD Hyundai Electric has been leading the power industry based on its long-accumulated capabilities and technology, providing differentiated power equipment across transmission, substation, and distribution.

With the advent of the energy transition and electrification, global demand for electricity is growing rapidly, and reliable and efficient power systems are becoming more important than ever.

HD Hyundai Electric is expanding its new value chain into power generation and demand areas in line with the rapidly changing market environment, strengthening sustainable growth and future competitiveness.

We will also take the lead in digital transformation and the establishment of eco-friendly power infrastructure to provide innovative technologies and become a comprehensive energy solution company that leads the global power market.

We would like to express our deepest gratitude to our customers for unwavering trust and support.

**Kim, Youngki**
CEO of HD Hyundai Electric

# SMART CONNECTION TO THE FUTURE

With a wide range of products and
proven engineering capabilities in every field of the electrical industry,
we are fully prepared to meet the most demanding requirements and
to provide turnkey solutions.
Our high quality products and services will satisfy customers
whenever and wherever they need us.

### Power/Distribution/Rotating Equipment

Providing equipment and systems to power system such as power generation, transmission and distribution

- Utility (National generation / transmission company)
- IPP (Private generation / transmission company)
- Industrial plant, EPC company and etc.

### MARINE SOLUTION

Providing electric system for ship and offshore facilities

- Shipyard, shipping company, offshore equipment provider
- Offshore plant (FPSO, etc.)

### GREENTRIC

Eco-friendly power device brand for the future of the Earth

- A new standard for the future electricity industry
- Solutions for a Sustainable Future of Humanity

### INTEGRICT

ICT solutions that provide high energy efficiency and maximize asset investment utility

- The core of HD Hyundai Electric's IT convergence business areas
- Creates new value throughout the product life cycle
- Supports various industrial protocol adapters to link with data

## 1970

**1977 Feb.**
Inauguration of Electrical Engineering Division

**1978 Jan.**
Completed Switchgear Factory

**1978 Oct.**
Completed Transformer Factory

**1978 Nov.**
Incorporation as Hyundai Electrical Engineering (HEECO)

**1979 Aug.**
Completed Rotating Machinery Factory

**1979 Sep.**
Completed High Voltage Transformer Test Laboratory

## 1980

**1982 Dec.**
Hyundai Industrial Research Institute established

**1983 Dec.**
Completed Circuit Breaker Factory

**1984 Dec.**
Completed Power Electronics Factory

**1986 Jun.**
Low Voltage Motor Factory established "HIMCO", Joint Venture with General Electric

**1989 May.**
Completed GIS Factory

## 1990

**1993 Dec.**
Merged with Hyundai Heavy Industries

**1996 Nov.**
Completed Turbine & Generator Factory

**1999 Oct.**
Established Global R&D center in Hungary

**1999 Nov.**
Completed 800 kV Transformer, GIS Factory & Test Facility

## 2000

**2001 Jan.**
Renamed Electro Electric Systems (EES) Division

**2002 Jun.**
800 kV Gas Insulated Switchgear Developed

**2003 Oct.**
Incorporated Hyundai Heavy Industries (China) Electric Company

**2008 May.**
Completion of switchboard and distribution transformer factory

**2009 Jul.**
Expanded 550 kV GIS Factory

**2009 Nov.**
Completed 400 kV Transformer Factory

## 2010

**2011 Nov.**
Incorporated Hyundai Power Transformer, USA

**2012 Jan.**
Achieved Total 800,000 MVA Production in Transformers

**2015 Oct.**
Medium/low-voltage circuit breaker HG Series launched

**2017 Apr.**
Hyundai Electric launched

**2017 Apr.**
Launched Hyundai Electric's ICT Solution 'INTEGRICT'

**2017 Jul.**
Won the World Largest Energy Storage System Contract

**2017 Jul.**
Bangkok Branch established. (in Thailand)

**2017 Oct.**
Frankfurt Branch established. (in Germany)

**2017 Dec.**
HD Hyundai Electric Switzerland Ltd. established

**2018 Apr.**
Completion of the World Largest (150 MWh) Energy Storage System (ESS) in Korea Zinc Ulsan Factory

**2018 May.**
Reliability Assessment Center opened to enhance R&D capability

**2018 Jul.**
Middle East Subsidiary established (In Saudi Arabia)

## 2020

**2020 Jan.**
Completed 500 kV Transformer Smart Factory

**2020 Apr.**
Hyundai Electric America Corporation established.

**2021 May.**
Declaration of ESG management

**2021 Oct.**
Launch of Hyundai Electric's eco-friendly product brand, GREENTRIC

**2022 Apr.**
Acquisition of 'Plaspo', a specialist power conversion device company

**2023 Mar.**
Name change to HD Hyundai Electric

**2024 Jan.**
Independently developed 145kV SF6 Free eco-friendly GIS for export

**2024 Jul.**
Completion of transformer storage facility in HD Hyundai Power Transformers USA, Inc.

**2024 Oct.**
Completion of Ulsan Transformer Core Shop

## ESG Strategy

### Green impact through eco-friendly management

- Expansion of business portfolio through development of carbon-reducing products and services
- Expanding the use of renewable energy

### Promoting shared growth based on mutual respect and participation of stakeholders

- Strengthening of ESG management support for partner companies
- Strengthening of human rights management system
- Expansion of Support projects for vulnerable groups in the local communities

### Practicing fair and transparent ESG management

- Strengthening of transparency and soundness of governance
- Participation in global initiatives

## Highlight

**ENVIRONMENT**

Declare **2040 RE100** and participate in **K-RE100**

Establish a **2050 carbon neutrality roadmap**

Implement **biodiversity conservation activities** including coastal cleanup in Ulsan and Nationally protected species protection activities near Tancheon in Seongnam.

Implement **eco-friendly resource recycling campaigns** : Recycled plastics work clothes (937.6 kg in 2023)

**SOCIAL**

Convene **a labor-management council meeting** on a quarterly basis to build win-win labor-management culture

Achieve certification of a **health-friendly workplace** (in December 2022)

Provide business partners with **'The safety training that comes to you'** for prevention of occupational accidents

Implement **ESG management support programs** for 40 key partner companies

Execute **human rights impact assessment** (in 2023)

Operate **financial support* program of KRW 49.5 billion** for business partners win-win relationship

* Shared growth fund, shared growth agreement guarantee (financial/non-financial)

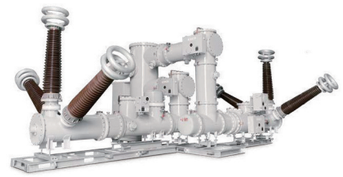
**GOVERNANCE**

Provide **outside directors with education** for strengthening ESG expertise

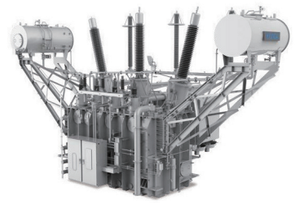
Disclosure **dividend policy** and **issue dividend** to build shareholder trust and protect shareholder rights

Provide **employees with education** and implement **self-diagnosis** for practice of ethical and compliance management

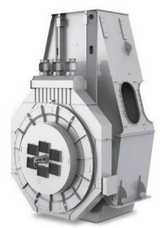
### Eco-friendly $SF_6$-Free GIS



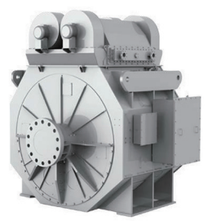
### Eco-friendly Transformer



### Engine Mounted Shaft Generator



### Permanent Magnet Shaft Generator



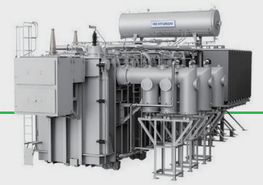
### Super Premium Efficiency IE4 LV Motor

### Dry-air ECO Switchgear

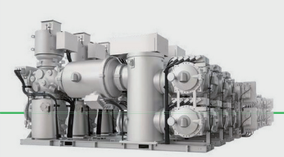
# What We Provide

HD Hyundai Electric's first goal is to provide sustainable client-based solutions, as a reliable and experienced electrical equipment manufacturer for the power generation, transmission and distribution market.
For the past 47 years, HD Hyundai Electric has engaged in designing, engineering, manufacturing, and supplying electrical products in compliance with international standards and customer requirements.

**Main Product**

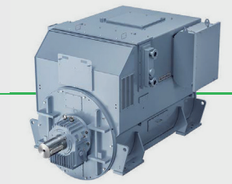


Power Transformer

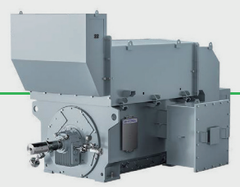


Gas Insulated Switchgear

MV/LV Switchgear



Generator



High-voltage Motor

Distribution Transformer

Low Voltage Motor

MV/LV Circuit Breaker

## Industrial IoT-based Application Platform

INTEGRICT is the core of HD Hyundai Electric's IT convergence business areas, such as industrial automation, energy management, and power facility asset management. This is also an industrial IoT (Internet of Things)-based application platform which collects and creates new value throughout the product life cycle.

**Providing applications related to data collection, storage, processing, and presentation**

It supports various industrial protocol adapters to provide an easy way to link with data, collected in the workplaces. On top of that, it helps accelerate the development and commercialization process by providing an application set which is related to data collection, storage, processing, and presentation, enabling to offer new services.

**IT Convergence**
The core of HD Hyundai Electric's IT convergence business areas

**Application Platform**
Collects and creates new value throughout the product life cycle

**Link with Data**
Supports various industrial protocol adapters to link with data

# Solution

## INTEGRICT

**Energy Solution**

Energy solution business refers to the business of designing, procuring and establishing a system that enables the efficient use of power energy through integrated management of the production, consumption, sales and operation.

**Asset Management Solution**

Asset management solution is a business that maximizes the overall business efficiency by systematically managing the performance, risk, maintenance cost and others as well as by providing an asset management solution suitable to the customer's circumstance depending on the product lifecycle (PLC) of various products.

## Marine

**Marine Solution**

- Production of high quality marine devices satisfying the regulations and standards of key marine associations (LRS, ABS, DNV, GL, BV, NK etc.) and world's renowned institutes
- High quality safety secured through the latest equipment and stringent quality control system
- Realization of optimal high efficiency by converging SWGR, Generator, Motor, Telecom, Automation, Intelligent Motor Control Unit and others

Marine Switchgear

Marine Motor

Generator

GREENTRIC

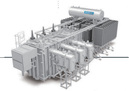
Shaft Generator

# Utility

## Generation(step-up)

### Power Plants

- Supplied to more than 70 countries around the world for the past 45 over years since 1978
- Satisfies the various demands of customers through the acquisition of quality certifications from international accredited institute
- Participates in the world's key technical committee such as GIGRE and others, pioneering the establishment of technology standard related to power network


Power Transformer
· up to 800 kV, 1,500 MVA

Gas Insulated Switchgear
· up to 800 kV

- Can be installed in spaces smaller than the open type of substation by using $SF_6$ gas with outstanding insulation and arc extinguishing characteristics
- Manufacturing advanced products that are resistant to external environment and climate effects through the sealing at the charge part
- Extensive project experiences around the world
- Reduces installation period and cost due to simple installation and transportation, convenient maintenance
- Design considering the safety of the workers as priority

GREENTRIC

ECO Transformer
· up to 500 kV, 1,000 MVA

- Eco-friendly oil (Natural/Synthetic)
- Dynamic Pressure Resistant System(DPRS)
- Guarantees excellence in safety

GREENTRIC

$SF_6$ Free Gas Insulated Switchgear
· GIS for 170 kV 50 kA 60 Hz
· ECO GIS for 72.5kV, 145kV

- Korea's first solely developed technology
- Eco-friendly Novec mixture gas instead of $SF_6$ gas

## Transmission

### Primary Substation/Secondary Substation

Gas Insulated Switchgear
· up to 800 kV

Power Transformer
· up to 800 kV, 1,500 MVA

Shunt Reactor
· up to 765 kV, 300 Mvar

## Distribution

Cubicle GIS
· up to 40.5 kV
· IEC, ANSI, GOST, UL

- Produces high quality products using angle-less type
- Multi-functional digital protection relay (HIMAP) applied
- High reliability secured, provides various operation information such as protection, measurement and control
- Firm external box, size and compact, making it safe
- Maintains high quality through stringent quality control system and continuous research and development

Metal Clad Switchgear
· up to 38 kV
· IEC, ANSI, UL

Low Voltage Switchgear & Motor Control Center
· H8PU : 480 V, 3,200 A, 65 kA
· H5600 : 480 V, 1,200 A, 65 kA
· HIMCC : 480 V, 5,000 A, 100 kA

Distribution Transformer
· up to 36 kV, 50 MVA

Cast Resin Transformer
· up to 36 kV, 20 MVA

VCB
· IEC, ANSI, UL
· up to 36/38 kV, 50 kA, 4,000 A

ACB
· AC : up to 150 kA, 6,300 A
· DC : up to 60 kA, 4,000 A

VC
· up to 12 kV, 400 A

MCCB
· AC : up to 150 kA, 1,600 A
· DC : up to 100 kA, 800 A

ELCB
· up to 85 kA, 800 A, 1,000 mA

MCCB / ELCB
· up to 10 kA, 100 A, 100 mA

MS / MC
· up to 800 A

Distribution Box
· Up to 36 ways
· Surface/Flush type

MCB
· up to 15 kA, 125 A

RCCB / RCBO
· up to 100 A, 500 mA

Isolator
· up to 125 A

Electronic Circuit Breaker
· up to 20 A

MMS
· up to 100 kA, 80 A

Installation Contactor
· up to 63 A

- Can be applied to various places of demand due to various domestic and international certifications and marine certifications
- Full HG-Series line-up established
- High standard of breaking capacity and various product line offers production in any load environments
- Increased reliability with reinforced breaking performance of high-breaking MCCB
- Reinforced usage stability through internal reliability verification

Fuse Links & Switches
· up to 1,250 A

HGMAP
· HGMAP Series

HGCAM
· HGCAM Series

SPD
· up to 200 kA
· AC, DC

HGDM

EOCR
· up to 60 A

### Motor & Generator

Synchronous Generator
· Rated Output: < 50 MVA
· Rated Voltage: < 15 kV
· Ploes: > 2P

Synchronous Motor
· Rated Output: < 40 MW
· Rated Voltage: < 15 kV
· Ploes: > 2P

MV&HV Induction Motor
· Rated Output: < 35 MW
· Rated Voltage: < 15 kV
· Poles: 2P-30P

- Enhanced reliability and secured safety with production of products based on the world's best equipment and stringent quality system
- Realized high efficiency by selecting slot based on FEM
- Realized small and lightweight with optimal design based on FEM analysis method
- Satisfies the quality standards of international accredited institutes (IEC, IEEE, CSA, NEMA, API etc.)

LV Motor
· Rated Output: < 750 kW
· Rated Voltage: < 690 V
· Poles: 2P-12P

# Energy Solution

HD Hyundai Electric provides total solutions for energy management system from a diagnostic analysis to an installation and verification.This system can be implemented in oil / chemistry / shipbuilding / hotel / school / hospital buildings with high reliability.

## Energy Management Solution

HD Hyundai Electric's energy solutions include comprehensive EPC solutions in the energy sector, including ESS, BEMS, FEMS, Micro Grid, enabling accurate on-site diagnostics, analysis for customer investment return, assisting in determining areas for improvement, and maximizing customer profits.

### Industrial Energy Solution

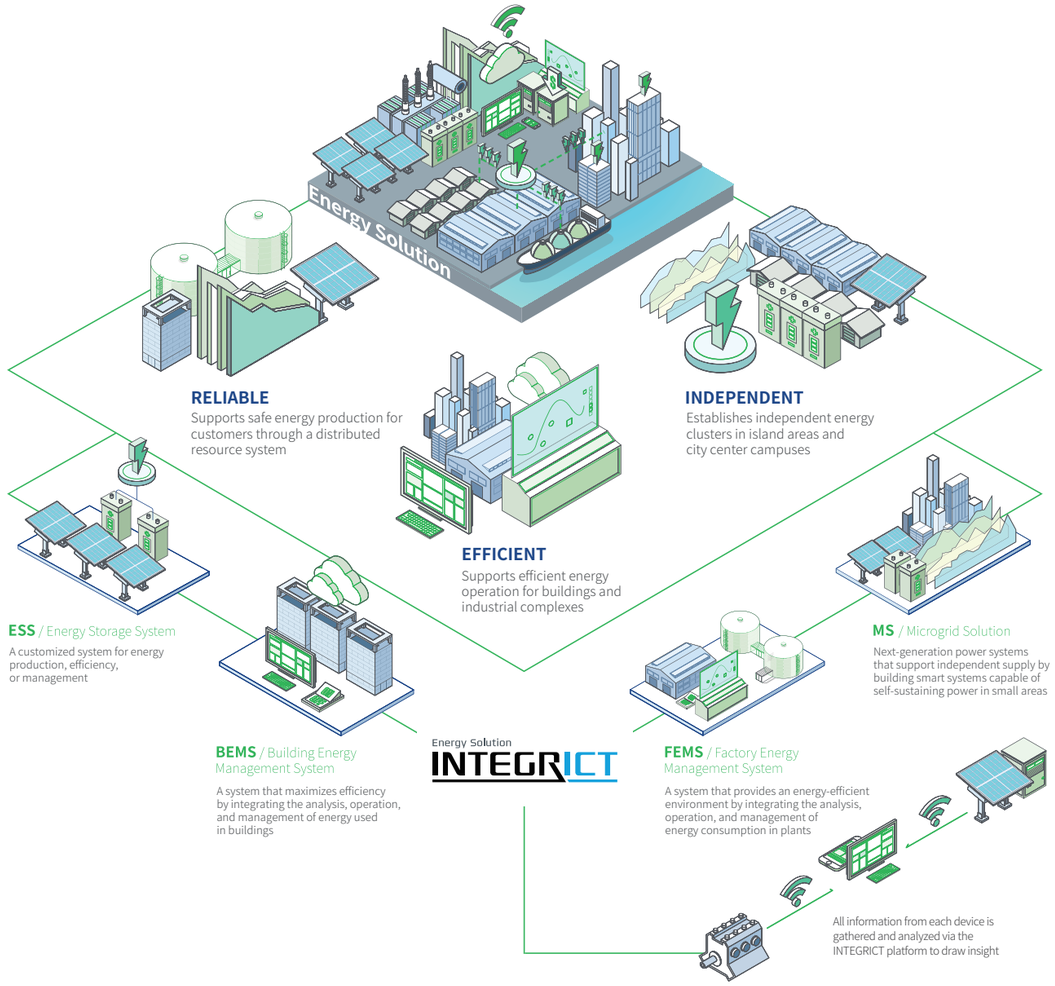
- Field diagnosis for energy saving and system improvement (Free)
- Analysis for energy saving solution and payback period (Free)
- Balance control solution for Pipeline Network System
- Process optimization (Oil / Chemistry / Shipbuilding)
- Solutions for system diagnosis and efficiency improvement
- Complex Energy Management System (CEMS)

### Building Energy Solution

- Field diagnosis for energy saving and system improvement (Free)
- Analysis for energy saving solution and payback period (Free)
- Building Energy Management System (BEMS)
- Zero Energy Building/Town (ZEB/ZET)
- Building Automation System (BAS)
- Forecasting for power demands
- Energy saving solution for HVAC

### Renewable Energy Solution

- Optimal operational solutions for renewable energy power systems
- Energy management solutions for Energy Storage Systems (ESS)
- Onshore wind power generation solutions
- Supply of the world's largest capacity-specific offshore wind turbines (Established a strategic partnership with GE)
- Provision of building rooftop and general solar power generation solutions




## System Integration

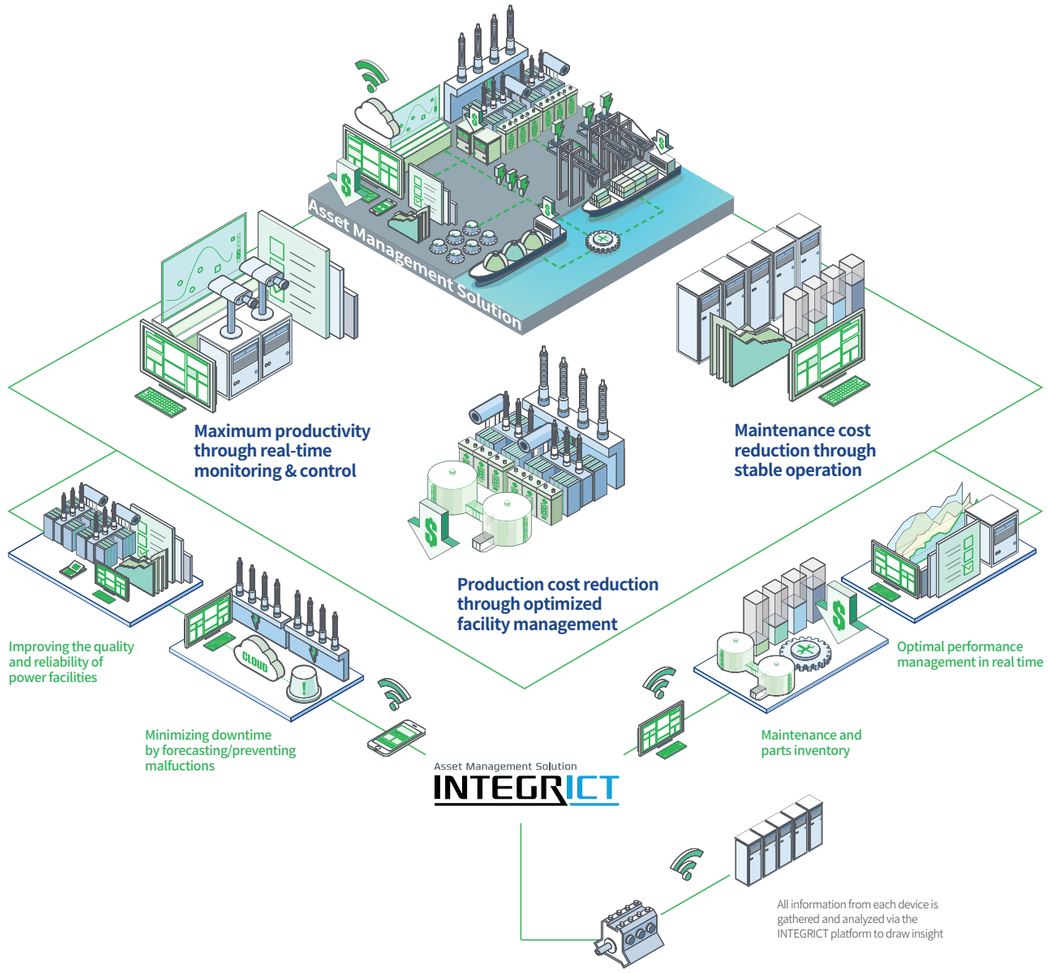
To provide a truly open platform for efficient integration of third-party software applications and system standard software / hardware, all software generation and hardware selections are designed and manufactured to meet industry standards.

### Features and Design Criteria of System Integration

- Duplexing data highway
- Distributed processing architecture
- Support of multiple major RTU protocols (Modbus, DNP V3.0, IEC 60870-5), IEC 61850
- Windows based HMI & web-based user interface
- Open system network
- Multi-level client / server structure
- Guaranteed to create any up-to-date system structure

# Assets Management Solution

Drawing on our 47 years of expertise in electric power facility design and manufacturing, HD Hyundai Electric systematically manages data such as performance, risk, and maintenance costs throughout the entire product lifecycle. We provide comprehensive asset management information for the operating conditions of electric power facilities and support customers in establishing optimal maintenance strategies.




## Characteristics

### Online electric power facility abnormality diagnosis
Using sensor data of electric power transformer, high voltage circuit breaker, rotating machine and switch gear, real-time electric power facility monitoring diagnosis functionality is provided

### Machine learning based failure foresight
Failure foresight functionality of electric power facilities through machine learning using operating and statistics data is provided

### Electric power facility health assessment
Based on failure statistics data of electric power facilities, operating history, Remaining life calculation algorithm and abnormality diagnosis data, maintenance strategy and risk assessment according to priority of facilities are established

### Life assessment by degradation evaluation
Remaining life of facilities is predicted based on degradation test data and failure statistics data

### Decision making
Decision is made for maintenance strategy based on facilities' statistics analysis data and health index

### Mobile service
Real-time monitoring information of electric power facility is provided through QR code of smartphone

### Control system
The real-time monitoring service of domestic and international electric power facility is provided in the cloud platform

### Data collection and management
Collect and manage various data of electric power facilities in analytic form

# Electrical Marine Solution

HD Hyundai marine electrical products include dry-type transformers, generators, motors, main switchboards, and various panels. These products have been installed on a large number of ocean going vessels and are highly regarded for their econimics, efficiency, and outstanding performance.

## Production Range

### LV/HV Switchgear

HD Hyundai Electric has accumulated decades of experience with marine electrical power distribution and control systems. Reliable designs of power distribution systems of low and high voltage and coordination of protective devices ensure continuity of service.

### Synchronous Generators

For their outstanding performance, Hyundai synchronous generators have received wide recognition from shipowners and have been installed on many ocean going vessels.

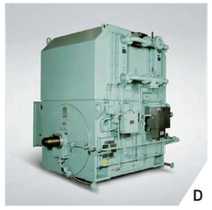
### LV & HV Motor

Hyundai rotating machinery has been supplied and tested in accordance with worldwide classification societies such as LR, ABS, DNV, and KR for marine and IEC, NEMA, CSA, IEEE, KS, JEC, and AS for industrial applications.

A

B

C


D

E

**A** / High Voltage Switchboard
**B** / Low Voltage Switchboard
**C** / Synchronous Generator
**D** / LV & HV Motor
**E** / Water Cooling Transformer

### Variety of Product

Production, possession and application of various product lines optimized for ships

### Reliability of Product

Product reliability thanks to more than 40 years of experience

### Product of Superiority

A rich track record of long-standing leadership as a top domestic supplier

# Power Transformer

HD Hyundai Electric entered the transformer market in 1978, and has maintained its position as a domestic leader in the field for the past 40 years, supplying more than 70 countries worldwide.
HD Hyundai Electric Transformer has been recognized for its excellent technology with state-of-the-art facilities and strict quality control system and has obtained quality certification from an internationally accredited organization.

### International Standard Production System

International standard production system meets international standards such as ES IEC, ANSI, NEMA, CSA, AS

### Participation in the world's Technical Committees

CIGRE, IEEE, and other major technical committees in the world

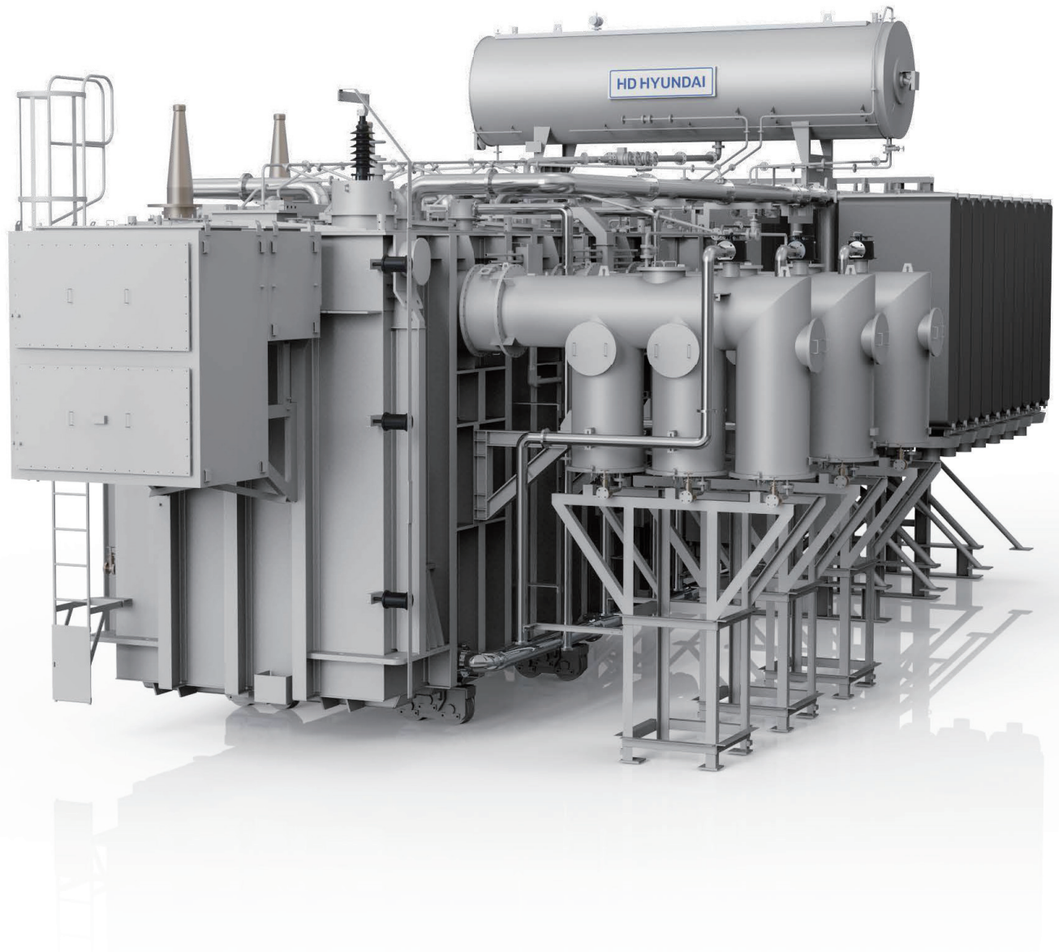
### High-efficiency Design

Low loss, Quiet,
Compact design, long life

## Production Range

- Power Transformer (Up to 800 kV and 1,500 MVA)
- Fixed/Variable Shunt Reactor (Up to 765 kV and 250 Mvar)
- Special purpose Transformer
  - Eco, Gas Insulated, Dynamic Pressure Resistant System(DPRS), Phase Shift, Mobile Transformer, etc.

**A** / 765 kV Power Transformer
**B** / 500 kV Power Transformer
**C** / 380 kV Power Transformer
**D** / TPRS (Tank Pressure Relief System) Transformer
**E** / Phase Shifting Transformer



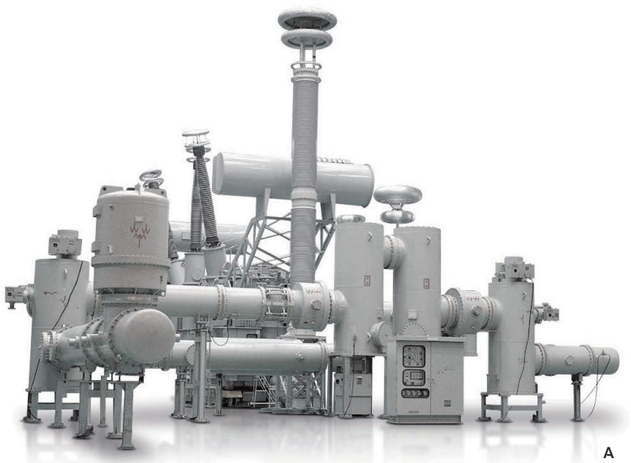
# Gas Insulated Switchgear

HD Hyundai Electric entered the GIS market in 1984, and has maintained its position as a domestic leader in the field for the past 40 years, supplying its products to 40 countries worldwide. Using the latest facilities and production systems in line with the latest international standards, we have the capacity to produce Gas Insulated Switchgear up to 800 kV, the maximum rated voltage in Korea.

## Production Range

$SF_6$ Gas Insulated Switchgear (GIS)
- Rated voltage : 72.5 kV, 126 kV, 145 kV, 170 kV, 245 kV, 362 kV, 420 kV, 550 kV, 800 kV
- Rated short - circuit breaking current : 20-63 kA

Eco-friendly Gas Insulated Switchgear (GIS)
- Rated voltage : 72.5 kV, 145 kV, 170 kV
- Rated short - circuit breaking current : 31.5-50 kA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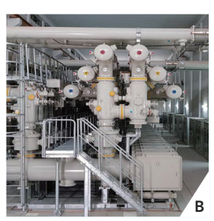
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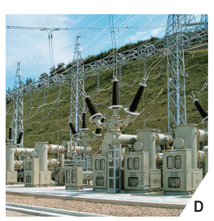

D

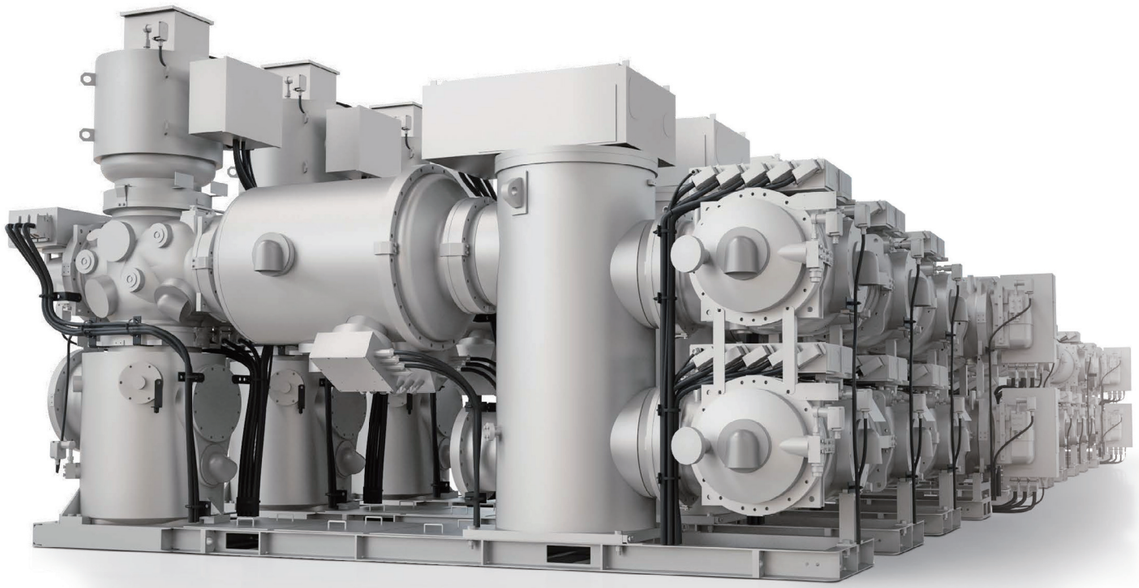
**A** / 800 kV Gas Insulated Switchgear
**B** / 420 kV Gas Insulated Switchgear
**C** / 245 kV Gas Insulated Switchgear
**D** / 170 kV Gas Insulated Switchgear

### Optimized GIS
$SF_6$ gas with excellent insulation and arc extinguishing properties allows installation in confined spaces

### High degree of reliability
Closed structure of GIS not affected by climate effects, anti-pollution, low electromagnetic wave

### User friendly Design
Compact design, easy installation, easy operation and monitoring, simple and systematic maintenance, long service life

### Eco-friendly Product Design
Development of eco-friendly GIS using Novec mixture gas and VI-DRY Air GIS applicable to existing substation sizes



# Rotating Machinery

HD Hyundai Electric supplies high quality rotating machinery certified by international regulations and authorities such as IEC, NEMA, EN, CSA, IEEE, KS, TRCU, PESO, JEC, BASEEFA, UL, and KOSHA for industrial applications.
We have a rich performance record of providing the best technology for motors and generators in the fields of power, desalination, chemical, oil & gas, renewable energy, CCUS, LNG, ammonia, hydrogen.

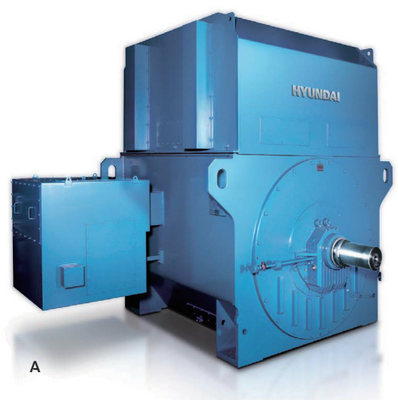
## Production Range

### Electic Motor

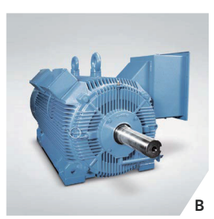
- Medium & High Voltage Induction Motors up to 35,000 kW, 14 kV
- High Voltage Synchronous Motors up to 40,000 kW, 14 kV

### Generator

- Synchronous Generators up to 50,000 kVA, 14 kV
- Marine Shaft Generators up to 5.5 MW

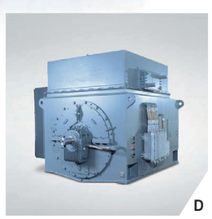



A



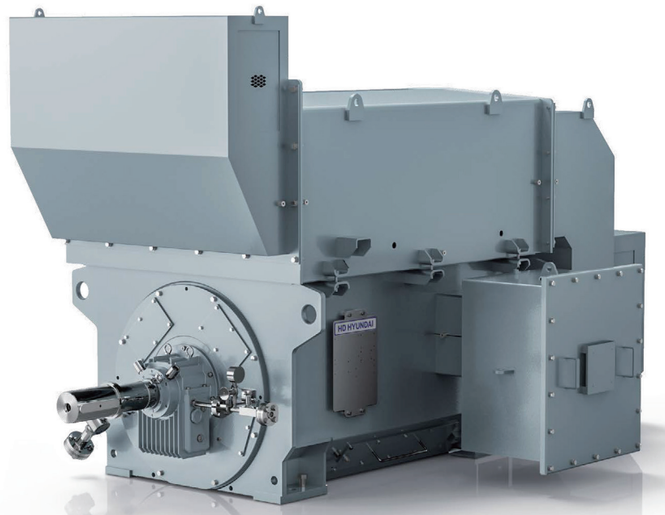
B

C



D

**A** / High Voltage Induction Motor
**B** / TEFC Type Squirrel-cage Motor
**C** / Synchronous Generator
**D** / Synchronous Motor




### Broad Specification Support

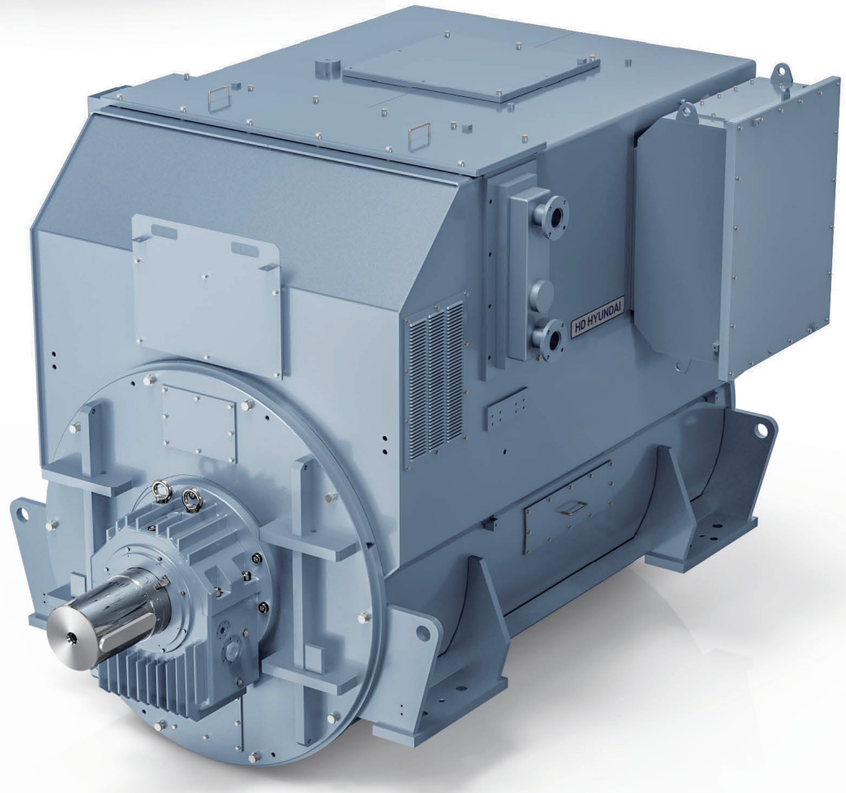
Provide models suitable for various environments, Stable operation even in harsh operating conditions

### Various Supply Performance

Power generation, Fresh water, Shipbuilding, Marine, Oil&Gas, Water treatment, Nuclear, Plant, CCUS, Hydrogen, Ammonia, LNG, etc.

### Outstanding Performance

High efficiency, Low vibration, Low noise, High-strength frame to withstand various loads, Optimal insulation system



# MV/LV Switchgear

Since HD Hyundai Electric started its switchboard business in 1977, HD Hyundai Electric has the largest delivery record in the domestic industrial plant market, from various buildings to plants and nuclear power plants. Validated according to industry standards such as IEC, ANSI, NEMA, BS, IEEE, UL, etc., it provides the best solution, especially in the areas of distribution, protection, measurement, control and telecommunications.

### Wide Product Range

Up to 40.5 kV high voltage switchgear, gas section smoke switchboard, eco-friendly switchboard, smarted switchboard, etc.

### Safe Products

Internal arc protection structure ensures stable and continuous operation even in harsh environments. Reliable seismic performance

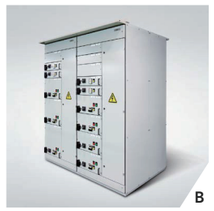
### User-centered Design

Customer-specific design as well as long service life through simple and systematic maintenance

## Production Range

- Medium Voltage Air-Insulated Switchgear up to 38 kV
- Gas Insulated Switchgear, Cubicle Type up to 40.5 kV
- Eco Friendly gas insulated switchgear, Cubicle Type up to 27.5 kV
- Low Voltage Switchgear System
- Non-segregated Phase Bus & Bus Way
- Intelligent Measuring & Protection Devices

A



B

C

D

E

**A** / Cubicle-Type Gas Insulated Switchgear
**B** / Motor Control Center
**C** / Hyundai Intelligent Measuring and Protection Device
**D** / Air-Insulated Switchgear
**E** / Eco Friendly Gas Insulated Switchgear

# Distribution Transformer

With know-how accumulated over 20 years and continuous research and development, various technologies such as electricity, structure, and heat are applied to design and production, and reduction of loss, maximization of cooling efficiency, and advanced molding technology are applied to reduce the size and weight of the product. We supply products with both crack resistance and digestibility. In particular, we acquired and delivered Q-Class for nuclear power plants for the first time in Korea and are also supplying molded transformers for ships and wind power generation domestically and internationally.

**Quality Reliability**
Exports to over 70 countries worldwide

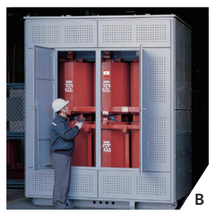
**Quality Superiority**
Flame retardant, good insulation performance, Low-loss, low-noise, compact and lightweight

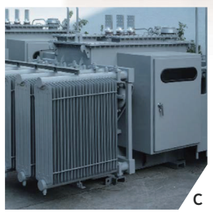
**Modifiability**
Flexible design and manufacturing capabilities enable easy maintenance and inspection

## Production Range

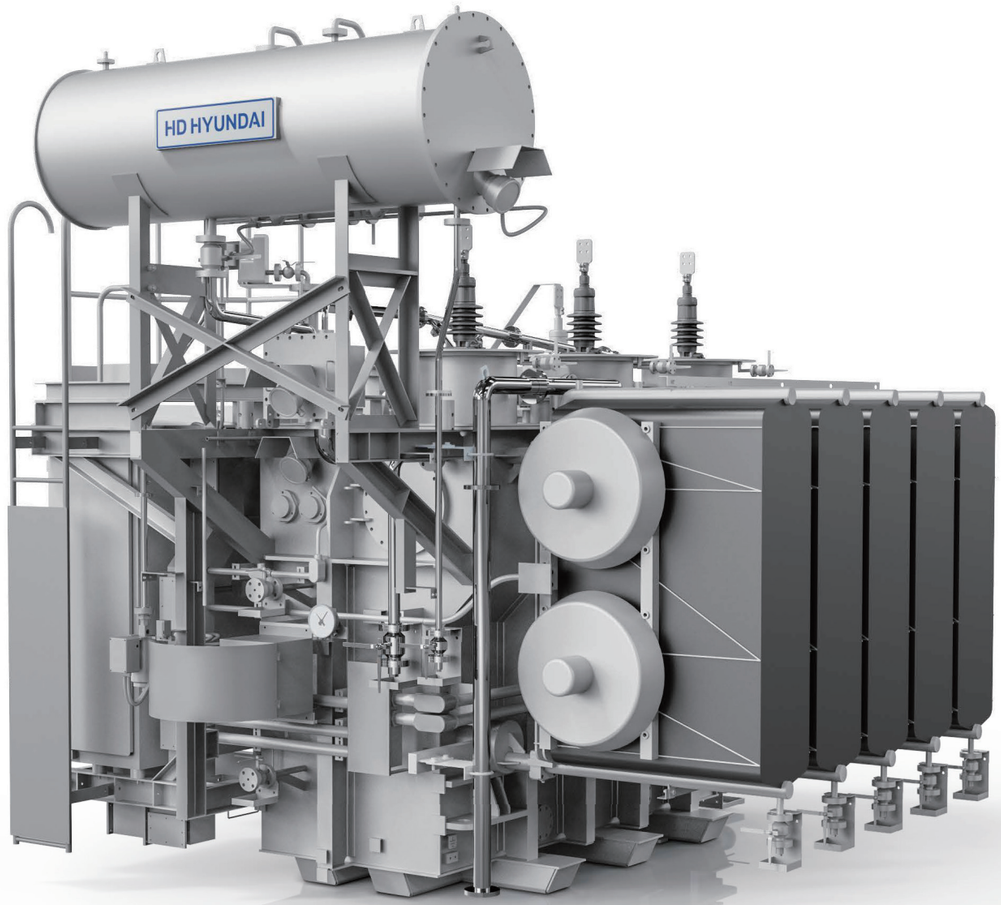
Oil-immersed Distribution Transformer
- Rated power : 100 ~ 50,000 kVA
- Rated voltage : 220 V ~ 36,000 V

Cast Resin Distribution Transformer
- Rated power : 100 ~ 20,000 kVA
- Rated voltage : 220 V ~ 36,000 V



**A** / Cast Resin Transformer
**B** / Enclosure for Indoor Cast Resin Transformer
**C** / Oil-immersed Distribution Transformer
**D** / Enclosure for Air Cooler Cast Resin Transformer



# Low-voltage Motor

HD Hyundai Electric low-voltage motors are equipped with international standards based on premium efficiency and have improved the efficiency and service life of electric motors through optimized structural performance and lightweight. HD Hyundai Electric Rig low voltage motors with quality assurance services and a diverse product lineup always pursue the highest customer satisfaction.

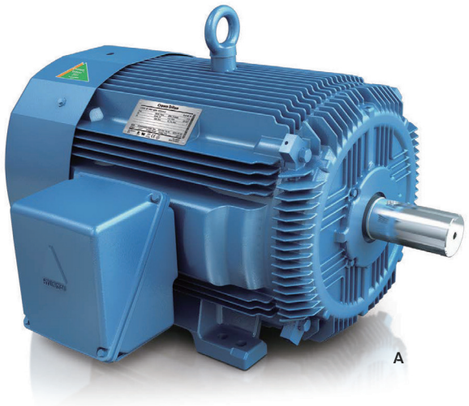
**Energy Savings**
Reduce power costs with optimal efficiency and electric motor life extension

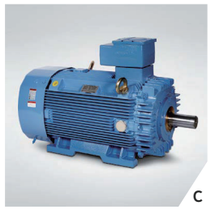
**Reliability**
Product design according to international standards and production system

**Diversification**
Various product lines reflecting customer requirements

## Production Range

- Anti-corrosion Case Induction Motors (Open-type, Enclosed-type)
- Aluminum Motors (Enclosed-type)
- Flange-mounted Anti-corrosion Case Motors (Open-type, Enclosed-type)
- Wound Rotor Motors for Cranes (Enclosed-type)
- High-efficiency Motors (Open-type, Enclosed-type)
- Premium Efficiency Motors
- Standard Low Voltage Induction Motors up to 1,000 kW
- Premium Efficiency Low Voltage Induction Motors up to 500 kW





**A** / Ex eb/ec IIC Motor
**B** / TEFC - Crown Triton Series Motor
**C** / Ex d/de/db/dbeb IIB/C Motor
**D** / Drip-proof Motor

# MV/LV Circuit Breaker

HD Hyundai Electric has a diverse product family of Low/Medium Voltage circuit breakers, from MCCBs for use in homes to ACBs and VCBs for industrial plants. Our high-quality products safely protect your electrical equipment. In addition, we have been tested by internationally accredited testing laboratories such as DEKRA, KERI and CESI to ensure flexibility, safety, and reliability.

**Diverse Lineup**
Powerful product group in construction, industrial, nuclear, shipyard, etc.

**User-centered Design**
High-tech custom design for easy installation and maintenance

**Securing Credibility**
Reinforcing stability based on cutting-edge technology and R&D

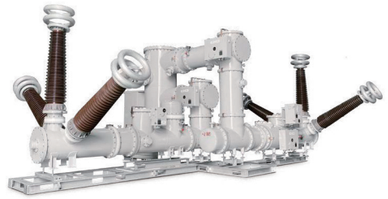
## Production Range

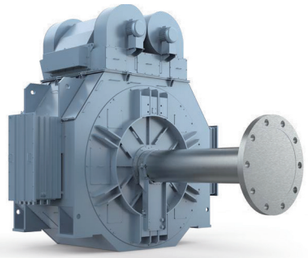
- Vacuum Circuit Breakers (VCB) up to 36/40.5 kV, 50 kA, 4,000 A
- Vacuum Contactors (VC) up to 12 kV 400 A
- Air Circuit Breakers (ACB) up to 6,300 A, 150 kA
- Molded Case Circuit Breakers (MCCB) up to 1,600 A, 150 kA
- Magnetic Contactors (MC) up to 800 A
- Digital & Thermal Type Overload Relays up to 800 A
- Miniature Circuit Breakers (MCB) up to 10 kA, 125 A

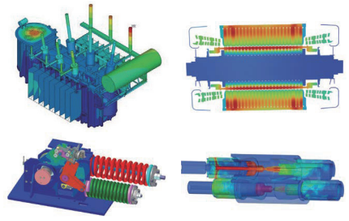
**A** / Vacuum Circuit Breaker
**B** / Air Circuit Breaker
**C** / Molded Case Circuit Breaker
**D** / Magnetic Contactor
**E** / Miniature Circuit Breaker
**F** / Protection Relay, Meter

# Research & Development

At HD Hyundai Electric, we're dedicated to shaping a brighter future through innovation driven by R&D. Our continuous research not only positions us as technology frontrunners but also guarantees the competitiveness of our products in the global market, fostering sustainable long-term growth. Guided by the 'Hyundai Spirit', we turn the impossible into reality, pioneering new technological frontiers with our creativity and determination.
Moreover, with 45 years of accumulated technological know-how, HD Hyundai Electric has consistently led the way in electrical systems, energy solutions, and electric innovation.







HD Hyundai Electric enhances product competitiveness through ongoing research and development efforts, fostering the creation of new products and models to bolster sales and adapt to emerging markets.

Moreover, in alignment with the global shift towards carbon neutrality and the strengthening of ESG management practices, we've intensified our focus on R&D activities. Our aim is to bolster our capacity to meet the demands of the next-generation power market by securing eco-friendly power devices, smart solutions, energy solutions, and DC distribution-related products.

To this end, our Pangyo GRC and Yongin Reliability Center in Korea conduct a range of research and development activities and reliability tests. These include the development of eco-friendly and high-efficiency products/technology, identification of future growth opportunities, enhancement of the market competitiveness of our core products, and the convergence of ICT technologies. Through these efforts, we aim to enhance our quality competitiveness.

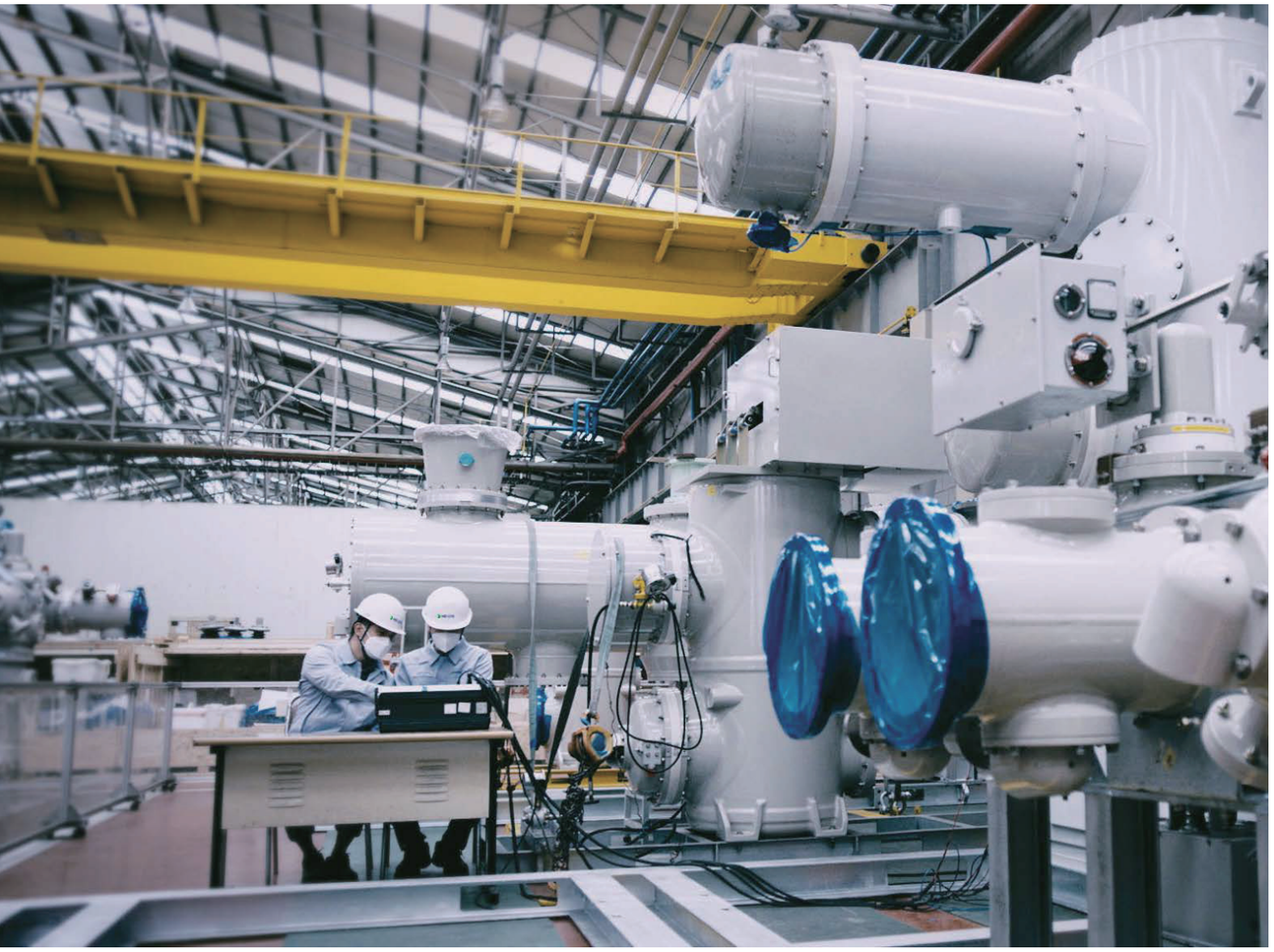
Furthermore, to address gaps in core technologies domestically, develop novel products, and foster collaboration with our head office, we operate overseas research centers in Switzerland (Zurich), Hungary (Budapest), and China (Shanghai). This strategy allows us to strengthen our market response by expanding our division of labor.

HD Hyundai Electric remains committed to advancing research and development in promising future technology fields, with the vision of evolving into a global leader in comprehensive energy solutions.

# Quality Assurance

Our well-developed resources for training enable HD Hyundai Electric to provide you with high quality, reliable products and better services.

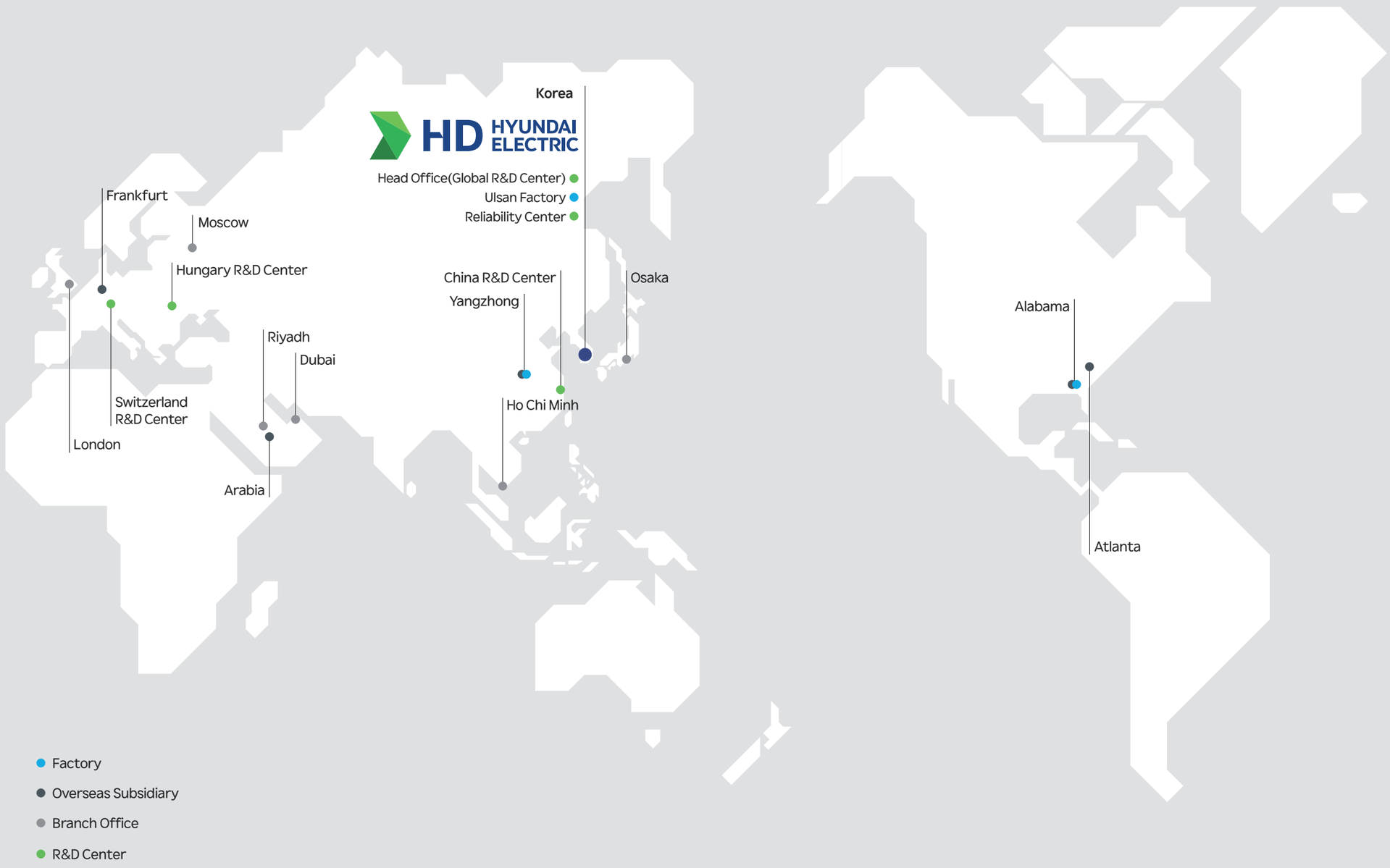
HD Hyundai Electric's policy is to meet all contract specifications and requirements. Our quality assurance programs are designed, organized, and implemented to ensure that our products or services comply with international standards.
HD Hyundai Electric has achieved management system certificates for ISO 9001 Quality Management, ISO 45001 Health and Safety Management, and ISO14001 Environmental Management.



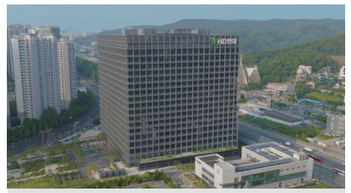
## Certification

| Certificate | Year | Authority | Field |
|---|---|---|---|
| KERI | 2004 | KERI (Korea) | Gas Insulated Switchgear (Cubicle Type),<br>Eco Friendly gas insulated switchgear (Cubicle Type) |
| KERI | 2006 | KERI (Korea) | HV/LV Switchboard |
| CESI | 2023 | CESI (Italy) | HV Switchboard |
| UL, cUL | 2024 | UL (America) | Gas Insulated Switchgear (Cubicle Type),<br>Eco Friendly gas insulated switchgear (Cubicle Type) |
| UL | 2014 | UL (America) | Cast Resin Transformer |
| KERI | 2006 | KERI (Korea) | Cast Resin Transformer |
| IEC | 2013 | DEKRA (Netherlands), UL (America) | Molded Case Circuit Breaker |
| IEC | 2014 | KTC (Korea) | Magnetic Contactor |
| IEC | 2019 | CE (Europe), DEKRA (Netherlands) | Air Circuit Breaker |
| IEC | 2021 | KERI (Korea) | Vacuum Circuit Breaker, Vacuum Contactor |
| UL | 2023 | UL (America) | Magnetic Contactor |
| UL | 2011 | UL (America) | Vacuum Circuit Breaker, Vacuum Contactor |
| ANSI | 2018 | KERI (Korea) | Air Circuit Breaker |
| ANSI | 2016 | KERI (Korea) | Vacuum Circuit Breaker |
| KS | 2009 | KTC (Korea) | Air Circuit Breaker |
| KS | 2018 | KTC (Korea) | Molded Case Circuit Breaker |
| KC | 2016 | KTC (Korea) | Magnetic Contactor |
| KC | 2018 | KTC (Korea) | Molded Case Circuit Breaker |
| V-CHECK | 2021 | KTC (Korea) | Vacuum Circuit Breaker, Vacuum Contactor |
| CQC, CCC | 2015 | CCIC (China) | Molded Case Circuit Breaker |
| CQC, CCC | 2022 | CCIC (China) | Magnetic Contactor |
| CQC, CCC | 2018 | CCIC (China) | Magnetic Contactor |
| CQC, CCC | 2023 | CCIC (China) | Air Circuit Breaker |
| ATEX, IECEX | 2010 | Baseefa (England) | Exd / ExdeIIB / IIC T3 Flame Proof Motors |
| ATEX, IECEx | 2014 | Baseefa (England) | Ex ec IIC T3 / T4 Non Sparking Motors |
| ATEX, IECEX | 2011 | Baseefa (England), KRH (Korea) | Exp II T3 / T4 Pressurized Motors |
| ATEX, IECEX | 2017 | Baseefa (England) | Ex tb /Ex tc T130°C Dust Ignition-proof Motors |
| CSA | 2001 | CSA (Canada) | LV & HV Motor |
| GOST R | 2010 | RUS-TEST LLC (Russia) | HV Induction Motor |

# Global Network




## Korea


Head Office

Ulsan Factory

Reliability Center

## Overseas Subsidiaries

Atlanta

Alabama

Yangzhong

Essential for Today
Potential for Tomorrow

H001006_2025.04

HD HYUNDAI ELECTRIC

| | | | |
|---|---|---|---|
| **Korea** | | | |
| Head Office | 477, Bundang Suseo-ro, Bundang-gu, Seongnam-si, Korea | Tel: +82-2-479-9180 | Fax: +82-2-500-4958 |
| Ulsan Factory | 700 Bangeojinsunhwan-doro, Dong-gu, Ulsan, Korea | Tel: +82-52-202-8114 | Fax: +82-52-202-8010 |
| Reliability Center | 17-10, Mabuk-ro 240beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do, Korea | Tel: +82-31-289-5000 | Fax: +82-31-289-5040 |
| **Overseas Subsidiaries** | | | |
| Atlanta | 2405 Satellite Blvd, Duluth GA 30096, U.S.A. | Tel: +1-678-789-1885 | Fax: +1-470-745-4443 |
| Alabama | 215 Folmar Parkway, Montgomery, AL 36105, U.S.A | Tel: +1-334-481-2000 | Fax: +1-334-386-8994 |
| Europe | Düsseldorfer Str. 40, 65760, Eschborn, Germany | Tel: +49-69-7490-3934 | |
| Arabia | Office No. 529, 5th floor Akaria-3 Building, Olaya Street, PO Box 9187, Riyadh 11413, Kingdom of Saudi Arabia | Tel: +966-11-419-0168 | Fax: +966-11-419-0220 |
| Yangzhong | No.9, Xiandai Road, Xinba Scientific and Technologic Zone, Yangzhong, Jiangsu, P.R.C. Zip:212212, China | Tel: +86-511-8842-0510 | Fax: +86-511-8842-0388 |
| **Branch Offices** | | | |
| London | 50-68 High Street, Weybridge, KT13 8BL, United Kingdom | Tel: +44-7979-125051 | |
| Moscow | World Trade Center, Ent.6, #412, Krasnopresnenskaya Nab.12, Moscow, 123610, Russia | Tel: +7-495-258-1381 | |
| Riyadh | Office No. 530A, 5th Floor Akaria-2 Bldg., Olaya St., Short Address RHOB6847, Riyadh 12244, Kingdom of Saudi Arabia | Tel: +966-11-210-1107 | Fax: +966-11-210-1107 |
| Dubai | Unit 205, Emaar Square Building NO.4 Sheikh Zayed Road, Pobox 252458, Dubai, U.A.E | Tel: +971-50-321-8154 | Fax: +971-4-425-7996 |
| Ho Chi Minh | Room 1405, 14th Floor Centec Tower, 72-74 Nguyen Thi Minh Khai Street Vo Thi Sau Ward, District 3, Ho Chi Minh City, Vietnam | Tel: +84-28-3535-0465 | |
| Osaka | 1-Room 5th Floor Nagahori Plaza Bldg. 2-4-8 Minami Senba, chuo-ku, Osaka 542-0081, Japan | Tel: +81-6-6261-5766~7 | Fax: +81-6-6261-5818 |
| **R&D Centers** | | | |
| Switzerland | Hardturmstrasse 135, CH-8005, Zurich, Switzerland | Tel: +41-76-241-6707 | |
| Hungary | H-1145 Bacskai utca 29/a, Budapest, Hungary | Tel: +36-1-273-3733 | |
| China | Room 10102, Building 10, 498 Guoshoujing Road, Pudong, Shanghai, China(201203) | Tel: +86-21-5013-3393 #139 | |
| Customer Service | service@hd.com | | |