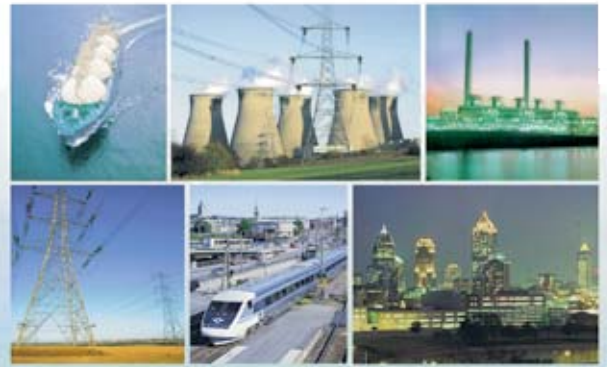




# Total Solution

for Electrical Industry



# *We build a better future!*

Dear Sirs,

It is our great pleasure to present this brochure for our esteemed customers and friends over the world to be able to understand our business lines and products in brief.

Equipped with full line-up of electrical equipment from low voltage to ultra-high voltage in a single plant, we can offer the advanced and comprehensive solutions for our customers and also help them ensure the reliability in power generation and transmission with our quality products and services.

With our ultimate goal “to serve our customers with the most efficient and attractive solutions, and also satisfy their various requirements”, we are challenging for the better future with continuous investment in R&D for new technology and products, and operating world-wide overseas offices so that our customers always can contact us and send us any inquiry in the field of electrical industry.

We sincerely hope that this brochure would help you understand our business activities.

Should you need further information or have any inquiry for our products and services, please feel free to contact us directly or our overseas office close to your company.

Looking forward to having a valuable business opportunity to serve you in near future,

Sincerely yours,



## Major Product

### Transformer

- Power & Distribution Transformer
- Cast Resin Transformer
- Special Purpose Transformer
- Shunt Reactor

### High Voltage Circuit Breaker

- Gas Insulated Switchgear
- Gas Circuit Breaker
- Disconnecting Switch

### Switchgear

- Medium Voltage Switchgear
- Low Voltage Switchgear & Motor Control Center
- SF<sub>6</sub> Gas Insulated Metal-clad Switchgear
- Distribution Board
- Intelligent Measuring Protection Device

### Medium & Low Voltage Circuit Breaker

- Vacuum Circuit Breaker
- Air Circuit Breaker
- Molded Case Circuit Breaker
- Earth Leakage Circuit Breaker
- High Voltage Vacuum Contactor
- Contactor Breaker
- Magnetic Contactor/Starter

### Motor

- Induction Motor
- Synchronous Motor
- Step Motor
- Traction Motor

### Generator

- Synchronous Generator
- Induction Generator
- Diesel Engine Generator Set
- Locomotive Traction Generator

### Instrumentation & Control System

- Product
  - MAX 1000+PLUS Distributed Control System
  - HiMAX 2000 Distributed Control System
  - APACS+Distributed Control System
  - Fox SCADA System
  - HiPMS SCADA System
- Application
  - Automatic Boiler Control System
  - Turbine/Generator Control System
  - Water Management System
  - Optimal Process Control System
  - Pipeline Modeling System(Gas, Oil, Water)
  - Energy Management System
  - Modeling & Advanced Control Application
  - Database & History System

### Power Electronics System

- Inverter
- Uninterruptible Power Supplier
- Battery Charger
- Automatic Power Factor Controller

### Locomotive-purpose Equipment

### Marine purpose Equipment





# Power Plant

## Hyundai Transformer

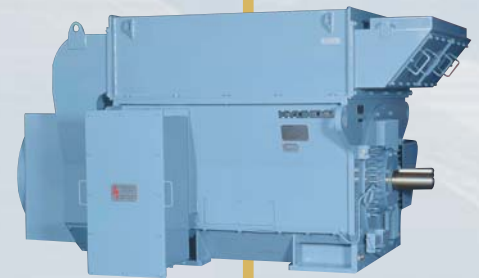
- High quality transformer up to 800kV, 800MVA. And utilizes up-to-date, state-of-art manufacturing/ testing facilities, and also a stringent quality control system for every step of the manufacturing.
- Meets various customer requirements in compliance with applicable industrial codes & standards.
- Optimized design for high performance and reliability for customers.
- ISO 9001 quality certified to ensure best customer quality.



Power Transformer  
up to 800kV, 500MVA



GIS for 800kV



Wind Turbine Generator

## Hyundai Control System Integration

- Open system interconnection with other computers.
- Easy to install, configure, operate and maintain.
- Maximized the operator's familiarity by applying Window 2000 server(Windows-NT).
- Provides a complete spectrum of functions ; web monitoring, touch screen, multi-media, real-time database management and data back-up etc.



- HIMAX-2000 DCS
- . Redundant Servers
  - . Dual Network
  - . Redundant Control Processor
  - . Redundant I/O & Power Supply

# Reliable P Mutual P



## S Secondary Substation

### Hyundai Switchgear

- Offer the best solutions in the field of electric power distribution, protection, measuring, control and communication.
- Successfully maintains the competitive edge in quality, price and delivery through continuous research and development.

## P Primary Substation

### Hyundai High Voltage Circuit Breaker

- Require less space than the conventional open-air substations.
- Provide maximum safety for operating personnel with earthed enclosure and all live parts contained.
- Design comprised of standardized modules, resulting in high quality production, simple assembly and easy installation.



Low Voltage Switchgear & Motor Control Center  
 - H8PU ; 660V, 3000A, 80kA  
 - H5600 ; 660V, 3000A, 100kA  
 - HIMCC ; 1000V, 5000A, 100kA



Metal Clad Switchgear  
 - up to 38kV  
 - IEC, ANSI Standard



HIMAP  
 - Hyundai Intelligent M & Protection Device



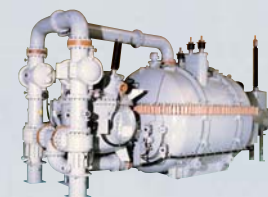
HICAM  
 - Hyundai Intelligent Communication & Measuring Device



GIS for 245-362kV



SF<sub>6</sub> Cubicle GIS  
 (25kV, 2000A, 25kA)



SF<sub>6</sub> Gas Transformer  
 up to 154kV



Medium Voltage GIS  
 up to 36kV



GIS for 72.5-170kV



TOID:  
 Transformer Oil  
 Insulation Diagnosis

Oil Transformer for Step-down

# Partner for Prosperity

## Hyundai Marine Purpose Equipment

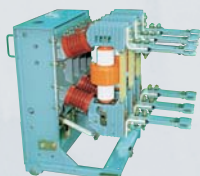
- Has been widely acknowledged not only by major classification societies of LRS of UK., ABS of U.S.A, DNV of Norway, GL of Germany, BV of France, NK of Japan, KR of Korea, but also by the leading ship owners around the world.



HVF Type VCB  
 - up to 7.2/12kV, 40kA, 3150A  
 - up to 24kV, 40kA, 3150A  
 - up to 38kV, 40kA, 3000A



VCS 3.3/6.6kV, 200/400A



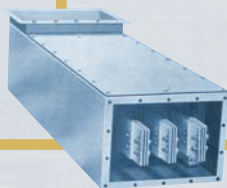
HAF Type VCB  
 - up to 7.2kV, 50kA, 3150A  
 - up to 12/15kV, 40kA, 3150A  
 - up to 24kV, 25kA, 2500A



ACONIS-2000  
 - Advanced CONTROL & Integration System



ECR Console



Non-segregated Phase Bus Duct  
 up to 34.5kV, 5000A



Cast Resin Transformer  
 - up to 36kV, 10MVA

## Hyundai Medium Low Voltage Circuit Breaker

- Wide range of breaking capacity and frame for customers' various requirements.
- Compact design and high performance

Magnetic Contactor



HiTH / HiMC



HiMC 130



Molded Case Circuit Breaker



Earth Leakage Circuit Breaker



HiAN Type  
 - 630 ~ 3200A  
 - 70 ~ 85kA



HAT Type  
 - 630 ~ 5000A  
 - 30 ~ 100kA

Air Circuit Breaker



# Consumer

## Hyundai Motor & Generator

- Meet customers' diverse technical requirements with the state-of-art manufacturing and testing facilities.
- Comply with international standards such as IEC, IEEE, CAS, NEMA and API etc.



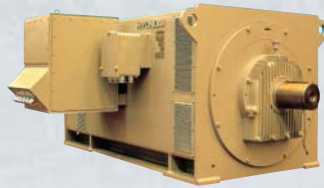
HV Induction Motor (HRQ7 Type)  
 - Totally-enclosed Air to Air Cooled Machine  
 - 1300~10000HP/4pole, 6.6kV, 60Hz



H<sup>c</sup> Series Motor  
 - 220~1000HP  
 - 2300~7200V, 60Hz



Inverter Shield™ Motor  
 - 1~250HP  
 - Premium Efficiency



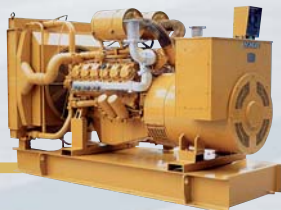
HV Induction Motor (HRA7 Type)  
 - Open Drip proof Machine  
 - 1730~25000HP / 4pole, 6.6kV, 60Hz



Compressor Drive Motor  
 - up to 2000HP  
 - 2pole, ODP, WP I & II  
 - 2300~14000V, 60Hz



Crown Triton™ Series Motor  
 - 1~250HP  
 - Premium Efficiency



Diesel Generator



Three-phase AC Generator  
 - 90~2000kVA  
 - 4pole, Open Drip Proof.



Crown Signature™ Series Motor  
 - 1~250HP  
 - EPACT Efficiency



Synchronous Alternator  
 - 100~50000kV  
 - 2~14V  
 - 4pole over IP23/IP4



Explosion-Proof(Class 1 Div.1) Motor  
 - 1~250HP  
 - Hazardous Locations  
 - Premium Efficiency

## Power Electronics

- Precise torque regulation using sensorless vector control and DTC(Direct Torque Control)
- Quick response with built-in DSP(Digital Signal Processor) and high speed micro-computer
- Fully enclosed to provide environmental durability with a compact design.



UPS : Uninterruptible Power Supply

### hiRUN Inverter



N50

N100<sup>plus</sup>

N300

N500



High Voltage Inverter