

[www.elpowertech.com](http://www.elpowertech.com)



We are making the best transformers for a better world

# EL POWER TECH

## Special Type Transformer & Reactor

# Company profile

## Company Name

EL POWER TECH Co., Ltd.

## CEO

Seong Kyu Choi

## Business Registration Code

124-81-75048

## Address (Headquarter and Factory)

144 Cheongwonsandan-ro,  
Mado-Myeon, Hwaseong-Si,  
Gyeonggi-Do, 18541, Korea

## Contact Number

Tel: +82-31-355-1532

Fax: +82-31-355-9808

## E-mail

[elpowertech@elpowertech.com](mailto:elpowertech@elpowertech.com)

## Products

Pole Mounted Tr, Pad Mounted Tr, Distribution Tr,  
Power Tr, Dry type Tr, Reactors,  
Starter Reactor, Leakage (constant current) Tr

## Customers & Global Service Networks

KEPCO, JAPAN, USA, CHINA, TAIWAN,  
VIETNAM, PHILIPPINES, MYANMAR, KUWAIT,  
LAOS, COLOMBIA, THAILAND

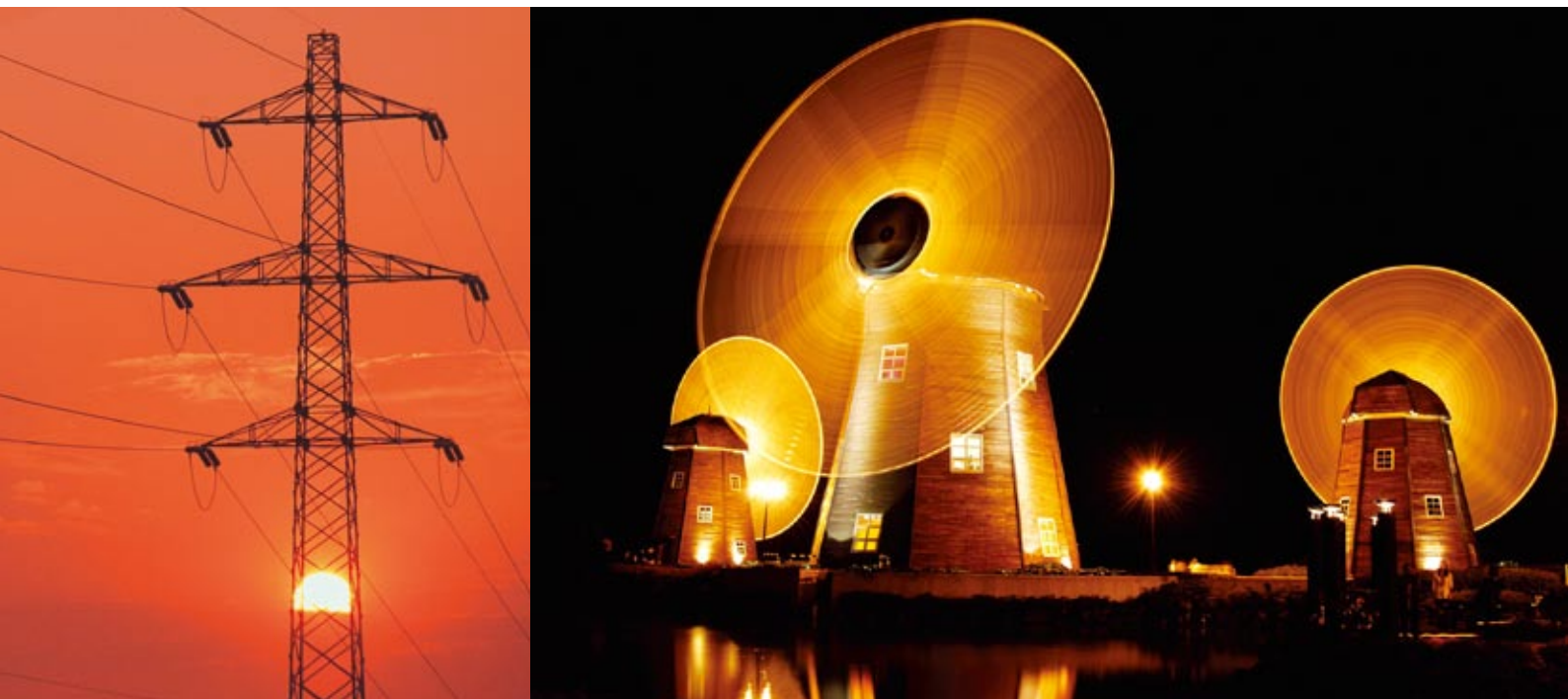
## Website

[www.elpowertech.com](http://www.elpowertech.com)



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EL POWER TECH is the leader in power and integrated systems, especially renowned in Asia as well as in Korea based on customers' trust.

Since its establishment in 2000, with the mission to be the leader in delivering quality products and services that meet the needs and requirements of our customers and contribute to their success.

We have numerous intellectual property rights such as UL, CE, KS certifications and patents, utility models.

In particular, Phase Shift Dry Type Transformer and Reactor for Medium Voltage Drives have been supplied YASKAWA ELECTRIC CORPORATION in Japan for the last several years.

"Global Company, Active ELPOWERTECH" promises to provide quality products as always.



EL POWER TECH

# History

We are making the best transformers for a better world



2000  
~2003

- 2000. 07. 20 Establishment / Founder&CEO, Seong Kyu Choi
- 2000. 11. 11 Achievement of Certificate [ISO 9001]
- 2001. 02. 11 Achievement of Certificate [KS C 4306]
- 2001. 02. 19 Registration of Utility Model [0222268-combination structure for transformer core]
- 2002. 03. 13 Achievement of Certificate [ISO 14001]
- 2002. 04. 18 Registration of Trade Mark [0518177]
- 2002. 06. 18 Establishment / R&D Center [20021747]
- 2003. 08. 06 Designation as a Promising Business from Gyeonggi Province [2003-130]
- 2003. 08. 26 Achievement of Certificate [UL, component-system, electrical insulation]
- 2003. 10. 27 Registration of Utility Model [0332272-transformer with indication of load factor]
- 2003. 11. 10 Patent Application [10-2003-0079258-manufacturing method of optional ion film]
- 2003. 11. 24 Designation as a Venture Business from Gyeonggi Province Administration



2004  
~2008

- 2004. 02. 19 Designation as an Export-oriented Enterprise from Gyeonggi Province
- 2004. 06. 14 Designation as a High-Tech Business from Tech Credit Guarantee Fund
- 2004. 07. 26 Achievement of Certificate [CE, standard type pole-mounted transformer]
- 2005. 07. 07 Registration of Utility Model [0019849-voltage cost measuring instrument]
- 2006. 05. 12 Achievement of Waiver of Certified Test [oil-immersed type transformer]
- 2006. 10. 15 Initial Export to YASKAWA, Japan [Phase-Shifting Dry type Transformer, Reactor]
- 2008. 09. 11 Designation as a INNO-BIZ from Gyeonggi Province Administration

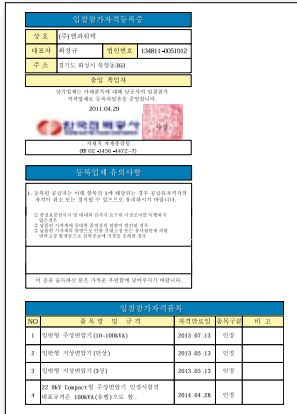
2009  
~2010

- 2009. 11. 30 Presidential Award for export amount of US\$ 3 Million
- 2009. 11. 30 Secretary's Citation for promoting international trade
- 2010. 11. 30 Presidential Award for export amount of US\$ 5 Million
- 2010. 11. 30 Secretary's Citation for promoting international trade

2011  
~2012

- 2011. 08. 16 Achievement of Certificate [CE, phase-shifting dry type transformer]
- 2011. 10. 01 Registered Partnership with Hyundai Heavy Industries
- 2011. 11. 20 Registered Partnership with ABB Korea
- 2012. 07. 10 Registered for D&B D-U-N-S
- 2012. 05. 10 Relocation of Plant (Guemdang complex)
- 2012. 07. 10 Registered in D&B D-U-N-S
- 2012. 08. 10 Agency Agreement with Vandothra Group, UAE
- 2012. 10. 30 Registered in US Army Contracting Command Korea
- 2012. 11. 22 MOU with Monwatt LLC, on Mongolian Power Grid Development

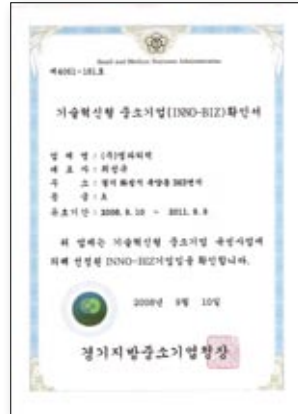
# Certifications



KEPCO Accreditation



R&D Center



INNO-BIZ



KS C 4306



UL



CE



ISO9001



ISO14001



Patent



Registration of Utility Model

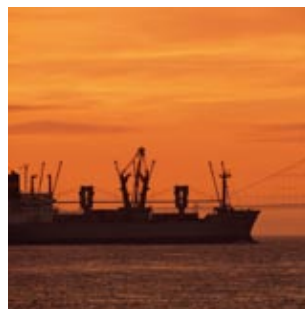
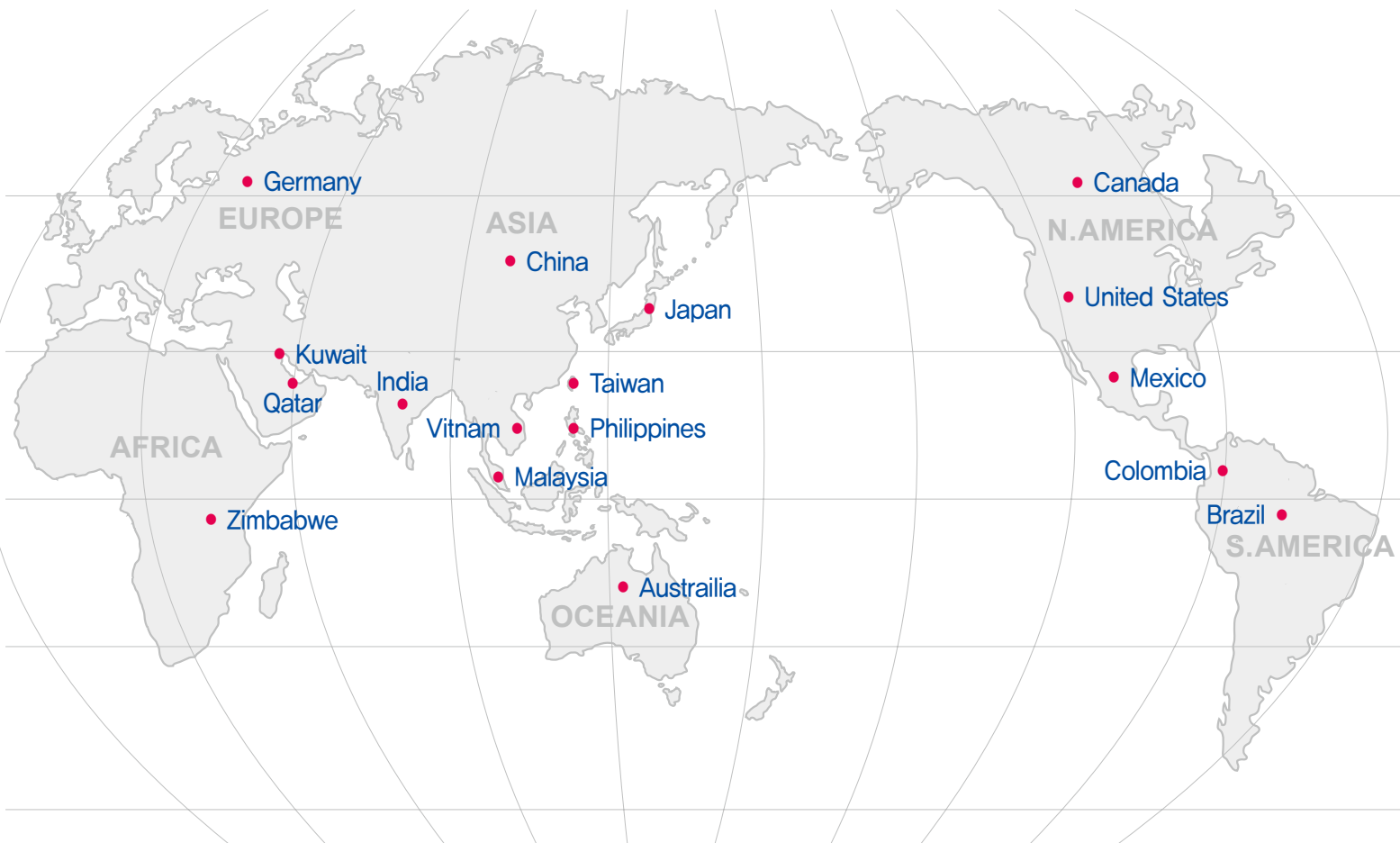


Registration of Utility Model



Registration of Utility Model

# Key customers & Sales Network



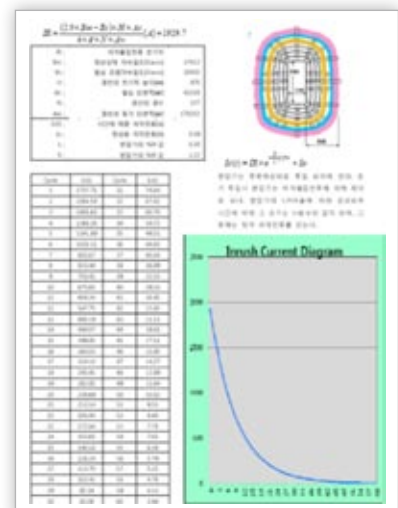
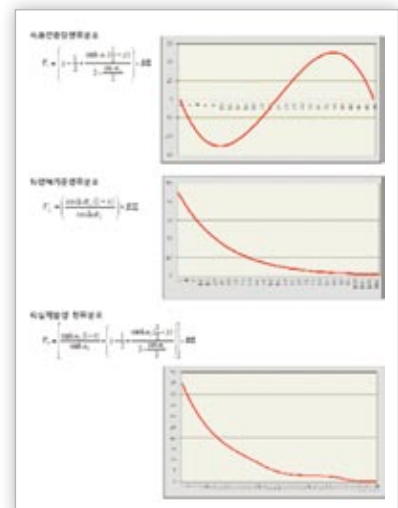
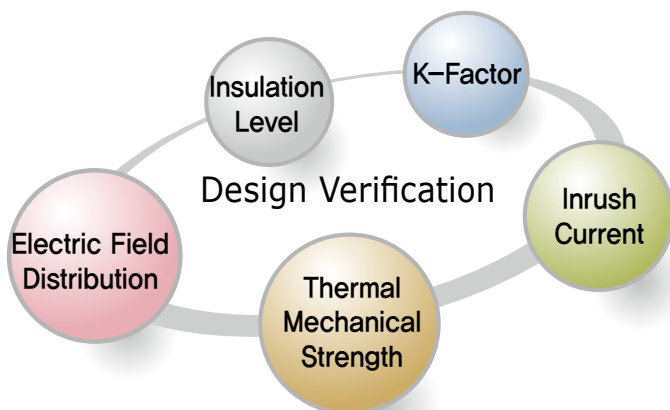
# Technology

## Electrical Design

It is our specialty to creatively design for a variety of requests from various clients. Regardless of the type of winding, we design without any limitation of insulation class nor temperature rise. This is why any unique specification is welcomed to be custom-made for any circumstances including voltage, current, configuration and frequency.

Over a decade's hard work and dedication give us Know-how in terms of design, manufacturing and QA. This is why we can supply only state-of-the-art products through systemic verification procedure as well as design analysis program as below:

- Inrush Current Analysis
- Thermal and Mechanical strength Analysis (caused by short-circuit)
- Electric Field Distribution Analysis
- Insulation Level
- K-factor Analysis
- Equipment Reliability Analysis

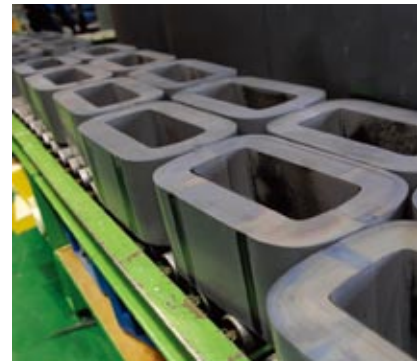
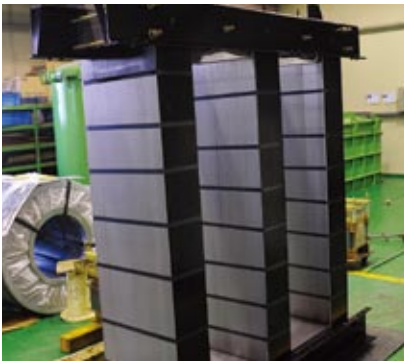






## Magnetic Core

Cold Rolled Grain-oriented steel (CRGO) which has high magnetic permeability is the one used as a Magnetic Core, and our own know-how in designing and cutting is applied to dramatically reduce no-load current and no-load loss. Our precise producing and manufacturing process can minimize vibration and noise, also make it have enough solidity and strength to support winding.



## High Voltage Winding

Electrical Coil Winding – a quality conductor covered with suitable electrical insulating materials is designed and manufactured to achieve high-class insulation as well as smooth cooling. Every outgoing line is supported by insulating materials, and coil's connecting part is fully contacted by welding or compression.

Insulating class and mechanical strength are taken into consideration so coil winding can withstand electrical surge and abnormal voltage thoroughly. Furthermore, outer parts are reinforced in case of electromagnetic mechanical power occurrence while short-circuit. Plus, NOMEX is used for the H class insulation of Dry Type.



# Technology

## Quality Assurance System

ISO 9001 / ISO 14001 standards are adopted to keep supplying both reliable and eco-friendly products. Also, rigorous tests are conducted in accordance with global standards such as IEC, UL, CE, JEC, KS, etc.

### Routine Test

- Structure Test
- Wire Wound Resistance Measurement
- Voltage Ratio Measurement
- Angular Displacement Measurement
- Load Loss / Impedance Measurement
- No-load Loss / No-load Current Measurement
- Commercial Frequency Voltage Withstand Test
- Magnetic Induction Voltage Withstand Test



### Type Test

- Impact Withstand Voltage Test
- Temperature Rise Test
- PD Test



### Special Test

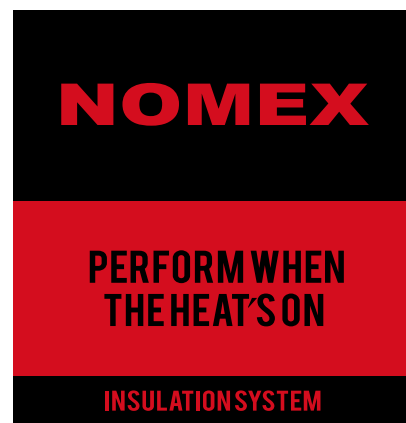
- Noise Test
- Short-circuit Test





# Co Branding Case with ELPOWERTECH

We adopt DUPONT' s NOMEX insulating paper for H class insulation, and co-brand with DUPONT through Insulation System Technical Agreement.



**ELPOWERTECH®**  
An ELPOWERTECH transformer

## Products

# Phase Shift Dry Type Transformer

- For a circuit line connected with a motor operated at 50Hz or 60Hz.
- Applied to Inverters, which need features such as low torque ripple, sinusoidal output voltage waveforms, etc.
- Used for the device to cancel harmonics by direct manipulation of the phase angle.

## FEATURES

### 1. High-class Insulation & Fire Safety

H class Nomex insulating paper, proven by sufficient performance record, and Varnish Vacuum Impregnation are applied to improve insulating performance as well as fire or explosion safety.

### 2. Compact Design

Less space occupied, light transportation and easy to handle by optimized design.

### 3. Best fit Design for very low harmonics

Maximizes the efficiency by the design for harmonic reduction, especially for 5th, 7th, 11th, 13th harmonic waves.

Wye/Extended Delta (Phase shifting)

### 4. Design ensuring Reliability and Durability

Considers the effect of secondary side's condenser load inrush current.

### 5. Excellent Electromagnetic Force

Materials of high magnetic permeability are used for coil winding so it has sufficient ability to withstand short-circuit.

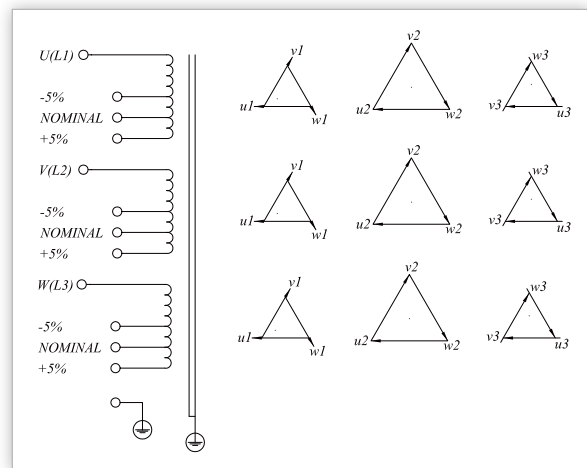
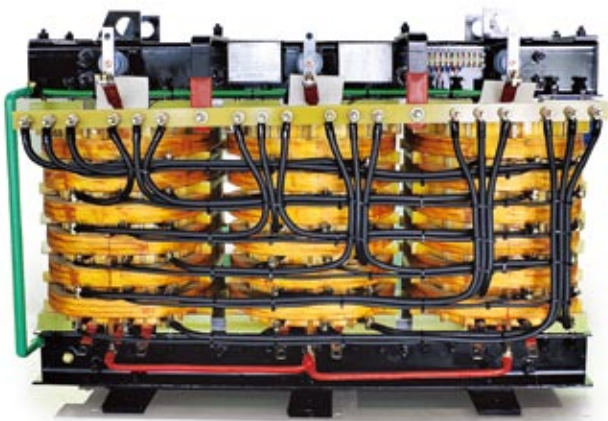
Cold Rolled Grain-oriented steel is specially processed for the core so it has enough mechanical strength.

### 6. Eco-friendly

Environment matters as the mission of EL Power Tech is to make a better world.

No harmful material, No environmental issue.

## 3,000V Class 18 pulse



### Technical specification

| Specification          |                                 | Contents   |       |
|------------------------|---------------------------------|--|-------|
| Rated specification    | Secondary rated Capacity        | 200 ~ 6,000 kVA                                    |       |
|                        | Phase, Frequency                | 3 Phase 50Hz / 60Hz                                |       |
|                        | Primary/Secondary Rated voltage | Primary : 3000 / 3300V<br>Secondary : 630V X 9coil |       |
|                        | Primary TAP voltage             | 2±2.5%(5TAP) or 1±5% (3TAP)                        |       |
|                        | Wiring type                     | Y/Extended Delta (Phase shift)                     |       |
|                        | Phase angle between winding     | 9coil 20°  |       |
|                        | Overload Capacity (1min)        | 150%   |       |
|                        | Cooling                         | Natural-cooling(AN) or Forced-cooling(AF)          |       |
| Insulation class       | H Class (NOMEX)                 |  |       |
| Electric specification | % Impedance                     | ≤ 1000kVA  | 6~8%  |
|                        |                                 | ≥ 1000kVA  | 8~10% |
|                        | Efficiency(%)                   | ≤ 1000kVA  | 98.0% |
|                        |                                 | ≥ 1000kVA  | 98.5% |

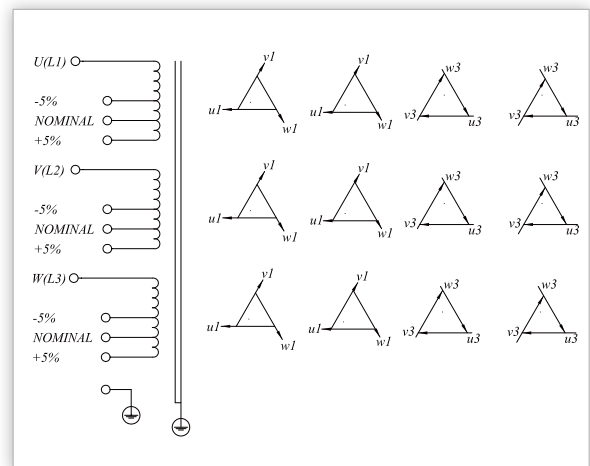
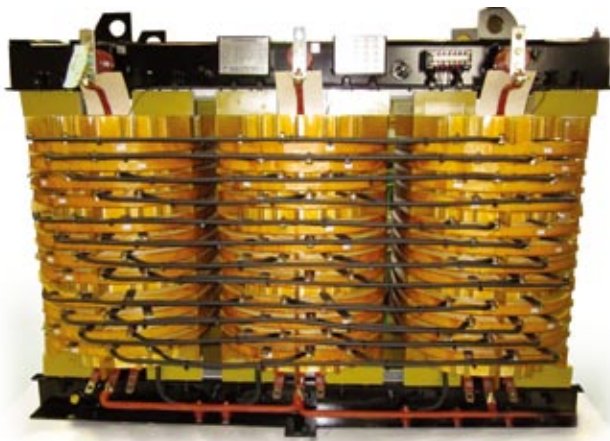
Dimensions and electric features available to be customized.

# Products

## Phase Shift Dry Type Transformer

EL POWER TECH

### 4,160V Class 24 pulse

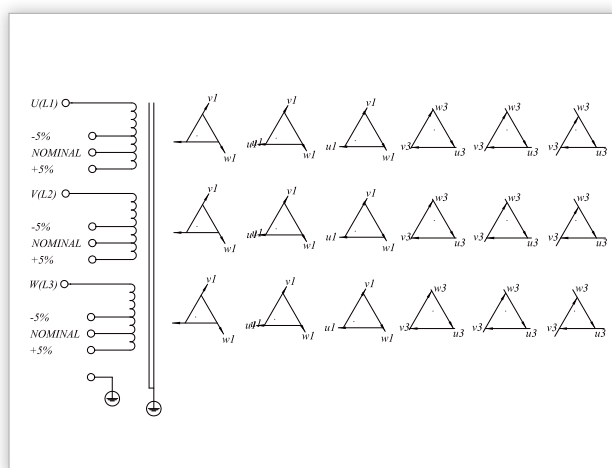
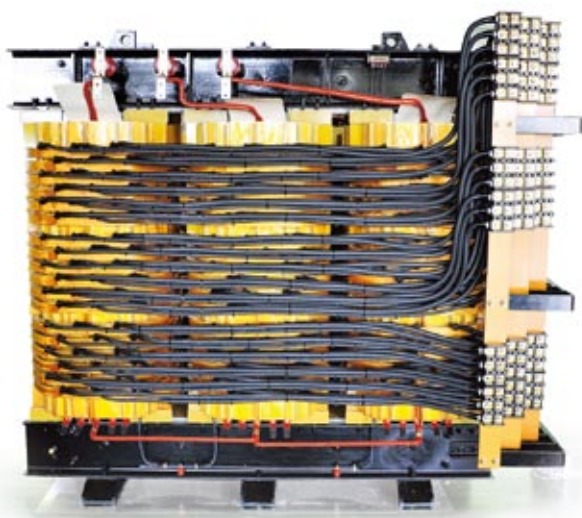


### Technical specification

| Specification          |                                 | Contents                                    |       |
|------------------------|---------------------------------|---|-------|
| Rated specification    | Secondary rated Capacity        | 200 ~ 7,500 kVA                             |       |
|                        | Phase, Frequency                | 3 Phase 50Hz / 60Hz                         |       |
|                        | Primary/Secondary Rated voltage | Primary : 4160V<br>Secondary : 630V X 9coil |       |
|                        | Primary TAP voltage             | 2±2.5%(5TAP) or 1±5% (3TAP)                 |       |
|                        | Wiring type                     | Y/Extended Delta (Phase shift)              |       |
|                        | Phase angle between winding     | 12coil 10°                                  |       |
|                        | Overload Capacity (1min)        | 150%  |       |
|                        | Cooling                         | Natural-cooling(AN) or Forced-cooling(AF)   |       |
| Insulation class       | H Class (NOMEX)                 |   |       |
| Electric specification | % Impedance                     | ≤ 1000kVA                                   | 6~8%  |
|                        |                                 | ≥ 1000kVA                                   | 8~10% |
|                        | Efficiency(%)                   | ≤ 1000kVA                                   | 98.0% |
|                        |                                 | ≥ 1000kVA                                   | 98.5% |

Dimensions and electric features available to be customized.

## 6,000V Class 36 pulse



### Technical specification

| Specification          |                                 | Contents  |       |
|------------------------|---------------------------------|---|-------|
| Rated specification    | Secondary rated Capacity        | 200 ~ 10,000 kVA                                    |       |
|                        | Phase, Frequency                | 3 Phase 50Hz / 60Hz                                 |       |
|                        | Primary/Secondary Rated voltage | Primary : 6000 / 6600V<br>Secondary : 630V X 18coil |       |
|                        | Primary TAP voltage             | 2±2.5%(5TAP) or 1±5% (3TAP)                         |       |
|                        | Wiring type                     | Y/Extended Delta (Phase shift)                      |       |
|                        | Phase angle between winding     | 18coil 10°  |       |
|                        | Overload Capacity (1min)        | 150%  |       |
|                        | Cooling                         | Natural-cooling(AN) or Forced-cooling(AF)           |       |
| Insulation class       | H Class (NOMEX)                 |   |       |
| Electric specification | % Impedance                     | ≤ 1000kVA   | 6~8%  |
|                        |                                 | ≥ 1000kVA   | 8~10% |
|                        | Efficiency(%)                   | ≤ 1000kVA   | 98.2% |
|                        |                                 | ≥ 1000kVA   | 98.5% |

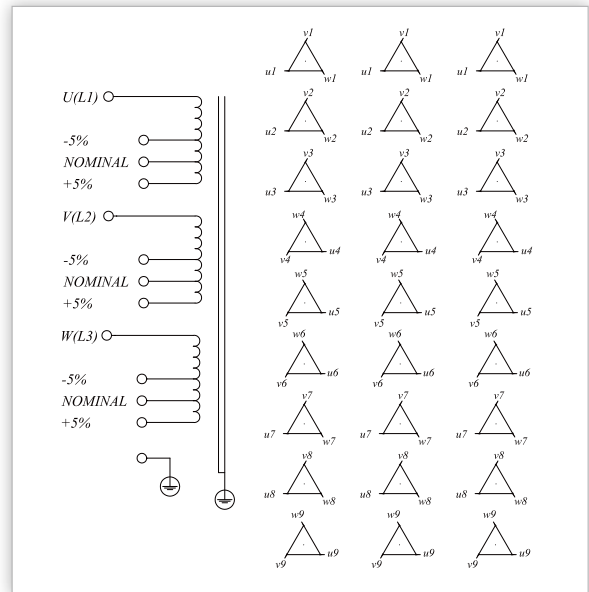
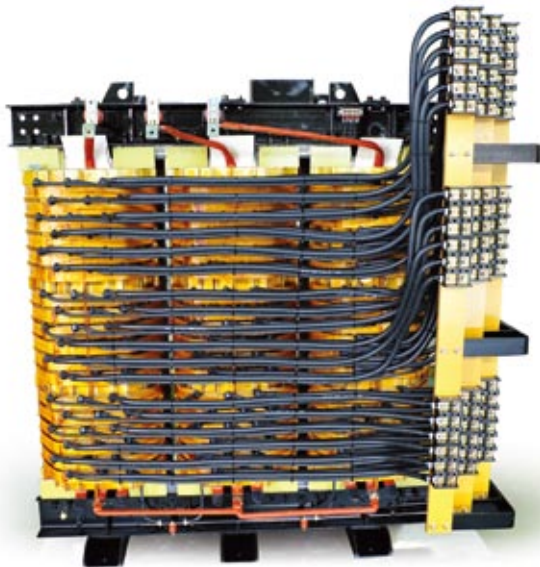
Dimensions and electric features available to be customized.

# Products

## Phase Shift Dry Type Transformer

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### 11,000V Class 54 pulse



### Technical specification

| Specification          |                                 | Contents  |       |
|------------------------|---------------------------------|---|-------|
| Rated specification    | Secondary rated Capacity        | 200 ~ 12,500 kVA  |       |
|                        | Phase, Frequency                | 3 Phase 50Hz / 60Hz   |       |
|                        | Primary/Secondary Rated voltage | Primary : 10,000 / 10,500 / 11,000 / 13,600V<br>Secondary : 630V X 27coil |       |
|                        | Primary TAP voltage             | 2±2.5%(5TAP) or 1±5% (3TAP)   |       |
|                        | Wiring type                     | Y/Extended Delta (Phase shift)  |       |
|                        | Phase angle between winding     | 27coil 10°  |       |
|                        | Overload Capacity (1min)        | 150%  |       |
|                        | Cooling                         | Natural-cooling(AN) or Forced-cooling(AF)                                 |       |
| Insulation class       | H Class (NOMEX)                 |   |       |
| Electric specification | % Impedance                     | ≤ 1000kVA   | 6~8%  |
|                        |                                 | ≥ 1000kVA   | 8~10% |
|                        | Efficiency(%)                   | ≤ 1000kVA   | 98.0% |
|                        |                                 | ≥ 1000kVA   | 98.5% |

Dimensions and electric features available to be customized.





# Products

## Dry Type Transformer

H class dry type transformer, which is nonflammable, is the oldest, thus the most stable type of transformer using solid insulating material, not insulation oil.

This is why its application would be chemical plants, hospitals and other fire-sensitive places.

## FEATURES

### 1. High-class Insulation & Fire Safety

H class Nomex insulation paper, proven by sufficient performance record, and Varnish Vacuum Impregnation are applied to improve insulating performance as well as fire or explosion safety.

### 2. Compact

Less space occupied, light transportation and easy to handle by optimized design.

### 3. Excellent Electromagnetic Force

Materials of high magnetic permeability are used for coil winding so it has sufficient ability to withstand short-circuit.

Cold Rolled Grain-oriented steel is specially processed for the core so it has enough mechanical strength.

### 4. Eco-friendly

Environment matters as the mission of EL Power Tech is to make a better world.

No harmful insulating material, No environmental issue.

# Products

## Dry Type Transformer



### Technical specification

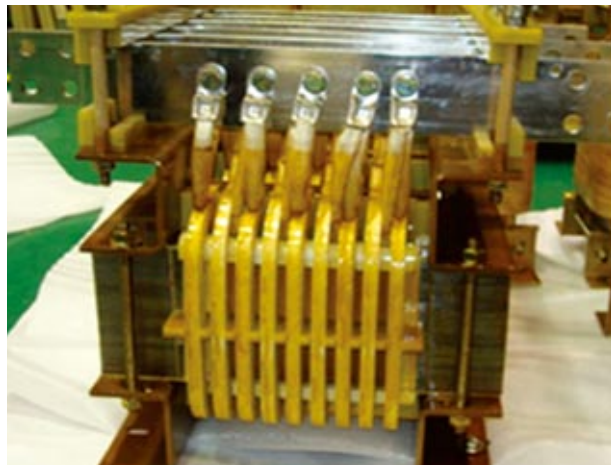
| Specification       |                                 | Contents   |
|---------------------|---------------------------------|--|
| Rated specification | Secondary rated Capacity        | 10 ~ 10,000 kVA                                  |
|                     | Phase, Frequency                | 1/3 Phase 50Hz / 60Hz                            |
|                     | Primary/Secondary Rated voltage | Primary : Up to 22.9kV<br>Secondary : Up to 11kV |
|                     | Wiring type                     | Dyn11, Dd0, the other                            |
|                     | Cooling                         | Natural-cooling(AN) or Forced-cooling(FN)        |
|                     | Insulation class                | A, E, B, F, H Class (NOMEX)                      |

Dimensions and electric features available to be customized.

# Products Reactor

## Application

A line reactor is an electronics component consisting of one or more inductor elements generally wired between a power source and an electrical load. It will oppose rapid changes in current and serve to attenuate spikes of current and to limit peak currents. Also, it reduces harmonics and compensates for a low inductance motor. Line reactors are generally installed in motor-driven equipment to limit starting current, and may be used to protect MV Drives and motors.



## Technical specification

| Specification       |                  | Contents                                |
|---------------------|------------------|---|
| Rated specification | Rated Capacity   | 0.5 ~ 1,000 kVA                         |
|                     | Phase, Frequency | 1/3 Phase, 50Hz / 60Hz                  |
|                     | Rated voltage    | 220, 380, 440, 3300, 4160, 6600, 11000V |
|                     | Insulation class | B, H Class                              |

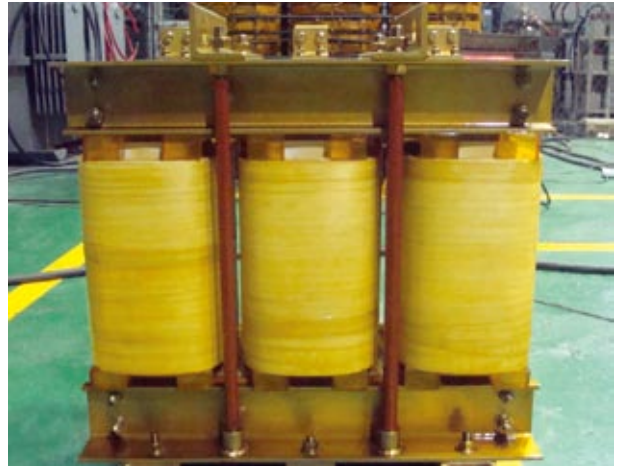
Dimensions and electric features available to be customized.

# Products

## Motor Starting Reactor

### Application

A type of inductor that protects an electric motor when it starts. Electric motors have a tendency to draw large amounts of energy when they start. The starting reactor prevents the motor from drawing so much current that it causes damage to the motor. Also, it keeps the current below safe levels when starting improves the performance of the motor, as well as extending its lifetime.



### Technical specification

| Specification       |                  | Contents                                |
|---------------------|------------------|---|
| Rated specification | Rated Capacity   | 0.5 ~ 2,000 kVA                         |
|                     | Phase, Frequency | 1/3 Phase 50Hz / 60Hz                   |
|                     | Rated voltage    | 220, 380, 440, 3300, 4160, 6600, 11000V |
|                     | Time Rated       | 1min, 3min, 5min                        |
|                     | Tap              | 50%, 65%, 80%(standard)                 |
|                     | Insulation class | B, H Class                              |

Dimensions and electric features available to be customized.

# Products

## Leakage Reactor

### Application

A leakage reactor, also termed a leakage transformer, has a significantly higher leakage inductance than others. The output and input currents are low enough to prevent thermal overload under all load conditions – even if the secondary is shorted. It is used for arc welding and high voltage discharge lamps, acting both as a voltage transformer and as a magnetic ballast.



### Technical specification

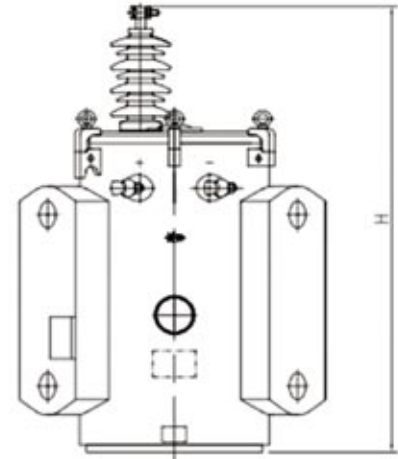
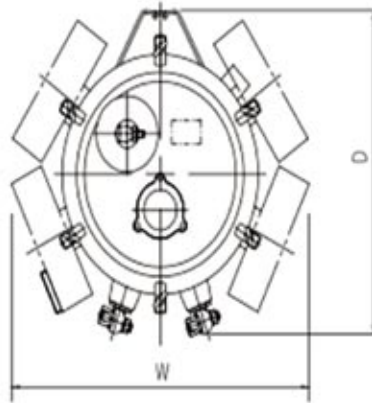
| Specification       |                  | Contents                                |
|---------------------|------------------|---|
| Rated specification | Rated Capacity   | 0.5 ~ 1,000 kVA                         |
|                     | Phase, Frequency | 1/3 Phase 50Hz / 60Hz                   |
|                     | Rated voltage    | 220, 380, 440, 3300, 4160, 6600, 11000V |
|                     | Time Rated       | 1min, 3min, 5min                        |
|                     | Insulation class | B, H Class                              |

Dimensions and electric features available to be customized.

# Products

## Single Bushing Transformer

EL POWER TECH



### Technical specification

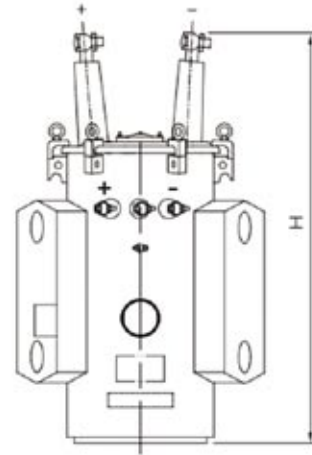
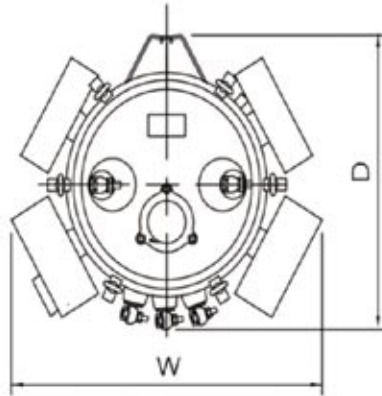
| Specification       |                                   | Contents  |
|---------------------|-----------------------------------|---|
| Rated specification | Secondary rated Capacity          | 10 ~ 100 kVA  |
|                     | Phase, Frequency                  | 1 Phase 50Hz / 60Hz   |
|                     | Primary / Secondary Rated voltage | Primary : 22.9kV, the other<br>Secondary : 240/120V, 210/105V, 440/220V |
|                     | Insulation class                  | A Class   |

| Capacity (kVA) | Exciting Current(%) | Voltage Req. $\epsilon$ (%) | Efficiency $\eta$ (%) | Dimensions(mm) W x D x H | Total Weight (kg) |
|----------------|---------------------|-----------------------------|-----------------------|--------------------------|-------------------|
| 10             | 1.2                 | 2.0                         | 97.8                  | 470 x 530 x 1020         | 135               |
| 20             | 1.2                 | 1.7                         | 98.1                  | 510 x 570 x 1050         | 165               |
| 30             | 1.0                 | 1.5                         | 98.3                  | 580 x 650 x 1070         | 230               |
| 50             | 0.8                 | 1.4                         | 98.5                  | 530 x 710 x 1120         | 290               |
| 75             | 0.8                 | 1.4                         | 98.5                  | 730 x 720 x 1160         | 345               |
| 100            | 0.7                 | 1.3                         | 98.6                  | 840 x 760 x 1180         | 450               |

Dimensions and electric features available to be customized.

# Products

## Distribution Transformer



### Technical specification

| Specification       |                                   | Contents   |
|---------------------|-----------------------------------|--|
| Rated specification | Secondary rated Capacity          | 10 ~ 500 kVA   |
|                     | Phase, Frequency                  | 1 Phase 50Hz / 60Hz  |
|                     | Primary / Secondary Rated voltage | Primary : 22.9kVy, the other<br>Secondary : 240/120V, 210/105V, 440/220V |
|                     | Insulation class                  | A Class  |

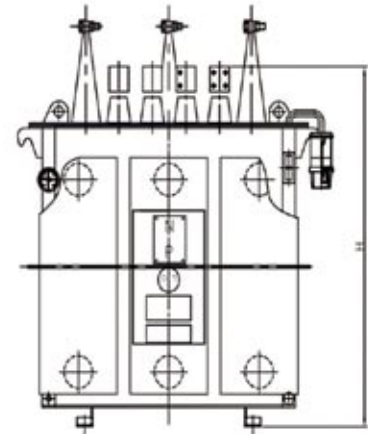
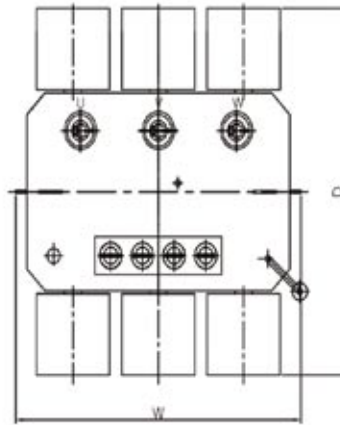
| Capacity (kVA) | Exciting Current(%) | Voltage Req. $\epsilon$ (%) | Efficiency $\eta$ (%) | Dimensions(mm)<br>W x D x H | Total Weight (kg) |
|----------------|---------------------|-----------------------------|-----------------------|-----------------------------|-------------------|
| 10             | 6.0                 | 2.3                         | 97.2                  | 410 x 570 x 1000            | 170               |
| 20             | 5.0                 | 1.9                         | 97.5                  | 1250 x 830 x 1380           | 250               |
| 30             | 5.0                 | 1.7                         | 97.7                  | 1310 x 900 x 1370           | 270               |
| 50             | 5.0                 | 1.6                         | 97.8                  | 1350 x 940 x 1430           | 360               |
| 75             | 5.0                 | 1.6                         | 97.9                  | 1360 x 940 x 1480           | 450               |
| 100            | 5.0                 | 1.6                         | 98.0                  | 1470 x 1220 x 1550          | 550               |
| 200            | 5.0                 | 1.6                         | 98.1                  | 1750 x 1500 x 1590          | 950               |
| 300            | 5.0                 | 1.4                         | 98.3                  | 1870 x 1680 x 1800          | 1400              |
| 400            | 5.0                 | 1.3                         | 98.4                  | 1750 x 2050 x 1550          | 1600              |
| 500            | 5.0                 | 1.3                         | 98.4                  | 1900 x 2300 x 1800          | 1800              |

Dimensions and electric features available to be customized.

# Products

## Distribution Transformer

EL POWER TECH



### Technical specification

| Specification       |                                   | Contents   |
|---------------------|-----------------------------------|--|
| Rated specification | Secondary rated Capacity          | 10 ~ 1000 kVA  |
|                     | Phase, Frequency                  | 3 Phase 50Hz / 60Hz  |
|                     | Primary / Secondary Rated voltage | Primary : : 22.9, 6.6, 3.3kV<br>Secondary : 0.38-0.22kV, 6.6/3.3kV |
|                     | Wiring type                       | Dyn11, Ddo, the other  |
|                     | Insulation class                  | A Class  |

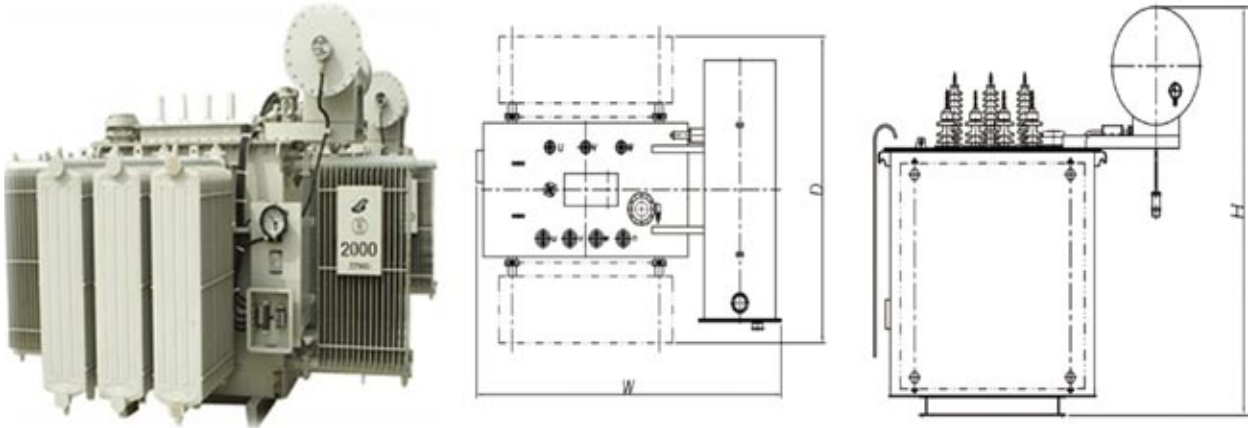
| Capacity (kVA) | Exciting Current(%) | Voltage Req. $\epsilon$ (%) | Efficiency $\eta$ (%) | Dimensions(mm)<br>W x D x H | Total Weight (kg) |
|----------------|---------------------|-----------------------------|-----------------------|-----------------------------|-------------------|
| 100            | 6.0                 | 1.8                         | 97.6                  | 1100 x 830 x 1280           | 750               |
| 300            | 5.5                 | 1.6                         | 97.9                  | 1360 x 940 x 1480           | 1350              |
| 500            | 5.0                 | 1.5                         | 98.1                  | 1580 x 1220 x 1590          | 1850              |
| 1000           | 4.5                 | 1.3                         | 98.4                  | 1870 x 1680 x 1800          | 3450              |
| 1500           | 4.0                 | 1.3                         | 98.4                  | 1750 x 2050 x 1550          | 4500              |
| 2000           | 4.0                 | 1.3                         | 98.5                  | 1900 x 2300 x 1800          | 4200              |
| 3000           | 4.0                 | 1.3                         | 98.5                  | 2640x3130x2540              | 8000              |
| 5000           | 4.0                 | 1.3                         | 98.8                  | 2900x3480x2670              | 11000             |
| 10000          | 3.5                 | 1.1                         | 99.2                  | 2930x3580x3650              | 16300             |

Dimensions and electric features available to be customized.



# Products

## Power Transformer



### Technical specification

| Specification       |                                   | Contents                                    |
|---------------------|-----------------------------------|---|
| Rated specification | Secondary rated Capacity          | 1,000 ~ 50,000 kVA                          |
|                     | Phase, Frequency                  | 3 Phase 50Hz / 60Hz                         |
|                     | Primary / Secondary Rated voltage | Primary : : 22.9kV<br>Secondary : 6.6/3.3kV |
|                     | Wiring type                       | Dyn11, Ddo, the other                       |
|                     | Insulation class                  | A Class                                     |

| Capacity (kVA) | Exciting Current(%) | Voltage Req. $\epsilon$ (%) | Efficiency $\eta$ (%) | Dimensions(mm)<br>W x D x H | Total Weight (kg) |
|----------------|---------------------|-----------------------------|-----------------------|-----------------------------|-------------------|
| 1000           | 4.5                 | 1.4                         | 98.5                  | 2000 x 1500 x 2300          | 4100              |
| 2000           | 4.0                 | 1.4                         | 98.6                  | 2350 x 1950 x 2450          | 6200              |
| 3000           | 3.5                 | 1.3                         | 98.8                  | 2600 x 2650 x 2650          | 8500              |
| 5000           | 3.5                 | 1.2                         | 98.9                  | 2700 x 2850 x 3200          | 12000             |
| 10000          | 2.5                 | 1.0                         | 99.0                  | 3400 x 3700 x 3800          | 16500             |
| 20000          | 2.0                 | 1.0                         | 99.2                  | 4050 x 2800 x 4880          | 32500             |
| 30000          | 1.5                 | 1.0                         | 99.2                  | 5100 x 3650 x 4950          | 40200             |
| 50000          | 1.0                 | 0.8                         | 99.4                  | 6200 x 5400 x 5200          | 61500             |

Dimensions and electric features available to be customized.

# Products

## PAD Mounted Transformer

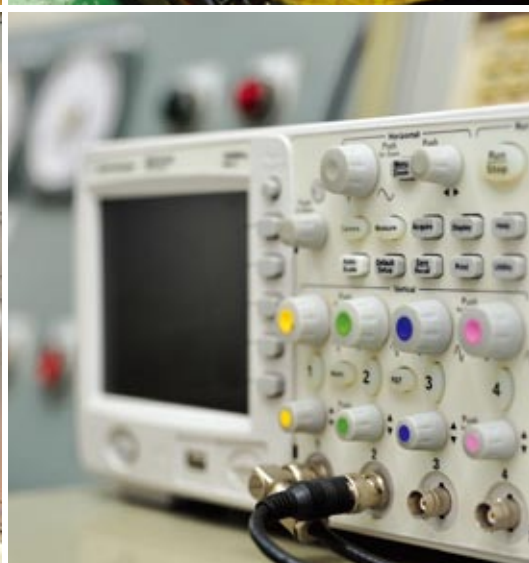
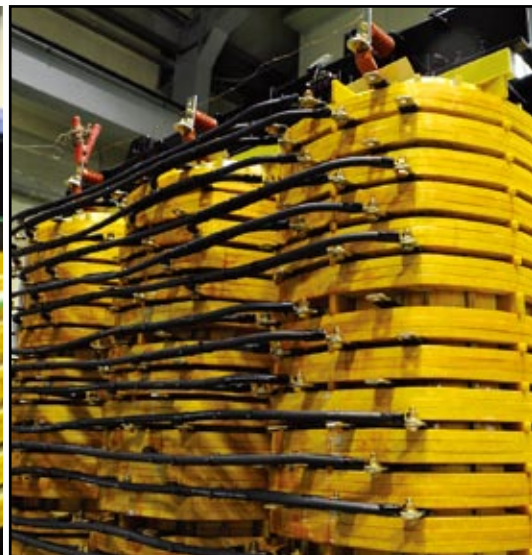
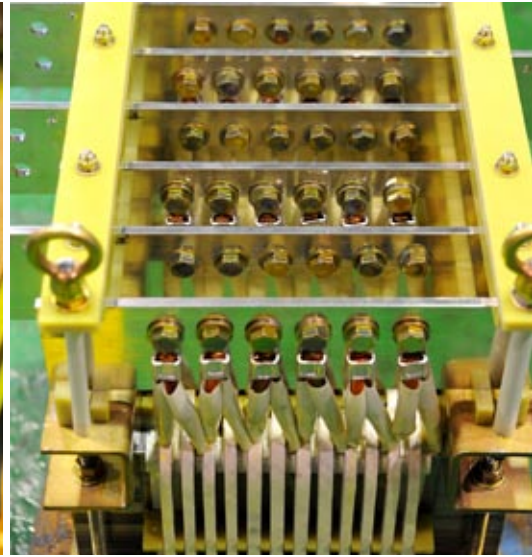


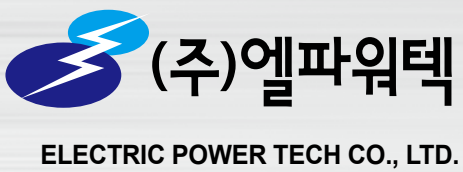
### Technical specification

| Specification       |                                   | Contents   |
|---------------------|-----------------------------------|--|
| Rated specification | Secondary rated Capacity          | 75 ~ 10,000 kVA                                      |
|                     | Phase, Frequency                  | 3 Phase 50Hz / 60Hz                                  |
|                     | Primary / Secondary Rated voltage | Primary : 22.9kV<br>Secondary : 0.40/0.23, 6.6/3.3kV |
|                     | Wiring type                       | Dyn11, Yy0, the other                                |
|                     | Insulation class                  | A Class  |

| Capacity (kVA) | Exciting Current(%) | Voltage Req. $\epsilon$ (%) | Efficiency $\eta$ (%) | Dimensions(mm) W x D x H | Total Weight (kg) |
|----------------|---------------------|-----------------------------|-----------------------|--------------------------|-------------------|
| 1Phase – 50    | 0.8                 | 1.5                         | 98.30                 | 1000 x 1000 x 950        | 700               |
| 1Phase – 100   | 0.7                 | 1.5                         | 98.40                 | 1000 x 1000 x 950        | 800               |
| 1Phase – 200   | 0.6                 | 1.4                         | 98.62                 | 1000 x 1400 x 1150       | 1200              |
| 3Phase – 75    | 1.7                 | 1.8                         | 97.90                 | 1500 x 1000 x 1400       | 1250              |
| 3Phase – 150   | 1.6                 | 1.7                         | 98.14                 | 1500 x 1000 x 1400       | 1550              |
| 3Phase – 300   | 1.0                 | 1.5                         | 98.40                 | 1500 x 1250 x 1400       | 1800              |
| 3Phase – 500   | 0.8                 | 1.4                         | 98.60                 | 1500 x 1500 x 1400       | 2350              |

Dimensions and electric features available to be customized.





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