

# Epoxy resin cast dry-type transformer

## Product Overview

This dry-type transformer is manufactured using high-quality materials and advanced technology, offering advantages such as moisture resistance and easy maintenance. It can be installed close to load centers and is suitable for applications in subways, high-rise buildings, and other demanding environments.



## Functional Features

**Excellent Fire Resistance:** The epoxy resin combined with glass fiber, used as insulation material, is **flame-retardant and self-extinguishing**. It prevents arcing during short circuits, ensuring **fire and explosion resistance**, and allows safe operation within load centers.

**Cost-Effective Installation and Operation:** Epoxy resin transformers can be installed near loads, reducing **installation costs** and minimizing **line energy losses**.

**Maintenance-Free and Eco-Friendly:** As an oil-free design, epoxy resin transformers require no maintenance, eliminate risks of oil leakage pollution, and significantly reduce lifecycle maintenance expenses.

**Superior Moisture Resistance:** Capable of operating normally under 100% humidity without pre-drying after downtime.

**High Insulation and Low Partial Discharge:** Features excellent short-circuit resistance and strong lightning impulse withstand capability.

**Low Loss and High Efficiency:** Delivers reduced operating costs and significant long-term operational benefits.

**Low Noise and Enhanced Heat Dissipation:** With forced air cooling, the epoxy resin cast dry-type transformer achieves 150% overload capacity.

### Main Performance Parameters of Epoxy Resin Cast Dry-Type Transformers

额定容量 KVA	电压组合 (KV)			联接组标号	空载损耗W	负载损耗W	短路阻抗%	空载电流%	声级LpA(dB)				
	高压(KV)	分接(%)	低压(KV)										
30	6	±5	0.4	Yyn0 Dyn11	135	640	4	2.1	52				
50					195	900		2.1	52				
80					265	1240		1.6	53				
100					290	1410		1.6	53				
125					340	1660		1.4	56				
160					385	1910		1.4	56				
200					445	2270		1.2	56				
250					515	2480		1.2	56				
315					6.6	±2×2.5	0.4	Yyn0 Dyn11	635	3120	1.0	58	
400					10				705	3590	1.0	58	
500					10.5				835	4390	1.0	60	
630					11				935	5360	6	0.8	60
800					1090				6260	0.8		62	
1000					1270				7310	0.8		62	
1250					1500				8720	0.8		63	
1600					1760				10500	0.8		64	
2000	2190	13000	0.7	64									
2500	2590	15400	0.7	68									

## Advanced Production Equipment

GNEE Steel Group owns a full set of shearing, packaging, vacuum casting, vacuum impregnation, and testing stations that represent the high level of the industry. These top-notch production and testing equipment guarantee the creation of first-class products. The company continuously improves its design methods, achieving the most advanced computer-aided design to meticulously craft perfect products.



## Production Environment

The workshop of GNEE Steel Group has strict process management and a closed management system. Regular purification and dust removal tests are conducted to meet the necessary requirements for producing high and low voltage transmission products. It has also passed ISO9001 quality certification and third-party inspection certification for international bidding.



## Autonomous Raw Material Supply

The iron cores and electromagnetic wires used in our company's products are all produced independently, which allows better control over the quality and delivery time of raw materials while reducing product costs.



## Raw Material Production Environment



## **INTIMATE COMMUNICATION**

**Pre-sale, during-sale, and after-sale, we are with you every step of the way.**

As long as you get in touch with us, we will communicate with you sincerely. Pre-sale, we will provide you with relevant product information; if you have special requirements, we can develop according to your needs and propose solutions under mutual recognition; during-sale, we will keep in touch with you throughout the process and inform you of the production progress, strictly following all the requirements in the contract; after-sale, our comprehensive "three guarantees" service system will ensure that you use our products with comfort, confidence, and satisfaction.

**Inspection, Training, Guidance - All Free Of Charge.**

As long as you are interested in our products and get in touch with us, we will take the initiative to contact you and arrange free inspections and factory experiences. We can also dispatch technical personnel to provide you with a free customized overall solution. Before the implementation of the solution, we will offer free training for your technical staff to inform them of the relevant knowledge about installation, commissioning, and maintenance of the product. During the equipment installation process, we will also provide you with free installation guidance. As long as it is your requirement, it is our mission; we will provide you with perfect services throughout the entire process.

## **Power Supply System Solutions Equipment Provider**

### **Real Estate Development**

In real estate development, container substations are widely used. In addition to short construction periods, low investment, small land occupation, and a new and beautiful appearance, the greatest advantage of this transformer is that it is installed in a moisture-proof, anti-corrosion, dust-proof, fire-proof, theft-proof, heat-insulating, fully enclosed, and mobile steel structure box. It integrates electromechanical equipment and runs fully enclosed, ensuring safety and long-term usability.



## Industrial Enterprises

The fully sealed oil-immersed power transformer has the advantages of low loss, low noise, and high efficiency, which can achieve good energy-saving effects and reduce pollution. Compared with ordinary oil-immersed transformers, fully sealed transformers eliminate the need for an oil reservoir, and the changes in oil volume are automatically compensated by the elasticity of the corrugated oil tank's corrugated plates. The transformer is isolated from the air, preventing and slowing down the aging of oil and insulation, enhancing operational reliability, and requiring no maintenance during normal operation. Epoxy resin cast dry-type transformers can be used as updated replacement products for oil-immersed distribution transformers and are the best-performing products among various two-type transformers. They are particularly suitable for urban grids, high-rise buildings, business centers, theaters, hospitals, hotels, tunnels, subways, underground stations, laboratories, stations, docks, airports, combined substations, and other important places.



## Oil Fields and Mines

High-efficiency energy-saving adjustable capacity transformers are designed based on the working characteristics of oil field pumping units. When the pumping unit starts, the transformer's output voltage is the rated input voltage of the motor, ensuring that the pumping unit has sufficient starting torque. After the pumping unit starts and enters the normal state, the control system will detect the size of the effective power consumed by the motor through sensors and feed it back to the microcomputer intelligent control system. Through calculations, it automatically adjusts the output voltage and capacity of the transformer, then detects, records, and compares the effective power consumed by the motor on the pumping unit, eventually finding the operating point where the consumption of effective power is minimal, achieving the purpose of energy saving. In terms of structural design, strong anti-theft measures have been taken, effectively preventing the theft of high-efficiency energy-saving transformers. At the same time, during the energy-saving operation of the pumping unit, according to the set anti-electricity theft time method, the output voltage fluctuates, making it impossible for home appliances to function even if the electricity is stolen back. Therefore, the transformer has high-performance anti-theft functions.



## Photovoltaic Power Generation Group

GNEE Steel Group launched wind power generation-specific step-up equipment - wind power dedicated combined transformers, which have the advantages of low no-load loss, high insulation strength, no leakage, strong adaptability to outdoor environments, and less maintenance.

