

Rectifier transformer



Product features

1. Electrical performance stability: The rectifier transformer combines load characteristics, grid voltage fluctuations, and atmospheric overvoltage situations. Based on the load conditions of the rectifier transformer, a reasonable and reliable insulation level and insulation model are determined to fully ensure the reliability and stability of the transformer's electrical performance. The product environmental safety factor ≥ 1.67 .

2. High dynamic stability: This transformer winding has high mechanical strength and strong resistance to sudden occurrences, meeting extremely harsh load environments. During design and manufacturing, issues such as transformer leakage flux or instability caused by abnormal transportation have been effectively eliminated. This transformer has high dynamic stability. Its impedance is 30% higher than that of power transformers with the same capacity, which inhibits DI/DT and effectively protects rectification elements.

3. Good thermal stability: Advanced product design strictly controls the heating areas and highest temperature rise of the transformer, while leaving enough temperature rise margin. If needed, axial oil channels can be added inside the coil, selecting cooling methods based on the coil load loss value and reasonably distributing oil flow to achieve the best cooling effect. The main temperature rise indicators are at least 5°C lower than national standards. The coil and lead wires use copper conductors with a low current density selection.

4. Strong overload capability: The rectifier transformer has strong overload and overvoltage capabilities, enabling safe long-term operation under rated loads. It can also operate under full load for extended periods with 110% overvoltage (environmental temperature 40°C). The terminals connected to the motor can withstand 1.5 times the rated current for 5 seconds. Product design and manufacture fully consider load characteristics, meeting overload requirements in terms of temperature rise, insulation performance, and accessory selection.

5. Superior performance indicators: The no-load current design and manufacturing values are below the national standard values for transformers of the same capacity as the S9 series, improving the economic efficiency and reliability of user usage.

6. Significant energy-saving effects for the rectifier transformer, with low noise (<65DB).

7. Simplified structure, aesthetically pleasing appearance; the oil tank adopts an anti-leakage design process, preventing oil tank leaks.

Main Performance Parameters of Rectifier Transformer

额定容量 (KVA)	负载损耗 (W)	空载电流 (%)	阻抗电压 (%)
30	600	2.1	6
125	1800	1.5	5
250	3050	1.2	4
250	3050	1.2	7
315	3650	1.1	4
400	4300	1	6
420	4500	1	10
436	4500	1	8
460	5000	1	4
475	5000	1	7.5
500	5100	1	8
560	5700	0.9	4.27
593	6000	0.9	4.5
600	6000	0.9	6.3
630	6200	0.8	6
800	7500	0.8	7.2
2×400	7500	0.8	4
900	9200	0.7	6.3
1000	10300	0.6	6
1228	12000	0.6	6
1250	12000	0.6	6
1400	13300	0.6	6
1500	14000	0.6	0.75
1600	14500	0.6	6
1800	16000	0.9	6
2000	17800	0.9	7.2
2400	20700	0.8	8
2500	20700	0.8	7.5
2×1300	20700	0.8	4
2800	23000	0.8	12
2×1450	23000	0.8	4
3000	23000	0.8	7.85
3150	24300	0.8	6.5
3200	24300	0.8	8

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.

