S11-35kv Oil-immersed Power Transformer

Product Overview

The Oil-immersed Power Transformer complies with the International Electrotechnical Commission IEC60076 and the People's Republic of China National Standard GB1094 "Power Transformers" and GB/T6451 "Technical Parameters and Requirements for Three-phase Oil-immersed Power Transformers." The on-load tap-changing range of this product is 35±2*2.5%KV, 38.5±2*2.5%KV, 35±3*2.5%KV, and 38.5±3*2.5%KV. It can manually, electrically, or automatically adjust the voltage within the tap-changing range on the primary side to ensure the stability of the output voltage. For transformers above 6300KVA at the 35KV level, a folded plate oil tank is used, which significantly enhances the mechanical strength of the oil tank, reduces weld seams, and improves the appearance quality of the transformer. This product is an updated replacement product with good operating economic benefits.

Product Structure

This Oil-immersed Power Transformer uses a fully inclined stepped joint seam to improve the magnetic flux flow, eliminate local magnetic flux saturation in the core at the joint seam, reduce no-load losses and no-load current of the core, and lower the transformer noise. The core adopts a pull-plate structure. To enhance short-circuit resistance, several pressing nails are distributed around the pressure plate. The upper and lower high and low voltage clamps are connected by supporting beams, making the core a single unit. Additionally, the surface of the core column is coated with a special end-face adhesive for silicon steel sheets, bonding the silicon steel sheets together. After curing, the core becomes a single entity. The lower part of the body and the oil tank wall are supported by high-strength electrical laminated wood, ensuring safe and reliable positioning of the lower part of the body.

Referenced Standards

GB1094.1-1996 General Rules for Power Transformers

GB1094.2-1996 Temperature Rise of Power Transformers

GB1094.3-2003 Insulation Levels and Insulation Tests for Power Transformers

GB1094.5-2003 Short-Circuit Withstanding Capability of Power Transformers

Main performance parameters of Oil-immersed Power Transformer

型号	额定容量 (kVA)	电压组合		联接组标号	短路阻抗%	损耗W		空载电流%
		高压 (kV)	低压 (kV)			空载 (KW)	负载 (KW)	
S11-800/35	800	35±5% 38.5±5%	3.15 6.3 10.5	Yd11	6.5	0.98	9.41	1.0
S11-1000/35	1000					1.15	11.54	1.0
S11-1250/35	1250					1.41	13.94	0.9
S11-1600/35	1600					1.7	16.67	0.8
S11-2000/35	2000					2.18	18.38	0.7
S11-2500/35	2500					2.56	19.67	0.6
S11-3150/35	3150					3.04	23.09	0.56
S11-4000/35	4000				7.0	3.62	27.36	0.56
S11-5000/35	5000					4.32	31.38	0.48
S11-6300/35	6300				7.5	5.25	35.06	0.48
S11-8000/35	8000	35±2*2.5% 38.5±2*2.5%	3.15 3.3 6.3 6.6 10.5 11	YNd11		7.2	38.48	0.42
S11-10000/35	10000					8.7	45.32	0.42
S11-12500/35	12500				8	10.08	53.87	0.4
S11-16000/35	16000					12.16	65.84	0.4
S11-20000/35	20000					14.4	79.52	0.4
S11-25000/35	25000					17.02	94.05	0.32
S11-31500/35	31500					20.22	112.86	0.32

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.