Three-phase resin cast insulated dry type power transformer

Technical Features

The 10KV three-phase resin cast insulated dry-type power transformer is manufactured according to the International Electrotechnical Commission standard IEC60726 and the People's Republic of China National Standards GB/6450, GB/10228, with a frequency of 50HZ. It can be used for urban power grid distribution and transformation. It is mainly suitable for high-rise buildings, commercial centers, airports, offshore drilling platforms, ships, tunnels, large hydropower stations, train stations, etc.

Product Structure

1. The core of the three-phase resin cast insulated dry-type power transformer uses high-quality cold-pressed grain-oriented silicon steel sheets, 45-degree full oblique seam, five-step stacked iron method, both the core column and the yoke are multi-level round cross-section shapes, which can achieve lower no-load losses and lower noise.
2. Depending on the transformer capacity size, the high-voltage wires use double glass enamel copper wires, with H-grade fiberglass cloth and glass felt insulation between layers; low voltage uses copper foil winding, with epoxy resin pre-impregnated cloth as interlayer insulation, providing high mechanical strength and resistance to sudden short circuits.
3. This transformer's clamping pieces adopt a low-magnetic steel plate and clamping piece cooperative structure, and undergo sandblasting and spraying treatment, making the overall structure aesthetically pleasing and having high mechanical strength.
4. Each phase is equipped with an independent fan and a split-type temperature controller, effectively reducing temperature rise, increasing transformer output capacity, and ensuring safe operation of the transformer.

Main Performance Parameters of the 10KV Three-Phase Resin Cast Insulated Dry-Type Power Transformer

型 号	电压组合			联合组标号	空载损耗（W）	负载损耗（W）	空载电流	短路阻抗	声级
	高压	高压分接范围	低压						
SC11-30					168	705	3.2		45
SC11-50					238	994	2.8		45
SC11-80					322	1377	2.6		46
SC11-100					350	1572	2.4		46
SC11-125					413	1844	2.2		49
SC11-160					476	2125	2.2		49
SCB11-200	6				546	2524	2.0	4.0	49
SCB11-250	6.3				630	2754	2.0		49
SCB11-315	6.6	±5	0.4	Yyn0	770	3468	1.8		51
SCB11-400	10	±2×2.5		Dyn11	854	3986	1.8		51
SCB11-500	10.5				1015	4879	1.8		52
SCB11-630	11				1176	5873	1.6		52
SCB11-800					1330	6953	1.6		54
SCB11-1000					1547	8126	1.4		54
SCB11-1250					1827	9690	1.4		55
SCB11-1600					2142	11730	1.4	6.0	56
SCB11-2000					2905	14450	1.2		56
SCB11-2500					3500	17170	1.2		60

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.