

Shenheng Power Equipment Co., Ltd. Outlines Technical Standards for Substation Project Dry Type Transformers

WENZHOU, ZHEJIANG, CHINA, June 29, 2026 /EINPresswire.com/ -- In the dense urban landscape of a modern metropolis, the infrastructure supporting life often goes unnoticed until space becomes a premium and safety becomes a critical priority. In high-rise commercial complexes or bustling underground metro stations where thousands of people circulate hourly, confined environments present significant infrastructure challenges. In these settings, a substation serves as the electrical heart, yet it faces constraints where an oil leak or fire can impact operations, and every square meter of real estate is highly valued.



These scenarios—extending to data centers, hospitals, and specialized industrial zones—frequently require power distribution solutions that mitigate the risks associated with flammable oils, making the integration of a [Professional Dry Type Transformer For Substation Project](#) a common consideration for engineers and project managers. Selecting a Professional Dry Type Transformer for technical needs from Shenheng Power Equipment Co., Ltd. ([CHSH](#)) is intended to address indoor installation requirements regarding fire safety, operational reliability, and environmental compliance.

Technical Specifications: Safety, Reliability, and Efficiency

The design of a dry type transformer is based on its specific construction methods. Unlike traditional oil-immersed units, these transformers utilize cast resin or vacuum pressure impregnation to insulate the windings. CHSH, established in 2001 and situated in Yueqing, Zhejiang Province—a major electrical manufacturing hub in China—has developed this technology to serve various industrial sectors. The company's SCB series, including the 10 kV and 24 kV cast resin models, utilizes epoxy resin casting under vacuum conditions. This process is designed to seal the coils completely, reducing standard maintenance requirements and

providing resistance to moisture and dust ingress.

Safety and Environmental Features

In the event of an external fire, the materials used in a Professional Dry Type Transformer from CHSH are engineered to be self-extinguishing. Because the system does not utilize insulating oil, the risk of oil leakage into soil or groundwater is eliminated, as is the danger of explosive pressure buildups related to fluid containment. This performance profile aligns with certain "green" building certifications and projects located in environmentally sensitive areas. By removing the requirement for oil containment pits or fire-rated separation walls, these units allow developers to position substations closer to load centers, which can reduce cable requirements and transmission losses.



Operational Parameters and Load Capacity

Engineering a Professional Dry Type Transformer involves specific thermal management methodologies. CHSH units are equipped with integrated temperature control systems and forced air cooling (AF) options. These features allow the transformer to manage temporary overload conditions during peak demand periods without accelerating insulation degradation. The structural properties of the cast resin provide mechanical strength designed to withstand short-circuit forces, which contributes to the stability of municipal or industrial power grids.

Lifecycle Performance and Operational Layout

When evaluating substation feasibility, total cost of ownership (TCO) and spatial efficiency represent key factors alongside initial procurement costs. A Professional Dry Type Transformer offers specific operational characteristics regarding maintenance and spatial design.

Maintenance Protocols: Without valves, gaskets, or fluid levels to monitor, the maintenance schedule for a CHSH dry type transformer is structurally minimal. Periodic visual inspections and dust removal are generally sufficient to support long-term operation, which is a factor for remote installations or unmanned substations where frequent technical dispatch is logistically complex.

Spatial Optimization and Installation: Modern architectural constraints often prioritize compact

equipment footprints. CHSH's designs occupy a smaller footprint compared to oil-filled alternatives of equivalent kVA ratings. Because these units do not require specialized fire suppression systems or containment dikes, they can be deployed on upper floors of high-rise buildings or within basement levels of commercial structures, simplifying certain phases of civil engineering.

Environmental Resilience: The sealed structure of the cast resin windings provides a barrier against corrosive atmospheres, salt spray, and high humidity. CHSH's product portfolio, ranging from 500 kVA to over 3000 kVA, is designed to operate across diverse climatic conditions, including coastal industrial parks and high-altitude operations.

Industrial Integration and Manufacturing Profile

Supplier evaluation in the infrastructure sector typically involves assessing technical compatibility and integration capabilities. CHSH operates as a specialized production enterprise and serves as a supplier for the State Grid of China.

Technical Customization: Substation projects often demand specific parameters, including distinct voltage taps or non-standard enclosure configurations. The R&D team at CHSH interfaces with project designers to align the Professional Dry Type Transformer with accompanying switchgear and distribution components across high and low voltage switch transmission setups.

System Integration: As a comprehensive manufacturer, CHSH produces a range of equipment, including fully insulated inflatable cabinets, environmental protection gas ring main units, and prefabricated substations. The dry type transformer is engineered to operate in conjunction with this surrounding protection and distribution gear to minimize mechanical or electrical mismatch risks.

Quality Assurance Framework: Manufacturing stability is supported by a structured after-sales service system. CHSH maintains quality control frameworks from the raw material selection phase through to the final testing of each Professional Dry Type Transformer, ensuring compliance with international industrial standards.

Long-Term Infrastructure Considerations

Selecting a Professional Dry Type Transformer from CHSH represents a technical decision aimed at addressing safety, space utilization, and operational efficiency over the equipment's lifecycle. For modern power distribution systems facing spatial constraints and demanding operational requirements, partnering with an established manufacturer provides access to self-extinguishing safety features, low-maintenance design, and technical integration support necessary for stable infrastructure development.

For more information on technical specifications and product portfolios, please visit:

<https://www.shenhengpower.com/>.

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