

## ENERGIZING EXCELLENCE

## TRANSFORMATOR EQUIPMENT



Discover the pinnacle of power with our Transformer Equipment. Engineered for excellence, it delivers unmatched efficiency, reliability, and safety. Energizing your operations, we ensure optimal performance and sustainability, transforming energy into seamless productivity. Choose the path of "Energizing Excellence."

## TABLE OF CONTENTS



Single Phase Oil Immersed Transformer	
Single Phase Pad Mounted Transformer	2
Pad Mounted Transformer	3
Oil Immersed Transformer	4
35V Oil Immersed Transformer	5
Power Transformer	6
Epoxy Resin Insulation Dry Type Transformer	7
Compact Substations	8
GGD Type Low Voltage Power Distribution Cabinet	9
H CLASS Non Enclosed Dry Type Transformer	10
Three Phase Dry Isolation Transformer Series	]]
10kV Corrugated Tank	12
Radiator	13
Enameled Round Copper (Aluminum) Wire	14
Enameled Copper (Aluminum) Rectangle Wire	15
Insulation Materials For Oil Immersed Transformers	16

## SINGLE PHASE OIL IMMERSED TRANSFORMER





Robust Construction



167

12000

## Application

The JSYW overhead transformer may be used alone for the supply of a single phase load or as one of three units in a bank for the supply of a three phase load. The unit may be direct-mounted to a wooden or concrete pole, or cluster mounted ona pole for three phase use. The JSYW transformers are designed for servicing residential overhead distribution loads. They are also suitable for light commercial loads, industrial lighting and diversified power applications.

## CSP Type

This type of transformers are CSP type, which can protect itself from thunder and lighting, short circuit and protect the transiting and distribution line from current failure because of self-malfunction. Except from some similarities such as cylinder tank, hooks, lifting lugs, grounding devices, name plates, core and winding with the conventional type. This type of transformers have characteristics and devices as follows:

- 1) One or two high voltage bushings are on the cover with fuse.
- 2) One or two arresters are installed on the wall of the tank, whose top end is near to the high voltage bushing, and connected to the bushing by a copper strip. One secondary breaker switch is above the winding inside the tank, and here are operating handle, overload reset and signal light.
- 3) Low voltage bushing is educed from the wall of the tank, grounding device is fixed to position X2. One end of the single bushing leads out through the high voltage bushing, the other end is ground connection.
- 4) All units are built in accordance with IEC60076, ANSI/IEEECS7.12.20, CSA C2.1-06,CSA C2.2-06 and etc.

## SINGLE PHASE PAD MOUNTED TRANSFORMER







High Voltage Isolation



Robust Construction



## **Product Description**

The single phase pad mounted transformer is designed to improve performance in terms of KVA rating, compact dimensions, lighter weight, safety, and sustainability. No distribution room, can be directly placed in the indoor or outdoor, can also be placed in the streets and the greenbelt and reliably ensure personal safety, both power supply facilities, but also decorate the environment. It is low-profile, compartment-type transformer, which supplies suitable for mounting outdoors on pads without additional protective enclosures, and meet the following standard: IEC60076, ANSI/IEEEC57.12.00, C57.12.38, C57.12.90

SOURCE A&B

## **Use Environment**

The altitude does not exceed 1500m
Use environment temperature +40°C—-20°C
The annual average humidity does not exceed 90%
Both indoor and outdoor

## Product Advantages

- 1. Space-Saving: Single phase pad mounted transformers are designed to be compact and require very little space. This makes them an ideal choice for areas where space is limited, such as urban areas or densely populated suburbs.
- 2. Easy Installation: These transformers are easy to install, and they can be installed above or below ground level, depending on your needs. They are designed to be self-contained, so they require very little additional equipment or infrastructure to operate.
- 3. Low Maintenance: Single phase pad mounted transformers are designed to be low-maintenance. They require very little attention once they are installed, and they are designed to be highly reliable.
- 4. Efficient: These transformers are designed to be highly efficient, with very low losses. This means that they are able to deliver power to the grid with minimal waste or inefficiency.
- 5. Customizable: Single phase pad mounted transformers are highly customizable, and they can be designed to meet your specific power distribution needs. They are available in a range of sizes and configurations, so you can choose the transformer that best fits your requirements.
- 6. Cost-Effective: Single phase pad mounted transformers are a cost-effective option for power distribution. They require minimal maintenance and have a long service life, which can help to keep your operational costs low over time.

## PAD MOUNTED TRANSFORMER





## **Environmental Conditions For Use**

(1) Normal environmental conditions

Robust Construction

- 1. Upper limit of ambient air temperature:+40 °C, lower limit: 25 °C.
- 2. Altitude: not more than 1000m.

Ease Of Installation

- 3. Relative ambient temperature: air humidity is not more than 90%.
- 4. Outdoor wind speed shall not exceed 35m/s.
- 5. The ground inclination is not more than 5°, and there is no severe vibration and impact.
- 6. There is no conductive dust, no explosion hazard, and no corrosive metal and electrical components.
  - (2) Special working conditions

When the product is used under normal environmental conditions beyond the specified limit, theuser shall negotiate with our company.

### **Product Overview**

- 1. Small size, compact structure, small floor area and convenient installation.
- 2. Low loss, low noise, low temperature rise, strong load capacity beyond nameplate capacity, andstrongresistance to sudden short circuit.
- 3. Fully enclosed, fully insulated structure, stable and reliable operation.
- 4. The wiring mode is flexible, which can be used for both terminal system and ring network system, and the conversion is convenient, which improves the power supply reliability.
- 5. Easy operation, easy maintenance, short production cycle and low project cost.

## **Application Field**

It is applicable to small unattended substations with voltage of 35KV and below and main transformer capacity of 5000KVA and below, and is widely used in urban industrial substations, 10KV ring network systems, 35KV rural power grid substations and other occasions.

## OIL IMMERSED TRANSFORMER





1) The UHV transformer uses Toshiba's analysis software and the company's unique calculationandverification program to carry out all-round optimization design and verification of the transformer core, coil,body, lead oil tank and other components to ensure product performance. Superior process equipment, careful material selection, and efficient production and manufacturing make the transformer havethecharacteristics of small size, light weight, low loss, low partial discharge, low noise, etc., superior product quality, energy conservation and environmental protection, convenient installation and maintenance, reliable operation and effective reduction of product operating costs.

2) Our product SSZ20-240000/220 has passed the short circuit withstand capacity and all routinetypetests of the National Transformer Quality Supervision and Inspection Center. 3. This product has the characteristics of stability, reliability, economy and environmental protection, and suitable for power plants, substations, large industrial, mining and petrochemical enterprises, etc.



Ease Of Installation



High Voltage

Isolation



Robust Construction

## **Service Conditions**

The altitude shall not exceed 1000m

Maximum ambient temperature:+40 °C

Maximum daily average temperature:+30 °C

Maximum annual average temperature:+20 °C

# 35V OIL IMMERSED TRANSFURMER

## **Product Introduction**

1. High pressure transformer, use Japanese Toshiba analysis software and our company special calculation and validation procedures to the transformer core, winding, implement body, lead, fuel tanks, etc, Parts of the optimal design and carry on the omni directional validation, ensure product performance. Superior process equipment, elaborate material selecting and efficient manufacturing, making the transformer has small volume, light weight, low loss, low partial discharge, low noise characteristics, the product quality is superior, energy conservation and environmental protection, easy installation and maintenance, reliable operation and effectively reduced products running costs.



Ease Of High Voltage
Installation Isolation



Robust Construction

- 2. The company praduct SSZ11 40,000/110 through national transformer quality supervision and inspection center short-circuit withstand ability and all type test routine
- 3. This product is stable, reliadle, economic, environmental protection, applicable to the characteristics of generator, transformer substation, large mining petrochemical enterprise atc.

## POWER TRANSFORMER







Ease Of Installation



High Voltage Isolation



Robust Construction

### **Product Introduction**

The ultra-high voltage transformer utilizes Toshiba's analysis software from Japan and our company's unique calculation and verification program to comprehensively optimize the design and verification of the transformer core, coil, body, lead wire, oil tank and other components, ensuring product performance.

Superior process equipment, meticulous material selection, and efficient production manufacturing make transformers small in size, light in weight, low in loss, low in partial discharge, and low in noise. The product has superior quality, energy conservation and environmental protection, convenient installation and maintenance, reliable operation, and effectively reduces product operating costs.

This product has the characteristics of stability, trust, economy, and environmental protection, and is suitable for power plants, substations, large industrial, mining, and petrochemical enterprises, etc.







## EPOXY RESIN INSULATION DRY TYPE TRANSFORMER







Ease Of Installation



High Voltage Isolation



Robust Construction

## **Structural Characteristics**

Box-type coil: the low-voltage winding adopts the whole section of copper foil, and is wound on the special low voltage foil winding machine with Class F insulation. Foil coil can solve the outstanding problems such as high short circuit stress, unbalanced ampere-turn, poor heat dissipation effect, winding spiral angle, unstable manual welding quality and so on. At the same time, the winding end of our company is sealed with resin, solidified, moisture-proof and antifouling. The lead copper bar is automatically welded by roller arc welding.

Temperature control device: the transformer adopts BWDK series signal thermometer, and the temperature measuring element is buried in the upper part of the low voltage coil, which can automatically detect and display the working temperature of each phase coil, and has the function of over-temperature alarm and tripping.

## **Operating Conditions**

- 1. Installation height: average altitude 1000m.
- 2. The waveform of power supply voltage is similar to sine wave.
- 3. Symmetry of polyphase power supply voltage: the power supply voltage connected to the polyphase transformer shall be approximately symmetrical.
- 4. Ambient temperature.

Maximum air temperature: + 40 °C; Daily maximum average temperature + 30 °C, annual maximum average temperature + 20 °C.

Minimum air temperature - 30 °C (applicable to indoor transformer).

## GOMPACT SUBSTATIONS





Ease of Installation

High Voltage Isolation



Robust Construction

## Introduction

Compact substations can convert high-voltage electric energy into low voltage and distribute it to users, or they can also convert low-voltage electricity into specific high-voltage electricity and integrate it into the power grid. It can be said that they play an important role in power distribution. Transformers are indispensable in compact substations. Generally, compact transformers are composed of high-voltage switchgear, transformers, low-voltage switchgear, etc. among which transformers play a core role.

## GGO TYPE LOW VOLTAGE POWER DISTRIBUTION CABINET





Ease Of Installation





High Voltage Isolation



Robust Construction

## Structural Characteristics And Functions

1. The cabinet body of GGD AC low-voltage switchboard adopts the form of general cabinet. The frame is partially welded or assembled with 8MF cold-formed steel. The cabinet frame parts and special supporting parts are produced and supplied by our company to ensure the accuracy and quality of the cabinet body. The parts of the general cabinet are designed according to the module principle, and there are 20 mold mounting holes, and the general coefficient is high. Can bring the factory into production. Not only shorten the production period, but also improve the work efficiency.

2. GGD cabinet design fully takes into account the cooling problem in the operation of the cabinet. There are different number of heat dissipation slots at both ends of the cabinet. When the electrical components in the cabinet are hot, the heat rises and is discharged through the upper slot, and the cold air is constantly supplemented into the cabinet by the lower slot, so that the sealed cabinet forms a natural ventilation channel from the bottom up to achieve the purpose of heat dissipation.

3. GGD cabinet in accordance with the requirements of modern industrial product modeling design, using the golden ratio method to design the shape of the cabinet and part of the size of the partition, so that the whole cabinet beautiful and generous.

4. Cabinet door with rotary shaft type activity chain connected with the frame, installation, disassembly convenient. There is a mountain rubber and plastic strip embedded in the hem of the door. When closing the door, the strip between the frame has a certain compression stroke, which can prevent the direct collision between the door and the cabinet, and also improve the protection level of the door.

5. The instrument door with electrical components is connected to the frame with multiple strands of flexible copper wire. Knurled washers are

used to connect the installation parts in the cabinet to the frame. The whole cabinet sample is a complete grounding protection system.

6. Cabinet surface paint can choose polyester orange baking paint, can also choose to spray plastic powder process. All have strong adhesion and good texture. The whole cabinet is matte tone, avoid glare effect, to create a more comfortable visual environment for the staff on duty.

7. The top cover of the cabinet can be removed when needed, so as to facilitate the assembly and adjustment of the main bus line on site. The four corners of the cabinet top are equipped with hanging rings for lifting and loading conditions

8. The protection level of the cabinet is IP30. Users can choose the protection level from IP20 to IP40 based on the requirements of the environment.

### **Conditions Of Use**

- 1. The ambient air temperature shall not be higher than +40C and not lower than -5C; The average temperature within 24 hours is not higher than +35C;
- 2. For indoor installation and use, the altitude of the site shall not exceed 2000M;
- 3. The relative humidity of the surrounding air is not more than 50% when the highest temperature is +40, and it is allowed to have a larger relative humidity at a lower temperature; (e.g. 90% at +20C) The effect of occasional condensation due to temperature changes should be taken into account;
- 4. The inclination plane of the vertical plane shall not exceed 5 degrees when the equipment is installed;
- 5. The equipment shall be installed in the place without violent vibration and impact, and in the place where the electrical components are corroded.

## H CLASS NON ENCLOSED DRY TYPE TRANSFORMER





Ease of Installation



High Voltage

Isolation



Robust Construction

## **Detailed Introduction**

The company has strong transformer production capacity and efficient marketing team. The products include 110KV, 220KV large ultra-high voltage transformers and 35KV and below dry-type transformers, oil-immersed transformers, amorphous alloy transformers, prefabricated substations, photovoltaic/wind power transformers, on-load capacity-regulating transformers, geographic transformers, high-overload power transformers, dedusting

transformers, marine transformers, SVG connecting transformers, SVR line automatic voltage regulators, coil core transformers, Scott transformers ZP (T) S type/ZPSC type/ZPSG-W type multi-winding phase-shifting rectifier transformer and special transformers such as specification box transformer, furnace transformer, rectifier transformer and mine transformer.

## THREE PHASE ORY ISOLATION TRANSFORMER SERIES







Isolation

Robust Construction



QSG/SG three-phase dry isolation transformer is a new generation energy-saving power transformer developedby the factory based on international similar products and combined with China's national conditions, from 300VA to 1600kVA, in line with international and national standards such as IEC439 and GB5226 The winding adopts the method of winding out of the whole row the transformer is vacuum-impregnated, so that the insulation grade of the transformer reaches F grade or H grade, and the product performance reaches the advanced level at home and abroad. QSG/SG series three- phase dry isolation transformer is widely used in circuits with AC 50Hz to 60Hz and voltage below 2000V. It is widely used in importing important equipment, precision machine tools, mechanical and electronic equipment, medical equipment, rectifiers, lighting, etc. The various input and output voltages of the product, the connection group, the number and position of the adjustment taps (generally + 5%), the distribution of the winding capacity, the configuration of the secondary single-phase winding, the operation of the rectifier circuit, whether it is required. The outer casing and the like can be carefully designed and manufactured according to the requirements of the user.

## **Product Function Introduction**

- 1. High reliability: the three-phase isolation transformer has the advantages of simple structure, long service life, easy failure and easy maintenance.
- 2. Wide range of application: three-phase isolation transformer is suitable for various occasions, can be used for three-phase power supply regulation, transformation and distribution.
- 3. Small electromagnetic interference: three phase isolation transformer can effectively filter out the input electromagnetic interference, to ensure that the output is not affected.

## ICKY CORRUGATED









Ease of Installation



High Voltage

Isolation



Robust Construction

## Advantages

The structure of the transformer oil tank is complex, there are many welds and dead angles, and the internal cleanliness of the oil tank is very strict, otherwise it will have a great impact on the electrical performance of the transformer. We have automatic flushing, painting, spraying, pouring paint, and polishing Pills and other advanced equipment guarantee.

Electrical equipment is a general term for generators, transformers, power lines, circuit breakers and other equipment in the power system. The radiator is an important and basic component in the hot water (or steam) heating system. The hot water cools down in the radiator (or the steam condenses in the radiator) to supply heat to the room to achieve the purpose of heating. The transformer is a device that uses the principle of electromagnetic induction to change the AC voltage. The main components are the primary coil, the secondary coil and the iron core (magnetic core). The main functions are: voltage conversion, current conversion, impedance conversion, isolation, voltage stabilization (magnetic saturation transformer), etc.

## Application

It is mainly used for special heat dissipation equipment for small and medium-sized power transformer equipment.

### **Features**

After being assembled from the box edge, corrugated board box wall and box bottom, it is formed by automatic shielded welding with mixed gas. The corrugated oil tank adopts the way of corrugated sheets to dissipate heat, which has the characteristics of smooth return flow, no dead corner of oil collection, no oil stains and beautiful appearance.

## RADIATOR





## Introduction

Ease of

Installation

The transformer cooling radiator is a device for leasing the heat generated by the transfmer loss in operation to ensure the safe operation of the transformer. The main transformer accessory in the power transformer. There are many types of fin radiator centre distance such as: 500mm, 625mm, 750mm, 1000mm, 1250mm, 1500mm, and more. We can customise all types as per your requirements.

High Voltage

Isolation

Robust

Construction

## ENAMELED ROUND COPPER (ALUMINUM) WIRE





### Introduction

Enamelled round aluminum wire is one of the main types of electromagnetic wire. It consists of bare wire which is annealed and softened by conductor and insulating layer, and then after repeated spraying and baking. But to meet the standard requirements of production, but also to meet customer requirements of the product is not easy, it is affected by raw material quality, processing parameters, production equipment and environmental factors, therefore, all kinds of enamoured wire quality characteristics are not the same, but have high temperature resistance, mechanical properties, electrical and chemical. Chemical properties



Ease of Installation



High Voltage Isolation



Robust Construction

performance and excellent freezing resistance, suitable for long-term work at 200°C and chemical invasion of freezing equipment. Corroded electrical equipment, dry type transformer, oil immersed transformer and epoxy pouring transformer and other mechanical and electrical equipment.

## ENAMELED COPPER (ALUMINUM) RECTANGLE WIRE







## Introduction

Enamelled flat wire is a wire drawn or extruded by a specific-specification die of an oxygen-free copper rod or an electrician's round aluminum rod. The drawn bare wire is softened by annealing and then painted and baked for several times. Mainly used in transformer, reactor and other electrical equipment winding.



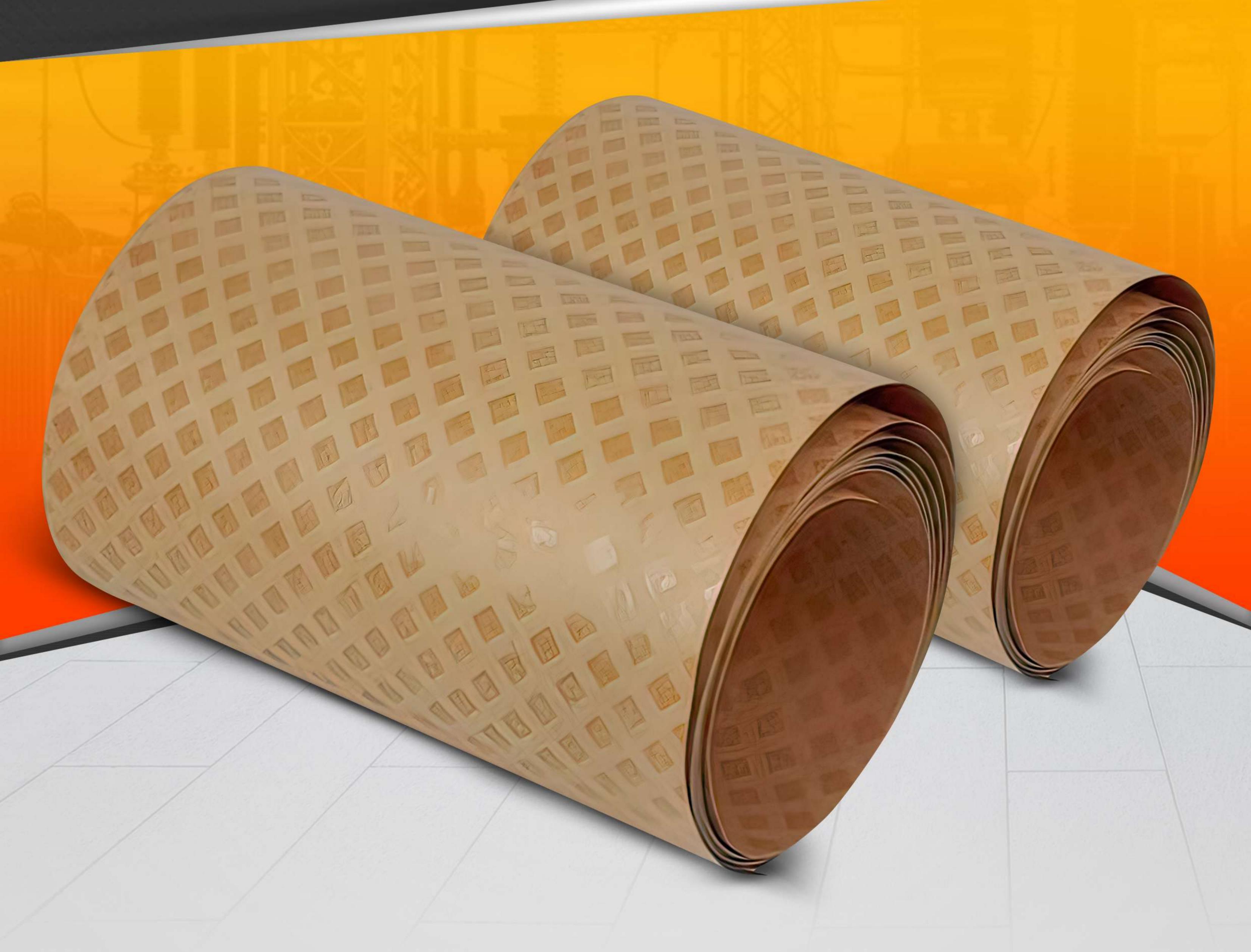
Ease of Installation



Robust Construction

## INSULATION MATERIAL FOR OIL IMMERSED TRANSFORMERS







Ease of Installation



High Voltage

Isolation



Robust Construction

