**General**
As an ISO9001:2008 certified company, VARELEN offers a complete range of distribution transformers designed to meet the reliability, durability, and efficiency required in utility, industrial and commercial applications. Our oil-immersed transformers are manufactured in accordance with the most demanding industry and international standards. Transformers can be used for indoor or outdoor applications and can be provided with off-load tap changer.

**Why VARELEN?**
- 50+ years experience R&D team, derived from a 60 years of history transformer factory in Changsha city of China.
- Various choices for customers base on full range of transformer types.
- Customized transformers with special functions are available.
- Varen is one of the members who drew up the Chinese National Standard for Explosion-proof Mobile Substation for Mining.

**Main Specifications:**
- Transformer type: Oil-immersed type
- Phase: Three-phase / Single Phase
- Capacity: 5kVA~2500kVA, up to 35kV (Customization is available, up to 10kV)
- Frequency: 50Hz/60Hz
- Coolant: Corrugated wall or radiator
- Gaging mode: ONAN / ONAF
- Oil preservation: Hermetically Sealed / Conservator / Free Breathing
- Tap changer: Off-load or on-load
- Available fluids: Mineral oil / Dimethyl Silicone / Vegetable Oil
- Winding materials: Copper / Aluminium
- Low noise solution
- Efficient transformers with reduced losses
- Advanced equipments
- Wrapped with wooden case
- 3D package for drawings
- Standard: IEC60076

**Tests**
- Insulation resistance
- Resistance for all windings
- Check voltage ratio and vector group
- No load test at rated frequency and rated voltage
- Impedance test
- Withstand voltage test
- Induced over-voltage withstand test
- Partial discharge measurement
- Oil leakage test

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**Product Features**

### The Iron Core
Whatever the raw materials, the design, or the production process of the iron cores, Varen uses the latest technology for it. The silicon steel sheet used is grain-oriented, cold-rolled and insulated on both sides, guaranteeing low losses and noise and these values are even improved by laser treatment. Numerically controlled cutting machines provide for careful treatment in the cutting process in order to avoid mechanical tension in the core and thus unwanted properties right from the beginning.

### The Winding
The winding as the centerpiece of the transformer must be absolutely protected both against high electrical stress due to extended over voltages and against mechanical overloads by short circuits. Varen transformers are systematically designed to meet these requirements. The windings are made of copper or aluminium. Low-voltage windings are made of strip or flat wire, and the high-voltage windings are manufactured from round or profile wire. (“diamond-dotted paper’) bonds the winding into a compact brick while drying and increases the short-circuit capacity additionally.

### The Tank
Whether during transport or operation the tank must be absolutely tight under mechanical stress. Preconditions to achieve this are constructional experience, the most modern calculation methods and high-quality welding work. Special attention is paid to corrosion protection. Pre-treatment of the surface is processed by phosphating picking, contributes to corrosion protection, just like multi-coating with porcelain drying times for each layer. On request, hot-dip galvanization provides for even better protection.