



# **STAR ENERGY LIMITED**

The "NEW AGE" Transformer Manufacturing Company

www.starenergy.co.in



## Corporate Profile

Star Energy Ltd. (SEL) is based in Wada (India) and the factory is spread over 7500 square meters on the plot size of 15000 square meters. M/s Star Energy Ltd is a leading manufacturer of reliable, cost effective and high quality transformers, with experienced and cohesive leadership team with great experience in the transformer field, joined together with the common passion for its work and willing to share the experience gained from years of work directly in the transformer industry.

SEL manufactures a range from 100 kVA to 150 MVA with voltage class up to 220 kV. We also have a comprehensive repair facility where we offer refurbishment of the transformers. Each of our transformers undergoes various examinations at different stages of production and is tested for all routine tests. Our products are designed to suit customer's requirement, manufactured with state of the art equipment and tested on modern testing facilities capable of carrying out all the tests required by nation and international standards.



## Our Vision

- Our vision is to become one of the largest Power, Distribution and Special duty transformers manufacturer in India and global market, known for its quality technology, fully integrated range, innovative directions, ethical behaviors and business results.
- Build long lasting customer relationship will make us a preferred supplier.
- We aspire to be the benchmark in the industry to many of our contemporaries in the global context; optimizing our resources to create innovative products and services.

## Our Creed

- Research and innovation, for a complete **Reliability**.
- Quality as a milestone.
- Flexibility for the full satisfaction of our Clients.

# Manufacturing And Service



## **Power Transformers**

SEL manufactures power transformers ranging from 5 MVA, 33 kV to 150 MVA, 220kV class for various application i.e.: Generator step up, Transition networking, Autotransformer, under strict process controls using the best materials following the nation and international standards.

#### Features:

- Comply with standards as required i.e. IS, IEC, IEEE
- Design to suit customer requirement
- Compact design
- High short-circuit and Impulse withstands strength







## **Distribution Transformers**

SEL manufactures distribution transformer ranging from 100 kVA to 5000 kVA, 33 kV class for various application i.e Power distribution system in utilities. Private sector, solar energy, etc...

#### Feature:

- Comply with standards required i.e. IS, IEC, IEEE etc...
- Compact design
- High short-circuit and Impulse withstands strength





## Package Substations

SEL manufactures package substations ranging from 200 kVA to 3000 kVA, 33 kV voltage class for various application i.e. Residential colonies, Heavy industries, most safe-zone area etc...

#### Feature:

- Compact design with inbuilt over load and earth fault protection
- Comply with standards for degree of protection
- Design to suit customer requirement
- Compact substation with metal enclosure and GRP enclosure





# Dry Type Transformers

SEL manufactures dry type transformer with Nomex paper (Class H) range of 100 kVA to 2000 kVA, 22 kV Class for various application i.e Marine application, Ships, etc

#### Feature:

- Compact design with outdoor and indoor type with metal enclosures
- Design with H class insulation which is operated in high temperature zone without effecting working life

### Pad Mounted Transformer

SEL manufactures pad mounted transformer range of 200 kVA to 4000 kVA, 33 kV class for various application i.e. Oil field where safety and high reliability are very important.

#### Feature:

- Design with LV, HV compartment on same side with enclosure
- Comply with ANSI standard
- Design inbuilt protection system like Bay-o-net fuses (HV), Load break switch etc



# Manufacuring Facility



# Winding section

Windings are made of high quality electrolytic graded copper. All windings are designed to withstand short circuit and to minimize copper usage. High voltage windings are generally wound using round enameled wire or rectangular paper covered copper strips. Interlayer insulation is ensured by special electrical grade paper & Epoxy dotted paper.



## Computer Controlled Vacuum Drying Plant

As insulation plays a major role on the life of the Transformer, all our coil assemblies are dried under vacuum using computer controlled pre-programmed . The drying process on core and coil assemblies is ensured by a combination cycle of heat and vacuum which facilitates total removal of moisture from the insulation.







## Tanking and Assembly

Active parts (core coil assembly) are lowered inside the mild steel tank. The connections of HV, LV terminals are made as per the parameter given by the designer .Filtered, degassed and dehydrated Transformer oil is filled upto the required levels before the top cover and other assemblies are fitted. Tanks are pressure tested for minimum 4 hours in a hot oil condition.

# Transformer Oil Filtration

The oil filtration processes is done using a filter machine, in which heating under vacuum is done to remove moisture content from the oil. This process is done before filling in to the transformer tanks.



## **Quality Control**

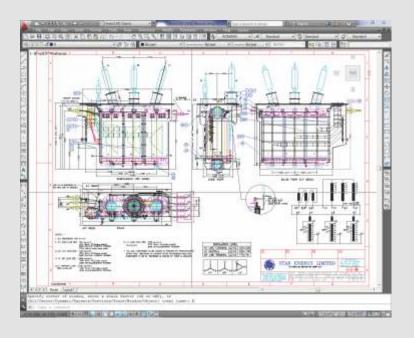
# Testing and Quality Control

We have the most modern testing laboratory "Intelligent Transformer Testing & Report System (ITTRS)" where we conduct all the routine tests on each transformer as specified by the national and International Standards. We are ISO 9001: 2008 certified company and our quality system is in line with the international standards.



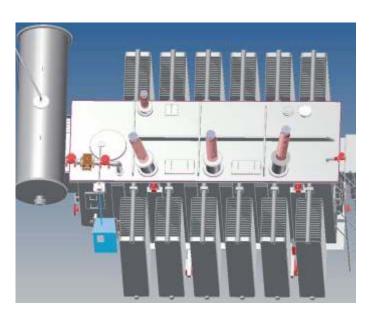


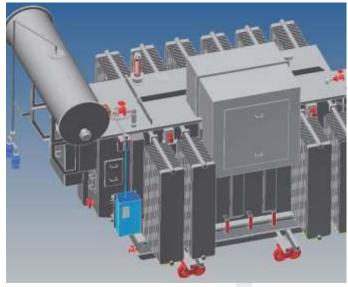


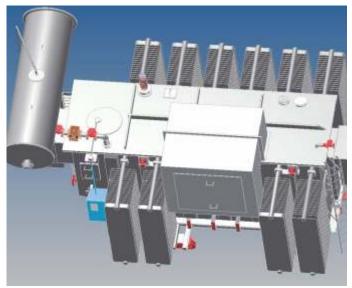


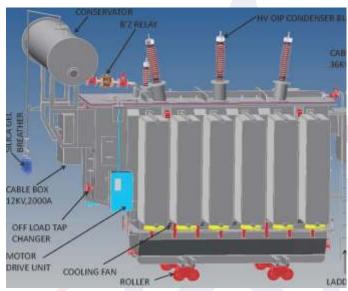
# **Design Capabilities**

SEL has a highly innovative and experienced design team make sure the national and international standards are adhered to throughout the process. Every Transformer is designed with actual dimensions in 3D system to ensure the correct fixing off all fittings and accessories. Advance design and drawing software's are used to ensure the optimized and best designs.









## **Enquiry And Ordering References**

The information required to be furnished along with the enquiry or order are as mentioned below.

- Rated power in KVA
- Voltage on Primary Side
- Voltage on Secondary Side
- Frequency of Supply
- Vector Group of the transformer
- Tapping details in percentage
- Specified losses and impedance
- Insulation level for HV & LV
- Cooling media (air, mineral or silicone oil)
- Type of application (indoor or outdoor)
- Standard in force to comply with
- Maximum ambient temperature of the region
- Altitude above sea level if in excess of 1000 m
- Conservator type, sealed or with welded cover
- Protective and Monitoring systems required







### **STAR ENERGY LIMITED**

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