







## Low Captive Consumption, High Efficiency, Durable, Power Savers

BARBRIK TRANSFORMERS is a unit to manufacture and repair Power and Distribution Transformers. BARBRIK make Transformers are widely used by various State Electricity Boards, Development Authorities, Public and Private Sectors. The Transformers are manufactured conforming to ISS / IEC Standards at our works at Raipur, by skilled technicians with supervision and rigid quality control by qualified and experienced Engineers. These can also be designed as per the customers special requirements and as per any National and International specification. These transformers carry several exclusive features for long and trouble free performance with high efficiency.

#### **INSULATION AND OIL**

The insulation material like pre-compressed boards, blocks, corrugated cylinders, bakelite tubes, insulating tapes, empire sleeves, glass sleeves varnish, epoxy bushing, porcelain bushing etc. are used of best quality to ensure long life of the transformers. Oil used as a coolant and insulating medium is of best quality conforming to IS:335. Before filling in to the transformers, oil is centrifuged, dehydrated and filtered through 'Stream Line Filtration Plant' and tested to ensure free from moisture.

#### **TANK & RADIATORS**

The tanks are made from prime quality mild steel sheets, plates and pipes by electrical welding. Proper bracing and stiffeners are provided for robust construction. The tanks are tested at specific pressure for leakage at joints/Welds. Sufficient cooling radiators are provided for maximum dissipation of heat during extreme ambient temperatures. Radiators can be Corrugated, Elliptical tube or Pressed steel type as per clients requirement.

#### **VECTOR GROUPS**

Various vector groups can be provided as per demand.

#### **OVERLOADING**

Transformers are designed for overloading excess than normal rating as per IS: 6600.



#### CORE

Core is made from best grade imported cold rolled grain oriented silicon steel laminations with the latest technique of annealing. Interleaved and mitred joints reduce the core losses and magnetizing current considerably. Core (Cold Rolled) is specially designed to sustain over fluxing up to 12.5%. Individual stamping is insulated on both side with oil resistant and temperature resistant insulating material. Core is clamped with steel channels rigidly to reduce the cartite sound level and earthed with electrical grade copper sheet.

#### WINDING

The winding can be any type (i) spiral (ii) crossover (iii) helical (iv) disc, designed to withstand the optimum electrical, mechanical, dynamic and thermal stresses depending upon the current and voltage. The coils are wound with electrolytic grade high conductivity, annealed wire and strips covered with high quality insulation. All coils are reinforced, insulated and impregnated with insulating varnish to with stand the effect of short circuits and impulse voltage shocks. Cooling ducts are provided to minimize the hotspot temperature and temperature gradient between winding and oil.

# **SUPREAM POWER MACHINES**

### Low Captive Consumption / High Efficiency/ Durable! Power Savers

#### **Power Transformers**

Power Transformers are used in Transmission Network of higher voltages for step up and step down applications. BARBRIK has a comprehensive range of Power Transformers that are designed to provide uninterrupted Power supplyStandard: IEC /ANSI/ BS/ IS

Voltage Class: Up-to 132 kV Class Capacity:Up-to 50 MVA

Power Transformer with OLTC (On Load Tap Changer) ONAN/ONAF



#### **Distribution Transformers**

The final transformer in the Power distribution system that steps down the voltage to the voltage level usable at our homes /offices is called Distribution Transformer. These are designed to be robust and energy

Standard: IEC /ANSI/ BS / IS / EN Single Pha. Transformers: Capacity: I6kVu-15OkVAI Voltage Class: Up-to 33 kV Class Pole Mounted, Stack Wound Core, CSP - Completely self protected type

#### Three Phase Transformers:

Capacity: 25 kVA- 5 MVA( 5000 kVA) Voltage Class: Up-to 33 kV Class Distribution Transformers with OLTC (On Load Tap Conventional / Changer), Conventional / Hermetically Sealed, (BIS approval up-to 2500 kVA, 33 kV Class, Energy Efficiency Level 3)

#### **Amorphous Core Transformers**

BARBRIK's focus on energy efficiency had enabled it to develop Amorphous Core Transformers which help in achieving very low no load losses. ABC has set up state of the art plant for manufacturing Amorphous Core transformers.

Single Phase:

Three Phase: Capadty: 16 kVA - 150kVA Capacity: 25 kVA - 1000 kVA Voltage Class: Up-to 33 kV Class Voltage Class: Up-to 33 kV Class





#### **Dry Type Transformers**

BARBRIK manufactures VPI (Vacuum Pressure Impregnated) transformers that have no flammable liquids and are maintenance free. These can be placed closer to the load and are easy to repair. These are specially design. to be placed in basements.

Capacity: 25 kVA-2500 kVA Voltage Class: Up-to 11 kV Class Transformers with OLTC (On Load Tap Changer)

#### Servo Voltage Stabilizers

Low/ High Voltages and Fluctuations can cause damage to various electrical equipment. To provide fluctuation and spike free voltage ABC has a comprehensive range to Servo Voltage Stabilizers.

Type : Linear (Carbon Roller Type) / Dimmer Based (Carbon Brush Type)

indoor / Outdoor Installation, Oil Cooled / Air Cool. I Protections High / Low Voltage Cut off,

Single/ Reverse Phase Preventer, Short Circuit Protection.





#### HT AVR / Built in AVR

To safe guard the critical machinery BARBRIK make HT AVRs that regulates the voltage and delivers clean power. HT AVR operates On Load Directly on the HT line and provides stabilized HT output while Built in AVR operates on HT line and provides sstabilized,. LT output.

Capably: 100 kVA-5000 kVA Voltage Class: Up-to 33 kV Class

#### Special Purpose Transformers

BARBRIK designs and manufactures custom design. special purpose transformers to suit your specific needs. With in house design team, we have immense technical capabilities to develop any customized transformer.

#### Few of them are list, below:

Dual Ratio Transformers | Furnace Transformers | Converter Duty Transformers for Solar Applications | Package Sub Station Transformers | Isolation Transformers | Auto Transformers | Instrument | Transformers (CT / PT).



#### **FITTING & ACCESSORIES**

Standard fitting recommended in IS 2026- 1977 are provided however following extra fitting can be provided as per specific requirement for the customer.

- (i)Buchholzrelay
- (iii) Dial type thermometer
- (v) Marshalling Bo
- (vii) OSR

- (ii) Winding temperature indicator
- (iv) H.V & L.V Cable Boxes
- (vi) PRV

#### **TESTING FOR QUALITY ASSURANCE**

Our works is equipped with Al requisite testing facilities for quality assurances. Each transformer is tested for all tests conforming to IS: 1180 and IS: 2026 by qualified and experiences engineers with precision grade instruments. The tests involved are following:

- 1. Measurement of insulation resistance.
- 2. Measurement of voltage ratio.
- 3. Check up of vector group and polarity.
- 4.Induced over voltage test at double voltage and double frequency.
- 5. Separate source high voltage test of HV side and LV side.
- 6. Measurement of no load losses and magnetizing current.
- 8. Measurement of load losses and impedance voltage.
- 9. Measurement of zero sequence current.
- 10. Measurement of HV winding and LV winding resist...
- 11. Measurement of temperature rise of winding and oil of transformers at full rated load..
- 12. Pressure and vacuum testing of transformer for permanent deflection of body.
- 13.Check up of dielectric strength of transformer oil. (Test certificates are issued with each transformer.)
- 14. Tan Delta Test.
- 15.Measurement of Pl.

#### **ADDITIONAL TESTING**

- 1. Short circuit with stand test.
- 2.Impulse voltage with stand test.

(These are the type tests and can be arranged at C.P.R.I.BHOPAL /BANGALORE and other recognized laboratories on payment if required by the customer.)

#### **WARRANTY & AFTER SALES SERVICE**

Our products are guaranteed against any manufacturing defect. Every transformer sold is backed by our excellent and prompt service network. We are always ready and available

# **CONTACT US**



Opposite Jindal factory,

Mandir hasud, NH53, Raipur,

Chhattisgarh



+91 97536 75000

0771-4057575

www.barbriktransformers.com

