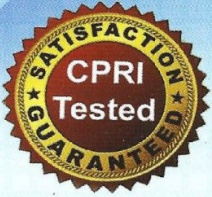


ISO 9001 : 2008 CERTIFIED



NANDADEEPA POWER CONTROLS

Mfrs. Power Transformers, Distribution & Dry Type Transformers

30, Dasanapura Hobli, Kachohalli Indl. Estate,
Bengaluru - 562 123. Mob : 9066619819 / 080-28360553

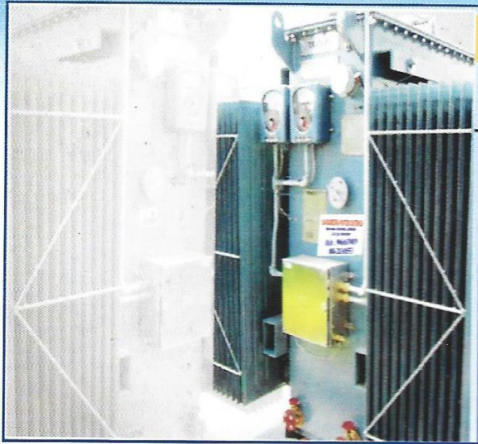
E-mail : npctransformer@gmail.com, ganpathdewasi2013@gmail.com

www.nandadeepapowercontrols.com

Customer Care : 9343241043



Product Basket

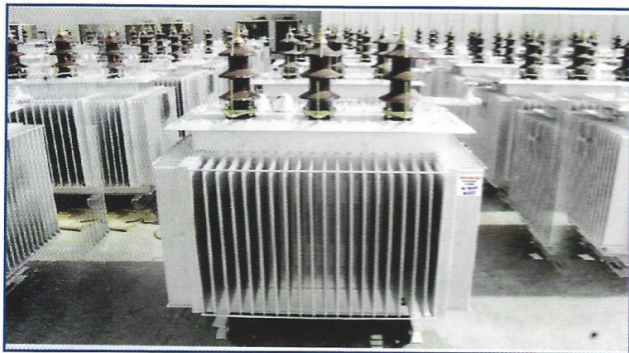


Hermetically Sealed Transformer
(radiator Type)

Distribution Transformers

Oil filled i(Mineral / Midel / Silicone) (63 KVA to 3.15 MVA of KV Class) with OLTC, RTTC, Free Breathing & Hermetically Sealed Transformers

| KVA | 11/0.433 KV L X W X H (mm), Weight (Kg.) | 22/0.433 KV L X W X H (mm), Weight (Kg.) | 33/0.433 KV L X W X H (mm), Weight (Kg.) |
|------|--|--|--|
| 200 | 1440x1350x1440x990 | 1620x1440x1800x1260 | 1710x1530x1890x1350 |
| 315 | 1530x1440x1800x1350 | 1710x1540x2160x1630 | 1800x1620x2250x1710 |
| 500 | 1980x1530x1980x1800 | 2070x1620x2160x2070 | 2160x1710x2250x2160 |
| 630 | 2160x1620x2160x2520 | 2250x1710x2240x2630 | 2340x1710x2340x2700 |
| 990 | 2430x1710x2340x2520 | 2430x1800x2430x3600 | 2520x1980x2520x3870 |
| 1500 | 2430x2340x2440x4140 | 2520x2430x2520x4590 | 2610x2520x2610x4860 |
| 2000 | 2610x2430x2610x4500 | 2700x2520x2700x5490 | 2790x2610x2700x5490 |
| 2500 | 2700x2520x2790x6930 | 2700x2610x2790x7200 | 2880x2700x2880x7560 |
| 3150 | 2880x2610x2880x7200 | 2970x2880x2970x7650 | 2970x2880x2970x8100 |



Hermetically Sealed Transformers
(Corrugated Fin Type)



Conservator Type
Distribution Transformers



Power Transformers

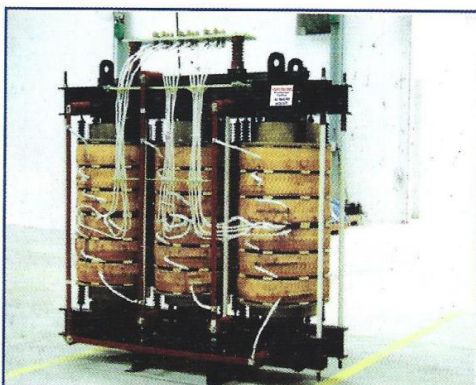
Power Transformers

(3150 KVA To 10 MVA of 33 KV Class) With OLTC / RTCC

| KVA | L (mm) | W (mm) | H (mm) | Total Weights (kg.) |
|-------|-----------|-----------|-----------|------------------------|
| 3150 | 2970 | 2970 | 3060 | 8550 |
| 5000 | 2610 | 3150 | 3330 | 11700 |
| 6300 | 3330 | 3240 | 3420 | 15300 |
| 8000 | 3420 | 3510 | 3600 | 18900 |
| 10000 | 4050 | 3960 | 3690 | 21600 |

Salient Features

- Step-lap core design
- Insulation material is high dielectric
- Pre-compressed insulation material
- Available in Star Ratings
- Electrolytic Grade Copper in used



Dry Type (VPI) Transformers

Dry Type (VPI) Transformers

(63 KVA To 2500 KVA of 11 KV Class)

| KVA | L (mm) | W (mm) | H (mm) | Total Weights (kg.) |
|------|-----------|-----------|-----------|------------------------|
| 250 | 1710 | 1710 | 1620 | 1710 |
| 315 | 1710 | 1710 | 1620 | 2160 |
| 400 | 1710 | 1710 | 1620 | 2340 |
| 500 | 1710 | 1710 | 1620 | 2430 |
| 630 | 2160 | 2250 | 2430 | 2610 |
| 990 | 2160 | 2250 | 2430 | 3330 |
| 1600 | 2340 | 2250 | 2700 | 5220 |
| 2000 | 2340 | 2250 | 2700 | 6030 |
| 2500 | 2340 | 2250 | 2700 | 6480 |

Salient Features

- Fire resistant
- Low loss
- Free from partial discharge
- High dynamic Short circuit capability
- Overload capacity very good
- High Impulse strength
- pollution free
- Low noise
- Easy to repair Can be placed near to load

TRANSFORMERS TESTING

The studies conducted have revealed that with increase in Insulation temperature over permissible value the life of transformer gets reduced by about value the life of transformer gets reduced by about 50%. The efficient working of the transformer and its reliability is very important for the power system performance.

This can only be achieved by using quality materials, ensuring high standards of workmanship during production. Various tests are carried out at different stages of manufacturing process.

The final tests on fully assembled transformer also assure suitability of the equipment for satisfactory performance. Our tests are conducted in compliance to **IS2026/IEC726/BS171** to ensure reliable and efficient performance of the transformer during its lifetime.

Some of the tests specified in Indian Standards. Ratio, polarity and phase Relationship the ration should be checked at all taps and between all the windings. It is checked by applying a single-phase 230V(approx) supply on the high voltage side and measuring the voltage on the low voltage side at all tap positions. the measured voltage on LV side shall conform to declining trend between tap (min) to tap (max) position for all phases. Polarity and inter phase connections are checked while measuring the ratio. This can be checked by the avometer method. The primary and secondary windings are connected together at points indicated in sketch shown below. A low voltage three-phase supply is then applied to the HV terminals. Readings obtained should be the vectorial sum of the individual voltages of each winding under consideration.

Type Tests

» Impulse voltage withstand test

» Temperature rise test

- ▶ Measurement of winding resistance
- ▶ Verification of voltage ratio
- ▶ Verification of vector group
- ▶ Measurement of no load current and losses
- ▶ Measurement of impedance and load losses
- ▶ Measurement of insulation resistance
- ▶ Power frequency withstand voltage
- ▶ Induced over voltage test
- ▶ Air pressure test
- ▶ Type Tests
- ▶ Impulse voltage with stand test
- ▶ Temperature rise test

TRANSFORMERS *Building Quality & Durable Transformer*

The transformer helps in converting low voltage into high voltage or vise-versa and accordingly the transformer is termed step-up or step-down. The transformer works on the principle of electromagnetic induction. Such phenomena can take place in a static device, only, if the magnetic flux is continually varying. It is therefore clear that static transformers can only be used with alternating currents only. When an alternating EM F is applied to the primary winding of a transformer with the secondary winding open circuited, a small current flows in the primary winding which serves to magnetize the core and to feed the iron losses of the transformer.

As primary and secondary windings are wound on the same core, the magnetizing flux is the same foe both the windings. The magnetizing flux corresponds to the magnetizing current in the primary and the number of turns of the primary winding. Primary and secondary windings are wound on the same core. Hence, the induced in the

primary and secondary windings is proportional to the number of turns in the respective windings.

Transformer has a core, surrounded by windings. The core is made of special cold rolled grain oriented silicon sheet steel laminations. The thickness of the laminations is 0.27 to 0.35 mm. The transformer cores constructions are of two types-core type and shell type. In core type transformers, the windings are wound around the core, while in shell type transformers, the core is constructed around the windings. The shell type transformers provide a low reactance path for the magnetic flux, while the core type transformer has a high leakage flux and hence higher reactance.

Transformer Types

- ▶ Power & Distribution Transformers 25KVA to 2000KVA upto 11 KV/22KV Class
- ▶ Dry Type Transformers 11KV Class
- ▶ Furnace Transformers
- ▶ All types of industrial transformers
- ▶ as per customer specifications and requirements

Standard Fittings

- ▶ Two Earthing Terminals
- ▶ Lifting Lugs
- ▶ Drain-Cum Filter Valve
- ▶ Conservator Drain Valve
- ▶ Explosion Vent
- ▶ Skid under base with haulage holes
- ▶ Silica gel dehydrating breather
- ▶ Oil level Indicator
- ▶ Thermometer pocket Conservator with drain plug and filling hole
- ▶ Air release plug
- ▶ Jacking Lugs (above 500 KVA)
- ▶ Filter Valve (Top Tank)
- ▶ Under base Unidirectional flat rollers
- ▶ 1 st filling of oil IS : 335

Optional Fittings

- ▶ Winding Temperature Indicator
- ▶ Oil Temperature Indicator Gas and oil actuated (Buchholz) relay
- ▶ Shut off valve between conservator & Tank
- ▶ Building quality transformers since 2012
- ▶ Magnetic oil level gauge
- ▶ On load tap changer RTCC panel
- ▶ RTCC PANEL
- ▶ Marshaling box with wirin
- ▶ Sampling valve
- ▶ Bidirectional rail rollers

As primary and secondary windings are wound on the same core, the magnetizing flux is the same for both the windings. The magnetizing flux corresponds to the magnetizing current in the magnetizing current in the primary and the number of turns of the primary winding. Primary and secondary windings are wound on the same core. Hence, the induced voltage per turn is the same absolute value of induced voltage in the primary and secondary

windings is proportional to the number of turns in the respective windings. The primary am secondary windings in a core type transformer are of the concentric type only, while in case of she type transformer these could be of sand-witched type as well. The concentric windings are normally constructed in any of the following types depending on the size am application of the transformer Cross Over type, Helical Type & Continuous Disc type.

TECHNOLOGY AND BSD WORK

Our company is well equipped with latest tool and testing facilities. We have the caliber to manufacture advanced technology oriented transformers up to **2000 KVA, 33 KV class** fo indoor & outdoor applications. We constantly strive to upgrade our R & [work and make all necessary modifications according to the change followed in the market.



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