

Three Phase compartmental type pad-mounted transformers are used for underground distribution systems. These are designed both for indoor and outdoor installations, dead-front or live-front on a concrete or flat and robust surface. They are best suited for high-rise buildings, apartment buildings, shopping complexes, hospitals, schools, commercial buildings, and industrial establishments.



The tank and cabinet construction is tamper-proof to eliminate the need for protective fencing or vaults. The standard rating ranges from 10 - 167 KVA for single phase and 45 through 3000 KVA for three phase, with primary voltage ratings from 2,400V to 34,500V. A variety of transformer accessories can be made available depending upon the requirements of the customers. The design conforms to applicable standards of ANSI/IEEE and NEMA.

Typical Applications

Our transformers are designed for normal electrical utility power distribution systems application conditions. These conform to the "usual service conditions" described in ANSI C57.12.00, General Requirements for Liquid-Immersed Distribution, Power and Regulating Transformers.

The Technology Behind Our Products

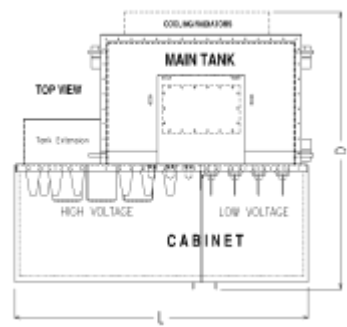
FIRST PHILEC has a strong in-house technical capability developed over the years through technical tie-ups with world-class technology corporations. Through these technical tie-ups, FIRST PHILEC has developed the necessary competencies to assimilate, refine and adapt these technologies to the needs of the various markets it serves. FIRST PHILEC products conform to the American National Standard Institute (ANSI) but can also be designed to meet other widely accepted standards such as International Electro technical Commission (IEC), British Standards (BS) and Japanese Industry Standards (JIS).

The company maintains a reliable and fully integrated manufacturing facility which enables FIRST PHILEC to efficiently manufacture high quality transformers. Being an ISO 9001 certified company, total quality is an integral part of FIRST PHILEC's manufacturing operation. This ensures a reliable product that meets customer requirements.

Standard Features

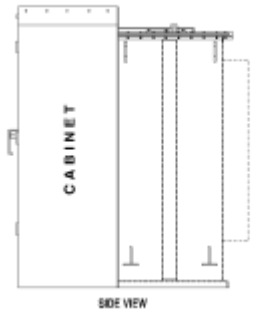
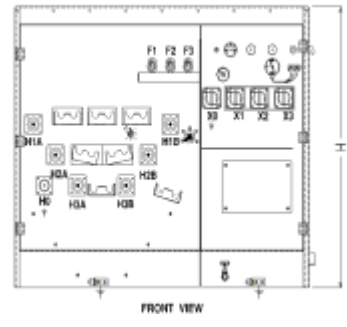
- Wound and rectangular core-coil construction
- Robust steel tank and cabinet assembly
- Welded and Bolted cover with manhole opening for Internal access
- Panel radiator for additional heat dissipation
- Removable hood and sill for easy installation
- 180 (degrees) opening for HV and LV doors with padlocking provision and lifting handles for easy removal
- Hook rest to hold the doors in open position
- Three-point door latching with stainless penta head bolt for secured door locking
- Bushing wells
- Externally clamp porcelain/epoxy LV bushings
- Externally operated no-load tap changer
- Tap grounding pads
- Base down lugs for permanent anchor to pad
- Stainless steel nameplate
- Filling plug/oil level plug
- Pressure relief valve
- Drain valve with oil sampler

Typical Product Outline



| TYPICAL OUTLINE DATA * | | | | | |
|------------------------|--------------|-------------------------|----------|-----------|--|
| RATING KVA | WEIGHT, KGS. | OVER ALL DIMENSIONS, mm | | | |
| | | HEIGHT, H | DEPTH, D | LENGTH, L | |
| 75 | 2 620 | 1 885 | 1 900 | 2 320 | |
| 150 | 2 660 | 1 885 | 1 900 | 2 320 | |
| 300 | 3 530 | 1 885 | 1 900 | 2 320 | |
| 500 | 3 610 | 1 885 | 1 760 | 2 320 | |
| 750 | 4 180 | 1 885 | 1 730 | 2 320 | |
| 1000 | 4 770 | 1 885 | 1 900 | 2 320 | |
| 1500 | 5 680 | 2 030 | 2 240 | 2 320 | |
| 2000 | 7 480 | 2 030 | 2 500 | 2 320 | |
| 2500 | 7 920 | 2 100 | 2 700 | 2 320 | |
| 3000 | 8 560 | 2 100 | 2 900 | 2 320 | |

* - 34.5 KV/110 KV Rating



Optional Features

- One-piece integrated bushing
- Surge arresters (dead-front or live-front)
- Bayonet and dry-well mounted expulsion fuses
- Partial and full range oil-submersible current limiting fuses
- Two-position or four-position loadbreak gang operated sectionalizing switch
- Oil level, temperature, and pressure/vacuum gauges, etc.



Quality Assurance

Quality assurance is an integral part of the process. Raw materials are properly inspected and tested before they are accepted. Quality of processed parts and sub-assemblies are the responsibility of the production personnel. Regular quality inspections and spot checking are conducted to make sure that good and consistent quality is achieved and maintained.

Routine Tests

- In-process Core Loss Test
- Transformer Turns Ratio Test
- Winding Resistance Test
- Polarity and Phase Displacement Test
- Insulation Power Factor Test
- Liquid Insulation DBV Test
- No Load Loss & Excitation Test
- Impedance Voltage & Load Loss Test
- Voltage Ratio Test
- Applied Potential Test
- Induced Potential Test

Type Tests

- Temperature Rise Test
- Basic Impulse Level (BIL) Test



Standard Ratings

| CAPACITY | HIGH VOLTAGE RATING | | | | |
|----------|---------------------|------------------|--------------|--------------|------------|
| | 34.5Grd.Y/19.92kV | 13.2Grd.Y/7.62kV | 34.5kV-Delta | 13.8kV-Delta | 23kV-Delta |
| 75 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| 150 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| 300 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| 500 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| | 416Y/240V | 416Y/240V | ----- | ----- | ----- |
| | 480Y/277V | ----- | ----- | ----- | ----- |
| | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 750 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| | 416Y/240V | 416Y/240V | ----- | ----- | ----- |
| | 480Y/277V | 480Y/277V | ----- | ----- | ----- |
| | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 1000 | 240Y/139V | 240Y/139V | ----- | ----- | ----- |
| | 416Y/240V | 416Y/240V | ----- | ----- | ----- |
| | 480Y/277V | 480Y/277V | ----- | ----- | ----- |
| | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 1500 | 480Y/277V | 480Y/277V | ----- | ----- | ----- |
| | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 2000 | 240Y/139V | ----- | ----- | ----- | ----- |
| | 480Y/277V | 480Y/277V | ----- | ----- | ----- |
| | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 2500 | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |
| 3000 | 400Y/230V | ----- | 400Y/230V | 400Y/230V | 400Y/230V |
| | 460Y/266V | ----- | 460Y/266V | 460Y/266V | 460Y/266V |

LOW VOLTAGE RATING

General Specifications

| Specifications | |
|--------------------------|---|
| KVA Ratings | 75KVA – 3,000KVA |
| Number of Phases | Three Phase Single Phase(Special) |
| Insulation | Dielectric Fluid Immersed Self Cooled |
| Fluid | Di-electric fluid or Environmentally friendly High Fire Point Fluid |
| Winding Materials | Copper-Aluminum (Cu-Al) Copper-Copper (Cu-Cu) (Special) |
| Core Materials | Silicon Iron (SiFe) |
| Frequency | 60 Hz |
| Mounting | Pad mounted |
| Vector Groups | Delta – Wye Wye – Wye Wye – Delta (Special) |
| Winding Temperature Rise | 65°C |
| Connection | Loop Feed Radial Feed(Special) Indoor or Outdoor |
| Applicable Standards | ANSI/ IEEE |
| Construction | Deadfront |



Call us so we can discuss with you our products and services and see which one would best fit your needs.
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Email us at marketing@firstphilece.com and we would be glad to assist you with the appropriate products and services for your needs.