

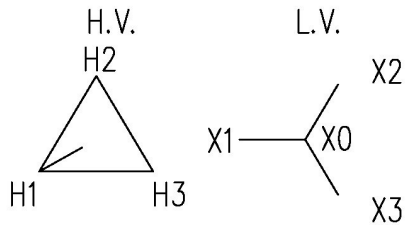
4170kVA, 34.5/0.8kV Transformer Specification (Preliminary)



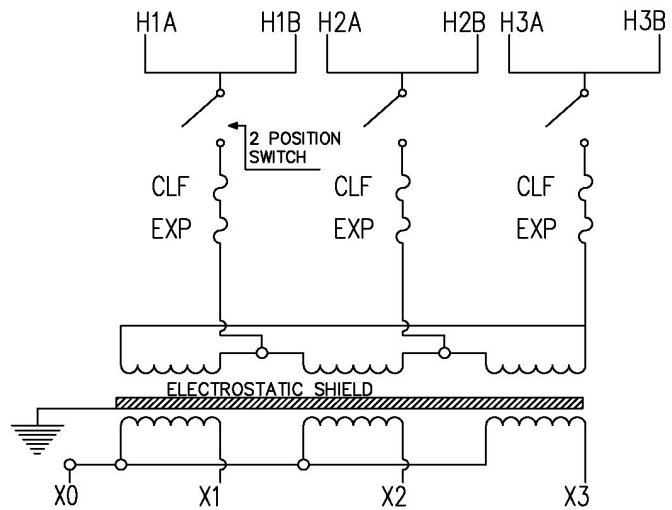
CPS TX4170-34.5/0.8-Dy1

The CPS 3-phase 4170kVA, 34.5/0.8kV Medium Voltage Transformer and Skid Solution is the last step in the conversion chain that brings electrical energy to the power grid. The transformers are designed for superior reliability, efficiency, and environmental performance. A modular architecture paired with design options ensure cost efficiency and easy minimal maintenance. The 20ft container Skid Solution includes the Low Voltage cabinet, Auxiliary Transformer, Communications & Controls.

Phasor Diagram



Connection Diagram



| | |
|---|---|
| Model Name | TX4170-34.5/0.8-Dy1 |
| Electrical Ratings | |
| Rated Power | 4170kVA |
| Low Voltage Rating | 800Vac |
| Medium Voltage Rating | 34.5kV |
| No Load Loss @ 20°C | 4.9kW |
| Load Loss @ 85°C | 33.6kW |
| Impedance (LV to HV) | Two Windings Typ. $\approx 6.0\% \pm 7.5\%$ |
| Average Winding Temperature Rise | 65°C |
| Frequency | 60Hz |
| Efficiency | 99.32% @ 50% Load, 99% @ Full Load |
| Vector Group | Dy1 , Dy11, Yyn1 |
| Configuration | |
| Cooling Class | KNAN |
| Number of Windings | 2 |
| Electrostatic Shielding | Electrostatic Shield between HV and LV Windings (2 Windings) |
| Insulating Fluid | Biodegradable Oil, FR3 type or equivalent |
| HV Conductor Material | Aluminum |
| Voltage Taps | 2-2.5% Taps above, and 2-2.5% Taps below Nominal Voltage |
| High Voltage Bushing | 600A, 35KV, Deadbreak Bushing, 150KV BIL (Quantity: 6) |
| Low Voltage Bushing | 10 Holes, Blade-type 4515A , 30kV BIL |
| High Voltage Configuration | Loop-feed, Dead Front |
| Load-break Switching | 300A 2-Position Load-break Switch |
| Overcurrent Protection | 38KV Bayonet Fuses 65A 38kV Partial Range CLF 165A |
| Accessories | |
| Liquid Level Gauge w/Alarm Contacts | Yes |
| Liquid Temperature Indicator w/Alarm Contacts | Yes |
| Pressure Vacuum Gauge w/Alarm Contacts | Yes |
| Off Load Tap Changer | Yes |
| Pressure Relief Valve | Yes |
| Oil Filling Tube | Yes |
| Drain Valve with Sampler | Yes |
| Nitrogen Blanket | Yes |
| Environment | |
| Enclosure Protection Degree | NEMA Type 3R |
| Total Weight | 19,841lb / 9000kg |
| Coatings | RAL 7035 |
| Operating Temperature Range | -22°F to +104°F/ -30°C to +40°C |
| Operating Humidity | 0 to 95% |
| Operating Altitude Standard | 3280ft / 1000m |
| Operating Altitude Optional | 6560ft / 2000m |
| Safety | |
| Certifications and Standards | UL Certified to IEEE C57.12.00, IEEE C57.12.28, IEEE C57.12.90, CSA C2.1-06, CAN / CSA-C227.3, C227.4 |
| Warranty | |
| Standard | 1 Year |
| Extended Terms | 5 Years |