

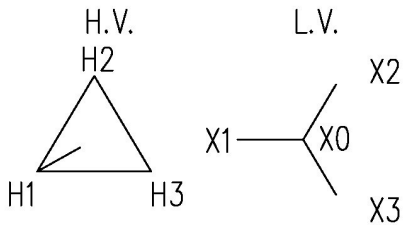
4.17MVA, 34.5/0.8kV Transformer Specification



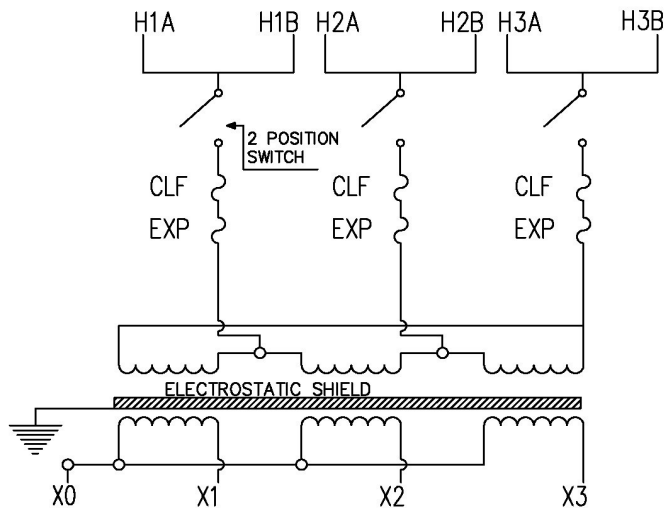
CPS TX4170-34.5/0.8-Dy1

The CPS three-phase 4.17MVA, 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 ensures cost efficiency and easy, minimal maintenance. The 20ft container Skid Solution includes the Low-Voltage Cabinet, Auxiliary Transformer, communications and controls.

Phasor Diagram



Connection Diagram



Model Name	TX4170-34.5/0.8-Dy1
Electrical Ratings	
Rated power	4.17MVA
Low voltage rating	800Vac
Medium voltage rating	34.5kV
No-load loss @ 20°C	4.9kW
Load loss @ 85°C	33.6kW
Impedance (low-voltage to high-voltage)	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 high-voltage and low-voltage windings (2 windings)
Insulating fluid	Biodegradable oil, FR3 type or equivalent
High-voltage 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 4,515A , 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
Standard Accessories	
Liquid level gauge with alarm contacts	Included
Liquid temperature indicator with alarm contacts	Included
Pressure vacuum gauge with alarm contacts	Included
Off-load tap changer	Included
Pressure relief valve	Included
Oil filling tube	Included
Drain valve with sampler	Included
Nitrogen blanket	Included
Environment	
Enclosure protection degree	NEMA Type 4X
Total weight	19,841lb / 9,000kg
Coatings	RAL 7035
Operating temperature range	-22°F to +104°F / -30°C to +40°C
Operating humidity	0 to 95%
Operating altitude standard	3,280ft / 1,000m
Operating altitude optional	6,560ft / 2,000m
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