

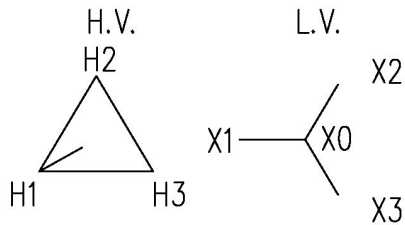
4.17 MVA, 34.5/0.8 kV Transformer Specification



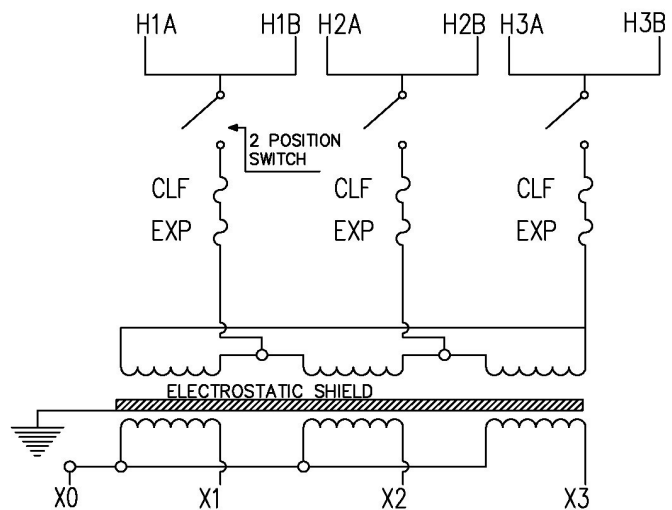
CPS TX4170-34.5/0.8-Dy1

The CPS three-phase 4.17 MVA, 34.5/0.8 kV 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	4.17 MVA
Low voltage rating	800 Vac
Medium voltage rating	34.5 kV
No-load loss @ 20°C	4.9 kW
Load loss @ 85°C	33.6 kW
Impedance (low-voltage to high-voltage)	Two windings typ. $\approx 6.0\% \pm 7.5\%$
Average winding temperature rise	65°C
Frequency	60 Hz
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	600 A, 35 kV deadbreak bushing, 150 kV BIL (quantity: 6)
Low-voltage bushing	10 holes, blade type 4515 A , 30 kV BIL
High-voltage configuration	Loop-feed, dead front
Load-break switching	300 A 2-position load-break switch
Overcurrent protection	38 kV bayonet fuses 65 A
	38 kV partial-range CLF 165 A
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	35000 lb / 15875 kg (approx.)
Coatings	RAL 7035
Operating temperature range	-22°F to +104°F / -30°C to +40°C
Operating humidity	0 to 95%
Operating altitude standard	3280 ft / 1000 m
Operating altitude optional	6560 ft / 2000 m
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