



110KV POWER TRANSFORMERS



110kV Oil-Immersed Transformer

Applications:

GRID offers custom-built 110kV power transformers that are primarily used in high-voltage transmission and substation applications to step up or step down voltage for efficient power distribution. Common applications include utility grid substations, large industrial plants, renewable energy integration (wind and solar farms), and heavy infrastructure projects.

Features:

- Premium Durability:** Superior insulation and mechanical resilience allow for extended system life and overall system reliability – reducing the frequency of outages.
- Certified Quality:** Oil-immersed power transformers are manufactured, tested and delivered our in accordance with all applicable standards (ANSI, IEEE) maintaining US compliance which simplifies service and retrofitting.
- Energy Efficient:** Designed to accommodate heavier base loading for extended periods of time with low energy loss and minimal partial discharge for optimized energy savings.

Working Conditions:

- Max. ambient temperature: +40°C
- Min. temperature: -30°C (outdoor installation)
- No corrosive gas, no obvious dirt, etc.
- Altitude: ≤1000m
- Relative humidity: ≤90% (25°C) (without condensation)
- Customized engineering available on request

Lead Time:

Approximately **5 months** after drawings approved.

*Photos shown for visual reference only—actual product specifications may vary based on manufacturing and order requirements.

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Oil-Immersed Three Winding Non-excited Voltage Regulating Transformer Specifications

Voltage Combination			Connection Symbol	Short Circuit Impedance (UK%)		Rated Capacity (kVA)	No-load Loss P0 (kW)	Load Loss Pk (kW) at 75°C	No-load Current (I0%)		
HV (kV)	MV (kV)	LV (kV)		Step-up	Step-down						
110±2x2.5%	35	6.6	YNyn0d11	6.3	17~18	10.5	6300	9.0	45	0.75	
							8000	10.8	53	0.71	
							10000	12.7	62	0.68	
							12500	15.0	73	0.64	
							16000	18.0	90	0.6	
	121±2x2.5%	38.5		10.5	10.5	17~18	20000	21.3	106	0.56	
							25000	25.2	125	0.53	
							31500	30.0	148	0.49	
							40000	35.8	178	0.41	
							50000	42.3	212	0.38	
							63000	50.2	255	0.38	
							90000	65.6	333	0.3	

Notes:

1. The capacity distribution of high, medium, and low voltage windings is (100 / 100 / 100)%
2. The connection group label can be YNd11y10 as required
3. Custom configurations can be engineered as needed
4. The max. current tap is - 5% tap position

Oil-Immersed Double Winding Non-excited Voltage Regulating Transformer Specifications

Voltage Combination			Connection Symbol	Short Circuit Impedance (UK%)		Rated Capacity (kVA)	No-load Loss P0 (kW)	Load Loss Pk (kW) at 75°C	No-load Current (I0%)					
HV (kV)	HV Tapping	LV (kV)		Step-up	Step-down									
110	±2x2.5%	6.6	YNd11	6.3	10.5	10.5	6300	7.5	34	0.68				
							8000	9	42	0.64				
							10000	10.5	50	0.6				
							12500	12.3	59	0.56				
							16000	15	73	0.53				
	121	10.5					20000	17.7	88	0.49				
							25000	21	104	0.45				
							31500	24.9	125	0.41				
							40000	29.8	147	0.38				
							50000	35.2	183	0.34				
							63000	41.8	221	0.3				
							90000	54.6	289	0.3				

Oil-Immersed Three Winding On Load Voltage Regulating Transformer Specifications

Voltage Combination			Connection Symbol	Short Circuit Impedance (UK%)		Rated Capacity (kVA)	No-load Loss P0 (kW)	Load Loss Pk (kW) at 75°C	No-load Current (I0%)			
HV (kV)	MV (kV)	LV (kV)		Step-up	Step-down							
110±8x1.25%	35	6.6	YNyn0d11	6.3	10.5	10.5	6300	9.7	45	0.89		
							8000	11.7	53	0.89		
							10000	13.8	62	0.84		
							12500	15.9	73	0.84		
							16000	19.7	90	0.79		
	38.5	10.5			17~18	17~18	20000	23.3	106	0.79		
							25000	27.5	125	0.74		
							31500	32.7	148	0.74		
							40000	39.2	178	0.68		
							50000	46.4	212	0.68		
							63000	55.2	255	0.63		
							90000	72.1	333	0.48		

Notes:

1. On load voltage regulating transformer, temporarily provide step-down structure products
2. The capacity distribution of high, medium, and low voltage windings is (100 / 100 / 100)%
3. The connection group label can be YNd11y10 as required
4. Custom configurations can be engineered as needed
5. The max. current tap is - 10% tap position



GRID INFRASTRUCTURE SOLUTIONS

5 Park Plaza, Suite 640
Irvine, CA 92614

Email: sales@grid-infrastructure.com
Phone: +1 (949) 570-8998
Website: grid-infrastructure.com