

150 to 10,000 kVA

Applications

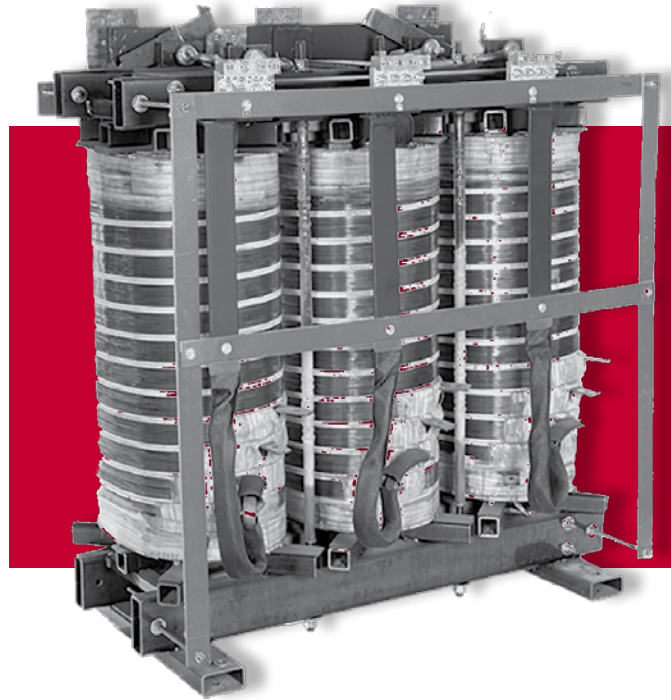
- An economical and environmentally friendly alternative to liquid filled for industrial facilities and large commercial applications
- Designed for indoor or outdoor installations
- Wide voltage class range:
 - 5 kV Class: 150 to 10,000 kVA
 - 15 kV Class: 150 to 10,000 kVA
 - 25 kV Class: 300 to 10,000 kVA
 - 35 kV Class: 500 to 10,000 kVA

Specifications

- NEMA1-rated enclosures
- Energy efficient (meets DOE-2016 or C802)
- 60 Hz operation
- Aluminum windings
- 150°C temperature rise, 220°C insulation
- Cores of high quality electrical steel

Features, Functions, Benefits

- Each unit customized to meet customer specifications
- Vacuum Pressure Impregnation process ensures the encapsulant penetrates windings and eliminates air-pockets. This improves mechanical strength and heat dissipation, prolonging the life of the unit.



Standards

- Built in accordance with NEMA, ANSI, UL and CSA standards

Options and Accessories

- NEMA3R enclosures
- 50/60 Hz optional
- Other sizes, voltages and temperature rises available
- Copper windings
- Lighting arrestors
- Grounding resistor
- Digital thermometer and monitor
- Forced air cooling
- Multiple secondaries
- Rectifier, traction and mining duty

Approvals



Coil and Core Construction

Coil

- Coils are layer, disk or section wound depending on the voltage class
- All windings designed with wire or foil conductors to minimize eddy losses and provide the highest short circuit strength
- Multi-section barrel or disk designs to reduce short circuit stress
- Designed to maximize cooling characteristics
- Core and coil isolated with neoprene pads to reduce vibration and noise
- Heavy gauge sheet steel enclosures

Core

- The core consists of high quality, cold rolled, grain oriented steel with low specific losses
- Core laminations are free of burrs and stacked minimizing the lamination joint gaps
- Cores are bolted to ensure uniform pressure to minimize noise and maximize durability
- Uniform pressing and stiffness ensure low noise level

Assembling

- The coils are held rigidly in place between high compression insulators for the highest ability to resist short circuit forces

- Low voltage bus bars bolted to the upper and lower core clamps with standoff insulators
- Uniform core lamination, coil compacting and strong mechanical structure ensures low noise level for the transformer during lifetime operation

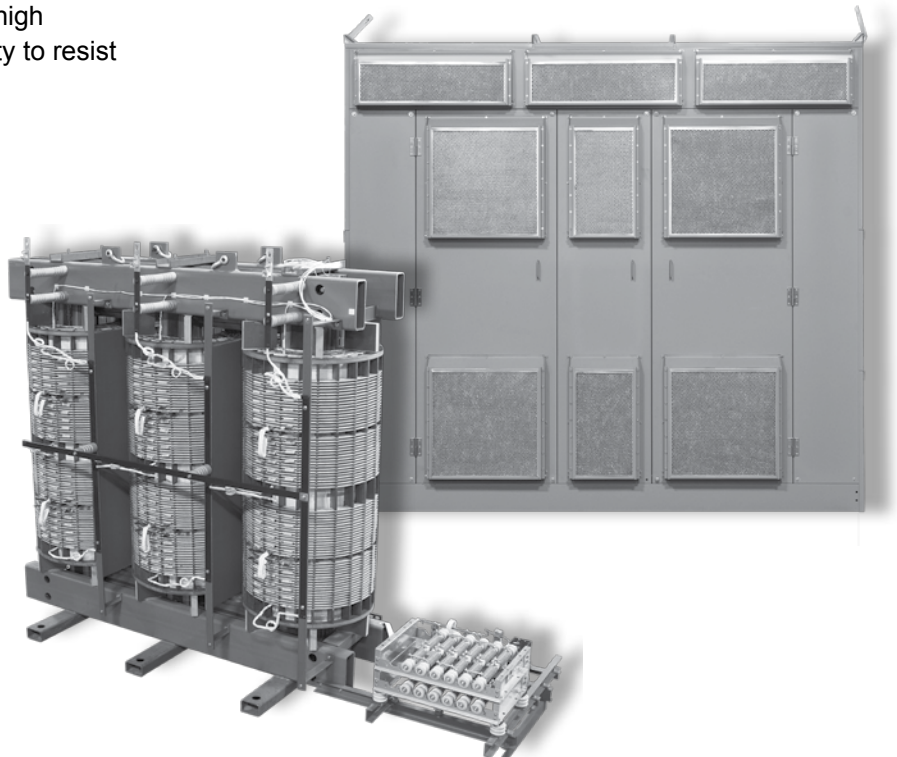
Standard Production Tests

All Power Transformers tested in accordance with the CSA, UL and IEEE standards

- Winding resistance measurements
- Voltage ratio measurements
- Applied and induced voltage test
- Polarity
- Exciting current
- Load losses
- Load loss and impedance voltage
- Tested to UL and CSA standards

Optional Available Tests

- Temperature rise
- Sound level
- Basic impulse level (BIL)
- Partial discharge



Power Transformers

Three Phase • Aluminum Windings

5kV Class — 30 kV/BIL															
kVA	Imp. %	Weight		Dimensions (Enclosure)						Dimensions (Core & Coil)					
		lbs	kg	Height		Width		Depth		Height		Width		Depth	
				inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm
150	4.0	1,580	718	56	142.2	44	111.8	30	76.2	31	78.7	37	94.0	20	49.5
225	4.5	1,920	873	56	142.2	44	111.8	30	76.2	35	88.9	38	96.5	19	47.0
300	5.0	2,316	2,053	62	157.5	50	127.0	35	88.9	34	86.4	42	106.7	21	53.3
450	5.5	3,104	1,411	62	157.5	50	127.0	35	88.9	35	88.9	44	111.8	23	57.2
500	6.0	3,262	1,583	62	157.5	50	127.0	35	88.9	34	86.4	44	111.8	25	63.5
600	6.0	3,762	1,710	72	182.9	62	157.6	40	101.6	43	109.2	47	119.4	23	58.4
750	6.0	4,506	2,048	72	182.9	62	157.5	40	101.6	43	109.2	50	127.0	25	62.2
1,000	6.5	5,410	2,459	72	182.9	62	157.5	40	101.6	53	133.4	48	121.9	25	63.5
1,500	6.5	6,980	3,173	80	203.2	68	172.7	48	121.9	55	139.7	53	134.6	25	63.5
2,000	7.0	9,700	4,409	80	203.2	80	203.2	54	137.2	58	147.3	61	154.9	32	81.3
15kV Class — 60 kV/BIL															
300	5.5	4,430	2,014	80	203.2	80	203.2	54	137.2	49	124.5	61	154.9	23	58.4
450	6.0	4,950	2,250	80	203.2	80	203.2	54	137.2	51	129.5	64	162.6	24	61.0
500	6.0	5,150	2,341	80	203.2	80	203.2	54	137.2	52	132.1	69	175.3	25	63.5
600	6.0	5,750	2,614	80	203.2	80	203.2	54	137.2	53	134.6	65	165.1	26	66.0
750	6.5	6,600	3,000	90	228.6	90	228.6	60	152.4	52	132.1	72	182.9	37	94.0
1,000	6.5	7,300	3,318	90	228.6	90	228.6	60	152.4	52	132.1	73	185.4	37	94.0
1,500	6.5	9,220	4,191	90	228.6	90	228.6	66	167.6	52	132.1	75	190.5	38	96.5
2,000	7.0	10,500	4,773	100	254.0	100	254.0	66	167.6	62	157.5	75	190.5	38	96.5
2,500	7.0	11,700	5,318	100	254.0	100	254.0	72	182.9	71	180.3	76	193.0	39	99.1
3,000	7.0	12,300	5,591	100	254.0	100	254.0	72	182.9	70	177.8	76	193.0	39	99.1
25kV Class — 125 kV/BIL															
500	6.0	5,813	2,642	80	203.2	100	254.0	60	152.4	54	137.2	73	185.4	38	96.5
600	6.0	6,150	2,795	90	228.6	100	254.0	60	152.4	60	152.4	75	190.5	38	96.5
750	6.5	7,100	3,227	90	228.6	100	254.0	60	152.4	56	142.2	80	203.2	39	99.1
1,000	6.5	8,550	3,886	90	228.6	110	279.4	66	167.6	62	157.5	83	210.8	40	101.6
1,500	6.5	10,500	4,773	90	228.6	110	279.4	72	182.9	62	157.5	87	221.0	42	106.7
2,000	7.0	13,100	5,955	100	254.0	110	279.4	72	182.9	70	177.8	90	228.6	43	109.2
2,500	7.0	14,800	6,727	110	279.4	110	279.4	72	182.9	73	185.4	90	228.6	43	109.2
3,000	7.0	15,800	7,182	120	304.8	110	279.4	72	182.9	80	203.2	90	228.6	43	109.2
4,000	7.0	18,300	8,318	130	330.2	120	304.8	80	203.2	95	241.3	92	233.7	45	114.3

See website for additional kVA, copper windings and temperature options.
 Dimensions subject to change without notice. Consult website or factory where dimensions are critical.
 For further information, contact an Application Engineer at 800-892-3755, technical_services@jeffersonelectric.com



