

Totally Enclosed Non-Ventilated Transformers

Products

- Single Phase units 15 kVA to 100 kVA
- Three Phase units 15 kVA to 500 kVA

Jefferson Electric's line of totally enclosed, non-ventilated transformers (TENV) are designed for use in dirty environments such as production areas where the transformer may need to be washed down. The air in dirty environments may contain conductive, combustible material, moisture or dust.

The totally enclosed, non-ventilated unit is similar to a ventilated unit, but with a larger core and coil. Each unit is completely encased in a non-ventilated enclosure sized to allow for proper cooling.

Applications Include:

- Textile plants
- Chemical plants
- Foundries
- Cement plants
- Food packaging
- Paper manufacturing
- Wash down areas
- Automotive



General Specifications:

- 15 to 500 kVA
- Windings — Copper or Aluminum
- Temperature Rise — 150, 115, 80° C
- Indoor and Outdoor use
- NEMA 3R enclosure
- NEMA 4/4X (stainless) or other NEMA enclosures optional
- 60 Hz standard, 50 Hz optional
- Electrostatic Shields optional
- Cores of high quality electrical grade steel
- Heat cured powder coat finish enclosures
- Wall mount brackets available up to 30 kVA
- UL/cUL
- CE Mark and Seismic Qualified optional



Jefferson Electric Totally Enclosed Non-Ventilated Transformers**

Single-Phase, 60 Hz, TENV, NEMA 3R Enclosure, UL & cUL

			Dimensions					
kVA	Catalog Number	Fig	A	B	C	Weight	Wiring	Wall Bracket Kit
240 x 480 V - 120/240 V - Aluminum Windings & 150C Temp rise*								
15	431-6165-000	23	25	22	17	330	S480F	223-7008-075
25	431-6185-000	23	32	27	21	405		223-7008-075
37.5	431-6205-000	23	38	29	23	535		
50	431-6225-000	23	42	33	26	690		
75	431-6235-000	23	42	33	26	1235		
100	431-6245-000	23	46	35	30	2001		

Three-Phase, 60 Hz, TENV, NEMA 3R Enclosure, UL & cUL

			Dimensions					
kVA	Catalog Number	Fig	A	B	C	Weight	Wiring	Wall Bracket Kit
480 Delta - 208Y/120V - Aluminum Windings & 150C Temp rise*								
15	433-6164-000	23	25	22	17	310	T480E	223-7008-075
30	433-6194-000	23	32	27	21	585		223-7008-075
45	433-6214-000	23	38	29	23	775		
75	433-6234-000	23	42	33	26	1000		
112.5	433-6254-000	23	46	35	30	1315		
150	433-6264-000	23	52	35	30	1660		
225	433-6294-000	23	60	48	33	2460	T480M	
300	433-6314-000	23	72	52	40	4055		
500	433-6344-000	23	81	66	44	6195		

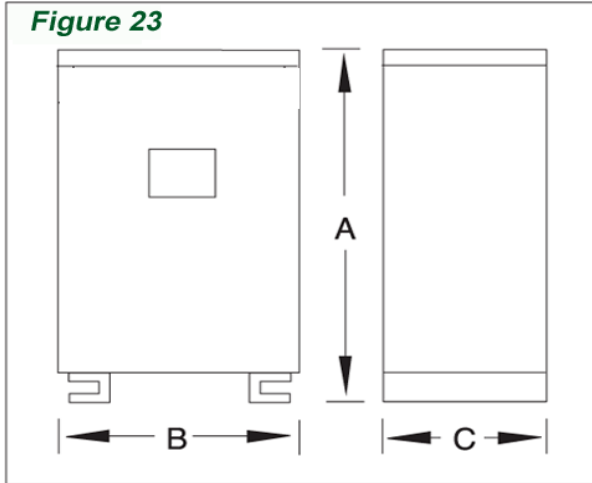
Three-Phase, 60 Hz, TENV, NEMA 3R Enclosure, UL & cUL

			Dimensions					
kVA	Catalog Number	Fig	A	B	C	Weight	Wiring	Wall Bracket Kit
480 Delta - 240 Delta - Aluminum Windings & 150C Temp rise*								
15	433-6167-000	23	25	22	17	310	T480G	223-7008-075
30	433-6197-000	23	32	27	21	585		223-7008-075
45	433-6217-000	23	38	29	23	775		
75	433-6237-000	23	42	33	26	1000		
112.5	433-6257-000	23	46	35	30	1315		
150	433-6267-000	23	52	35	30	1660		
225	433-6297-000	23	60	48	33	2460	T480N	
300	433-6317-000	23	72	52	40	4055		
500	433-6347-000	23	81	66	44	6195		

**** Common Voltage units are shown, most other voltage & kVA combinations are available**

* For units with electrostatic shield, copper windings, and/or low temp rise requirements see suffix chart below.

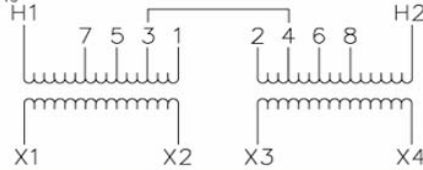
Figure 23



S480F Wiring Diagram & Connections*

Wiring Diagram

Primary: 240 x 480
Secondary: 120/240



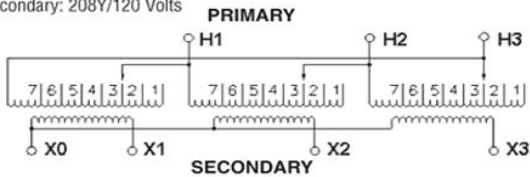
Connections

Primary Volts	Jumpers Between Taps Left Coil	Jumpers Between Taps Right Coil	Primary Lines Connect To
504	1	2	H1 - H2
492	3	2	H1 - H2
480	3	4	H1 - H2
468	5	4	H1 - H2
456	5	6	H1 - H2
444	7	6	H1 - H2
432	7	8	H1 - H2
252	H2 - 1	H1 - 2	H1 - H2
240	H2 - 3	H1 - 4	H1 - H2
228	H2 - 5	H1 - 6	H1 - H2
216	H2 - 7	H1 - 8	H1 - H2
Secondary Volts	Interconnect	Secondary lines Connect to	
240	X2 to X3	X1 - X4	
120/240	X2 to X3	X1 - X2 - X4	
120	X1 to X3	X1 - X4	
	X2 to X4		

T480E Wiring Diagram & Connections

Wiring Diagram

Primary: 480 Volts Delta
Secondary: 208Y/120 Volts



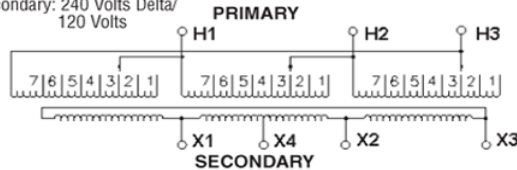
Connections

Primary Volts	On Each Coil Jumper Taps To	Primary Lines Connect To
504	1	H1, H2, H3
492	2	H1, H2, H3
480	3	H1, H2, H3
468	4	H1, H2, H3
456	5	H1, H2, H3
444	6	H1, H2, H3
432	7	H1, H2, H3
Sec. Volts	Secondary Lines Connect To	
208	X1, X2, X3	
120	Between X0 and X1 or X2 or X3	
1 phase		

T480G Wiring Diagram & Connections*

Wiring Diagram

Primary: 480 Volts Delta
Secondary: 240 Volts Delta/
120 Volts



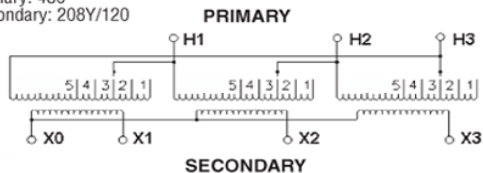
Connections

Primary Volts	On Each Coil Jumper Taps To	Primary Lines Connect To
504	1	H1, H2, H3
492	2	H1, H2, H3
480	3	H1, H2, H3
468	4	H1, H2, H3
456	5	H1, H2, H3
444	6	H1, H2, H3
432	7	H1, H2, H3
Sec. Volts	Secondary Lines Connect To	
240	X1, X2, X3	
120	X1 and X4 or X2 and X4	
1 Phase		

T480M Wiring Diagram & Connections*

Wiring Diagram

Primary: 480
Secondary: 208Y/120



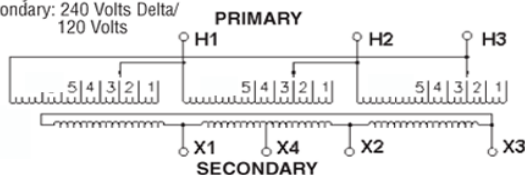
Connections

Primary Volts	On Each Coil Jumper Taps To	Primary Lines Connect To
504	1	H1, H2, H3
492	2	H1, H2, H3
480	3	H1, H2, H3
468	4	H1, H2, H3
456	5	H1, H2, H3
Sec. Volts	Secondary Lines Connect To	
208	X1, X2, X3	
120	Between X0 and X1 or X2 or X3	
1 phase		

T480N Wiring Diagram & Connections*

Wiring Diagram

Primary: 480 Volts Delta
Secondary: 240 Volts Delta/
120 Volts



Connections

Primary Volts	On Each Coil Jumper Taps To	Primary Lines Connect To
504	1	H1, H2, H3
492	2	H1, H2, H3
480	3	H1, H2, H3
468	4	H1, H2, H3
456	5	H1, H2, H3
Sec. Volts	Secondary Lines Connect To	
240	X1, X2, X3	
120	X1 and X4 or X2 and X4	
1 Phase		

Suffix Chart

The catalog number on the standard product has a suffix of -000
To order alternate version transformers choose the suffix to match the desired features

Suffix	Wire	Temperature Rise	Electrostatic Shield
000	Aluminum	150	no shield
005	Aluminum	150	shield
010	Aluminum	115	no shield
015	Aluminum	115	shield
080	Aluminum	80	no shield
085	Aluminum	80	shield
800	Copper	150	no shield
805	Copper	150	shield
810	Copper	115	no shield
815	Copper	115	shield
880	Copper	80	no shield
885	Copper	80	shield

Note: The weight, dimensions, weather shield and mounting brackets may be different than the standard -000 versions

Check our website www.jeffersonelectric.com for details