

Superior Electric
Company

Powerstat Type
S345P

Variable
Autotransformer



The S345P variable autotransformer is built to vary line voltages up to and including common 120 volt levels at a maximum of 2 KVA.

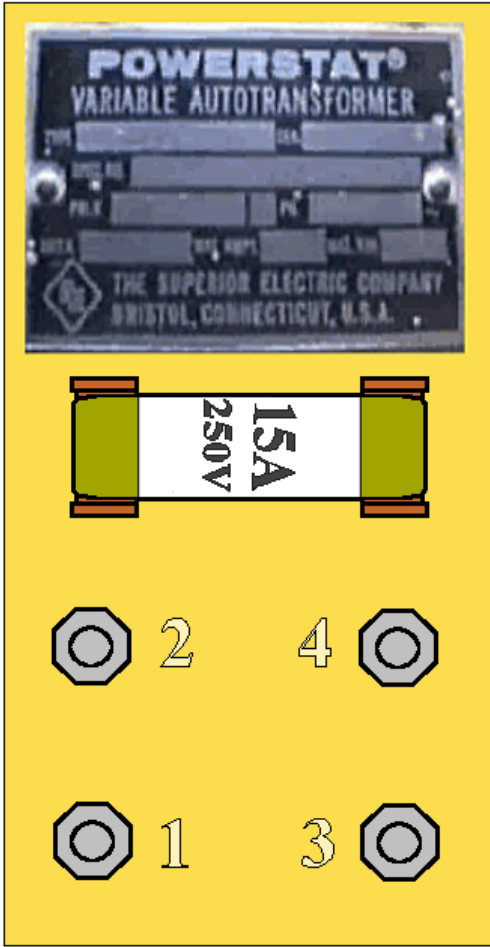
The unit shown is completely self contained, including front-panel connections and a fuse clip.

The voltage and KVA ratings were provided by Superior Electric Company of Bristol, Connecticut, but this is where their information ends, due to the unit's advanced age. The unit was manufactured during the decade spanning from 1951 to 1961, and the one unit we have here to examine, seems to have held together rather well, and is fully functional, just as though it had just come out of the box.

With no wiring diagram/pinout being supplied, the unit was fully examined in our laboratories here at MSB Data Systems, where the information that you will find on the rest of these pages was compiled.

The first thing we found out was that terminal 3 has no *practical* purpose. In normal operation, it keeps a constant voltage of around 45 or 75 volts, depending on the configuration. Attempts at using this tap for any sort of a "step-up" method was only countered by the core saturating after more than half the rated voltage was applied.

Who knows what that extra tap was for? We may never know.



The terminal board, as it appears in this picture, is quite simple. Four zinc-plated terminals with machine nuts. Line volts are applied to terminals 1 and 2, and the load is placed across terminals 1 and 4.

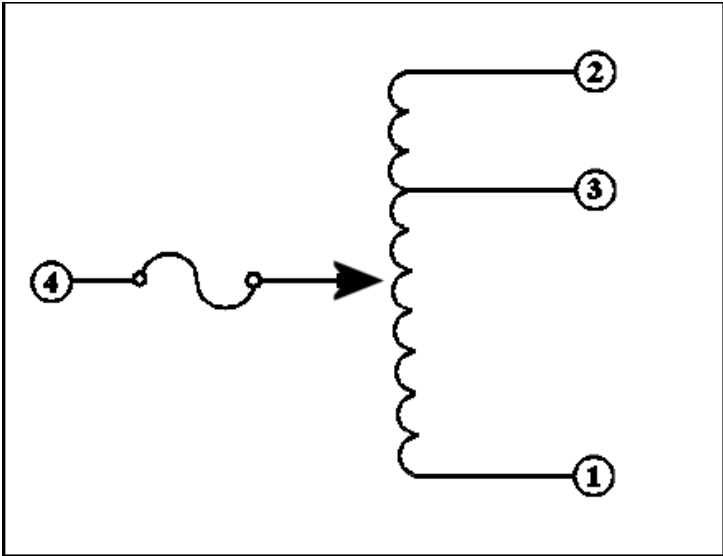
To connect it for the direction of your choice, connect it like this...

CLOCKWISE

- 1 – Neutral (line)
- 2 – Hot (line)
- 4 – Variable (load)

COUNTER-CLOCKWISE

- 1 – Hot (line)
- 2 – Neutral (line)
- 4 – Variable (load)



The Internal Wiring

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