

OPEN-STYLE THREE-PHASE VARIABLE AUTOTRANSFORMERS INSTALLATION AND SAFETY INSTRUCTIONS

Manufactured to BS7452 / IEC60989

1. Read all of these instructions before you use the transformer.
2. This variable autotransformer **DOES NOT** provide mains isolation.
3. Variable autotransformers operate at mains voltages.
DO NOT EXCEED THE MAXIMUM VOLTAGE AND CURRENT RATINGS
4. Installation connection and maintenance should only be carried out by suitably qualified personnel.
5. The transformer is an open style unit and must be fitted into an enclosure or other protective environment before use.
6. When connected to the mains supply the terminals, brushes, wiper arm and track surface are at mains voltage and potentially lethal on contact.
7. The terminal marked "Np" is a common neutral for both the supply input and the load output.
8. The load must always be connected across the output, "Np" and "L out" terminals, **NEVER** connect the load in series with the transformer.
9. The centre tap "CT" terminal is for operation in a buck-boost configuration, not 110 - 120V supply applications.
For buck-boost wiring instructions see <http://carroll-meynell.com/technical-buckboost>
10. Carbon brushes should be inspected for damage and wear at time of installation and periodically, especially after an overcurrent event. Faulty and worn brushes **will** result in damage to the transformer winding.
11. These units are Class 1 insulated and must not be tested on Portable Appliance Testers (PAT) as Class 2 double insulated products. Flash test only at 2.0kV. Flash test only between Earth and Live. **DO NOT** flash test between input and output. The only parts at earth potential are the shaft and fixing threads. The wiper arm is live.
12. The variac can be wired for two types of output configuration,
Output 0 – 112% of input voltage typically used in testing applications where the over-voltage to maximum mains tolerance is required,
Output 0 – 100% of input voltage typically used in control applications where the voltage needs to be varied without over-voltaging the equipment.
These conditions are achieved by connecting the supply live line to either L1in or L2in

Input "L2in" and "Np", Output 0 – 100% of input
 Input "L1in" and "Np", Output 0 – 112% of input
 Input/output Neutral "Np"
 Wiper arm contact, "Lout"
 Centre tap "CT" is for buck-boost applications.

