

### Summary

Three-phase wye buck-boost transformer. Steps down 504V to 480V at 90 amps continuous output. 74.82 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 504V three phase building supply to 480V wye at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 480V that is installed on a 504V system experiencing overvoltage from the utility.

Configured as a wye autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 90-amp buck-boost transformer is significantly smaller and lighter than a 90-amp isolation transformer. The encapsulated core construction eliminates audible hum and provides stable thermal performance under continuous duty.

Features a removable wiring compartment door, removable knockout plate, and six NPT knockouts for flexible conduit entry. Surface mounting bracket for easy wall mount installations.



TX-BB-504Y-480Y.277-90A — NEMA 3R Encapsulated, cETLus Listed

### Specifications

|                     |                            |                       |                              |
|---------------------|----------------------------|-----------------------|------------------------------|
| Phase               | Three Phase Wye (3-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 74.82 kVA                  | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 504V                       | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 85.70A                     | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 480V                       | Termination Access    | (6) 3/4" NPT Hubs            |
| Secondary Amperage  | 90A                        | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 110A                       | Enclosure Material    | Steel                        |
| Frequency           | 50/60 Hz                   | Finish Color          | ANSI 70 Light Grey           |
| Insulation          | 180°C                      | Weight                | 180 lbs                      |
| Temperature Rise    | 115°C                      | Dimensions            | 7.68 x 6.38 x 12.2           |

### Ratings & Certifications

- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-5085 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant



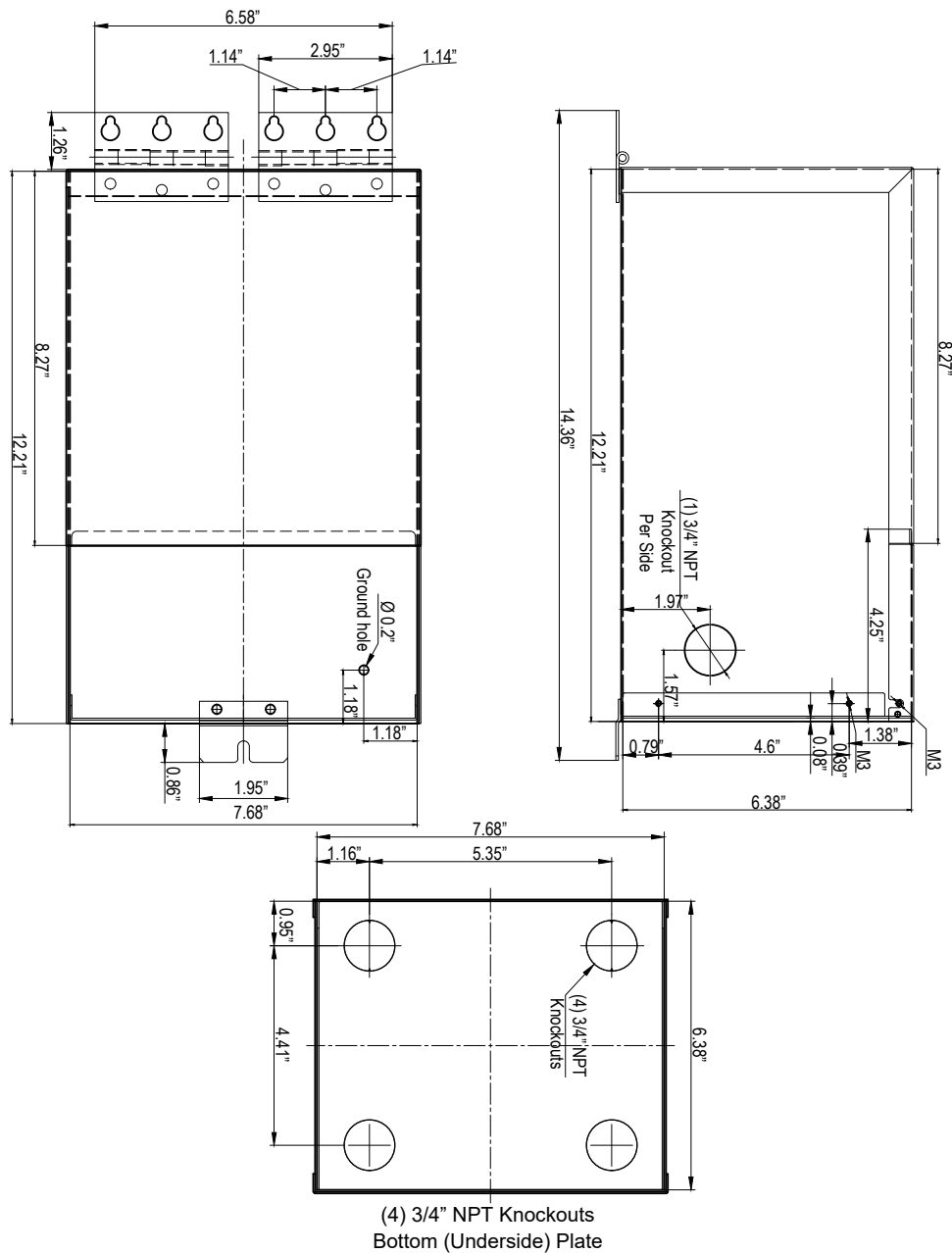
### Common Applications

- HVAC & Minisplit
- Loads CNC Machines
- Pump Stations
- Packaging Machines
- Commercial Kitchen Equipment
- Motor Loads
- EV Chargers
- Server Racks & IT Equipment
- Refrigeration & Walk-in
- Coolers Fans & Blowers
- Conveyor Systems
- Overhead Doors

**Important:** Buck-boost transformers applied as autotransformers do not provide circuit isolation and do not create a neutral. Contact us if your application requires isolation or neutral creation.

## Dimensions

Three-phase wye installation — (3) enclosures required.

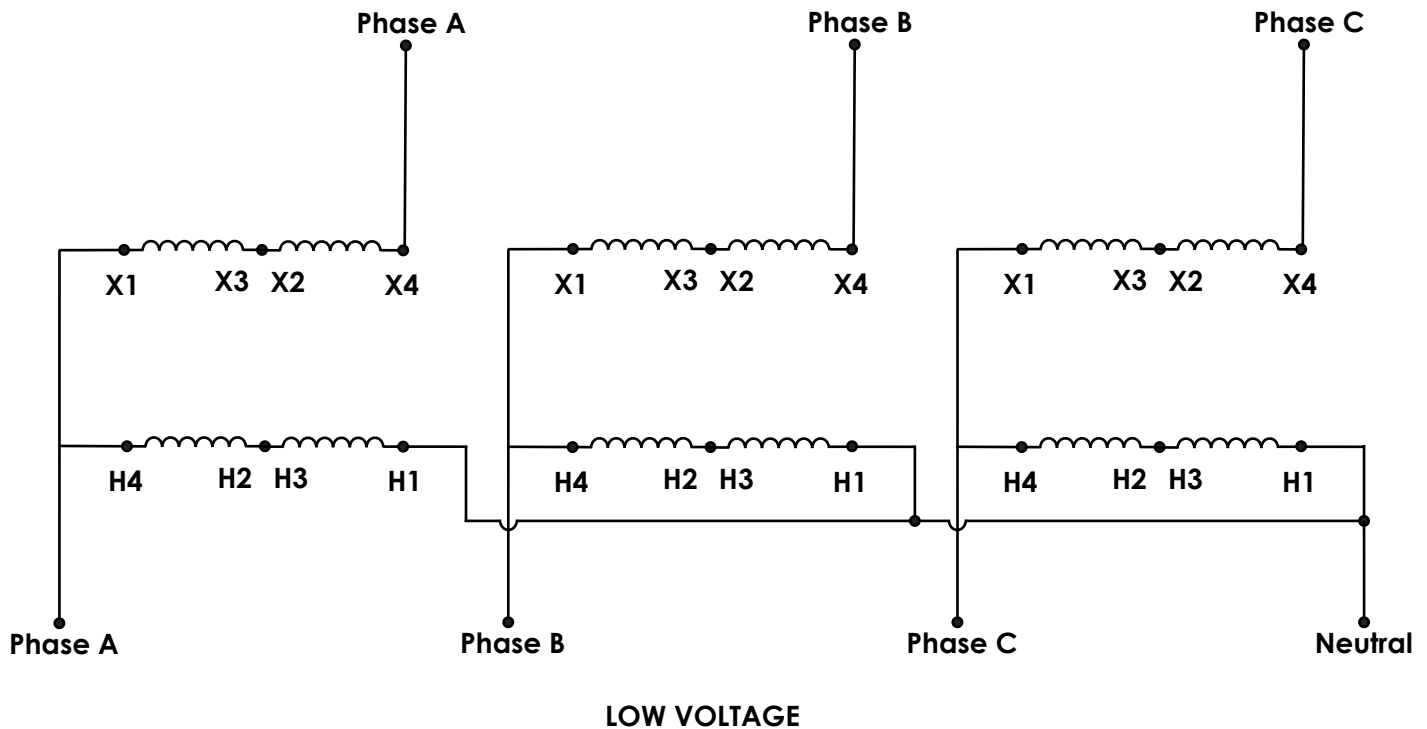


## Connection Guide

1. Connect **X2** and **X3** together for each transformer
2. Connect **H2** and **H3** together for each transformer
3. Connect High Voltage **PHASE A** to **X4** on transformer 1
4. Connect High Voltage **PHASE B** to **X4** on transformer 2
5. Connect High Voltage **PHASE C** to **X4** on transformer 3
6. Connect Low Voltage **PHASE A** to **H4** and **X1** on transformer 1
7. Connect Low Voltage **PHASE B** to **H4** and **X1** on transformer 2
8. Connect Low Voltage **PHASE C** to **H4** and **X1** on transformer 3
9. Connect **NEUTRAL** to **H1**
10. Bridge **H1** connections between ALL transformers

**DIAGRAM K2**

HIGH VOLTAGE





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Base Knockouts — (4)  $\frac{3}{4}$ " NPT



Side View



*Rear View — Surface Mount Bracket*





Wiring Compartment — Terminal Leads





*Interior — Epoxy Resin Encapsulated Core*