

### Summary

Three-phase wye buck-boost transformer. Steps up 415V to 470V at 93.8 amps continuous output. 76.36 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 415V three phase building supply to 470V wye at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 470V that is installed on a 415V system experiencing undervoltage 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 93.8-amp buck-boost transformer is significantly smaller and lighter than a 93.8-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-415Y-470Y.271-94A — NEMA 3R Encapsulated, cETLus Listed

### Specifications

|                     |                            |                       |                              |
|---------------------|----------------------------|-----------------------|------------------------------|
| Phase               | Three Phase Wye (3-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 76.36 kVA                  | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 415V                       | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 106.00A                    | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 470V                       | Termination Access    | (6) 3/4" NPT Hubs            |
| Secondary Amperage  | 93.8A                      | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 150A                       | 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 **X4** and **X3** together for each transformer
2. Connect High Voltage **PHASE A** to **X4** and **X3** on transformer 1
3. Connect High Voltage **PHASE B** to **X4** and **X3** on transformer 2
4. Connect High Voltage **PHASE C** to **X4** and **X3** on transformer 3
5. Connect **X2** and **X1** together for each transformer
6. Connect Low Voltage **PHASE A** to **X1**, **X2**, **H4**, **H3** on transformer 1
7. Connect Low Voltage **PHASE B** to **X1**, **X2**, **H4**, **H3** on transformer 2
8. Connect Low Voltage **PHASE C** to **X1**, **X2**, **H4**, **H3** on transformer 3
9. Connect **NEUTRAL** to **H1** and **H2**
10. Bridge **H1** and **H2** connections between ALL transformers

**DIAGRAM J2**

HIGH VOLTAGE





TX-BB-415Y-470Y.271-94A — NEMA 3R Encapsulated, cETLus Listed



*Base Knockouts — (4) ¾" NPT*



*Side View*



*Rear View — Surface Mount Bracket*



Wiring Compartment — Terminal Leads



*Interior — Epoxy Resin Encapsulated Core*