



### Summary

Single-phase buck-boost transformer. Steps down 246V to 220V at 4.55 amps continuous output. 1 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 246V building supply to 220V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 220V that is installed on a 246V system experiencing overvoltage.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 4.55-amp buck-boost transformer is significantly smaller and lighter than a 4.55-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-246V-220V-1KVA — NEMA 3R Encapsulated, cETLus Listed

### Specifications

|                     |                         |                       |                              |
|---------------------|-------------------------|-----------------------|------------------------------|
| Phase               | Single Phase (1-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 1 kVA                   | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 246V                    | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 4.07A                   | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 220V                    | Termination Access    | (6) ½" NPT Hubs              |
| Secondary Amperage  | 4.55A                   | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 15A                     | Enclosure Material    | Steel                        |
| Frequency           | 50/60 Hz                | Finish Color          | ANSI 70 Light Grey           |
| Insulation          | 180°C                   | Weight                | 9 lbs                        |
| Temperature Rise    | 115°C                   | Dimensions            | 4.65"-W x 3.86"-D x 8.07"-H  |

### Ratings & Certifications

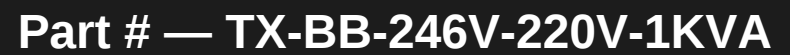
- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-50 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant



### 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.



Technical drawing of the Bottom (Underside) Plate, showing three views: Top, Front, and Bottom.

**Top View Dimensions:**

- Overall Width: 4.77"
- Overall Height: 8.07"
- Top Section Width: 3.15"
- Top Section Height: 0.82"
- Top Section Spacing: 1.97"
- Left Section Height: 4.13"
- Ground Hole Diameter:  $\varnothing 0.2"$
- Ground Hole Position: 3.01" from left edge, 1.18" from bottom edge
- Bottom Section Width: 4.65"
- Bottom Section Height: 0.86"
- Bottom Section Spacing: 1.95"
- Bottom Section Mounting Hole Diameter:  $\varnothing 0.08"$
- Bottom Section Mounting Hole Position: 1.63" from right edge

**Front View Dimensions:**

- Overall Height: 9.78"
- Overall Width: 4.13"
- Top Section Height: 4.25"
- Top Section Mounting Hole Diameter: M3
- Top Section Mounting Hole Position: 0.39" from right edge
- Top Section Mounting Hole Spacing: 0.08"
- Top Section Mounting Hole Diameter:  $\varnothing 0.08"$
- Top Section Mounting Hole Position: 2.05" from right edge
- Top Section Mounting Hole Spacing: 1.57"
- Top Section Mounting Hole Diameter: (1) 1/2" NPT Knockout Per Side
- Top Section Mounting Hole Position: 1.89" from right edge
- Bottom Section Height: 3.86"
- Bottom Section Mounting Hole Diameter: M3
- Bottom Section Mounting Hole Position: 0.39" from right edge
- Bottom Section Mounting Hole Spacing: 0.08"
- Bottom Section Mounting Hole Diameter:  $\varnothing 0.08"$
- Bottom Section Mounting Hole Position: 2.05" from right edge
- Bottom Section Mounting Hole Spacing: 1.57"
- Bottom Section Mounting Hole Diameter: (1) 1/2" NPT Knockout Per Side
- Bottom Section Mounting Hole Position: 1.89" from right edge

**Bottom View Dimensions:**

- Overall Width: 4.65"
- Overall Height: 3.86"
- Left Section Width: 1.16"
- Left Section Height: 2.09"
- Right Section Width: 2.32"
- Right Section Height: 0.98"
- Right Section Mounting Hole Diameter: (4) 1/2" NPT

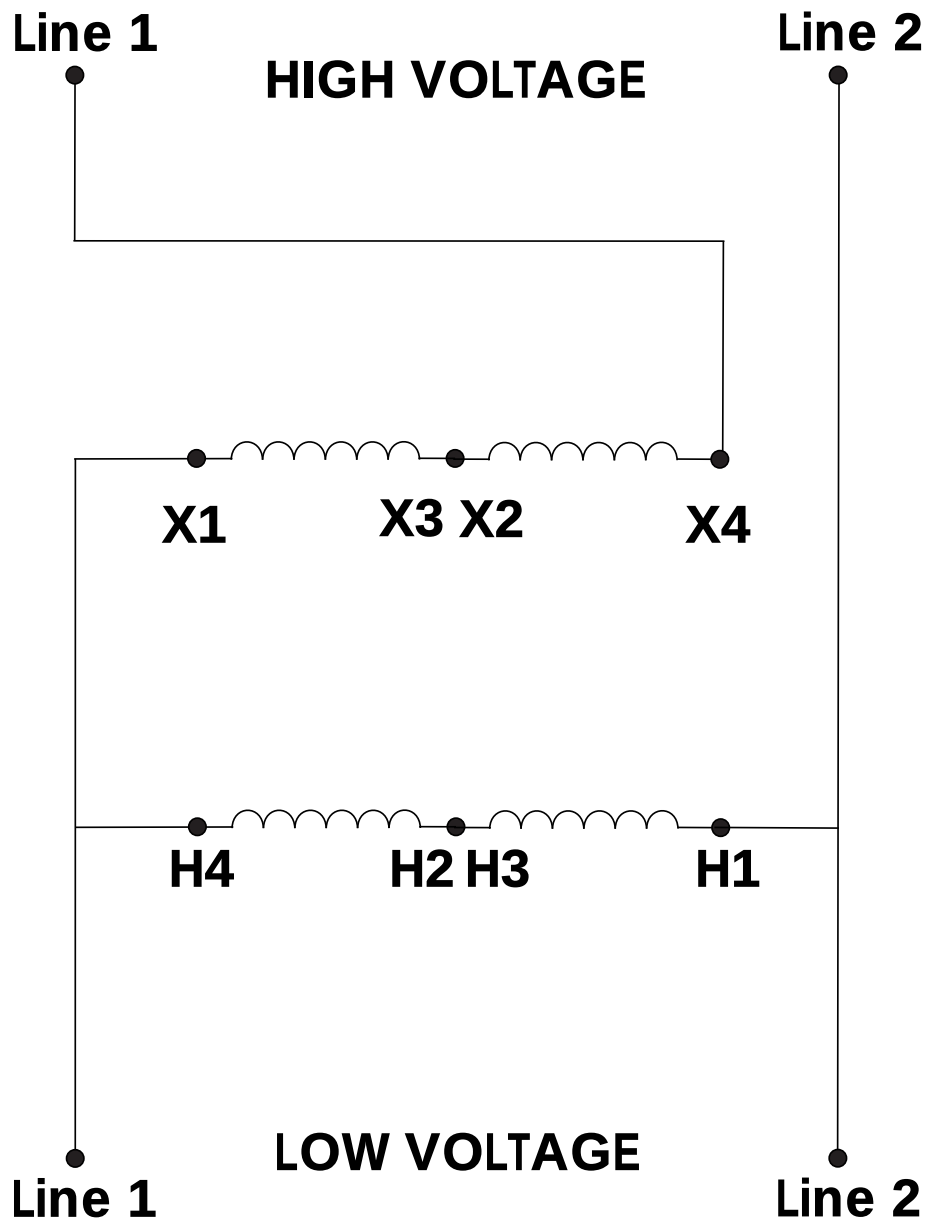
**Labels:**

- Ground hole
- (1) 1/2" NPT Knockout Per Side
- (4) 1/2" NPT
- Bottom (Underside) Plate

## Connection Guide

1. Connect **X2** and **X3** together
2. Connect **H2** and **H3** together
3. Connect High Voltage **L1** to **X4**
4. Connect Low Voltage **L1** to **H4** and **X1**
5. Connect High & Low Voltage **L2** to **H1**

### DIAGRAM D2





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*Base Knockouts — (4) ¾" NPT*



*Side View*



*Rear View — Surface Mount Bracket*



*Wiring Compartment — Terminal Leads*





*Interior — Epoxy Resin Encapsulated Core*