

### Summary

Single-phase buck-boost transformer. Steps up 110V to 120V at 40 amps continuous output. 4.8 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 110V building supply to 120V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 120V that is installed on a 110V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 40-amp buck-boost transformer is significantly smaller and lighter than a 40-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-110V-120V-40A — NEMA 3R Encapsulated, cETLus Listed

### Specifications

|                     |                         |                       |                              |
|---------------------|-------------------------|-----------------------|------------------------------|
| Phase               | Single Phase (1-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 4.8 kVA                 | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 110V                    | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 43.60A                  | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 120V                    | Termination Access    | (6) ½" NPT Hubs              |
| Secondary Amperage  | 40A                     | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 60A                     | Enclosure Material    | Steel                        |
| Frequency           | 50/60 Hz                | Finish Color          | ANSI 70 Light Grey           |
| Insulation          | 180°C                   | Weight                | 17 lbs                       |
| Temperature Rise    | 115°C                   | Dimensions            | 4.65"-W x 3.86"-D x 9.25"-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: Front, Side, and Top.

**Front View Dimensions:**

- Overall Width: 4.65"
- Overall Height: 9.25"
- Top Flange Width: 4.77"
- Top Flange Height: 0.82"
- Distance between mounting holes: 1.97"
- Distance from top edge to mounting holes: 3.15"
- Ground hole diameter:  $\varnothing 0.2$ "
- Distance from left edge to ground hole: 3.01"
- Distance from ground hole to bottom flange: 1.18"
- Bottom Flange Width: 1.63"
- Bottom Flange Height: 0.86"
- Distance from bottom edge to bottom flange: 0.08"
- Distance from left edge to bottom flange: 1.95"

**Side View Dimensions:**

- Overall Height: 10.97"
- Overall Width: 3.86"
- Distance from top edge to knockout: 1.89"
- Distance from bottom edge to knockout: 1.57"
- Knockout diameter: (1) 1/2" NPT
- Distance from left edge to knockout: 2.05"
- Distance from right edge to knockout: 0.08"
- Knockout thread: M3

**Top View Dimensions:**

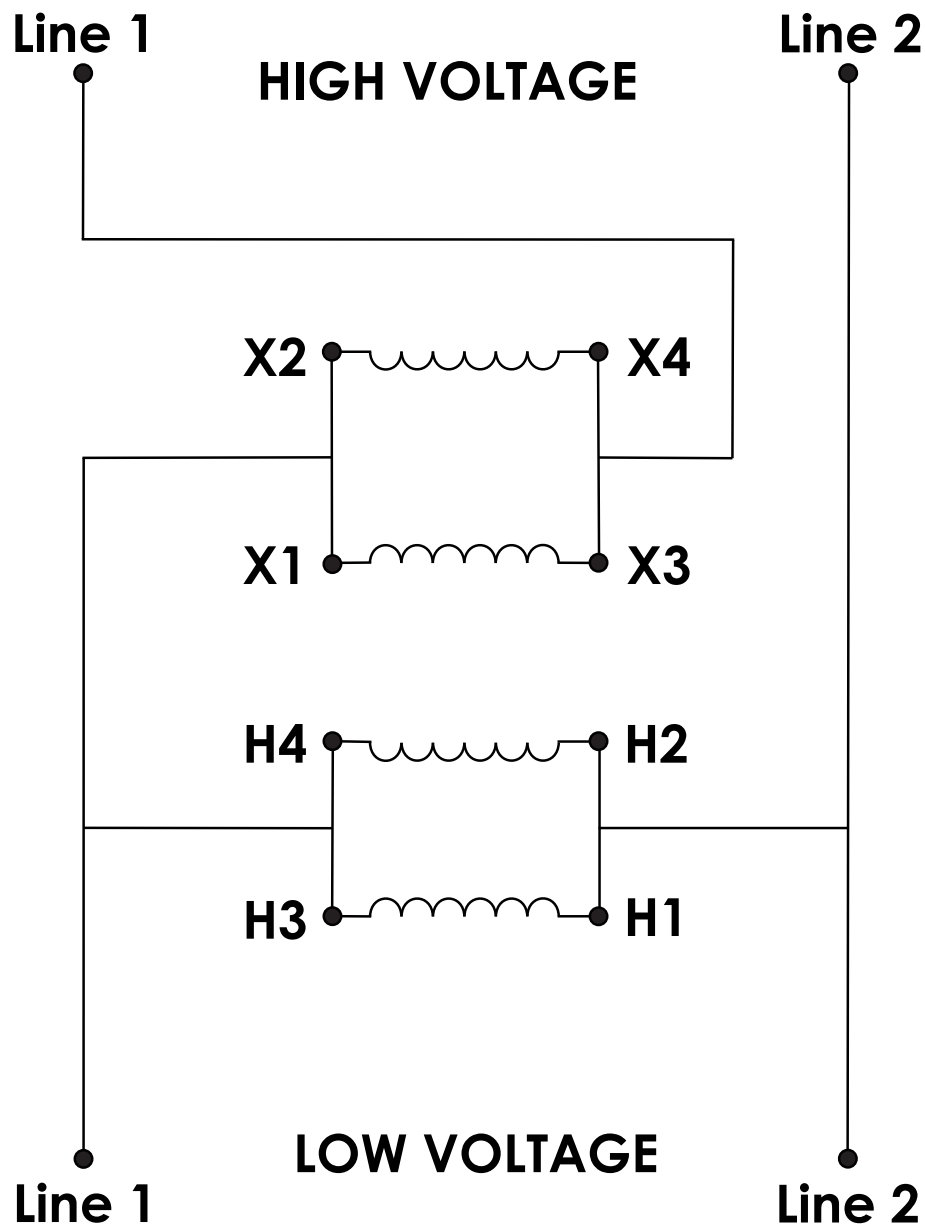
- Overall Width: 4.65"
- Overall Height: 3.86"
- Distance between knockouts (center-to-center): 2.32"
- Distance from left edge to first knockout: 1.16"
- Distance from top edge to first row of knockouts: 2.09"
- Distance from bottom edge to second row of knockouts: 0.98"
- Knockout diameter: (4) 1/2" NPT

**Bottom (Underside) Plate**

## Connection Guide

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

### DIAGRAM A2





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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*