



Summary

Single-phase buck-boost transformer. Steps down 120V to 110V at 27.27 amps continuous output. 3 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 120V building supply to 110V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 110V that is installed on a 120V 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 27.27-amp buck-boost transformer is significantly smaller and lighter than a 27.27-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-120V-110V-3KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	3 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	120V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	25.00A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	110V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	27.27A	Winding Material	Aluminum
Maximum Primary OCP	40A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	14 lbs
Temperature Rise	115°C	Dimensions	4.65"-W x 3.86"-D x 9.25"-H

Ratings & Certifications

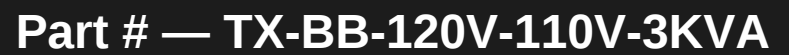
- Listed for United States
 - NEMA 3R Indoor/Outdoor Enclosure
 - Built to UL-50 Standards
 - CE Certified
- Listed for Canada
 - Epoxy Resin Encapsulated
 - RoHS Compliant



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: Top, Front, and Bottom.

Top View:

- Overall dimensions: 4.77" (width) x 5.32" (height) and 4.65" (width) x 9.25" (height).
- Top features: Two 1/2" NPT knockouts, 3.15" apart, with 1.97" center-to-center spacing. A 0.82" dimension is shown below the knockouts.
- Bottom features: A ground hole (Ø 0.2") located 3.01" from the left edge and 1.18" from the bottom edge. A mounting bracket is shown with dimensions 1.63" and 1.95". A 0.86" dimension is shown for the bracket's width.

Front View:

- Overall dimensions: 10.97" (width) x 3.94" (height) and 9.25" (width) x 3.86" (height).
- Side features: A 1/2" NPT knockout on the side, 1.89" from the left edge and 1.57" from the bottom edge. A 4.17" dimension is shown for the knockout's position.
- Mounting holes: M3 holes, 0.39" apart, with a 2.05" dimension for the bracket's width.

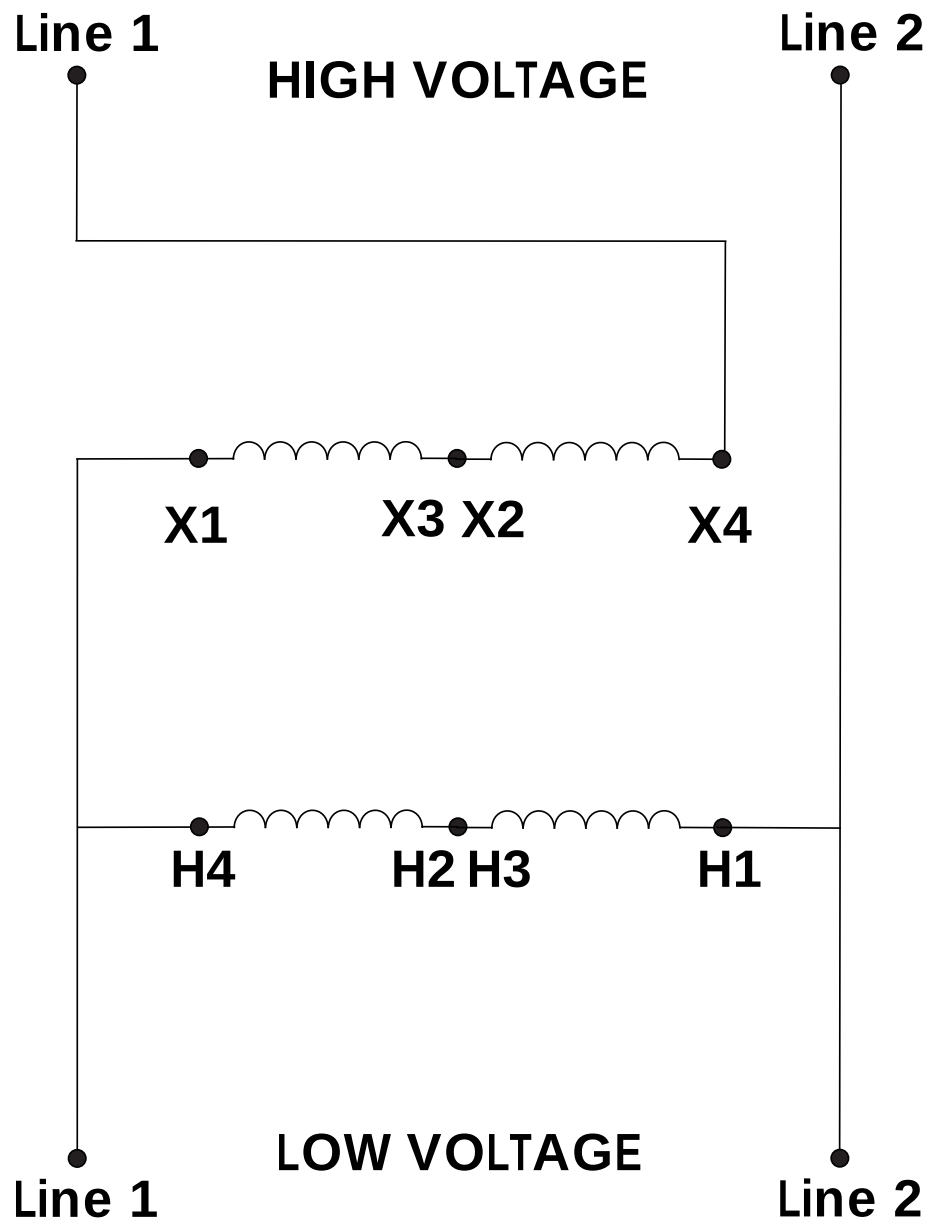
Bottom View:

- Overall dimensions: 4.65" (width) x 3.86" (height) and 2.09" (width) x 0.98" (height).
- Features: Four 1/2" NPT knockouts, 2.32" apart, with 1.16" center-to-center spacing.

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