

Summary

Single-phase buck-boost transformer. Steps down 250V to 208V at 57.69 amps continuous output. 12 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 250V building supply to 208V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 208V that is installed on a 250V 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 57.69-amp buck-boost transformer is significantly smaller and lighter than a 57.69-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-250V-208V-12KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	12 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	250V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	48.00A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	208V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	57.69A	Winding Material	Aluminum
Maximum Primary OCP	60A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	52 lbs
Temperature Rise	115°C	Dimensions	7.68"-W x 6.38"-D x 12.2"-H

Ratings & Certifications

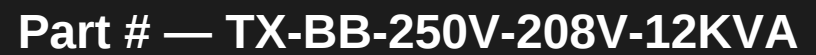
- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-50 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant



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 View, Side View, and Top View.

Front View: The plate has overall dimensions of 12.21" (width) and 8.27" (height). The top section has a width of 6.58" and a height of 2.95". The top section features a ground hole (Ø 0.2") and a 3/4" NPT knockout. The bottom section has a width of 7.68" and a height of 1.18". The bottom section features a 3/4" NPT knockout and a 0.95" dimension.

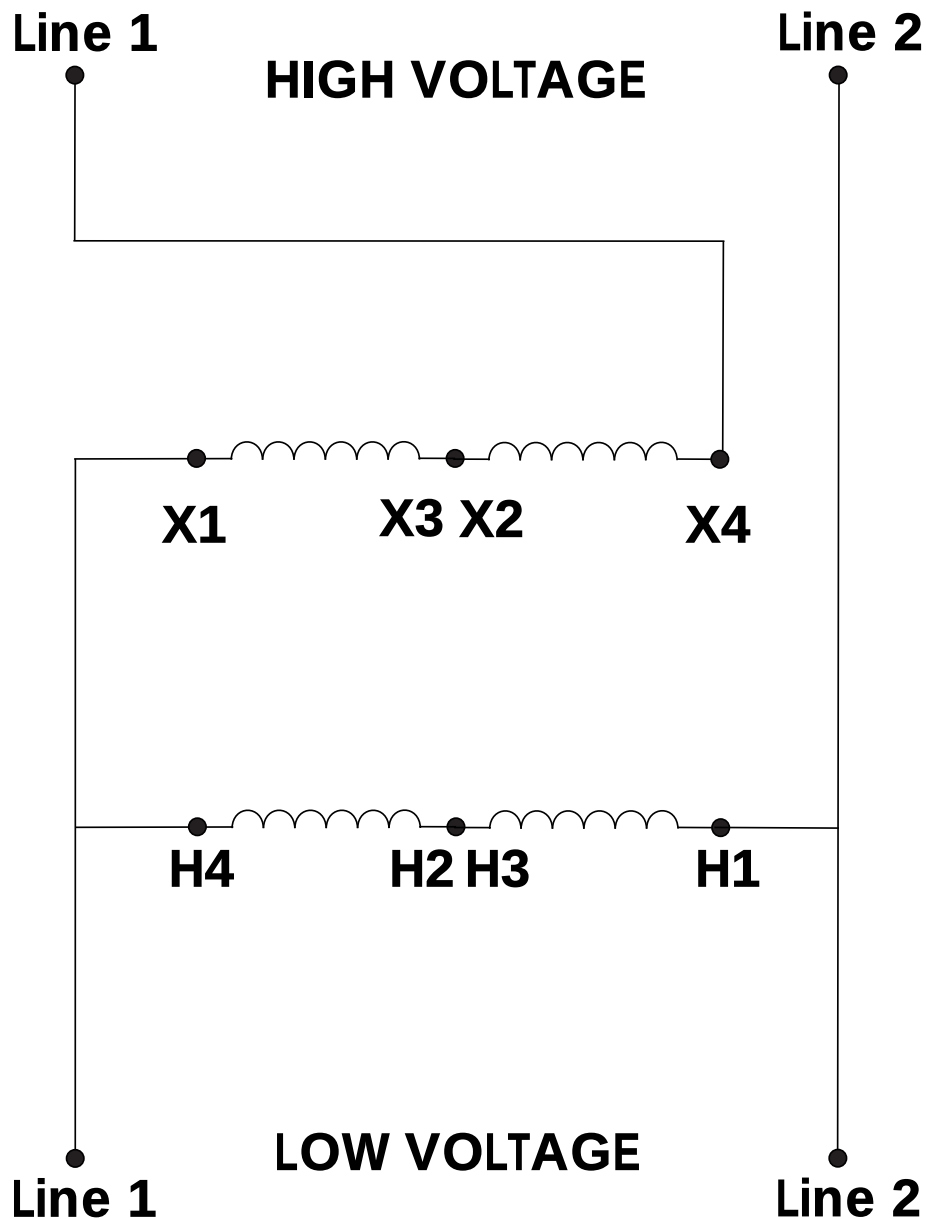
Side View: The plate has overall dimensions of 14.36" (width) and 12.21" (height). The top section has a width of 6.38" and a height of 4.25". The bottom section has a width of 6.38" and a height of 1.38". The bottom section features a 3/4" NPT knockout and a 0.95" dimension.

Top View: The plate has overall dimensions of 7.68" (width) and 6.38" (height). The top section has a width of 5.35" and a height of 1.16". The bottom section has a width of 4.41" and a height of 0.95". The bottom section features four 3/4" NPT knockouts.

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