

Summary

Single-phase buck-boost transformer. Steps up 230V to 242V at 206.61 amps continuous output. 50 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 230V building supply to 242V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 242V that is installed on a 230V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 206.61-amp buck-boost transformer is significantly smaller and lighter than a 206.61-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-230V-242V-50KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	50 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	230V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	217.39A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	242V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	206.61A	Winding Material	Aluminum
Maximum Primary OCP	300A	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

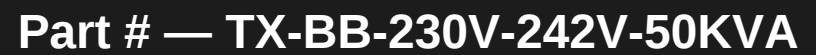
- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-50 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant



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: Top, Front, and Bottom.

Top View:

- Overall dimensions: 12.21" (width) x 8.27" (height).
- Top edge features: 6.58" wide section with 1.14" spacing between 2.95" wide knockout groups.
- Right edge features: 1.26" wide section with 1.14" spacing between 2.95" wide knockout groups.
- Bottom edge features: 1.18" wide section with 1.95" wide knockout groups.
- Ground hole: $\varnothing 0.2"$ hole, 1.18" from right edge, 0.86" from bottom edge.
- Mounting holes: 0.95" diameter holes, 1.16" from left edge, 4.41" from bottom edge.

Front View:

- Overall dimensions: 14.36" (width) x 12.21" (height).
- Top edge features: 1.14" wide section with 2.95" wide knockout groups.
- Right edge features: 1.26" wide section with 1.14" spacing between 2.95" wide knockout groups.
- Bottom edge features: 1.18" wide section with 1.95" wide knockout groups.
- Ground hole: $\varnothing 0.2"$ hole, 1.18" from right edge, 0.86" from bottom edge.
- Mounting holes: 0.95" diameter holes, 1.16" from left edge, 4.41" from bottom edge.

Bottom View:

- Overall dimensions: 6.38" (width) x 7.68" (height).
- Top edge features: 1.16" wide section with 5.35" wide knockout groups.
- Right edge features: 1.26" wide section with 1.14" spacing between 2.95" wide knockout groups.
- Bottom edge features: 1.18" wide section with 1.95" wide knockout groups.
- Ground hole: $\varnothing 0.2"$ hole, 1.18" from right edge, 0.86" from bottom edge.
- Mounting holes: 0.95" diameter holes, 1.16" from left edge, 4.41" from bottom edge.

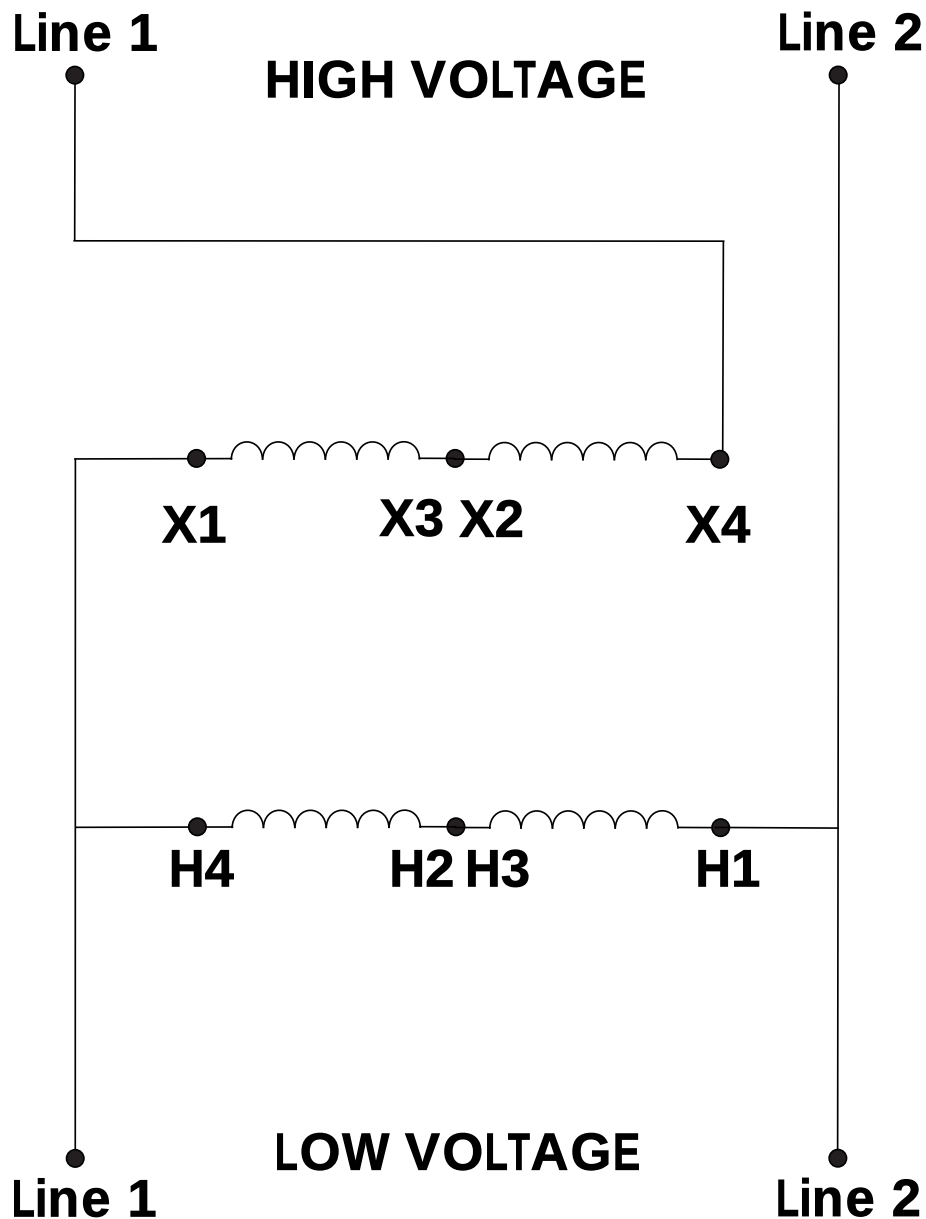
Labels:

- (1) $\frac{3}{4}"$ NPT Knockout Per Side
- (4) $\frac{3}{4}"$ NPT Knockouts
- Ground hole
- M3

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