

Summary

Single-phase buck-boost transformer. Steps up 100V to 120V at 104 amps continuous output. 12.48 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 100V 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 100V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 104-amp buck-boost transformer is significantly smaller and lighter than a 104-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-100V-120V-104A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	12.48 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	100V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	125.00A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	120V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	104A	Winding Material	Aluminum
Maximum Primary OCP	175A	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: Two rows of three circular knockouts each. The top row is 1.26" from the top edge. The bottom row is 1.14" from the top edge. The distance between the two rows is 2.95". The total width of the knockout area is 6.58".
- Right edge features: A ground hole (Ø 0.2") located 1.18" from the right edge and 1.14" from the top edge. The distance from the bottom edge to the ground hole is 1.95".
- Bottom edge features: A mounting bracket with a width of 1.95" and a height of 0.86". The distance from the left edge to the bracket is 7.68".

Front View:

- Overall dimensions: 14.36" (width) x 12.21" (height).
- Top edge features: A circular knockout (Ø 0.2") located 1.97" from the top edge and 1.57" from the right edge. The distance from the bottom edge to the knockout is 1.38".
- Right edge features: A mounting bracket with a width of 4.25" and a height of 0.79". The distance from the left edge to the bracket is 4.6".
- Bottom edge features: A mounting bracket with a width of 6.38" and a height of 0.08". The distance from the left edge to the bracket is 0.79".

Bottom View:

- Overall dimensions: 7.68" (width) x 6.38" (height).
- Four circular knockouts are located at the corners, with a diameter of Ø 0.2". The distance from the left edge to the leftmost knockout is 1.16". The distance from the right edge to the rightmost knockout is 5.35". The distance from the top edge to the topmost knockout is 0.95". The distance from the bottom edge to the bottommost knockout is 4.41".

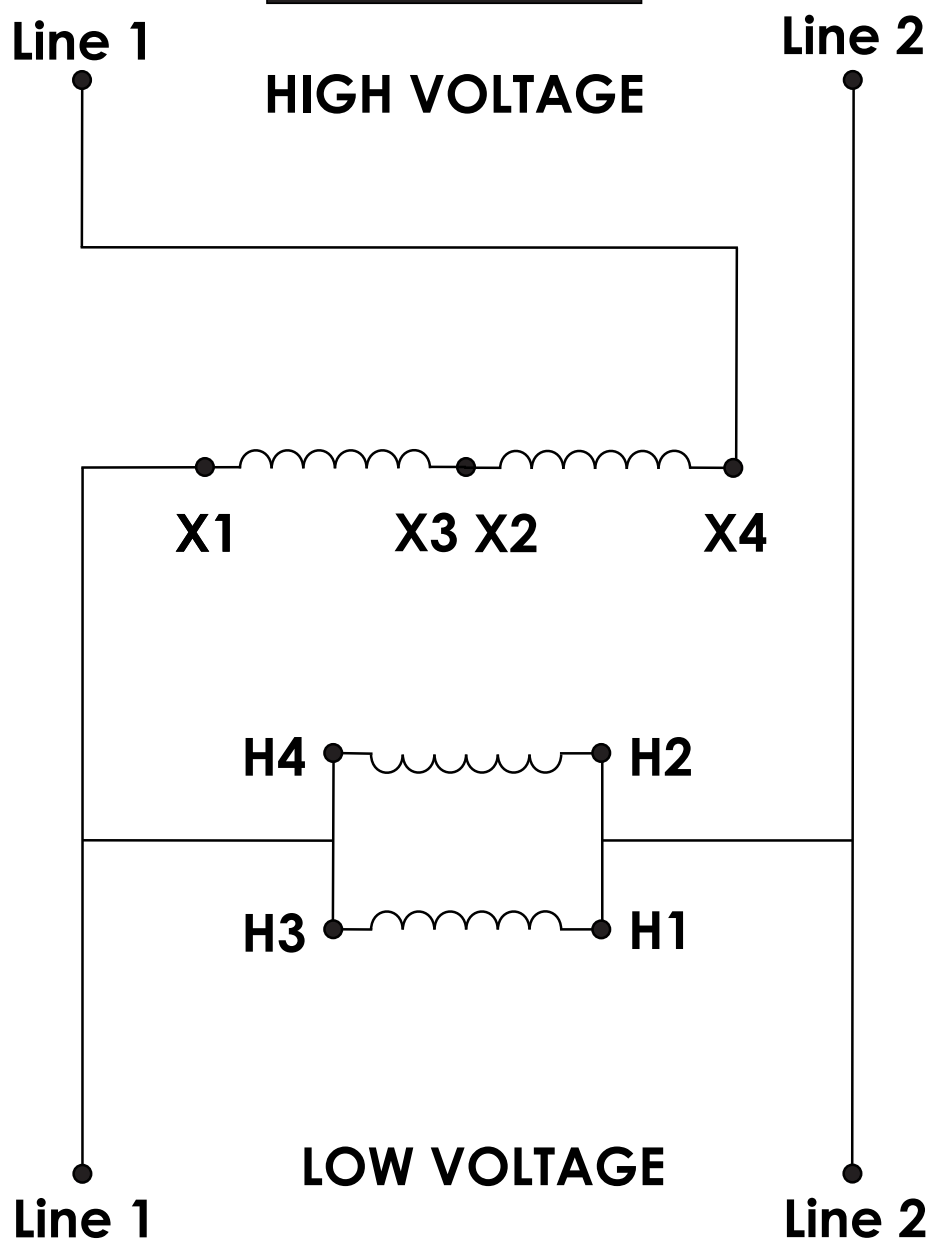
Labels:

- (1) 3/4" NPT Knockout Per Side
- Ground hole
- Ø 0.2"
- 1.14"
- 2.95"
- 6.58"
- 1.26"
- 8.27"
- 12.21"
- 1.18"
- 1.95"
- 0.86"
- 7.68"
- 14.36"
- 12.21"
- 1.97"
- 1.57"
- 1.38"
- 4.25"
- 0.79"
- 4.6"
- 0.08"
- 6.38"
- 7.68"
- 5.35"
- 1.16"
- 0.95"
- 4.41"
- 6.38"
- (4) 3/4" NPT Knockouts

Connection Guide

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

DIAGRAM B2





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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