



Summary

Single-phase buck-boost transformer. Steps down 115V to 105V at 40 amps continuous output. 4.2 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 115V building supply to 105V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 105V that is installed on a 115V 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 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-115V-105V-40A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	4.2 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	115V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	36.50A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	105V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	40A	Winding Material	Aluminum
Maximum Primary OCP	50A	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: Top, Front, and Bottom.

Top View:

- Overall dimensions: 4.77" (width) x 5.32" (height).
- Top section: Two circular features (knockouts) with a diameter of 0.82". The distance between their centers is 1.97". The distance from the top edge to the center of the left knockout is 3.15".
- Bottom section: A ground hole with a diameter of 0.2". The distance from the left edge to the center of the ground hole is 3.01". The distance from the bottom edge to the center of the ground hole is 1.18".
- Bottom section: A rectangular feature with a width of 1.63" and a height of 0.08". The distance from the left edge to the center of this feature is 1.95".
- Overall width: 4.65".

Front View:

- Overall height: 10.97".
- Overall width: 3.86".
- Top section: A (1) 1/2" NPT Knockout on the front side. The distance from the top edge to the center of the knockout is 1.89".
- Bottom section: An M3 screw on the back side. The distance from the bottom edge to the center of the screw is 1.57".
- Distance from the left edge to the center of the M3 screw is 2.05".
- Distance from the right edge to the center of the M3 screw is 0.08".
- Distance from the top edge to the center of the M3 screw is 4.17".

Bottom View:

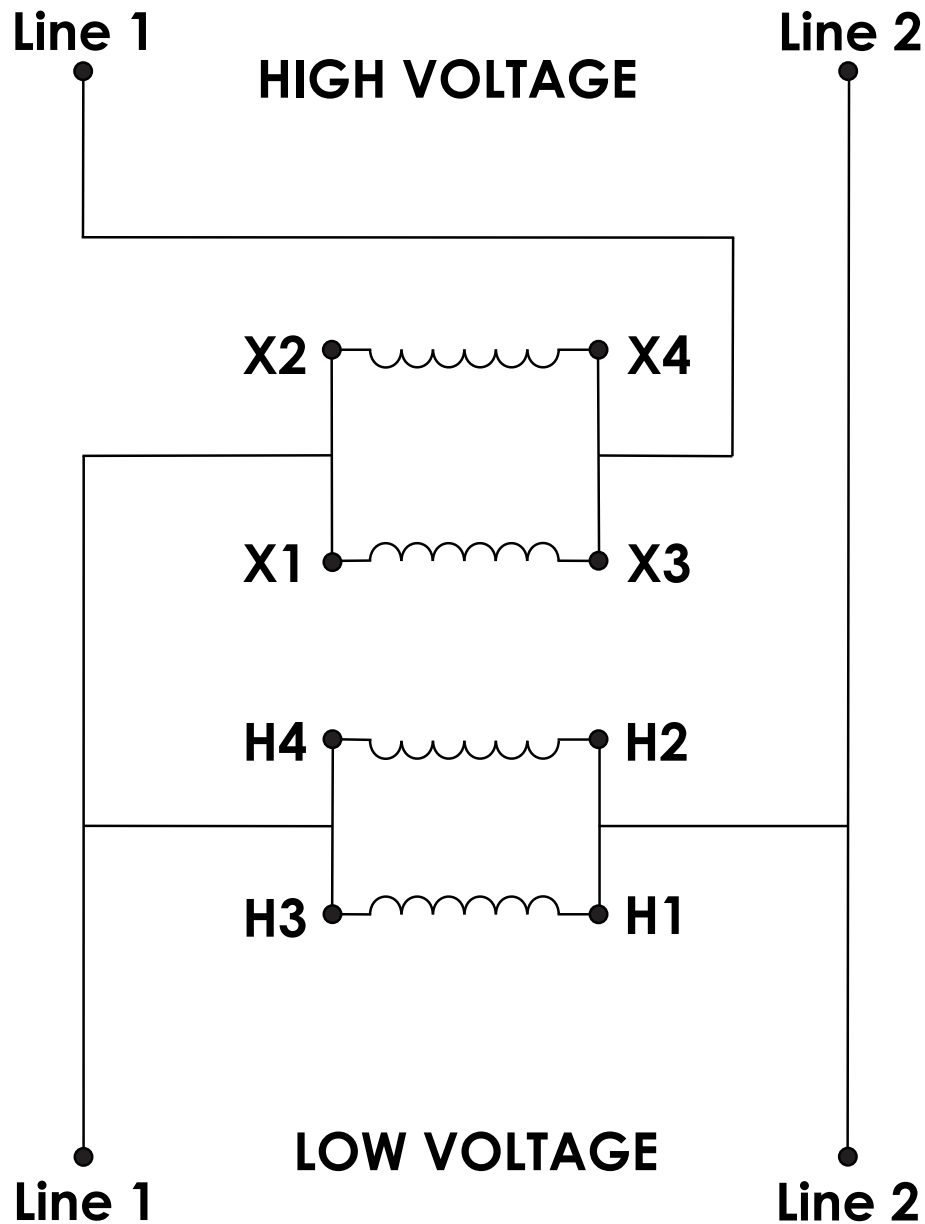
- Overall dimensions: 4.65" (width) x 3.86" (height).
- Four 1/2" NPT knockouts arranged in a 2x2 grid.
- Distance from the left edge to the center of the top-left knockout is 1.16".
- Distance from the left edge to the center of the top-right knockout is 2.32".
- Distance from the bottom edge to the center of the bottom-left knockout is 2.09".
- Distance from the bottom edge to the center of the bottom-right knockout is 0.98".

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