

Summary

Single-phase buck-boost transformer. Steps down 110V to 100V at 5 amps continuous output. 0.5 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 110V building supply to 100V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 100V that is installed on a 110V 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 5-amp buck-boost transformer is significantly smaller and lighter than a 5-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-110V-100V-5A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	0.5 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	110V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	4.55A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	100V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	5A	Winding Material	Aluminum
Maximum Primary OCP	15A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	8 lbs
Temperature Rise	115°C	Dimensions	4.65"-W x 3.86"-D x 8.07"-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 Dimensions:

- Overall Width: 4.77"
- Overall Height: 8.07"
- Top Section Width: 3.15"
- Top Section Height: 0.82"
- Top Section Spacing: 1.97"
- Left Section Height: 4.13"
- Ground Hole Diameter: $\varnothing 0.2"$
- Ground Hole Position: 3.01" from left edge, 1.18" from bottom edge
- Bottom Section Width: 4.65"
- Bottom Section Height: 0.86"
- Bottom Section Spacing: 1.95"
- Bottom Section Mounting Hole Diameter: 1.63"
- Bottom Section Mounting Hole Position: 0.08" from bottom edge

Front View Dimensions:

- Overall Height: 9.78"
- Overall Width: 4.13"
- Top Section Height: 4.25"
- Top Section Mounting Hole Diameter: M3
- Top Section Mounting Hole Position: 0.39" from top edge
- Top Section Mounting Hole Spacing: 0.08"
- Top Section Mounting Hole Diameter: 2.05"
- Top Section Mounting Hole Position: 1.57" from left edge
- Top Section Mounting Hole Spacing: 1.89"
- Top Section Mounting Hole Diameter: (1) 1/2" NPT Knockout Per Side
- Top Section Mounting Hole Position: 1.57" from left edge
- Top Section Mounting Hole Spacing: 1.89"
- Top Section Mounting Hole Diameter: 3.86"

Bottom View Dimensions:

- Overall Width: 4.65"
- Overall Height: 3.86"
- Left Section Width: 1.16"
- Left Section Height: 2.09"
- Left Section Spacing: 0.98"
- Right Section Width: 2.32"
- Right Section Height: 0.98"
- Right Section Spacing: 0.98"
- Right Section Mounting Hole Diameter: (4) 1/2" NPT

Labels:

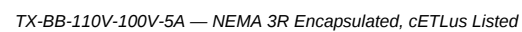
- Ground hole
- (1) 1/2" NPT Knockout Per Side
- (4) 1/2" NPT
- Bottom (Underside) Plate

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







Base Knockouts — (4) ¾" NPT



Side View



Rear View — Surface Mount Bracket



Wiring Compartment — Terminal Leads



Interior — Epoxy Resin Encapsulated Core