

Summary

Single-phase buck-boost transformer. Steps down 133V to 120V at 100 amps continuous output. 12 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 133V 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 133V 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 100-amp buck-boost transformer is significantly smaller and lighter than a 100-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-133V-120V-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	133V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	90.23A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	120V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	100A	Winding Material	Aluminum
Maximum Primary OCP	125A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	34 lbs
Temperature Rise	115°C	Dimensions	5.43"-W x 4.49"-D x 10.87"-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: The plate is rectangular with overall dimensions of 5.43" (width) by 10.87" (length). It features three circular knockouts at the top, each with a diameter of 0.2". The distance between the centers of these knockouts is 2.95". The distance from the center of the leftmost knockout to the left edge is 1.23". The distance between the centers of the middle and rightmost knockouts is 1.12" each. A ground hole is located at the bottom center, with a diameter of 0.2". The distance from the center of the ground hole to the bottom edge is 1.18". The distance from the center of the ground hole to the right edge is 1.63". The distance from the center of the ground hole to the left edge is 1.95". The distance from the center of the ground hole to the bottom edge is 0.86". The distance from the center of the ground hole to the right edge is 0.08".

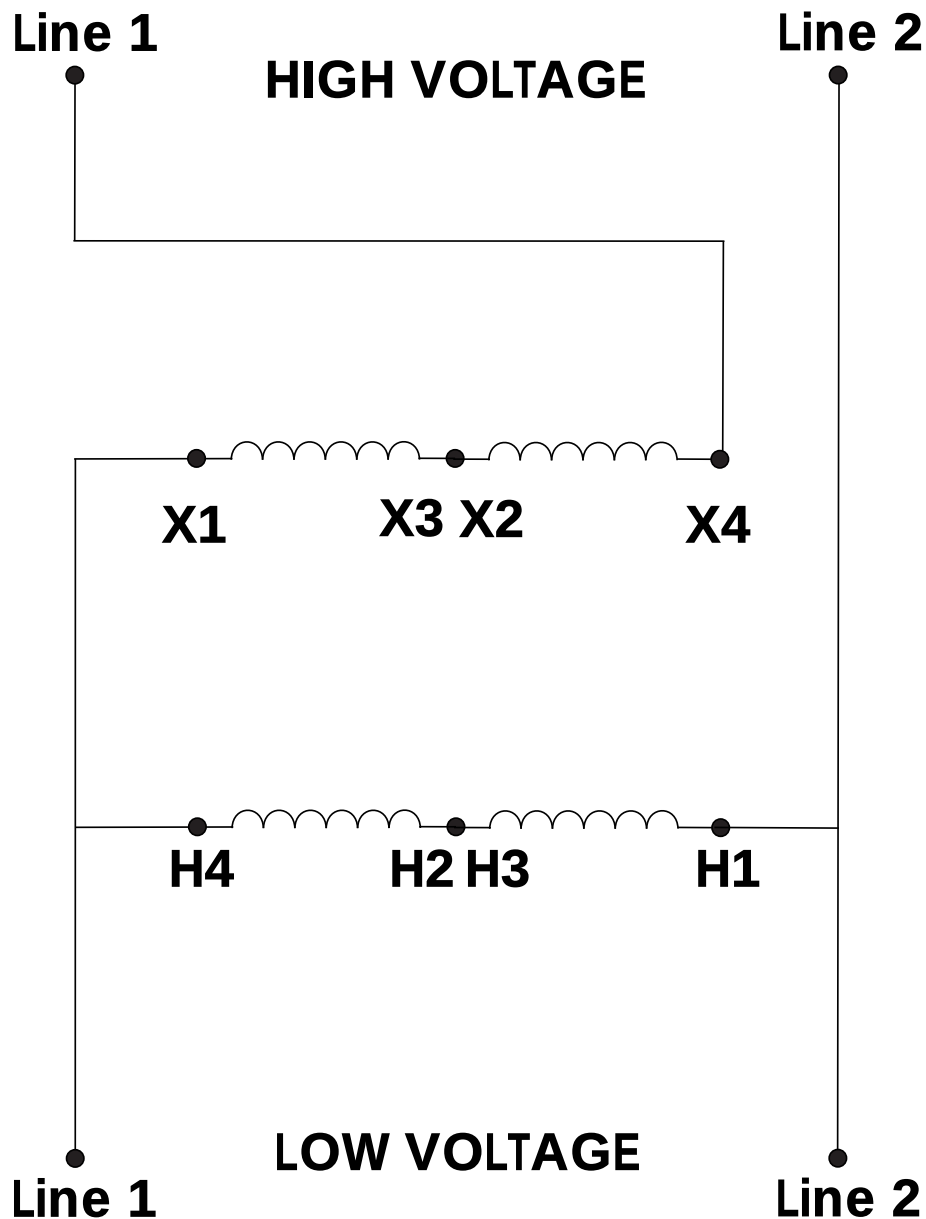
Front View: The plate is shown in profile with a height of 13". The width is 10.87". It includes a 3/4" NPT knockout on the side, with a distance of 1.97" from the side edge to the center of the knockout. The distance from the center of the knockout to the bottom edge is 1.57". The distance from the center of the knockout to the right edge is 0.39". The distance from the center of the knockout to the bottom edge is 0.08". The distance from the center of the knockout to the right edge is 2.32". The distance from the center of the knockout to the bottom edge is 4.49".

Bottom View: The plate is shown from the underside with four 3/4" NPT knockouts arranged in a 2x2 grid. The distance between the centers of the knockouts is 3.23" (width) by 2.52" (length). The distance from the center of the top-left knockout to the top edge is 1.1". The distance from the center of the top-right knockout to the right edge is 0.95". The distance from the center of the bottom-left knockout to the bottom edge is 0.95". The distance from the center of the bottom-right knockout to the right edge is 0.95".

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