

Summary

Single-phase buck-boost transformer. Steps up 190V to 228V at 10 amps continuous output. 2.28 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 190V building supply to 228V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 228V that is installed on a 190V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 10-amp buck-boost transformer is significantly smaller and lighter than a 10-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-190V-228V-10A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	2.28 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	190V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	12.00A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	228V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	10A	Winding Material	Aluminum
Maximum Primary OCP	15A	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) and 4.65" (width) x 9.25" (height).
- Top features: Two 1/2" NPT knockouts, 3.15" apart, centered 1.97" from the top edge. 0.82" spacing from the top edge to the centerline.
- Ground hole: Ø 0.2", located 3.01" from the left edge and 1.18" from the bottom edge.
- Bottom features: A central slot, 1.63" wide, with a 0.08" gap from the bottom edge. 1.95" spacing from the centerline to the slot edges.
- Other dimensions: 0.86" (bottom edge to slot), 1.89" (distance from left edge to knockout centerline).

Front View:

- Overall dimensions: 10.97" (width) x 3.94" (height) and 3.86" (width) x 9.25" (height).
- Side features: A 1/2" NPT knockout on the side, 1.89" from the left edge and 1.57" from the bottom edge.
- Other dimensions: 4.17" (distance from right edge to knockout centerline), 0.39" (distance from bottom edge to knockout centerline), 0.08" (gap from bottom edge to knockout), 2.05" (distance from left edge to knockout centerline).

Bottom View:

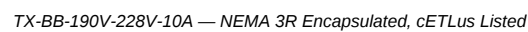
- Overall dimensions: 4.65" (width) x 3.86" (height) and 2.09" (width) x 1.98" (height).
- Features: Four 1/2" NPT knockouts arranged in a 2x2 grid.
- Other dimensions: 1.16" (distance from left edge to knockout centerline), 2.32" (distance from right edge to knockout centerline), 0.98" (distance from bottom edge to knockout centerline).

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







Base Knockouts — (4) ¾" NPT



Side View



Rear View — Surface Mount Bracket



Wiring Compartment — Terminal Leads



Interior — Epoxy Resin Encapsulated Core