



Summary

Single-phase buck-boost transformer. Steps down 248V to 220V at 4.55 amps continuous output. 1 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 248V building supply to 220V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 220V that is installed on a 248V 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 4.55-amp buck-boost transformer is significantly smaller and lighter than a 4.55-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-248V-220V-1KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	1 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	248V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	4.03A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	220V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	4.55A	Winding Material	Aluminum
Maximum Primary OCP	15A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	9 lbs
Temperature Rise	115°C	Dimensions	4.65"-W x 3.86"-D x 8.07"-H

Ratings & Certifications

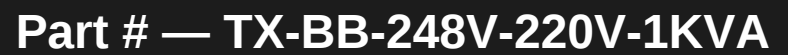
- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-50 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant



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 Width (Inner): 1.97"
- Left Section Height: 4.13"
- Right Section Height: 8.07"
- Ground hole: $\varnothing 0.2"$
- Ground hole offset: 3.01"
- Right Section Width: 1.18"
- Right Section Height: 0.08"
- Right Section Width (Inner): 1.63"
- Right Section Height (Inner): 0.86"
- Right Section Width (Inner): 1.95"
- Right Section Width (Outer): 4.65"

Front View Dimensions:

- Overall Width: 9.78"
- Overall Height: 8.07"
- Top Section Height: 4.13"
- Top Section Width: 4.25"
- Top Section Height (Inner): 1.89"
- Top Section Width (Inner): 1.57"
- Top Section Height (Inner): 0.39"
- Top Section Width (Inner): 0.08"
- Top Section Height (Inner): 2.05"
- Top Section Width (Inner): 3.86"
- Top Section Height (Inner): M3
- Top Section Width (Inner): M3
- Top Section Height (Inner): (1) 1/2" NPT Knockout Per Side

Bottom View Dimensions:

- Overall Width: 4.65"
- Overall Height: 3.86"
- Top Section Width: 1.16"
- Top Section Height: 2.32"
- Top Section Width (Inner): 2.09"
- Top Section Height (Inner): 0.98"
- Top Section Width (Inner): 4.65"
- Top Section Height (Inner): 3.86"
- Top Section Width (Inner): (4) 1/2" NPT Knockouts

Bottom (Underside) Plate

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