

Summary

Single-phase buck-boost transformer. Steps up 220V to 249V at 46.9 amps continuous output. 11.7 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 220V building supply to 249V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 249V that is installed on a 220V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 46.9-amp buck-boost transformer is significantly smaller and lighter than a 46.9-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-220V-249V-47A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	11.7 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	220V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	53.10A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	249V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	46.9A	Winding Material	Aluminum
Maximum Primary OCP	70A	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 x 4.49 x 10.87

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 of a 1000W, 12VDC power supply. The drawing includes three views: a top view, a side view, and a bottom view.

Top View Dimensions:

- Overall width: 5.43"
- Overall height: 10.87"
- Mounting holes (1.12" diameter) spaced 2.95" apart.
- Ground hole (0.2" diameter) with a 1.18" diameter.
- Mounting holes (1.23" diameter) spaced 1.23" apart.
- Ground hole (0.08" diameter) with a 1.95" diameter.
- Overall width of the bottom section: 5.43"
- Overall height of the bottom section: 1.63"
- Ground hole (0.08" diameter) with a 1.95" diameter.
- Ground hole (0.08" diameter) with a 1.95" diameter.

Side View Dimensions:

- Overall height: 1.3"
- Overall width: 10.87"
- Mounting holes (1.12" diameter) spaced 2.95" apart.
- Ground hole (0.2" diameter) with a 1.18" diameter.
- Mounting holes (1.23" diameter) spaced 1.23" apart.
- Ground hole (0.08" diameter) with a 1.95" diameter.
- Ground hole (0.08" diameter) with a 1.95" diameter.

Bottom View Dimensions:

- Overall width: 5.43"
- Overall height: 4.45"
- Mounting holes (1.12" diameter) spaced 3.23" apart.
- Ground hole (0.2" diameter) with a 1.18" diameter.
- Mounting holes (1.23" diameter) spaced 1.23" apart.
- Ground hole (0.08" diameter) with a 1.95" diameter.
- Ground hole (0.08" diameter) with a 1.95" diameter.

Notes:

- (1) 3/4" NPT Knockout Per Side
- (4) 3/4" 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