



Summary

Single-phase buck-boost transformer. Steps down 120V to 110V at 109.09 amps continuous output. 12 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 120V building supply to 110V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 110V that is installed on a 120V 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 109.09-amp buck-boost transformer is significantly smaller and lighter than a 109.09-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-120V-110V-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	120V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	100.00A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	110V	Termination Access	(6) 3/4" NPT Hubs
Secondary Amperage	109.09A	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.



1000W, 12VDC POWER SUPPLY

Bottom (Underside) Plate

5.43"

10.87"

2.95"

1.12"

1.12"

1.23"

6.93"

10.87"

5.43"

0.86"

1.95"

0.08"

1.63"

1.18"

Ø 0.2"

Ground hole

13"

10.87"

4.25"

(1) 3/4" NPT Knockout Per Side

1.97"

1.57"

0.39"

0.08"

2.32"

4.49"

M3

M3

5.43"

1.1"

3.23"

4.45"

2.52"

0.95"

(4) 3/4" NPT Knockouts

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