

Summary

Single-phase buck-boost transformer. Steps down 138V to 115V at 20 amps continuous output. 2.3 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 138V building supply to 115V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 115V that is installed on a 138V 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 20-amp buck-boost transformer is significantly smaller and lighter than a 20-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-138V-115V-20A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	2.3 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	138V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	16.70A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	115V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	20A	Winding Material	Aluminum
Maximum Primary OCP	20A	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 x 3.86 x 9.25

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 edge features two 1/2" NPT knockouts, spaced 3.15" apart, with a center-to-center distance of 1.97".
- A ground hole (Ø 0.2") is located 3.01" from the left edge and 1.18" from the bottom edge.
- A central slot is 1.63" wide and 0.08" deep.
- Bottom edge features a 1.95" wide slot, 0.86" from the left edge.

Front View:

- Overall dimensions: 10.97" (width) x 3.94" (height) and 9.25" (width) x 3.86" (height).
- A 1/2" NPT knockout is located on the front edge, 1.89" from the left edge and 1.57" from the bottom edge.
- M3 screws are used for mounting, with a 0.39" diameter hole and 0.08" spacing.

Bottom View:

- Overall dimensions: 4.65" (width) x 3.86" (height) and 2.09" (width) x 0.98" (height).
- Four 1/2" NPT knockouts are located on the bottom edge, with a 2.32" center-to-center distance between the top two and a 1.16" offset from the left edge.

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





TX-BB-138V-115V-20A — NEMA 3R Encapsulated, cETLus Listed



Base Knockouts — (4) ¾" NPT



Side View



Rear View — Surface Mount Bracket



Wiring Compartment — Terminal Leads



Interior — Epoxy Resin Encapsulated Core