

Summary

Single-phase buck-boost transformer. Steps up 197V to 223V at 62.5 amps continuous output. 13.94 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 197V building supply to 223V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 223V that is installed on a 197V system.

Wired as an autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 62.5-amp buck-boost transformer is significantly smaller and lighter than a 62.5-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-197V-223V-63A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Single Phase (1-PH), AC	Transformer Type	Buck/Boost
Capacity	13.94 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	197V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	70.76A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	223V	Termination Access	(6) ¾" NPT Hubs
Secondary Amperage	62.5A	Winding Material	Aluminum
Maximum Primary OCP	90A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	42 lbs
Temperature Rise	115°C	Dimensions	7.68"-W x 6.38"-D x 11.02"-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 a 19-inch rackmount chassis, showing three views: Front View, Side View, and Bottom (Underside) View.

Front View Dimensions:

- Overall Width: 6.58"
- Overall Height: 11.02"
- Top Panel Width: 2.95"
- Top Panel Height: 1.26"
- Top Panel Spacing: 1.14" (between sections), 1.14" (from edge)
- Ground hole diameter: $\varnothing 0.2"$
- Bottom Panel Width: 7.68"
- Bottom Panel Height: 7.09"
- Bottom Panel Spacing: 0.86"
- Bottom Panel Mounting Hole Diameter: 0.08"
- Bottom Panel Mounting Hole Spacing: 1.95"
- Bottom Panel Mounting Hole Position: 1.18" from right edge

Side View Dimensions:

- Overall Depth: 13.18"
- Overall Height: 11.02"
- Knockout Diameter: (1) 3/4" NPT
- Knockout Position: 1.97" from front edge, 1.57" from bottom edge
- Knockout Spacing: 0.08", 0.39"
- Knockout Mounting Hole: M3
- Knockout Mounting Hole Spacing: 4.6"
- Knockout Mounting Hole Position: 0.79" from front edge
- Knockout Mounting Hole Diameter: 0.08"
- Knockout Mounting Hole Spacing: 0.39"
- Knockout Mounting Hole Position: 4.25" from top edge
- Knockout Mounting Hole Diameter: M3

Bottom (Underside) View Dimensions:

- Overall Width: 7.68"
- Overall Height: 6.38"
- Knockout Diameter: (4) 3/4" NPT
- Knockout Position: 1.16" from left edge, 5.35" from right edge, 0.95" from top edge, 4.41" from bottom edge

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





TX-BB-197V-223V-63A — 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