



### Summary

Single-phase buck-boost transformer. Steps down 230V to 208V at 57.69 amps continuous output. 12 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 230V building supply to 208V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 208V that is installed on a 230V 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 57.69-amp buck-boost transformer is significantly smaller and lighter than a 57.69-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-230V-208V-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     | 230V                    | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 52.17A                  | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 208V                    | Termination Access    | (6) ¾" NPT Hubs              |
| Secondary Amperage  | 57.69A                  | 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"-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.

## Dimensions



## 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-230V-208V-12KVA — 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*