

### Summary

Single-phase buck-boost transformer. Steps down 255V to 240V at 80 amps continuous output. 19.2 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

### Product Description

This unit corrects a 255V building supply to 240V at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 240V that is installed on a 255V 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 80-amp buck-boost transformer is significantly smaller and lighter than a 80-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-255V-240V-80A — NEMA 3R Encapsulated, cETLus Listed

### Specifications

|                     |                         |                       |                              |
|---------------------|-------------------------|-----------------------|------------------------------|
| Phase               | Single Phase (1-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 19.2 kVA                | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 255V                    | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 75.30A                  | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 240V                    | Termination Access    | (6) ¾" NPT Hubs              |
| Secondary Amperage  | 80A                     | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 100A                    | 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.



Technical drawing of the Bottom (Underside) Plate, showing three views: Top, Front, and Bottom.

**Top View:** Dimensions include 5.43" (width), 10.87" (height), 2.95" (spacing between three mounting holes), 1.12" (spacing between mounting holes), 1.23" (height of mounting holes), 0.2" (ground hole diameter), 1.18" (spacing from ground hole to edge), 0.08" (height of ground hole), 1.95" (width of ground hole), 0.86" (height of ground hole), and 5.43" (width).

**Front View:** Dimensions include 10.87" (width), 13" (height), 4.25" (height of base), 1.97" (height of base), 1.57" (height of base), 0.39" (height of base), 0.08" (height of base), 2.32" (height of base), 4.49" (width of base), and M3 (thread).

**Bottom View:** Dimensions include 5.43" (width), 4.45" (height), 3.23" (spacing between four 3/4" NPT knockouts), 1.1" (spacing between four 3/4" NPT knockouts), 2.52" (width of four 3/4" NPT knockouts), and 0.95" (width of four 3/4" NPT knockouts).

**Labels:** (1) 3/4" NPT Knockout Per Side, (4) 3/4" NPT Knockouts, Ground hole, M3.

**Bottom (Underside) Plate**

## Connection Guide

1. Connect **X4** and **X3** together
2. Connect **X2** and **X1** together
3. Connect High Voltage **L1** to **X4**, **X3**
4. Connect Low Voltage **L1** to **X1**, **X2**, **H4**
5. Connect **H3** and **H2** together
6. Connect High & Low Voltage **L2** to **H1**

### DIAGRAM C2





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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*