



Summary

Single-phase buck-boost transformer. Steps down 256V to 240V at 20 amps continuous output. 4.8 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 256V 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 256V 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-256V-240V-20A — NEMA 3R Encapsulated, cETLus Listed

Specifications

|                     |                         |                       |                              |
|---------------------|-------------------------|-----------------------|------------------------------|
| Phase               | Single Phase (1-PH), AC | Transformer Type      | Buck/Boost                   |
| Capacity            | 4.8 kVA                 | Configuration         | Encapsulated Autotransformer |
| Primary Voltage     | 256V                    | Primary Termination   | Lead Wires & Terminal Lugs   |
| Primary Amperage    | 18.80A                  | Secondary Termination | Lead Wires & Terminal Lugs   |
| Secondary Voltage   | 240V                    | Termination Access    | (6) ½" NPT Hubs              |
| Secondary Amperage  | 20A                     | Winding Material      | Aluminum                     |
| Maximum Primary OCP | 25A                     | Enclosure Material    | Steel                        |
| Frequency           | 50/60 Hz                | Finish Color          | ANSI 70 Light Grey           |
| Insulation          | 180°C                   | Weight                | 14 lbs                       |
| Temperature Rise    | 115°C                   | Dimensions            | 4.65"-W x 3.86"-D x 9.25"-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 are 4.77" (width) and 4.65" (height). It features a central ground hole (Ø 0.2") and four 1/2" NPT knockout holes. Key dimensions include 0.82", 3.15", 1.97", 5.32", 9.25", 3.01", 1.18", 0.08", 1.63", 0.86", 1.95", and 4.65".

**Front View:** Dimensions are 5.32" (width) and 9.25" (height). It shows a (1) 1/2" NPT knockout hole per side and an M3 screw. Key dimensions include 10.97", 9.25", 1.89", 4.17", 1.57", 0.39", 0.08", 2.05", 3.86", and 3.94".

**Bottom View:** Dimensions are 4.65" (width) and 3.86" (height). It shows four 1/2" NPT knockout holes and an M3 screw. Key dimensions include 1.16", 2.32", 2.09", and 0.98".

## 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*