Part # — TX-BB-220D-191D-1KVA

Buck-Boost Transformer Specification Sheet

Available at XFMR Direct

Summary

Three-phase delta buck-boost transformer. Steps down 220V to 191V at 2.98 amps continuous output. 1 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 220V three phase building supply to 191V delta at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 191V that is installed on a 220V system experiencing overvoltage from the utility.

Configured as an open delta autotransformer, the unit handles only the difference between input and output and not the full load. This is why a 2.98-amp buck-boost transformer is significantly smaller and lighter than a 2.98-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-220D-191D-1KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Three Phase Delta (3-PH), AC	**Transformer Type**	Buck/Boost
Capacity	1 kVA	**Configuration**	Encapsulated Autotransformer
Primary Voltage	220V	**Primary Termination**	Lead Wires & Terminal Lugs
Primary Amperage	2.63A	**Secondary Termination**	Lead Wires & Terminal Lugs
Secondary Voltage	191V	**Termination Access**	(6) 1/2" NPT Hubs
Secondary Amperage	2.98A	**Winding Material**	Aluminum
Maximum Primary OCP	4.39A	**Enclosure Material**	Steel
Frequency	50/60 Hz	**Finish Color**	ANSI 70 Light Grey
Insulation	180°C	**Weight**	8 lbs
Temperature Rise	115°C	**Dimensions**	4.77 x 3.86 x 8.07

Ratings & Certifications

- Listed for United States
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-5085 Standards
- CE Certified
- Listed for Canada
- Epoxy Resin Encapsulated
- RoHS Compliant

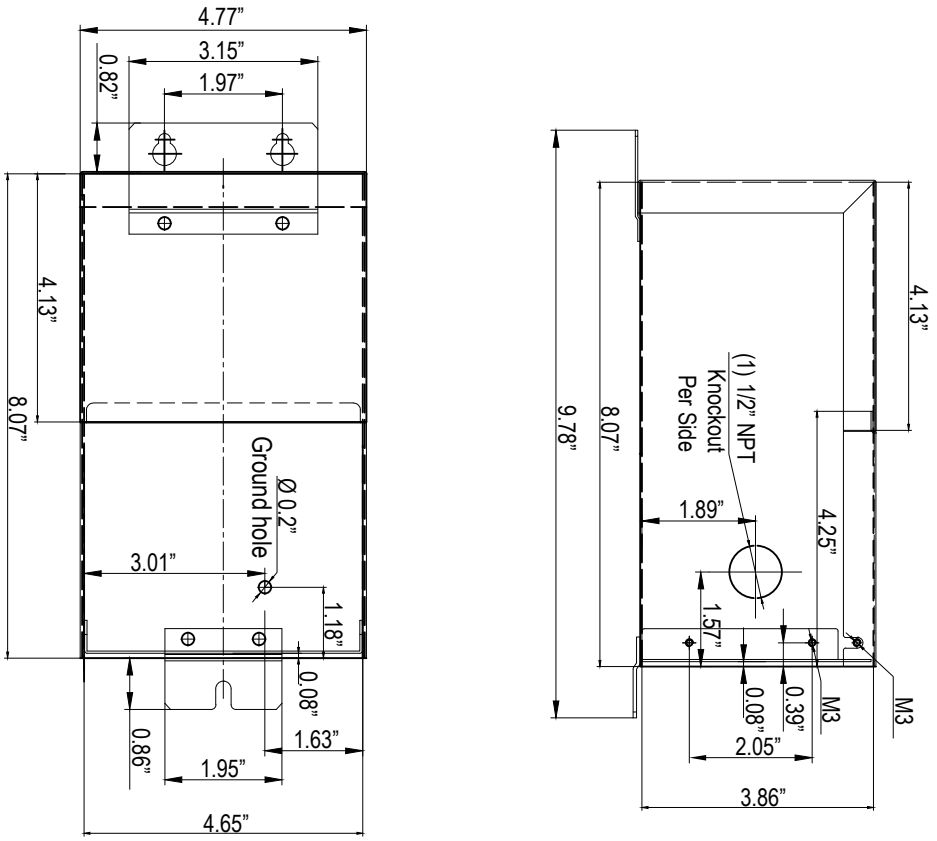
Common Applications

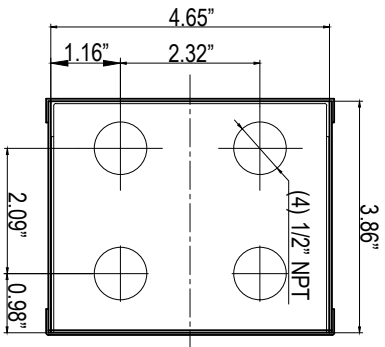
- **HVAC & Minisplit**
- **Loads CNC Machines**
- **Pump Stations**
- **Packaging Machines**
- **Commercial Kitchen Equipment**
- **Motor Loads**
- **EV Chargers**
- **Server Racks & IT Equipment**
- **Refrigeration & Walk-In**
- **Coolers Fans & Blowers**
- **Conveyor Systems**
- **Overhead Doors**

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

Three-phase open delta installation — (2) enclosures required. Drawing depicts one enclosure.





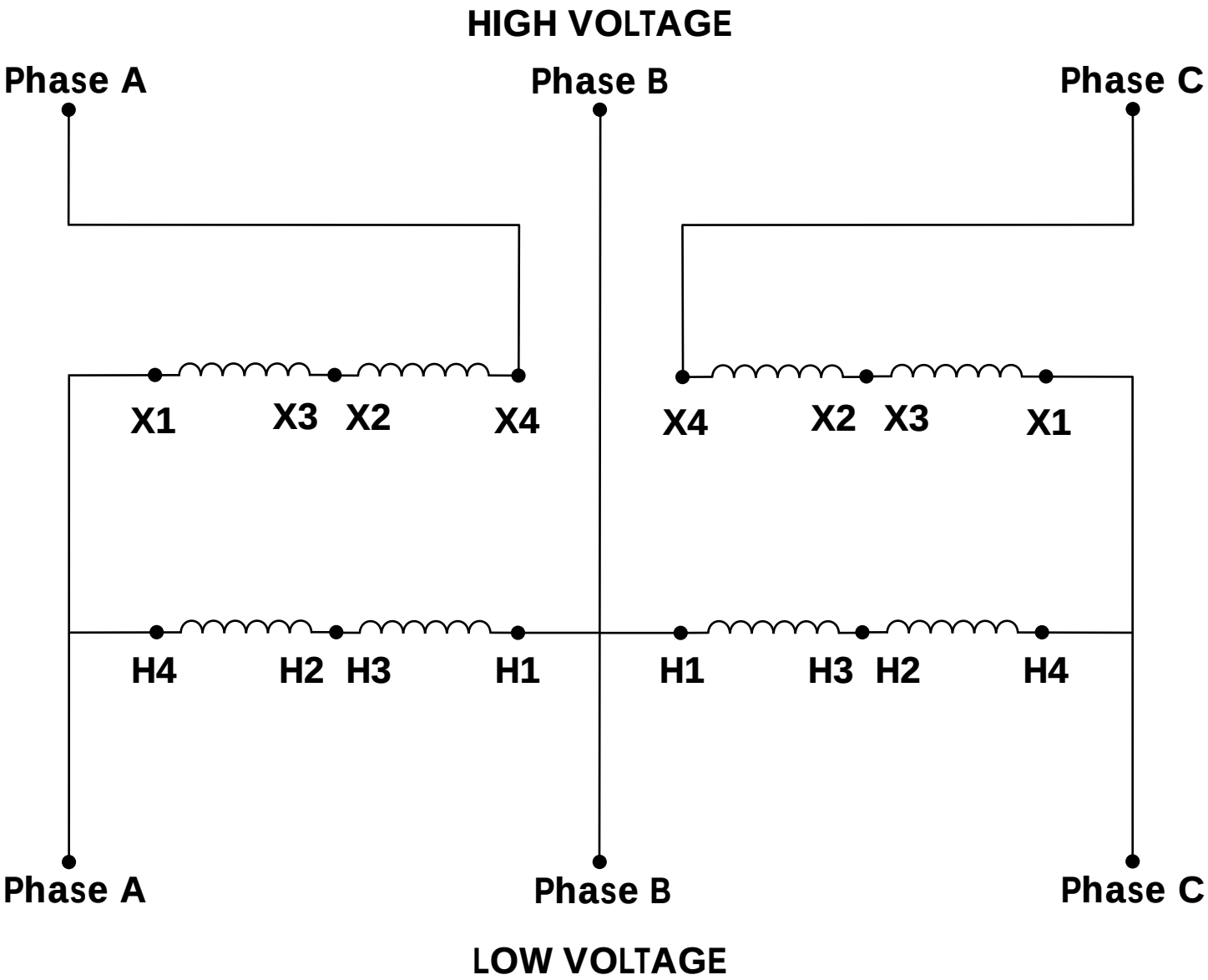
(4) 1/2” NPT Knockouts

Bottom (Underside) Plate

Connection Guide

1. Connect **X2** and **X3** together for both transformers
2. Connect **H2** and **H3** together for both transformers
3. Connect High Voltage **PHASE A** to **X4** on transformer A
4. Connect High Voltage **PHASE C** to **X4** on transformer B
5. Connect Low Voltage **PHASE A** to **H4** and **X1** on transformer A
6. Connect Low Voltage **PHASE C** to **H4** and **X1** on transformer B
7. Connect High & Low Voltage **PHASE B** to **H1**
8. Bridge **H1** connections between transformer A & B

DIAGRAM G2





TX-BB-220D-191D-1KVA — 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