

Summary

Three-phase delta buck-boost transformer. Steps up 480V to 528V at 4.17 amps continuous output. 3.81 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 480V three phase building supply to 528V delta at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 528V that is installed on a 480V system experiencing undervoltage 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 4.17-amp buck-boost transformer is significantly smaller and lighter than a 4.17-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-480D-528D-4A — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Three Phase Delta (3-PH), AC	Transformer Type	Buck/Boost
Capacity	3.81 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	480V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	4.59A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	528V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	4.17A	Winding Material	Aluminum
Maximum Primary OCP	15A	Enclosure Material	Steel
Frequency	50/60 Hz	Finish Color	ANSI 70 Light Grey
Insulation	180°C	Weight	22 lbs
Temperature Rise	115°C	Dimensions	9.55"-W x 3.86"-D x 8.07"-H

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.



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

HIGH VOLTAGE





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The image shows two identical grey metal autotransformers from Sanzo Sales. Each unit is a rectangular box with a handle on top and mounting holes on the sides. The label on the front of each unit provides the following information:

SANZO SALES

TX-BB-480D-528D-4.17A

Power:	Single Phase	Configuration:	Autotransformer
Input Voltage:	480V	Max BCP:	45A
Output Voltage:	240V	Max Output:	5280 VA
Maximum Input:	1-12 45A	Temperature:	105°C
Max Input Range:	24-24A	Temp Rise:	10°C
Max Output Range:	24A	Warranty:	Standard

Endorsement Type: NEMA 2B for Indoor or Outdoor Use
 Conforms to UL 516 Conforms to NEMA 2B-20
 Stock # TX-BB-480D-528D-4.17A L-1-100000

Autotransformer

CONFIRMED TO UL 516, 516-100000-1
 CONFIRMED TO NEMA 2B-20-100000-1

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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