

Summary

Three-phase delta buck-boost transformer. Steps up 440V to 460V at 9.41 amps continuous output. 7.5 kVA capacity. NEMA 3R enclosed, cETLus listed, wall mount.

Product Description

This unit corrects a 440V three phase building supply to 460V delta at the point of use, permanently, without modifying the building's electrical service. Designed for equipment rated 460V that is installed on a 440V 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 9.41-amp buck-boost transformer is significantly smaller and lighter than a 9.41-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-440D-460D-7.5KVA — NEMA 3R Encapsulated, cETLus Listed

Specifications

Phase	Three Phase Delta (3-PH), AC	Transformer Type	Buck/Boost
Capacity	7.5 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	440V	Primary Termination	Lead Wires & Terminal Lugs
Primary Amperage	9.84A	Secondary Termination	Lead Wires & Terminal Lugs
Secondary Voltage	460V	Termination Access	(6) ½" NPT Hubs
Secondary Amperage	9.41A	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	nan"-W x nan"-D x nan"-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





sales@sanzosales.com

The image shows two identical grey metal autotransformers standing side-by-side. Each unit has a top handle with two lifting loops. The front of each unit features a white label with the Sanzo Sales logo (a stylized 'A' inside a house-like shape) and the model number 'TX-BB-480D-440D-3.44A'. Below the model number, there is a table of specifications. The left unit's label also includes a note about load capacity and a 'Certified' logo. The right unit's label includes a note about load capacity and a 'Certified' logo. Both units have a 'Autotransformer' label at the bottom of the front panel.

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3.44A for 3.44A or 3.44A or 3.44A
 Continuous in 100% - Continuous in 100% 100%
 Shock 4 100% 100% 100% 100% 100% 100%

Certified

Autotransformer

SANZO SALES
TX-BB-480D-440D-3.44A

Phase:	Single Phase	Configuration:	Autotransformer
Input Voltage:	240V	Max. Input:	45A
Output Voltage:	240V	Frequency:	60/50 Hz
Altitude:	0 to 4000'	Insulation:	100°C
Max. Input Amps:	24.0A	Temp. Rise:	10°C
Max. Output Amps:	24A	Windings:	Aluminum

Load Capacity: Type 480D-440D-3

sales@sanzosales.com



Base Knockouts — (4) ¾" NPT



Side View



Rear View — Surface Mount Bracket



Wiring Compartment — Terminal Leads



Interior — Epoxy Resin Encapsulated Core