

Summary

Single-phase buck-boost transformer. 1 kVA capacity. 120/240V primary, 12/24V secondary. Resin encapsulated. NEMA 3R indoor/outdoor enclosure. cETLus listed, wall mount.

Product Description

This single-phase buck-boost transformer is designed for voltage adjustment in commercial, industrial, and OEM applications. Rated at 1 kVA with 120/240V primary and 12/24V secondary windings, this unit can be wired as an isolation transformer or configured as a buck-boost autotransformer to raise or lower line voltage.

The encapsulated core construction uses epoxy resin potting to eliminate audible hum and provide reliable thermal performance under continuous duty. Aluminum windings with 180°C insulation class ensure long-term durability.

Housed in a NEMA 3R rated steel enclosure with ANSI 61 grey finish. Features a front access wiring panel, six 3/4" NPT knockouts (side and bottom), and a surface mounting bracket for wall mount installation.



TX-B3-010K-124202 - NEMA 3R Encapsulated, cETLus Listed

Specifications

Specification	Value	Specification	Value
Phase	Single Phase (1-PH), AC	Transformer Type	Isolation Transformer
Capacity	1 kVA	Configuration	Encapsulated Autotransformer
Primary Voltage	120/240V	Primary Termination	Lead Wires
Secondary Voltage	12/24V AC	Secondary Termination	Terminal Lugs
Frequency	50/60 Hz	Termination Access	Front Access Cover
Insulation	180°C	Winding Material	Aluminum
Temperature Rise	115°C	Enclosure Material	Steel
Maximum Primary OCP	10A	Finish Color	ANSI 61 Grey
Wiring Knockouts	(6) 3/4" NPT	Weight	27 lbs
Dimensions	5.43"W x 4.49"D x 10.08"H		

Ratings & Certifications

- Listed for United States
- Listed for Canada
- NEMA 3R Indoor/Outdoor Enclosure
- Built to UL-50 Standards
- CE Certified
- Epoxy Resin Encapsulated
- RoHS Compliant
- Can be Wired as Buck/Boost
- Can be Wired as Autotransformer

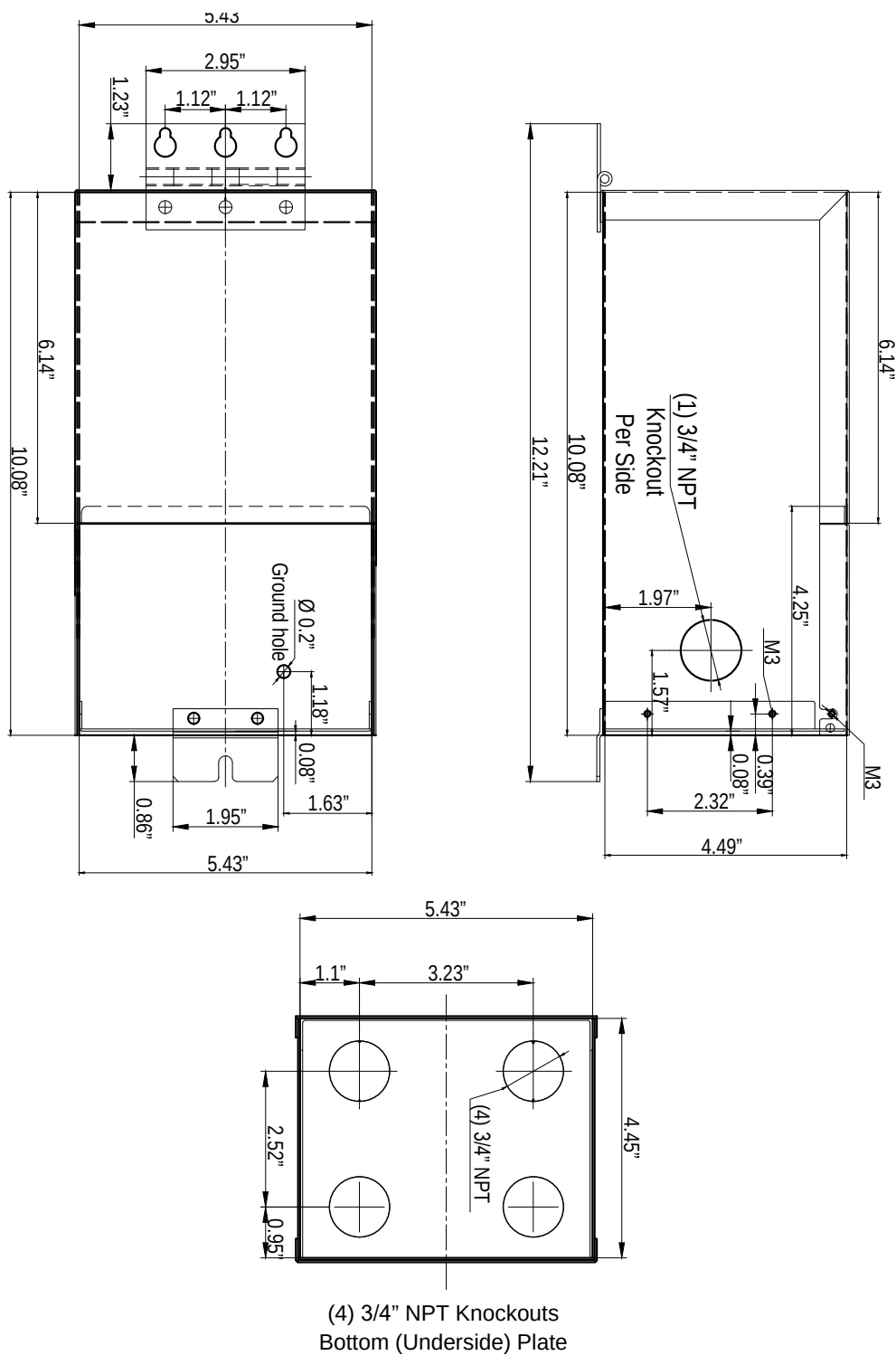


Common Applications

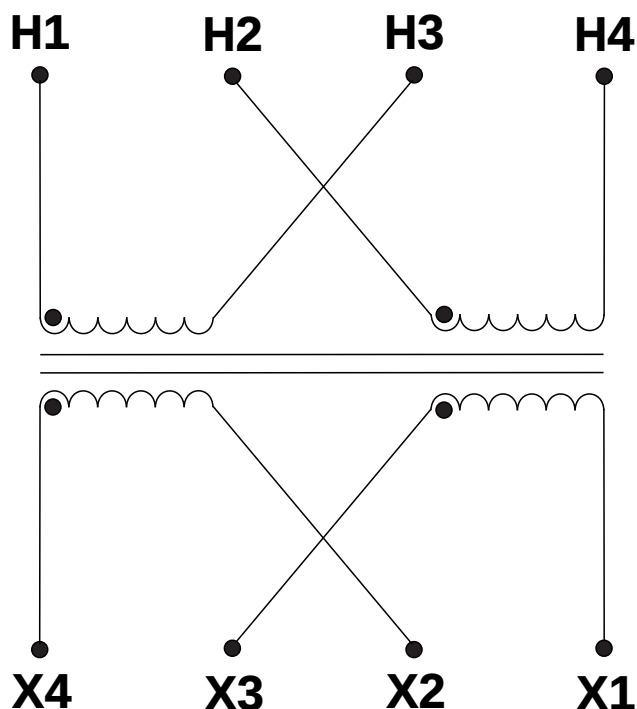
- HVAC & Minisplit
- CNC Machines
- Pump Stations
- Packaging Machines
- Commercial Kitchen Equipment
- Motor Loads
- EV Chargers
- Server Racks & IT Equipment
- Refrigeration & Walk-in Coolers
- Fans & Blowers
- Conveyor Systems
- Overhead Doors

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



Wiring Diagram



This unit is approved for connection as a buck/boost autotransformer to adjust line voltage up or down. All autotransformer installations must be wired in accordance with the applicable wiring configurations shown in Diagrams A2–P2.

- Diagrams A2-D2 for single phase
- Diagrams E2-H2 for three phase open delta
- Diagrams I2-L2 for three phase wye

Ensure that the primary and secondary windings are connected as illustrated for the intended buck or boost function. Confirm that voltage and kVA ratings are suitable for the load before energizing the transformer.



SANZO POWER

Specs: 120/240V TO 12/24V 1 KVA
Model: TX-B3-010K-124202

Diagram:

The diagram shows a transformer with two windings: Primary (Pri) and Secondary (Sec). The Primary winding has terminals H1, H2, H3, and H4. The Secondary winding has terminals X1, X2, X3, and X4. The connections are as follows:

- H1 is connected to H2 and X1.
- H2 is connected to H1 and X2.
- H3 is connected to H4 and X3.
- H4 is connected to H3 and X4.

Input:
120V (H1-H4)
Interconnect: H1-H2 & H3-H4

240V(H1-H4)
Interconnect: H2-H3

Output:
12V (X1-X4)
Interconnect: X1-X2 & X3-X4

24V(X1-X4)
Interconnect: X2-X3

ETL US
Intertek
5027446
CONFORMS TO UL STD UL5085-1
CERTIFIED TO CSA C22.2#66.1

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Side View



Rear View - Surface Mount Bracket



Wiring Compartment - Terminal Leads



Interior - Epoxy Resin Encapsulated Core