

Low Voltage General Purpose Transformers

- Micron supplies a full line of 600 volt class Low Voltage General Purpose Transformers.
- Both single and three-phase transformers are available in a fully encapsulated design.
- All units are built and tested in accordance with applicable NEMA, ANSI and IEEE standards.
- Micron’s distribution transformers are designed for 60 Hz operation.
- The majority of units have primary taps to accommodate a variety of input voltages.
- All units are seismically tested, seismically qualified, and exceed requirements of the Uniform Building Code (UBC) and California Code Title 24.

Overview

Micron’s resin encapsulated units are totally enclosed making them suitable for indoor or outdoor applications. They have a non-ventilated NEMA 3R enclosure making them ideal for use in areas that contain dust, moisture, or corrosive fumes. They can be mounted in any position for indoor installations and in the upright position only for outdoor installations. Three phase units are available in Wye and Delta configurations.

Phase	Capacity	Insulation System	Temp Rise	UL Listed	CSA Certified
Single Phase	.05-25KVA	185°C	115°C	✓	✓
Three Phase	3-75KVA	185°C	115°C	✓	



Overload Capability

Short term overload is designed into transformers as required by ANSI. Micron’s distribution transformers can be overloaded within specified limits without damage provided that a constant 50% load precedes and follows the overload. See chart for overload specifications limits.

Continuous overload capacity is not designed into a transformer because the design objective is to be within the allowed winding temperature rise at nameplate load.

Operation

Micron transformers are designed for continuous operation at rated kVA for 24 hours/day, 365 days/year, with a normal life expectancy as defined in ANSI C57.96.

Overload Specifications

Overload Time Period	Overload %
1/2 Hour	200%
1 Hour	150%
4 Hours	125%

Buck-Boost Transformers



Micron’s Buck-Boost Transformers are used to provide an economical method of decreasing (bucking) or increasing (boosting) voltage to a rating more suitable for efficient operation of electrical equipment.

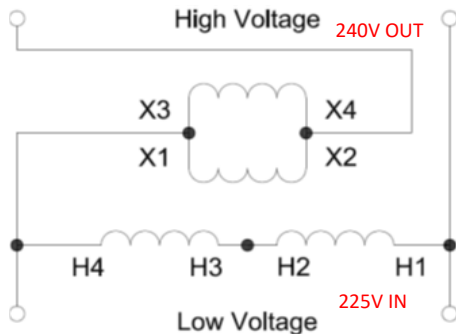
Buck-Boost Transformers can be used as small Kva, single phase, 600 volt class isolation transformers with dual primary and secondary windings. If wired as an isolation transformer, they can be utilized to provide for applications requiring 12, 16, 24, 32 or 48 VAC from 50VA to 7.5Kva.

Isolation Wiring Voltages

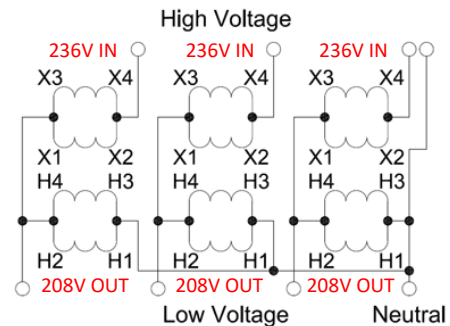
Input Voltage	Output Voltage
120 x 240	16/32
240 x 480	24/48
120 x 240	12/24

However, they are usually connected as autotransformers by utilizing one unit for single phase applications and either two or three units banked for three phase operation. They are primarily used for motor operation and should not be used for motor control circuits, to correct fluctuating line voltage, or to obtain a neutral on a delta system. These applications require transformers especially designed for these specific applications.

Example of single phase application “boosting” voltage from 225 to 240.



Example of three units banked for a three phase application “bucking” voltage from 236 to 208.



When installation is to be made on a grounded system, consideration must be given to the resulting voltage. Thus, on a 208 grounded Wye/120 system the voltage can be boosted to 240 volts but the voltage to ground will be 139 volts. If 240/120 volts with a midpoint ground is needed, a standard two-winding transformer must be used.



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