

## Why Use Buck-Boost Transformers?

The advantages of using a buck-boost transformer over an equivalent standard isolation transformer are:

### Advantages

- 1) Used in a variety of applications
- 2) Inexpensive
- 3) Smaller and lighter
- 4) More efficient
- 5) 5-10 times increase in kVA



### Disadvantages

- 1) No circuit isolation
- 2) Cannot create a neutral
- 3) KVA and voltages do not match what's on the nameplate kVA and voltages.

## Buck-Boost Application

Buck-boost transformers offer an economical solution to the adjustment of line voltages that are slightly above or below normal. When a buck-boost transformer is connected as an autotransformer, only a portion of the load kVA is actually transformed. The majority of the load kVA is passed directly through to the source. For this reason a buck-boost transformer may be used to supply a much larger kVA load than is indicated on the nameplate.

Buck-boost transformers can be used to adjust **stable** voltages only.

### BUCK-BOOST STANDARD SPECIFICATIONS

	50 to 1000 VA	1500 to 5000 VA
<b>UL Listed</b>	File: E50394	File: E50394
<b>CSA Certified</b>	File: LR3902	File: LR3902
<b>Frequency</b>	50/60 Hz	50/60 Hz
<b>Insulation System</b>	130°C (80°C rise)	180°C (115°C rise)
<b>Standard Design</b>	Single Phase, welded core construction made with high quality, high permeability silicon steel laminations. Computer designed coils, accurately wound from high quality copper magnetic wire.	Single Phase, welded core construction made with high quality, high permeability silicon steel laminations. Computer designed coils, accurately wound from high quality copper magnetic wire.
<b>Encapsulation</b>	All units from 50VA to 5kVA are encapsulated with electrical grade silica sand and resin compounds.	All units from 50VA to 5kVA are encapsulated with electrical grade silica sand and resin compounds.
<b>Enclosure Type</b>	Heavy Duty NEMA Type 3R (optional NEMA 4, 4X and 12 available)	Heavy Duty NEMA Type 3R (optional NEMA 4, 4X and 12 available)
<b>Enclosure Finish</b>	ANSI 61 Grey, UL50	ANSI 61 Grey, UL50
<b>Termination</b>	Front accessible separate high and low voltage lead wires or copper tabs.	Front accessible separate high and low voltage lead wires or copper tabs.
<b>Conduit Knock-Outs</b>	Side and rear standard on all units.	Side and rear standard on all units.
<b>Mounting</b>	Standard Wall Mounting.	Standard Wall Mounting.