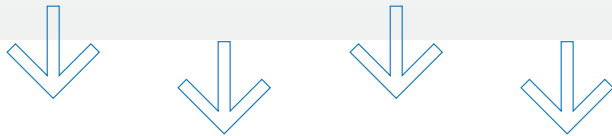


# SINGLE-PHASE POWER TRANSFORMER

A Single-Phase Power Transformer is a type of transformer that utilizes single-phase alternating current. These transformers are often utilized to step-down transmission currents into power levels suitable for residential markets.



Single-Phase Power Transformers are more popular in rural areas throughout the country where overall electrical demand is lower. They also allow users to save on the capital expenditures that would be required to re-work bus work and substation layout when looking to convert to a Three-Phase Power Transformer design. In addition, they provide additional protection against failures and shutdowns. For example, a damaged coil in a Three-Phase Transformer would put the whole transformer out of commission. Whereas in a bank of Single-Phase Transformers connected as Three-Phase, if one of them becomes defective, the other two are still good and can operate as open delta or open wye until the defective transformer is replaced, and because of the lower cost an extra can be stored at the substation site to provide an additional safeguard.

- 100 kVA to 30 MVA
- Circular Layer, Circular Disc, Helical Construction, Rectangular Layer
- Costs savings purchasing single phase spare oppose to buying a three-phase transformer spare for reliability
- Most commonly sold in rural areas throughout the country
- Mineral Oil, Enviro Temp FR3, Luminol, or other liquids
- More economical
- Easier to transport
- Allows substation layout and bus work to stay intact without and re-work
- As load growth occurs, it allows a single-phase transformer to be installed, then later another for two phase open delta or open wye and then with the addition of the last single-phase transformer you have a full three phase system

## TEST FLOOR FAILURE RATE

**0.75%**  
over the last 10 YEARS

## FIELD FAILURE RATE

**0.32%**  
over the last 10 YEARS

## OSHA CERTIFIED SHARP FACILITY

**ISO  
9001**  
CERTIFIED

SERVING  
MORE THAN  
**80**  
COUNTRIES  
WORLDWIDE

UP TO 50 MVA BASE RATING

UP TO 100 MVA FAN RATING

UP TO 138,000 Volts

UP TO 650 kV BIL

UP TO 90,000 Amps

