



*We can do that!*

# Unit Substation Dry Type Transformers

- Single Phase thru 1000kVA
- Three Phase 112.5kVA thru 5000kVA
- Aluminum or Copper
- Voltage Classes thru 34.5V
- Frequencies of 50 or 60H
- BIL ratings thru 150kV
- Temperature Rises: 80°C, 115°C, 150°C
- FFA or FA options
- NEMA 3R enclosures available thru 15kV



## Reliable, Safe and Economical

Current technology yields a dry type transformer that is fully equal to its mineral oil insulated counterpart. Dry types excel in several important aspects. They can be located indoors without the use of a fireproof vault or special catch basins, on roofs, near buildings, or anywhere within an industrial or commercial building. Industry standards have been developed to give users better yardsticks for specification and purchasing. The latest standard, set for the Underwriters Laboratories (UL), encompasses those developed by IEEE, NEMA, ANSI, and various other agencies.

The Olsun medium voltage transformers are all tested and built to these rigid specifications and assure the purchaser of reliability, safety, and value. These Olsun transformers are economical, can be outdoors with little concern for moisture in severe environments, and are environmentally safe.

They are available with overload capability of 33% greater than nominal ratings with fan cooling. They are supplied meeting DOE regulations per 10 CFR 431.



**Engineered and Assembled in Richmond, IL USA**



## Fan Cooling

Olsun offers all of its medium voltage transformers rated 300kVA and larger with an option of UL listed factory installed and wired fan cooling systems. Fan cooling is useful in accommodating unanticipated loads, short-term overload conditions, overloads due to intermittent high ambient conditions, and similar situations.

## Sound Levels

Since dry type transformers are placed closer to the point of power usage, and consequently closer to personnel, the level of noise emission is more critical than for their oil-insulated counterparts. Olsun transformers are built to NEMA/ANSI sound level standards, which yields an acceptable installation in the majority of cases. Lower than standard sound levels are available on special order. Olsun transformers are equipped with vibration isolation pads between the core and coil and the enclosure.

## Basic Impulse Levels

Olsun designs its transformers to conform to NEMA/ANSI BIL standards at a minimum. Higher BIL levels are available on any Olsun medium voltage transformers and are recommended where special circumstances exist, such as feeder circuits exposed to lightning or other voltage surges.

## Coil Construction

There are two types of coil construction methods in common use. Barrel wound coils are acceptable for voltages up to 5000 volts and where the BIL requirements do not exceed 30KV. Above these parameters, field experience has shown that barrel wound coils can be prone to the development of corona. While somewhat more costly to manufacture, disc wound coils practically eliminate the occurrence of corona and the premature failures associated with this phenomenon. Olsun uses the disc wound method exclusively on all transformers above 5000 volts and/or 30KV BIL.

## Standard Features

- UL/cUL listed & labeled per NEMA/ANSI/IEEE thru 15kV, 95kV BIL
- 150°C Temperature Rise
- 220°C Insulation Class
- ANSI 61 Grey Powder Coating
- Heavy Gauge Steel Enclosures
- Suitable for Substation Matchup or Free Standing
- Take Down Enclosure for Limited Space Rigging to Installation
- Aluminum Conductor
- Vacuum Pressure Impregnation

## Optional Features

- 115°C Temperature Rise
- 80°C Temperature Rise
- Copper wound
- 50 Hertz or other Hertz
- Special Impedance
- Electrostatic Shielding
- K Factor Ratings
- Low In Rush Current
- Operational at Altitude above 3700 ft (1000K)
- Forced Air Cooling or Provisions for Future Forced Air Cooling
- Surge Arresters
- Digital Temperature Monitor
- Strip Heaters & Thermostats
- Copper Bus
- LI Switches
- Fuses for LI Switch, Current Limiting or Expulsion Type
- Key Interlocks for LI Switches
- Main Secondary Breakers
- Secondary Distribution Panels
- Metering
- Special Dimensions
- Pad Mount
- Stainless Steel Enclosures 304 or 316
- Outdoor NEMA 3R Enclosures

**Transforming the Industry with:**  
**Handcrafted Quality • Sophisticated Designs • Superior Materials • Olsun Flexibility**

Olsun Electric is a leading dry type transformer manufacturing company that has been providing solutions in the most challenging environments for over five decades.