

# Transformer / Rectifier Sets

## Electrostatic Precipitator Power Supply

- Durable steel tanks providing strength rated for 15 psi
- 100% copper-wound transformers
- Heavy-duty R/C compensated diode stacks
- Custom design center for high quality retrofits
- Replacement CLRs



Transformer Rectifier (T/R) Sets offer uncompromising quality, ruggedness and reliability. Our T/R sets provide dependable, low maintenance service for decades. Zero shortcuts are taken in the design of our T/R sets. Each T/R is equipped with 100% copper-wound transformers and heavy duty R/C compensated diode stacks. Our heavy duty steel tanks provide superior mechanical strength and full-vacuum processing capability.

Our T/R design center will custom design a T/R to your specifications. We design high quality retrofits for Research-Cottrell, NWL, GE and many others in a variety of ratings and form factors. Our exact replacements will save you time and money by eliminating high modification costs associated with proper installation of “off-the-shelf” equipment.

Not only will we customize the T/R design to your specifications, but we also offer a long list of options. We can provide metering, taps, alarm contacts and paint options as required. Finally, each T/R undergoes a battery of tests in our special test chamber to ensure quality. Tests include voltage ratios, impedance, grounding, spark over and six hour pressure tests. All this ensures that your order is designed to your specifications and built to last.

### T/R Set Optional Accessories and Equipment

- Internal Voltage Divider Resistor(s)  
Typically 80 megohms for feedback to Automatic Voltage Control
- External Voltage Metering Resistor
- External Current Metering Resistor
- Low voltage taps for varying the primary input voltage
- Vacuum-Pressure Gauge
- Alarm Contacts for:
  - Thermometer
  - Liquid Level Gauge
  - Vacuum Pressure
- Non-Standard Ambient  
Standard= 45°C avg/55°C max
- Altitude above 3,300 feet
- Premium Epoxy paint system for corrosive environments
- Special paint colors  
ANSI 70, Light Gray
- Current Limiting Reactor available with:
  - No Enclosures (Open Core & Coil assembly)
  - NEMA 3R Enclosure
  - T/R LV Bushing Enclosure
- Custom Retrofit Designs for replacement of existing T/R Sets
- Ground Switches

### T/R Set Specifications

#### Ratings

Secondary Voltage  
Outputs of 36 to 75k V DC, 126 kV Peak

Primary Voltage  
Inputs up to 600 VAC

Current  
100-2500 mA DC

#### Fluids

Mineral Oil  
DOW 561® Silicone

#### Electrical and Leak Tests

- Resistance
  - LV Winding
  - HV Winding
  - Choke Coil
- Transformer Voltage Ratio
- No-Load and Impedance
- Diode Stack Forward and Reverse Meggar Reading:  
Repeated to assure rectifier was not damaged during the insulation test
- Resistor Test
- Induced Potential and Spark Test
- Applied Potential Test
- Grounding Switch Resistance Test
- Completed unit is pressure tested at 8 psi for 6 hours
- Tank is subjected to a full vacuum during the core/coil processing and filling operation

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