TRYSTAR®

Series 30 DC Power Supplies

6 to 100 Volts 500 to 10,000 Amps

Reliable, Solid State Rectifiers Specifically Designed for Plating, Anodizing and Other Applications

15765 Acorn Trail / Faribault, MN 55021 / 507.333.3990

TRYSTAR.com

Reliable Solid State Power Supplies for:

- Plating
- Anodizing
- Electro-machining
- Testing
- Battery forming
- Electro-purification
- Electro-winning
- Electro-forming
- Electro-galvanizing
- Cathodic protection
- Dockside power

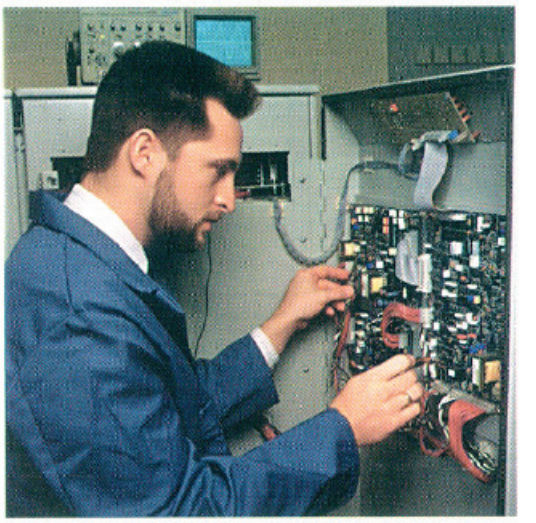
Features and Benefits

- All copper transformer construction
- Primary or secondary SCR control
- Remote control panel standard Highest efficiency
- Easy maintenance
- Maximum safety and reliability
- Customer support 24 hour hot line

Options (Partial list)

- Automatic Slope (Ramp) control
- Ripple filtering
- Digital ampere hour meter with or without automatic feeder
- Advanced diagnostics and communications available
- Digital meters
- Cycle timer
- Fault alarm
- Air filters
- Computer (PLC) interface to provide 0 to 10 volt or 4 to 20 ma signals for control and monitoring the DC output
- Special input voltages and frequencies available

Leadership and Value



CONTROLLED POWER COMPANY is a recognized leader in the D. C. Power Supply Industry. This leadership directly translates into added value for you.

CONTROLLED POWER, a pioneer in the field, has furnished power supply systems for 30 years. These systems range from single units to multiple units for large systems.

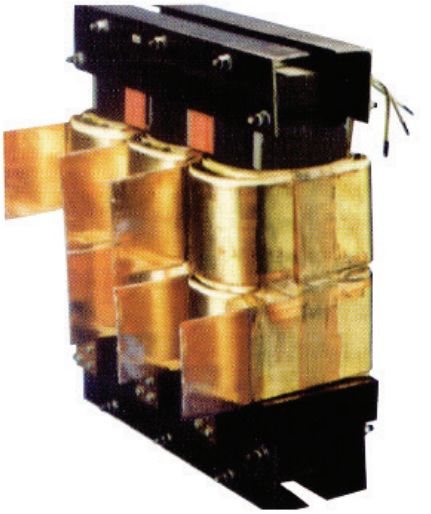
Our unique combination of vertically integrated engineering and manufacturing enable us to produce DC power supplies specifically designed for your needs and application.

Our leadership doesn't stop there. We know that customers have different requirements. That's why we offer both air and water cooled units along with a plentiful menu of options.

Power to Perform

Your business and profitability depends on your company's ability to perform. CONTROLLED POWER can help you maintain peak performance.

Call us today and let us analyze your power requirements. Our products already help many companies to realize important gains in performance, reliability and efficiency. We are confident that you too will benefit from DC power supplies manufactured by CONTROLLED POWER COMPANY.



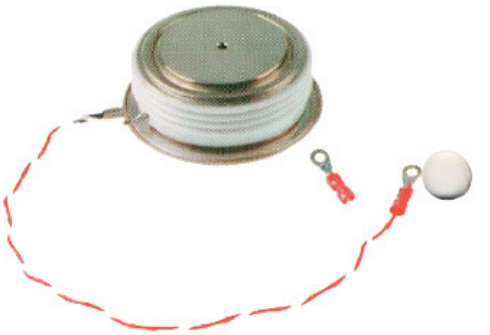
In-House Manufacturing

There are some responsibilities we just don't trust to others. That's why we computer design, manufacture and test our own power transformers before they are installed in the power supply. Our windings are the highest grade electrolytic copper. For added protection we use only Class H insulation although our transformers are designed to operate at more conservative temperatures. After the coils are mounted on a low loss. high grade silicon steel core, the transformers are pre-baked to eliminate moisture and then impregnated with Class H varnish and oven cured for 24 hours.

Integral Cabinetry

At CONTROLLED POWER we consider the cabinet as an integral component of our power supplies. Our cabinets are carefully designed for ruggedness, corrosion resistance and good looks. We use only top grade steel in our computer controlled manufacturing process. Each cabinet piece is phosphate coated and painted with a special acid-resistant paint in our own state of the art facility.

Electronic Controls



Solid State electronic controls provide the automatic control functions that are standard on each power supply. These controls are built to stringent CONTROLLED POWER standards. Each one is fully stress tested in our cycling oven to assure you of maximum control life and reliability.

Two control cards are mounted in the sealed control compartment away from heat and contaminants.

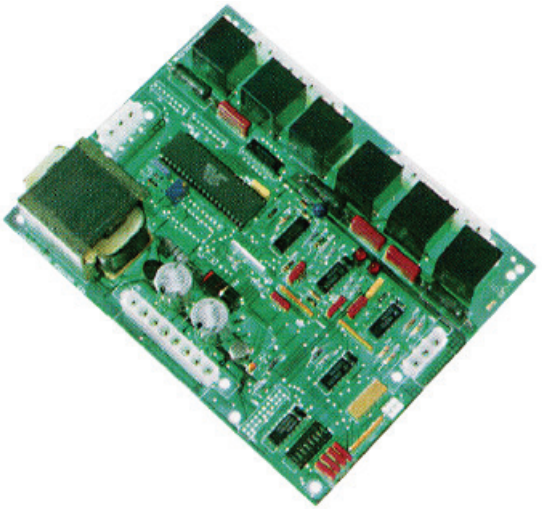
Water-cooled Units

Cooling radiators are physically isolated from electrical equipment and high voltage areas.

Transformers are convection cooled, not direct water-cooled, therefore cannot be stopped up by contaminants.

Built in Automatic Features

- Precision digital slope (ramp) capabilities
- Programmable soft start
- ± 0.5% automatic voltage & current
- control with automatic crossover
- Phase lock loop gating
- Remote sensing
- D. C. overload monitor with
- programmable auto retry on fault
- Electronic A. C. current overload
- and unbalance protection
- Quick harnesses that plug into
- Control cards
- Hybrid digital accuracy
- Large precision control knobs.
- Fully optically isolated from D.C. bus
- Separately derived signal ground



Extraordinary Support

When you buy a power supply form CONTROLLED POWER your getting the industry's best back-up service. Our nationwide customer support network gives you fast, expert help with any equipment problem. We also offer a variety of service plans to augment our warranty. We want to be sure that your CONTROLLED POWER system continuously helps your operation run smoothly and efficiently.

General Specifications For Series 30

- **STANDARD VOLTAGES:**

  6, 9, 12, 15, 18, 24, 30, 40, 50, 75, 100.

- **STANDARD CURRENTS:**

  500, 750, 1000, 1500, 2000, 3000, 4000, 5000, 6000, 8000, 10000.

- **REGULATION**

  Solid state regulation of the output power is accomplished by means of hermetically sealed thyristors (Silicon Controlled Rectifiers - SCR), a solid state device with extremely long life and high efficiency. Thyristor regulation provides full range control, with or without a load, affording maximum operating flexibility and minimum maintenance.

- **AUTOMATIC CONTROLS**

  + 0.5% automatic voltage control with current limit or ± 0.5% auto matic current control with voltage limit.

- **PROTECTIVE CIRCUITRY**

  A. C. Magnetic contactor with thermal overloads, Electronic Current Overload Protection and D. C. Retry Overload Protection.

- **CONTROL CENTER**

  Each unit will include a J.I.C. type NEMA 12 control center. The control center is fully gasketed and will contain the auto matic electronic controls, relays, main contactor and other components that are desirable to have in a sealed enclosure.

- **METERING**

  All meters have an accuracy of + 2% or better.

- **COOLING SYSTEM**

  Standard forced air cooled with maximum effective cooling. Optional water cooling is accomplished by direct water cooling of the semi conductor devices and an air over water heat exchanger for cooling the transformer.

- **GATING CIRCUITRY**

  SOFT START -

  The output voltage is ramped from zero to the set value in 300 mil liseconds to limit damaging current surges at start up.

  SYNCHRONIZATION -

  Fully synchronized gate circuitry utilizing Phase Lock Loop circuitry that eliminates gate mis-firing and insures that all phases are pres ent before gating commences.

- **TRANSFORMERS**

  All copper transformers utilize Nomex Class H insulation (220 degrees C). The primaries and core are separated by a solid

preformed, silicon impregnated Class H (Class 220) coil form to minimize the possibility of primary to core shorts.

- **OUTPUT BUS**

  The output bus is floating i.e. either terminal may be grounded.

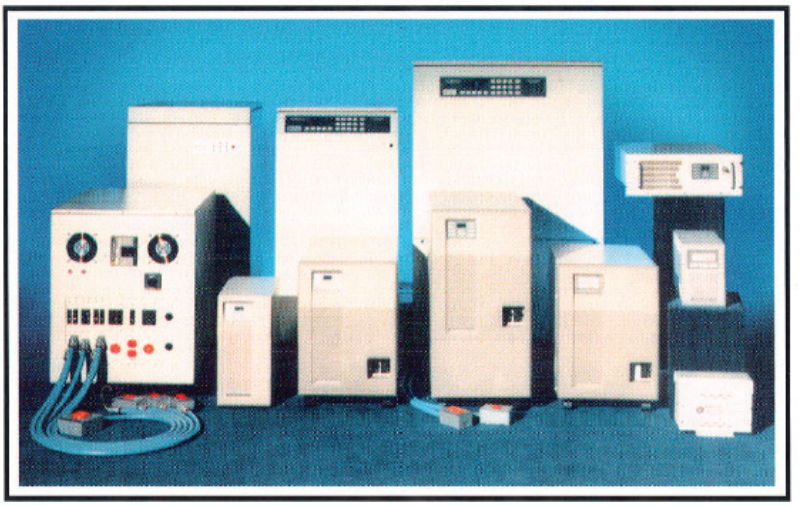
- **CABINET**

  Metals will be phosphate coated to prevent corrosion. The cabinet and supporting framework shall be coated with a baked-on epoxy acrylic coating designed to resist marring, scratching and corrosion.

Power Control Products from

SERIES 600
SERIES 200
Max-E-Isolation and Computer Grade Transformers

SERIES 700A
Power Line Conditioner with Power Distribution

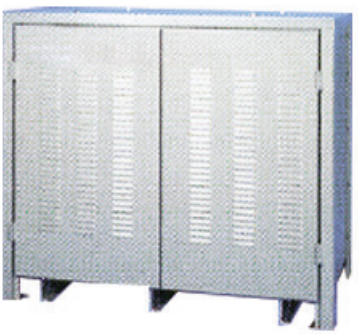


LT SERIES,
MD SERIES
and HV SERIES
Uninterruptible Power Systems

SERIES 800A
Power Purification Systems

LT SERIES,
MD SERIES
and HV SERIES
Uninterruptible Power Systems

SERIES 900A
Electronic Line
Voltage Regulator



SERIES
7000
Power
Distribution
Centers

CUSTOM
DESIGNED
EQUIPMENT

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