

DARRAH'S

Switchmode D.C. Power Supplies for Plating & Anodizing



DARRAH ELECTRIC COMPANY is pleased to introduce **Water Cooled Switchmode** D.C. Power Supplies for the Metal Finishing industry

Darrah's Switchmode Water Cooled Rectifiers offer a dependable compact design where **continuous duty** is required and the rectifiers are located near **corrosive atmospheres**.

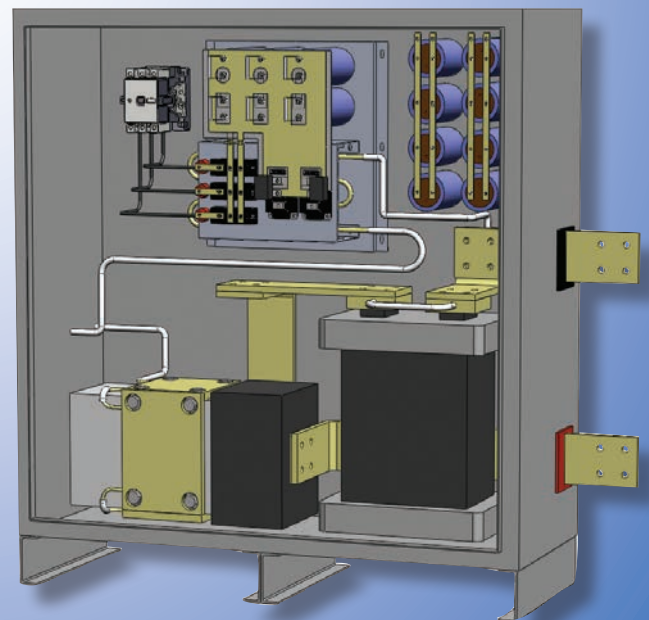
New models range in size from 1,000 through 10,000 Amp Continuous Output in all standard plating voltages.

Solid State IGBT Controlled Rectifiers feature independent voltage and current adjustments and provide \pm DC voltage regulation with current limit and \pm 1% DC current regulation with voltage limit.

Solid State Controlled Models can be connected to computers or process control systems. Rectifiers can be supplied to operate with inboard controls or from a remote controlled station. Standard models also include an adjustable D.C. output voltage ramp.

Features

- Reduced size and weight
- Low output ripple
- Continuous nameplate rating
- Improved power factor over conventional 60 hz models
- Available with or without D.C. Polarity Reversing
- Accepts all PLC Interfacing



Switchmode Power Supply Options

PLC Interfacing and Controlling

Darrah offers a four channel PLC interface, where two channels control the DC output current and voltage, and two monitor the current and voltage.

Use PLC controllers to :

- Start/stop the rectifier
- Initiate ramp cycles
- Operate timer cycles
- Program safety circuits and alarms

Digital LED Meters

.5" high display, available with NEMA rated clear sealed covers

Ampere Time Meters

Accurately record coating thickness over time and available in preset or totalizing counters

Batch or Cycle Timers

Unlimited number of uses available in seconds, minutes, or hours

Internal DC Polarity Reversing

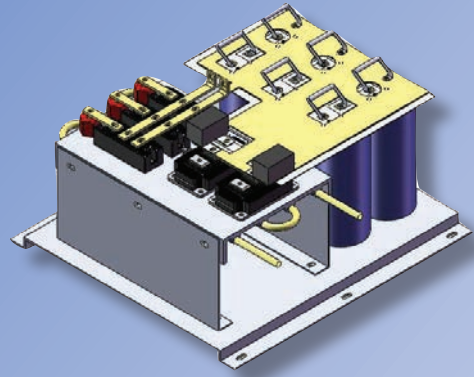
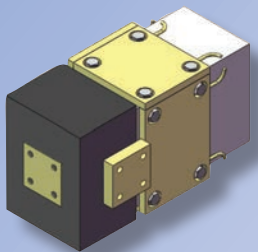
Manual, automatic, or PLC controlled

Adjustable DC Voltage Ramp Control

Repeatable accuracy in processes requiring a DC voltage rise over an adjustable time period

Custom Enclosures

Special enclosure shape or size and multiple independent units can be mounted in a single cabinet.



Standard Protection and Safety Circuits

- AC Line Fuses
- Start and stop control circuits stepped down to 115 volts, includes isolation transformer with primary and secondary fuses
- AC Line phase loss and phase imbalance protection
- AC Line Contactor
- Thermostats located in strategic areas as power transformer, SCR's, and diodes
- DC current and DC voltage limit controls
- Fast response electronic DC overload protection
- Water flow rate switch with indicating fault lights
- Timed controlled incoming water solenoid, shuts off water flow when rectifier is off

Input Line Requirements

208 through 600 volts, 3 phase, 50 or 60 hertz.

Duty Cycle

All models are designed to be operated at 100% nameplate rating continuously at 40°C maximum water temperature.

Power Transformer/Rectification

- Direct water cooled power transformer and diode assembly
- Fully encapsulated copper windings and coolers



DARRAH ELECTRIC COMPANY

5914 MERRILL AVENUE • CLEVELAND, OHIO 44102

Toll Free
800-621-0014

Cleveland
216-631-0912

Fax
216-631-0440

E-mail
decdarrah@earthlink.net

www.darrahelectric.com

