

# DARRAH'S

## MICROPROCESSOR CONTROLLED

## POWER SUPPLIES FOR PPG INDUSTRIES



Darrah Electric Company developed a Microprocessor Controlled Power Supply as a custom product for PPG laboratories. These power supplies offer **Repeatable Accuracy**, **Preset Recipes**, and **Remote Access Data Collection**. The power supplies come with a touchscreen HMI remote control.

### POWER SUPPLY FEATURES

- Standard Rating 0-10 Amp, 0-400 Volt
- Rack or Bench Mounting
- 20" W x 20" D x 10" H
- 135 pounds
- Built in DC Ground Fault Detector
- Low Ripple
- Single Phase Input
- Air Cooled



Microprocessor Controlled Power Supply

### REMOTE CONTROL FEATURES

The control will display and control:

- Start/Stop
- Show DC output current and voltage
- Show ampere time in seconds "Coulombs"
- Elapsed time
- Adjustable voltage ramps in time
- Indicator for ground fault trip

Control Presets:

- 18 Individual recipes
- DC output voltage
- Ramp time, seconds
- Ampere time limits
- Time limit, seconds



5.7" Color touchscreen control mounted in 10"W x 10"H x 5"D stainless steel tilt screen enclosure.

### Batch of Cycle Timer

Unlimited number of uses available in Seconds, Minutes, or Hours. The timer can be selected to shut off the Power Supply at the end of the timed cycle.

### Recipes

The recipe screen allows the selection of a preset recipe. This is available to allow repeat operations. The PLC can keep up to 18 individual recipes. Each recipe can be saved with a name or number. This insures easy repeatability.

### Voltage Profile

Four preset voltage values including individual ramp between values can be set for each recipe.

### Backlight Timer

The touchscreen backlight will time out after one hour of inactivity. To restart, simply touch the screen in any location.

### Coulomb/Ampere Second Meter

Darrah's Ampere Second Meters are predetermining time meters that can be selected to shut off the Power Supply at the end of the cycle. You can select either Coulomb/Ampere Seconds stop, Time stop, or Voltage Profile stop.



**Rack for 6 Power Supplies**

**4 Power Supplies Shown**

## SPECIFICATIONS:

<b>Model:</b>	10-400-480-1-SCR-PLC-PPG
<b>AC Input:</b>	480 Volts, Single Phase, 60 Hertz, 15 Amps AC
<b>DC Output:</b>	0-400 Volts, 10 Amps DC
<b>Weight:</b>	135 Pounds per Drawer

## POWER SUPPLY FEATURES

### PLC Darrah Custom Controller

Programs are stored in memory with battery back-up protection.

### Ethernet

Ethernet connections are to be made at the touch screen display (HMI). Results can easily be downloaded and exported into Microsoft Excel.

### Ripple

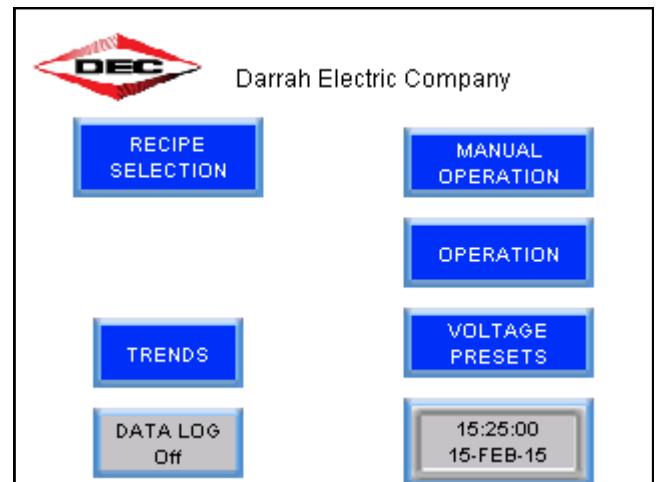
The power supply will have full choke and capacitor filtering. This configuration will limit the DC output ripple to maximum 3% at any load.

## PROTECTION AND SAFETY CIRCUITS

- DC Ground Fault Detector will shut the power supply off if either the positive or negative output comes in contact with ground.
- Fast acting electronic DC overload protection—Factory set to 110% of the max DC output current.
- AC Line Contactor
- All control wiring is stepped down to 115 volts for safety. This circuit has primary and secondary fuses.
- AC Line Input Fusing
- DC Output Contactors (Positive and Negative)



**LED indicator light for 30-1,000 volts DC, shipped separately for mounting at each station. This 30mm diameter voltage indicating light will turn on whenever 30 volts DC or higher is present.**



**Bulletin 8023**



## DARRAH ELECTRIC COMPANY

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