Spellman’s ESC Series of electrostatic chuck power supplies provide clean and accurate voltages required for electrostatic chuck wafer processing applications. These custom designed, well regulated supplies precisely secure the wafer during lengthy process cycles. Versions are available with a ground referenced reversible output in addition to units featuring a true floating bipolar output with associated floating center tap point. Comprehensive fault diagnostic circuitry monitors power supply functionality and communicates status data to the user interface. Spellman’s ESC Series power supplies are housed in compact, lightweight packages designed for OEM installations requiring minimal system footprint space.

**TYPICAL SPECIFICATIONS**

**ESC5PN25**

**Output Configuration:**
- Single ground referenced HV output, positive or negative polarity

**Input:**
- +24Vdc, ±5% @ 2 amps, maximum

**Output:**
- +2kV to -5kV, 2mA @ +2kV, 5mA @ -5kV

**Short Circuit Current Limit:**
- 5.5mA, maximum

**Output Isolation:**
- None, ground referenced output

**Slew Rate:**
- 80ms, typical

**Maximum Cycle Frequency:**
- 10 times per second

**Overshoot:**
- <10% of set point value

**Ripple:**
- 10Vrms

**Line Regulation:**
- ±0.7% over specified range

**Load Regulation:**
- ±0.7% over specified range

**Output Voltage Accuracy:**
- <2% of set point value between 50-5000Vdc

**ESC01.5PN7.5**

**Output Configuration:**
- Floating, reversible polarity bipolar output with floating center tap

**Input:**
- +24Vdc, ±10% @ 2 amps, maximum

**Output:**
- Bipolar, 0 to ±750Vdc (0 to 1500Vdc total) @ 5mA

**Short Circuit Current Limit:**
- 5.5mA, maximum

**Output Isolation:**
- Center tap is isolated for ±2kV from ground

**Slew Rate:**
- 40ms, typical

**Maximum Cycle Frequency:**
- 10 times per second

**Ripple:**
- 2.5Vrms

**Line Regulation:**
- ±0.7% over specified range

**Load Regulation:**
- ±0.7% over specified range

**Output Voltage Accuracy:**
- <1% of set point between 50-1500Vdc

**Program/Monitor Accuracy:**
- 1% of full scale, ±50mV

**Dimensions:**
- 9”W x 1.5”H x 6.1”L (228.6mm x 30.5mm x 155mm)

**Weight:**
- 4.5lbs. (2kg)