Spellman’s Bertan brand of 602C modular high voltage power supplies offer well regulated, fixed polarity outputs up to 20kV, that operate off a standard switch selectable 115/230Vac input. These fully enclosed modules are designed for bench top or OEM applications like spectrometers, detectors, imaging and electron beam usage.

The output voltage can be controlled by either a local internal potentiometer or by a customer provided ground referenced signal for remote operation. Additionally ground referenced output voltage and current monitor signals are provided. A high voltage enable signal input allows remote control of the supply.

**TYPICAL APPLICATIONS**
- Spectrometers
- Detectors

**SPECIFICATIONS**

**Input Voltage:**
- 115Vac, ±10%, 50/60 Hertz @ 0.5 amp
- 230Vac, ±10%, 50/60 Hertz @ 0.25 amp
Input voltage is fused and switch selectable

**Output Polarity:**
- Positive or negative, specify at time of order

**Output Voltage:**
- See “model ratings” table

**Output Current:**
- See “model ratings” table

**Voltage Regulation:**
- Line - ±0.001% of rated output voltage over specified input voltage range
- Load - ±0.002% of rated output voltage for a full load change

**Ripple:**
- See “model ratings” table

**Stability:**
- ≤0.01% per hour, after a 1/2 hour warm up

**Accuracy:**
- Local control ±0.2%
- Remote Programming ±(0.1% of setting + 0.1% of maximum)
- Voltage Monitor ±(0.1% of reading + 0.1% of maximum)
- Current Monitor ±(2% of reading + 1% of maximum)

**Temperature Coefficient:**
- ≤50ppm/°C

**Arc/Short Circuit:**
- All units are fully arc and short circuit protected and will limit continuous short circuit output current to less than 110% of maximum rated output current.

**Operating Temperature:**
- 0°C to +50°C

**Storage Temperature:**
- -40°C to +85°C

**Humidity:**
- 20% to 85% RH, non-condensing

**Interface Connector:**
- 9 pin Molex connector, mating connector and pins provided

**AC Input Line Connector:**
- 3 position terminal block

**Output Connector:**
- 10’ (3 meter) detachable HV cable is provided for units up to 5kV; 10kV through 20kV: 59” (1.5 meter) cable.

**Cooling:**
- Convection cooled.

**Dimensions:**
- 5.0”H X 3.1”W X 8.7”D (128mm x 78mm x 220mm)

**Weight:**
- ≤6.75 pounds (3.1kg)

**Regulatory Approvals:**
- Compliant to 2004/108/EC, the EMC Directive and 2006/95/EC, the Low Voltage Directive. UL/CUL recognized, File E137710.
### Model Ratings Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Ripple (Vpp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>602C-10PN</td>
<td>0 to 1kV</td>
<td>0 to 15mA</td>
<td>15mV</td>
</tr>
<tr>
<td>602C-15PN</td>
<td>0 to 1.5kV</td>
<td>0 to 10mA</td>
<td>15mV</td>
</tr>
<tr>
<td>602C-30PN</td>
<td>0 to 3kV</td>
<td>0 to 5mA</td>
<td>30mV</td>
</tr>
<tr>
<td>602C-50PN</td>
<td>0 to 5kV</td>
<td>0 to 2mA</td>
<td>50mV</td>
</tr>
<tr>
<td>602C-100PN</td>
<td>0 to 10kV</td>
<td>0 to 1mA</td>
<td>200mV</td>
</tr>
<tr>
<td>602C-150PN</td>
<td>0 to 15kV</td>
<td>0 to 0.6mA</td>
<td>450mV</td>
</tr>
<tr>
<td>602C-200PN</td>
<td>0 to 20kV</td>
<td>0 to 0.5mA</td>
<td>800mV</td>
</tr>
</tbody>
</table>

Specify “P” for positive polarity or “N” for negative polarity.

### Interface Connector-P2

<table>
<thead>
<tr>
<th>PIN</th>
<th>SIGNAL</th>
<th>SIGNAL PARAMETERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>n/c</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>n/c</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Signal Ground</td>
<td>Ground</td>
</tr>
<tr>
<td>4</td>
<td>Voltage Program</td>
<td>0 to 5Vdc = 0 to 100% rated output, 1MΩ Zin</td>
</tr>
<tr>
<td>5</td>
<td>+5.0Vdc Reference</td>
<td>+5.0Vdc, 10mA maximum</td>
</tr>
<tr>
<td>6</td>
<td>kV Monitor</td>
<td>0 to 5Vdc = 0 to 100% rated output, 10KΩ Zout</td>
</tr>
<tr>
<td>7</td>
<td>mA Monitor</td>
<td>0 to 5Vdc = 0 to 100% rated output, 10KΩ Zout</td>
</tr>
<tr>
<td>8</td>
<td>Trip Input</td>
<td>Connect to ground to trip unit off</td>
</tr>
<tr>
<td>9</td>
<td>Local Voltage Program</td>
<td>Internal program potentiometer wiper, 0 to 5Vdc</td>
</tr>
</tbody>
</table>

### AC Input Terminal Block

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>115/230 Vac Input</td>
</tr>
<tr>
<td>2</td>
<td>Neutral</td>
</tr>
<tr>
<td>3</td>
<td>Ground</td>
</tr>
</tbody>
</table>

---

DIMENSIONS: in.[mm]

**Top View**

**Bottom View**

**Front View**

**Rear View**