Spellman’s Bertan brand of 605C modular high voltage power supplies offer well regulated, fixed polarity outputs up to 20kV, which operate off a +28Vdc input (+24Vdc optional). 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:**
+28Vdc, ±10%, @ 0.75 amp
+24Vdc, ±10%, @ 1 amp (24V Option)

**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

**Output Connector:**
59” (1.5 meter) detachable HV cable is provided

**Cooling:**
Convection cooled

**Dimensions:**
5.0”H X 2.75”W X 4.75”D (128mm x 70mm x 121mm)

**Weight:**
≤3.2 pounds (1.45kg)

**Regulatory Approvals:**
Compliant to 2004/108/EC, the EMC Directive and 2006/95/EC, the Low Voltage Directive.

www.spellmanhv.com/manuals/600
### 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>605C-10PN</td>
<td>0 to 1kV</td>
<td>0 to 9mA</td>
<td>15mV</td>
</tr>
<tr>
<td>605C-15PN</td>
<td>0 to 1.5kV</td>
<td>0 to 6mA</td>
<td>15mV</td>
</tr>
<tr>
<td>605C-30PN</td>
<td>0 to 3kV</td>
<td>0 to 3mA</td>
<td>30mV</td>
</tr>
<tr>
<td>605C-50PN</td>
<td>0 to 5kV</td>
<td>0 to 1.5mA</td>
<td>50mV</td>
</tr>
<tr>
<td>605C-100PN</td>
<td>0 to 10kV</td>
<td>0 to 0.75mA</td>
<td>200mV</td>
</tr>
<tr>
<td>605C-150PN</td>
<td>0 to 15kV</td>
<td>0 to 0.4mA</td>
<td>450mV</td>
</tr>
<tr>
<td>605C-200PN</td>
<td>0 to 20kV</td>
<td>0 to 0.25mA</td>
<td>750mV</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>Power Ground</td>
<td>Power Ground</td>
</tr>
<tr>
<td>2</td>
<td>Power Input</td>
<td>+28Vdc Power Input (+24Vdc optional)</td>
</tr>
<tr>
<td>3</td>
<td>Signal Ground</td>
<td>Signal 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>

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**TOP VIEW**

**BOTTOM VIEW**

**FRONT VIEW**

**REAR VIEW**