



- **1-20KV @ 6-9 WATTS**
- **DC INPUT MODULAR POWER SUPPLY**
- **EXCELLENT REGULATION**
- **VERY LOW RIPPLE**
- **ARC/SHORT CIRCUIT PROTECTED**

[www.spellmanhv.com/manuals/600](http://www.spellmanhv.com/manuals/600)

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,  $\pm 10\%$ , @ 0.75 amp  
+24Vdc,  $\pm 10\%$ , @ 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:  $\pm 0.001\%$  of rated output voltage over specified input voltage range  
Load:  $\pm 0.002\%$  of rated output voltage for a full load change

#### Ripple:

See "model ratings" table

#### Stability:

$\leq 0.01\%$  per hour, after a 1/2 hour warm up

#### Accuracy:

Local control  $\pm 0.2\%$   
Remote Programming  $\pm (0.1\% \text{ of setting} + 0.1\% \text{ of maximum})$   
Voltage Monitor  $\pm (0.1\% \text{ of reading} + 0.1\% \text{ of maximum})$   
Current Monitor  $\pm (2\% \text{ of reading} + 1\% \text{ of maximum})$

#### Temperature Coefficient:

$\leq 50\text{ppm}/^\circ\text{C}$

#### 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:

$0^\circ\text{C}$  to  $+50^\circ\text{C}$

#### Storage Temperature:

$-40^\circ\text{C}$  to  $+85^\circ\text{C}$

#### 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:

$\leq 3.2$  pounds (1.45kg)

#### Regulatory Approvals:

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

**MODEL RATINGS TABLE**

Model	Output Voltage	Output Current	Ripple (Vpp)
605C-10P,N	0 to 1kV	0 to 9mA	15mV
605C-15P,N	0 to 1.5kV	0 to 6mA	15mV
605C-30P,N	0 to 3kV	0 to 3mA	30mV
605C-50P,N	0 to 5kV	0 to 1.5mA	50mV
605C-100P,N	0 to 10kV	0 to 0.75mA	200mV
605C-150P,N	0 to 15kV	0 to 0.4mA	450mV
605C-200P,N	0 to 20kV	0 to 0.25mA	750mV

Specify "P" for positive polarity or "N" for negative polarity

**INTERFACE CONNECTOR-P2**

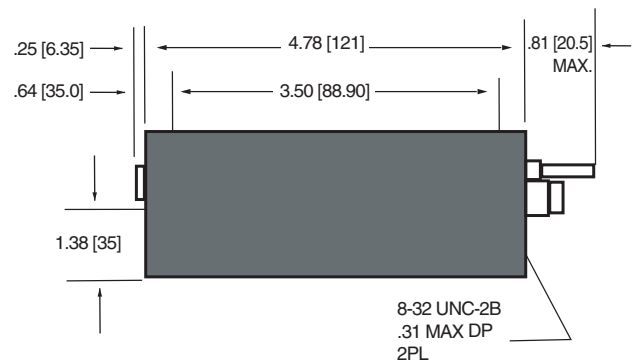
PIN	SIGNAL	SIGNAL PARAMETERS
1	Power Ground	Power Ground
2	Power Input	+28Vdc Power Input (+24Vdc optional)
3	Signal Ground	Signal Ground
4	Voltage Program	0 to 5Vdc = 0 to 100% rated output, 1MΩ Zin
5	+5.0Vdc Reference	+5.0Vdc, 10mA maximum
6	kV Monitor	0 to 5Vdc = 0 to 100% rated output, 10KΩ Zout
7	mA Monitor	0 to 5Vdc = 0 to 100% rated output, 10KΩ Zout
8	Trip Input	Connect to ground to trip unit off
9	Local Voltage Program	Internal program potentiometer wiper, 0 to 5Vdc

DIMENSIONS: in.[mm]

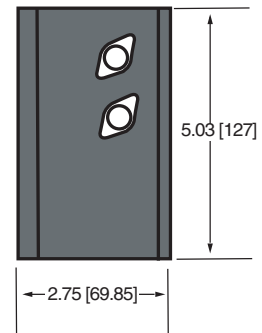
**TOP VIEW**



**BOTTOM VIEW**



**FRONT VIEW**



**REAR VIEW**

