- ***MODULAR BENCH TOP DESIGN***
- ***115/220 VAC SWITCHABLE***
- ***DIFFERENTIAL INPUT PROGRAMMING***

Spellman's Bertan brand of 825 Series high voltage power supplies provide well-regulated, fixed polarity outputs from 500 to 50kV that operate off a standard switch-selectable 115/230Vac input. The 825 Series is fully arc and short circuit protected. Excellent regulation specifications are featured along with outstanding stability performance.

TYPICAL APPLICATIONS

Projection Television
X-ray Systems
E-beam systems
Capacitor Charging systems
CPT/CRT testing

SPECIFICATIONS

Input Voltage:
90 - 135Vac, 50/60 Hertz @ 5 amps
185 - 265Vac, 50/60 Hertz @ 2.5 amps
Input voltage is switch selectable

Output Voltage:
See "model selection" table

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

Output Current:
See "model selection" table

Voltage Regulation:
Line: ±(0.01% of setting + 0.01% of maximum) for ±10% input line change.

Load: ±(0.02% of setting + 0.02% of maximum) for FL-NL and NL-FL change.

Current Regulation:
Line: ±(0.05% of setting + 0.05% of maximum) for ±10% input line change.rated full current.
Load: ±(0.1% of setting + 0.1% of maximum) for 0 to maximum rated output voltage change.

Ripple:
0.1% of setting + 0.1% of maximum, peak-to-peak.

Temperature Coefficient:
Constant voltage operation:
±(50ppm of setting + 50ppm of maximum)/°C
Constant current operation:
±(100ppm of setting + 100ppm of maximum)/°C

Stability: (1/2 hour warm up)
Constant voltage operation:
±(0.01% of setting + 0.01% of maximum)/hr.; ±(0.02% of setting + 0.02% of maximum)/8 hrs.
Constant current operation: ±(0.02% of setting + 0.02% of maximum)/hr.; ±(0.04% of setting + 0.04% of maximum)/8 hrs.

Internal Controls:
Independent precision multi-turn potentiometers for voltage and current control. The resolution of each control is 0.05% of maximum. The potentiometers are screwdriver-adjustable and easily accessed.

Remote Programming:
Two independent 0 to 5Vdc inputs for 0 to maximum voltage and current outputs. Accuracy is ±(0.2% of setting + 0.2% of maximum). The programming input impedance is greater than 1MΩ. The program inputs are differential; this feature provides user-defined program voltage polarity and eliminates ground loops.

Voltage Monitor:
0 to +5Vdc proportional to 0 to maximum output high voltage. Accuracy is ±(0.2% of reading + 0.2% of maximum). The monitor output impedance is 10kΩ ±1%.

Current Monitor:
0 to +5Vdc proportional to 0 to maximum output current. Accuracy is ±(0.5% of reading + 0.2% of maximum). The monitor output impedance is 10kΩ ±1%.

Enable:
TTL compatible. Remote "high" signal disables high voltage, remote low enables high voltage. The enable input must be pulled low to allow operation of high voltage regardless of whether supply is in local or remote mode.

Operating Temperature
0°C to +50°C

Storage Temperature:
-40°C to +85°C

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

Input Line Connector:
IEC320 EMI filter/input connector, a detachable line cord is provided

Interface Connector:
25 pin "D" connector, a mating connector is provided

Spellman High Voltage Electronics Corporation
Corporate Headquarters
Hauppauge, New York USA
+1-631-630-3000 FAX: +1-631-435-1620
e-mail: sales@spellmanhv.com
www.spellmanhv.com
128057-001 REV. C
Spellman High Voltage is an ISO 9001:2008 and ISO 14001:2004 registered company

Output Connector:
A detachable 10 foot (3 meter) HV cable is provided

Cooling:
Internal fan. Speed of fan is output power-dependent.

Dimensions
10.00″ W X 3.19″ H X 10.75″ D
(254mm X 81mm X 273mm)

Weight:
13 pounds (5.9kg)

MODEL SELECTION TABLE

825 Series	Voltage	Current	Ripple
825-0.5N/P	0 to 500V	0 to 400mA	1V
825-1N/P	0 to 1kV	0 to 200mA	2V
825-1.5N/P	0 to 1.5kV	0 to 133mA	3V
825-3N/P	0 to 3kV	0 to 66mA	6V
825-5N/P	0 to 5kV	0 to 40mA	10V
825-10N/P	0 to 10kV	0 to 20mA	20V
825-20N/P	0 to 20kV	0 to 10mA	40V
825-30N/P	0 to 30kV	0 to 6.6mA	60V
825-50N/P	0 to 50kV	0 to 4mA	100V

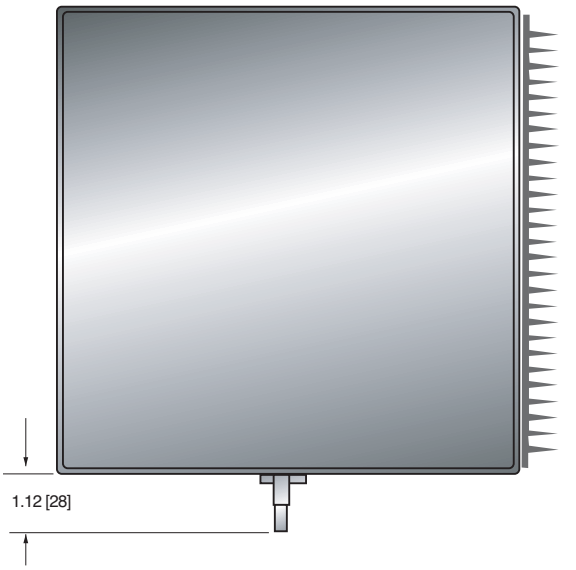
INTERFACE CONNECTOR

PIN	SIGNAL	PARAMETERS
1	Vout Program Input (+)	0 to +5Vdc differential between pin 1 and pin 2 = 0 to 100% of rated Vout
2	Vout Program Input (-)	0 to +5Vdc differential between pin 1 and pin 2 = 0 to 100% of rated Vout
3	Vout Program Output	0 to +5Vdc = 0 to 100% rated voltage
4	Vout Monitor	0 to +5Vdc = 0 to 100% rated voltage, Zout =10kΩ
5	Common (Vmon & Vref Return)	Ground
6	Vreference Output	+5.0VDC @ 10mA, maximum
7	NC	none
8	NC	none
9	NC	none
10	Logic Common	Ground
11	Enable Input	TTL “0” enables high voltage output, defaults to disabled status if left unconnected
12	Remote Enable Output	TTL “1” indicates high voltage is enable, TTL “0” indicates high voltage is disabled
13	V Mode and I/Mode Output	TTL “1” indicates voltage mode operation, TTL “0” indicates current mode operation,
14	Iout Program Input (+)	0 to +5Vdc differential between pin 14 and pin 15 = 0 to 100% of rated Iout
15	Iout Program Input (-)	0 to +5Vdc differential between pin 14 and pin 15 = 0 to 100% of rated Iout
16	Iout Program Output	0 to +5Vdc differential = 0 to 100% of rated current
17	Iout Monitor	0 to +5Vdc = 0 to 100% rated voltage, Zout =10kΩ
18	Iout Common (Iout Monitor Return)	Ground
19	Analog Common	Ground
20	NC	none
21	NC	none
22	NC	none
23	NC	none
24	Polarity Status POS/NEG	TTL “1” indicates positive output, TTL “0” indicates negative output
25	NC	none

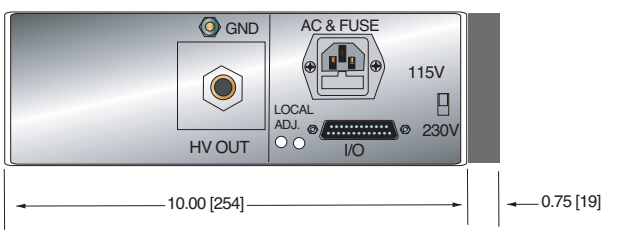
The ”/” in front of a parameter indicates the function is active when low.

DIMENSIONS: in.[mm]

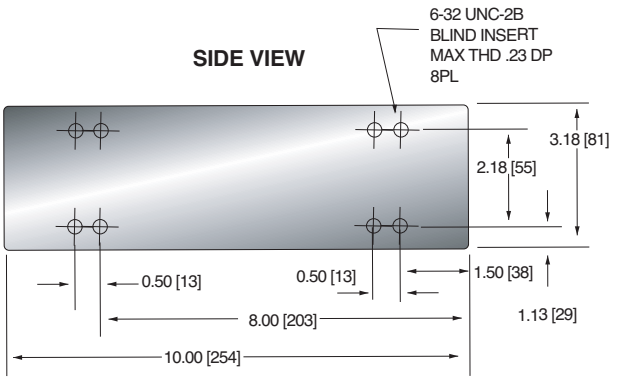
BOTTOM VIEW



FRONT VIEW



SIDE VIEW



CE
89/336/EEC
73/23/EEC