CZE1000R AUTO-REVERSING POWER SUPPLY

- ***IDEAL FOR ELECTROSPINNING***
- ***0-30KV LOCAL OR REMOTE PROGRAMMING***
- ***0-300µA LOCAL OR REMOTE PROGRAMMING***
- ***POLARITY REVERSIBLE UPON COMMAND IN <1 SEC AT NO LOAD***
- ***LOW STORED ENERGY, CURRENT LIMITED OUTPUT***
- ***FULL FEATURE FRONT PANEL, IDEAL FOR LABORATORY USEAGE***

www.spellmanhv.com/manuals/CZE1000R

Spellman's CZE1000R is a full feature rack mountable high voltage power supply ideal for laboratory usage. It's designed to meet the needs of applications requiring a hot switched reversible output voltage. The output polarity can be quickly and safely reversed via a front panel switch.

Both the output voltage and current are fully adjustable from 0 to 30kV and 0 to 300uA via front panel ten turn locking counting dials. Remote control operation is done by 0 to +10Vdc programming signals; either user generated or using the provided +10 Vdc reference and external potentiometers.

Front panel voltage and current meters provide local monitoring. Voltage and current test points are provided such that 0 to 10Vdc corresponds to 0 to 100% rated output.

A two position, normally closed, external interlock is provided for protection of external high voltage accessible areas. If the interlock is opened the high voltage will shut off and fall to zero in less than one second and not be able to be re-energized until the interlock is closed.

Excellent load and line regulation specifications along with outstanding stability and low ripple of the CZE1000R assure a stable high voltage output for consistent process results.

TYPICAL APPLICATIONS

Electrospinning
Mass Spectrometry
Capillary Electrophoresis
Electrostatic Research

OPTIONS

220 220Vac Input Voltage
RPO Rear Panel HV Output

SPECIFICATIONS

Input Voltage:
115Vac, ±10%, 50/60Hz

Input Current:
Less than 1 amp

Efficiency:
75% typical

Output Voltage:
0 to 30kV

Polarity:
Auto reversible via front panel switch

Output Current:
0 to 300µA

Power:
9 watts, maximum

Line Regulation:
0.01% for a 10% input voltage change

Load Regulation:
0.01% for a full load change

Ripple:
0.1% Vp-p

Stability:
0.02% per 8 hours (after 1/2 hr warmup)

NL Time Constant:
100ms

Stored Energy:
0.2 Joules at 30kV

Temperature Coefficient:
100ppm/°C

Operating Temperature:
0°C to 40°C

Storage Temperature:
-40°C to 85°C

Humidity:
10% to 85% RH, non condensing

Cooling:
Convection cooled

Dimensions:
5.25"H x 19"W x 17"D (13.3cm x 48.3cm x 43.2cm).

Weight:
22lbs. (10kg)

Interface Connector:
14 pin terminal block

AC Input Connector:
IEC320 connector with 6' (1.83m) cord

HV Output Connector:
Detachable 36˝ (0.91m) cable provided

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

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128075-001 REV. C

Spellman High Voltage is an ISO 9001:2008 and ISO 14001:2004 registered company

CZE1000R TERMINAL BLOCK 14 PIN

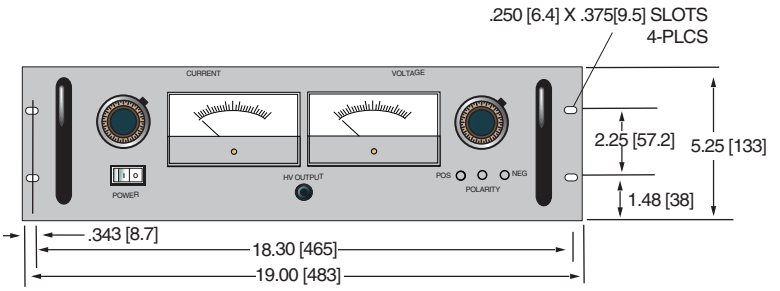
PIN	SIGNAL	PARAMETERS
1	+10Vdc Reference Output	+10Vdc, 4mA maximum
2	Internal Voltage Control	Front Panel Program Voltage (programming potentiometer)
3	Voltage Program Input	0 to 10Vdc = 0 to 100% rated output, Zin =10MΩ
4	Internal Current Control	Front Panel Current Control (programming potentiometer)
5	Current Program Input	0 to 10Vdc = 0 to 100% rated output, Zin =10MΩ
6	Signal Common	Ground
7	Voltage Test Point	0 to 10Vdc = 0 to 100% rated output, Zout =10kΩ, 1%
8	Current Test Point	0 to 10Vdc = 0 to 100% Rated Output, Zout =10kΩ, 1%
9	External Interlock Out	32Vdc @ 2 amps, max, (connect to pin 10 through safety switch)
10	External Interlock In	Return for interlock (connect to pin 9 through safety switch)
11	+10Vdc Reference Output	+10Vdc, 4mA maximum
12	Enable	Open or ground = HV OFF, >3.4Vdc (up to 15Vdc) = HV ON
13	Spare	No Connection
14	Spare	No Connection

Note:
The unit is shipped with the following pins jumpered for front panel operation: 2-3, 4-5, 9-10, 11-12 It is strongly recommended to remove the 9-10 jumper and use a high voltage safety interlock switch.

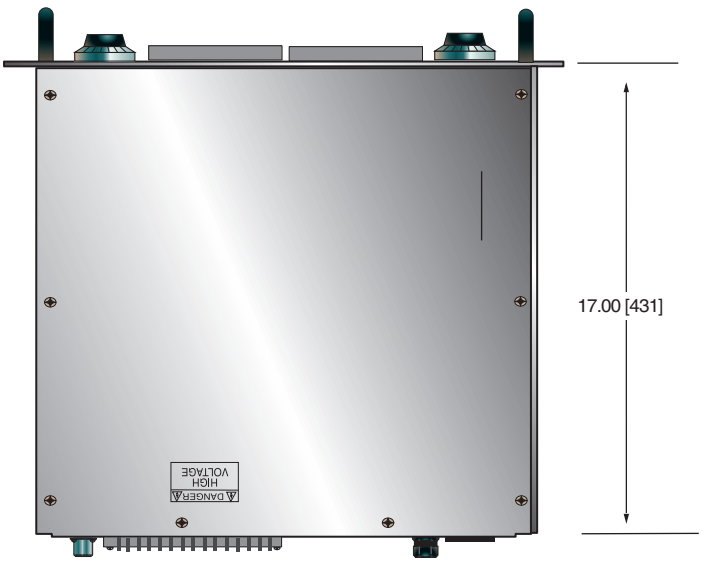
High Voltage Cable:
A mating high voltage connecter is provide with the unit. Have a spare on hand or replace broken/lost mating high voltage cables by ordering Spellman part number 105719-034

DIMENSIONS: in.[mm]

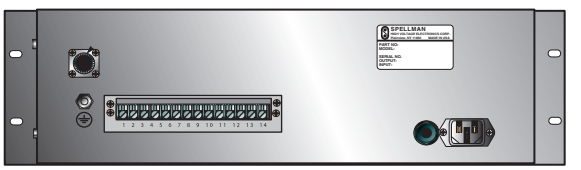
FRONT VIEW



TOP VIEW



BACK VIEW



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