



⚠ Not intended for new designs

- **COMPACT DESIGN AND LIGHTWEIGHT**
- **LOW COST PER WATT**
- **LOW EMI AND RFI**
- **CONSTANT VOLTAGE/CONSTANT CURRENT OPERATION WITH AUTOMATIC CROSSOVER**
- **ARC DETECT, ARC QUENCH AND ARC COUNT**
- **OEM CUSTOMIZATION AVAILABLE**

www.spellmanhv.com/manuals/SR

SR power supplies are available in 18 models with voltage outputs ranging from 1kV to 120kV. Similar to the SA power supplies, they incorporate series resonant inverter technology with a patented control circuit. This enables the supplies to operate without damage or interruption in rugged environments that frequently pose threats to conventional high voltage power supplies. In addition, the SR Series protects your load from excessive peak currents by instantaneously limiting the output current when an arcover condition is sensed. Parallel operation options to increase power and current capabilities are available for SR models with power outputs of 12kW, 18kW and higher.

TYPICAL APPLICATIONS

Sputtering	CW Lasers
Analytical X-ray	Ion Implantation
Electron Beam Systems	Capacitor Charging
Radar Modulators	

OPTIONS

200-1P	200Vac Single Phase Input
200-3P	200Vac Three Phase Input
220-1P	220Vac Single Phase Input
AOL	Adjustable Overload Trip
FG	Floating Ground
CPC	Constant Power Control
APT	Adjustable Power Trip
RMI	Remote Mode Indicators
ROA	Remote Overvoltage Adjust
NSS	No Slow Start
SS(x)	Nonstandard Slow Start
SL	Mounting Slides
BFP	Blank Front Panel
EFR	External Fault Relay

SPECIFICATIONS

Input:

208Vac±10%, 50 or 60Hz, three phase.

Output:

18 models from 1kV to 120kV. Each model is available with positive, negative or reversible polarity outputs.

Output Controls:

Voltage and current are continuously adjustable over entire range via ten-turn potentiometers with lockable counting dials.

Voltage Regulation:

Load: 0.005% of full voltage +500mV for full load change.
Line: ±0.005% of full voltage +500mV over specified input range.

Current Regulation:

Load: 0.05% of full current ±100µA for any voltage change.
Line: ±0.05% of full current over specified input range.

Ripple:

0.1% p-p +1Vrms for three phase models only.
0.1%rms +1Vrms for single phase models only.

Temperature Coefficient:

100ppm/°C. Higher Stability (50ppm/°C) available on special order.

Stability:

0.01%hr. after 1/2 hour warm-up, 0.02% per 8 hrs. (typical).

Operating Temperature:

0°C to +40°C

Storage Temperature:

-40°C to +85°C

Humidity:

10% to 90% RH, non-condensing

Metering:

Digital voltage and current meters, 1% accuracy.

System Status Display:

“Dead Front” type indicators provide status of up to 14 system operations including voltage and current regulation, fault conditions and circuit control.

Output Cable:

10 ft (3.05m) shielded high voltage cable, removable at rear panel.

Dimensions:

10¹/₂”(6U)H x 19”W x 19”D rack mount, 1kV to 60kV.
(26.7cm x 48.3cm x 48.3cm)
10¹/₂”(6U)H x 19”W x 24”D rack mount, 70kV to 120kV.
(26.7cm x 48.3cm x 61.0cm)

Regulatory Approvals:

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

SR SELECTION TABLE

MAXIMUM RATING		MODEL NUMBER
kV	mA	
1	6000	SR1PN6
2	3000	SR2PN6
3	2000	SR3PN6
6	1000	SR6PN6
8	750	SR8*6
10	600	SR10*6
12	500	SR12*6
15	400	SR15*6
20	300	SR20*6
30	200	SR30*6
40	150	SR40*6
50	120	SR50*6
60	100	SR60*6
70	85	SR70*6
80	75	SR80*6
100	60	SR100*6
110	55	SR110*6
120	50	SR120*6

*Specify "P" for positive, "N" for negative, or "PN" for reversible polarity. Higher voltage or intermediate voltage models available on special order. From 1kV to 6kV, reversible polarity is accomplished by changing a rear panel link. From 8kV to 120kV, polarity is reversed by exchanging internal high voltage assemblies.

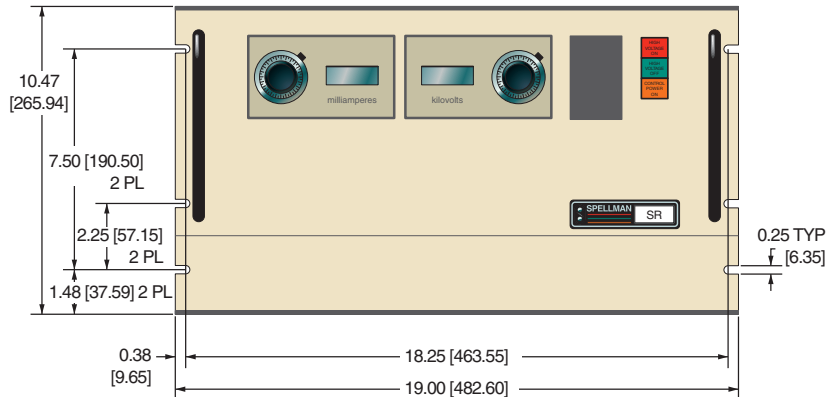
SR TERMINAL BLOCK 18 PIN

TB1	SIGNAL
1	P.S. Common
2	Inhibit
3	External Interlock In
4	External Interlock Out
5	mA Test point Out
6	kV Test point Out
7	+10Vdc Reference
8	mA Program In
9	Local mA Program Out
10	kV Program In
11	Local kV Program Out
12	Remote Pwr On In
13	Remote Pwr On Out
14	Remote HV Off
15	Remote HV Off/On Common
16	Remote HV On
17	HV Off Indicator
18	HV On Indicator

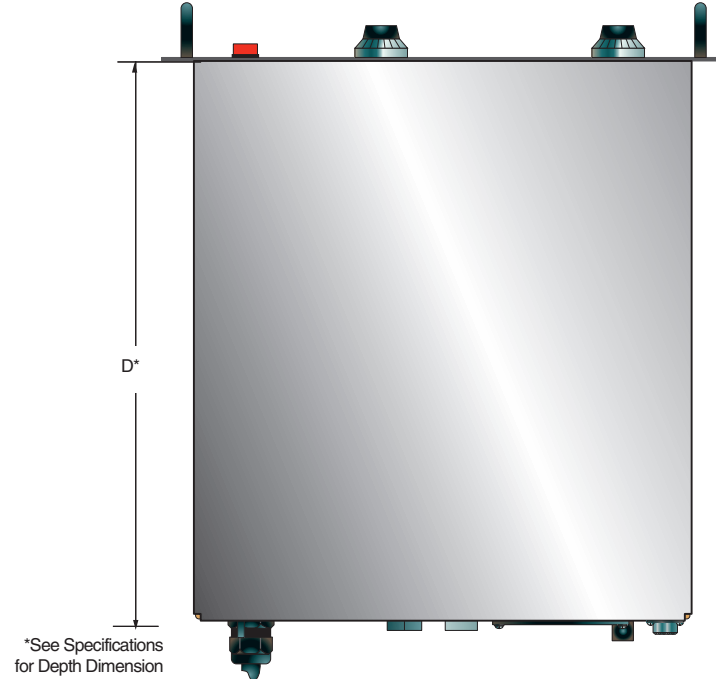


DIMENSIONS: in.,[mm]

FRONT VIEW



TOP VIEW



BACK VIEW

