

## DC High Voltage Generators 300W to 2kW SR Series

From 300V to over 200kV output voltage

**SR60kV-1.2kW**  
0 to 60kV, 0 to 20mA

*Non-contractual photo*



### Main information

- Compact & industrial design
- Double resonance technology (ZVC)
- Low stored energy
- High reliability & efficiency
- Voltage & Current outputs continuously adjustable from 0 to 100%
- Voltage setting limitation (locally)
- Voltage & Current Setting & monitoring from front panel or remote interface
- Customized Voltage & Current\* with no extra cost
- High precision regulation
- Total protection against arc, overload, short circuit & over temperature
- Automatic Regulation crossover
- Over current limitation
- Remote, inhibit & interlock functions
- 4 ½ digit display with polarity display
- Safety switch key
- Air cooling
- 2 years warranty

\* You can choose your own full scales ( $V_{max}$  and  $I_{max}$ ) even if these values are not available in standard.

For example, you can get a 3750 V generator based on 1.5 kW model. In this case, you will get an output voltage adjustable from 0 to 3750 V and an output current from 0 to 0.4 A.

### Description

The numerous advantages of compactness, robustness, reliability, and saving offered by the double resonance technology are already available on these models which constitute the low end range.

Four series of power are offered:  
300W, 600W, 1.2kW and 2kW.

These products are all based on 3U and 5U height 19" rack presentation.

Using a modular design, our products integrate the latest technology components.

Above 20KV, HV blocks are in resin.



## Electrical specifications

### Output Voltage and Output Current

Both Voltage Output and Current Output are continuously adjustable from 0 to 100% (full scale)

**Local mode:** by using 10 turn potentiometers resolution 0.05%

**Remote mode:** by external 0 to 10V

### Voltage regulation\*

**Load Regulation:**  $\pm 0.05\%$  of full voltage (for 0 – 100% load)  
 $\pm 0.01\%$  available on request

**Line Regulation:**  $\pm 0.05\%$  of full load (for Mains Voltage  $\pm 10\%$ )  
 $\pm 0.01\%$  available on request

### Current regulation\*

**Load Regulation:**  $\pm 0.05\%$  of full current (for 0 – 100% load)

**Line Regulation:**  $\pm 0.05\%$  of full load (for Mains Voltage  $\pm 10\%$ )

### Ripple + Noise

**0.1% RMS** of full voltage

### Settling time

**80ms typical for output voltage  $\leq 80kV^{**}$** , up to 10ms available on request\*

### Protections

Short circuit

HV arc to ground (Stop time of 100ms)

Shutdown on Over temperature

Open interlock

**Stored energy:** 1 J/ kW

### Stability (after one hour warm-up)

**0.01% / hour**, operating at constant load and constant ambient temperature

**Temperature Coefficient:** 100 ppm/°C

**Operating Temperature:** from 0 to 50°C

**Efficiency:** > 90% at full load

### Air Cooling by air :

Dust filter fans on front panel

Easily removable filters for cleaning

### Mains Voltage

**170V to 255VAC** 47-63Hz Single Phase + Earth

**Power Factor Correction Input:**  $\geq 0.98$

**Inrush current:** limited to full power operating current

**Calibration:** with probes periodically approved by Authorized Measurement Laboratories

### CE Certification

\* For fixed polarity

\*\* 300 ms typical for output voltage  $\geq 81kV$

## Options

- ✓ Other voltage and current values available with no extra cost
- ✓ Reversibility
- ✓ Floating outputs (unipolar or bipolar)
- ✓ Non instrumented front panel
- ✓ Power regulation
- ✓ Other settings for Arc protection
- ✓ Arc management
- ✓ RS232, Ethernet and Profibus interfaces
- ✓ Optical fibre transmission kit with RS232 or Ethernet
- ✓ LABVIEW run time for RS232 or Ethernet
- ✓ Relay interface 24V DC
- ✓ Isolated Remote interface
- ✓ Adaptation to Customer's remote interface
- ✓ Emergency stop switch
- ✓ Safety signs and devices alerting to hazard
- ✓ Industrial dust filters
- ✓ Multichannel control unit
- ✓ Zero floating
- ✓ Adjustable rise time
- ✓ Tropicalization
- ✓ Transportable "all terrain" container
- ✓ Specific AC or DC mains power inputs
- ✓ OEM Design on request
- ✓ Remote front panel

*Any special request can be considered*

Possible restrictions when multiple options are selected (please contact our sales department for more details)

## Physical description

Non-contractual photo



19" Rack	3U - 480 mm	3U - 600 mm	5U - 600 mm
Dimensions	H 133 x W 483 x D 480 mm	H 133 x W 483 x D 600 mm	H 222 x W 483 x D 600 mm

	SR 300W Series		SR 600W Series		SR 1.2KW Series		SR 2KW Series	
Voltage	Current	Model	Current	Model	Current	Model	Current	Model
700 V	429 mA	SR700V-300W	857 mA	SR700V-600W	1.71 A	SR700V-1.2KW	2.86 A	SR700V-2KW
1 kV	300 mA	SR1KV-300W	600 mA	SR1KV-600W	1.2 A	SR1KV-1.2KW	2 A	SR1KV-2KW
2.5 kV	120 mA	SR2.5KV-300W	240 mA	SR2.5KV-600W	480 mA	SR2.5KV-1.2KW	800 mA	SR2.5KV-2KW
5 kV	60 mA	SR5KV-300W	120 mA	SR5KV-600W	240 mA	SR5KV-1.2KW	400 mA	SR5KV-2KW
10 kV	30 mA	SR10KV-300W	60 mA	SR10KV-600W	120 mA	SR10KV-1.2KW	200 mA	SR10KV-2KW
15 kV	20 mA	SR15KV-300W	40 mA	SR15KV-600W	80 mA	SR15KV-1.2KW	CONTACT US	
20 kV	15 mA	SR20KV-300W	30 mA	SR20KV-600W	60 mA	SR20KV-1.2KW		
30 kV	10 mA	SR30KV-300W	20 mA	SR30KV-600W	40 mA	SR30KV-1.2KW		
40 kV	7.5 mA	SR40KV-300W	15 mA	SR40KV-600W	30 mA	SR40KV1.2KW		
50 kV	6 mA	SR50KV-300W	12 mA	SR50KV-600W	24 mA	SR50KV-1.2KW		
60 kV	5 mA	SR60KV-300W	10 mA	SR60KV-600W	20 mA	SR60KV-1.2KW		
80 kV	3.75 mA	SR80KV-300W	7.5 mA	SR80KV-600W	15 mA	SR80KV-1.2KW		
100 kV	3 mA	SR100KV-300W	6 mA	SR100KV-600W	12 mA	SR100KV-1.2KW		
120 kV	2.5 mA	SR120KV-300W	5 mA	SR120KV-600W	10 mA	SR120KV-1.2KW		
150 kV	2 mA	SR150KV-300W	4 mA	SR150KV-600W	8 mA	SR150KV-1.2KW		
200 kV	1.5 mA	SR200KV-300W	3 mA	SR200KV-600W	6 mA	SR200KV-1.2KW		
> 200 kV	CONTACT US							

Polarity can be positive, negative, reversible (option) or floating (option)  
Floating or reversibility options can modify the size of the unit

### Example of reference : SR 15KV- 300W

Mode : SR model (generator)  
Voltage : Adjustable from 0 to 15 kV  
Power : 300 W

HV connectors and cables available

All our generators are delivered with :

**HV output:**  
HV connector and 3 meters HV cable

**Mains input:**  
2 meters CE22 cable

