

## DC High Voltage Generators SR Series 15 kW to 40 kW + From 300 V to 150 kV output voltage



**SR 10KV-30KW**  
0 to 10 kV, 0 to 3 A  
*Non-contractual photo*



**SR 30KV-40KW**  
0 to 30 kV, 0 to 1.33 A  
*Non-contractual photo*

### Main information

- Compact & industrial design
- Low stored energy
- Low cost per Watt
- Voltage & current outputs continuously adjustable from 0 to 100%
- Voltage & current setting & monitoring from front panel or remote interface
- Customized voltage & current\* with no extra cost
- High reliability & efficiency
- High precision regulation
- Total protection against arc, overload, short circuit & over temperature
- Automatic regulation crossover
- Over current limitation
- Remote, inhibit & interlock functions
- 3 ½ digit display with polarity display
- Double resonance technology (ZVC)
- Safety switch key
- Air cooling with high reliability fans
- Fans regulations
- Up to 200 kW with Master / Slave architecture
- 2 years warranty

\*You can choose your own full scales (Vmax and Imax) even if these values are not available in standard.  
For example, you can get a 45 kV generator based on 60 kW model. In this case, you will get an output voltage adjustable from 0 to 45 kV and an output current from 0 to 1.33 A.

### Description

Double resonance technology operating at high frequency (40 kHz) improves reliability by a smooth switching of critical components

In addition, internal power dissipation, harmonics & ripples are significantly reduced.

Hence, our generators can intensively operate with no failure even in rugged environments. Many of them are used at full power 24 hours per day, 7 days per week.

Up to 200 kW with Master / Slave architecture.

Above 20KV, HV blocks are in oil.

With its low cost per Watt, this series is particularly well adapted in applications looking for high power and performance at competitive prices.



## Options

- ✓ Other voltage and current values available with no extra cost
- ✓ Reversibility and floating outputs
- ✓ Non instrumented front panel
- ✓ Power regulation
- ✓ Arc detection and counting
- ✓ RS232, GPIB, Ethernet and Profibus interfaces
- ✓ Optic fiber transmission kit with RS232
- ✓ LABVIEW run time RS232 or GPIB or Ethernet
- ✓ Relay interface 24V DC
- ✓ Insulated Remote interface
- ✓ Emergency stop switch
- ✓ Industrial dust filters
- ✓ Multichannel control unit : up to 6 generators
- ✓ Safety signs and devices alerting to hazard
- ✓ Adaptation Customer to remote interface
- ✓ 10ms settling time
- ✓ Zero floating
- ✓ Adjustable rise time
- ✓ Tropicalization
- ✓ Specific AC or DC mains power inputs
- ✓ OEM Design on request
- ✓ Remote front panel

*Any special requests can be considered*

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

## Electrical specifications

### Output Voltage and Output Current

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

**In local mode:** by using 10 turns potentiometers resolution 0.05%

**In remote mode:** by external 0 to 10 V

### 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:

**100 ms typical for output voltage  $\leq 100$  kV\*\***, 10 ms available on request

### Protections

Against short circuit & HV arc to ground  
Shutdown on Over temperature, & open interlock

### Stored energy: 1 J/ kW

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

**0.01 % / hour, 0.03 % / 8 hours** of operating with constant load and ambient temperature

### Temperature Coefficient: 100 ppm/°C

### Operating Temperature: from 0 to 40°C

### Efficiency: > 92 % full load

### Air Cooling by air :

Dust filter fans on front panel  
Easily removable filters for cleaning

### Mains Voltage

**400 VAC  $\pm 10\%$  47 – 63 Hz 3 Phases + Earth**

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

### 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  $\geq 120$  kV



## Physical description

Non-contractual photo



	5U – 19" Rack	7U–19" Rack	10 U – 19" Rack	19" Cabinet
<b>Dimensions</b>	H222xW483xD600 mm	H311xW483xD600 mm	H 444xW483xD600 mm	Height : from 12 to 42 HU Depth : 800 mm

Voltage	SR 15 kW Series		SR 20 kW Series		SR 30 kW Series		SR 40 kW Series	
	Current	Model	Current	Model	Current	Model	Current	Model
300 V	50.00 A	SR300V-15KW	66.67 A	SR300V-20KW	NOT AVAILABLE			
700 V	21.43 A	SR700V-15KW	28.57 A	SR700V-20KW	42.86 A	SR700V-30KW	57.14 A	SR700V-40KW
1 kV	15.00 A	SR1KV-15KW	20.00 A	SR1KV-20KW	30.00 A	SR1KV-30KW	40.00 A	SR1KV-40KW
2.5 kV	6.00 A	SR2.5KV-15KW	8.00 A	SR2.5KV-20KW	12.00 A	SR2.5KV-30KW	16.00 A	SR2.5KV-40KW
5 kV	3.00 A	SR5KV-15KW	4.00 A	SR5KV-20KW	6.00 A	SR5KV-30KW	8.00 A	SR5KV-40KW
10 kV	1.50 A	SR10KV-15KW	2.00 A	SR10KV-20KW	3.00 A	SR10KV-30KW	4.00 A	SR10KV-40KW
15 kV	1.00 A	SR15KV-15KW	1.33 A	SR15KV-20KW	2.00 A	SR15KV-30KW	2.67 A	SR15KV-40KW
20 kV	750 mA	SR20KV-15KW	1.00 A	SR20KV-20KW	1.50 A	SR20KV-30KW	2.00 A	SR20KV-40KW
30 kV	500 mA	SR30KV-15KW	667 mA	SR30KV-20KW	1.00 A	SR30KV-30KW	1.33 A	SR30KV-40KW
40 kV	375 mA	SR40KV-15KW	500 mA	SR40KV-20KW	750 mA	SR40KV-30KW	1.00 A	SR40KV-40KW
50 kV	300 mA	SR50KV-15KW	400 mA	SR50KV-20KW	600 mA	SR50KV-30KW	800mA	SR50KV-40KW
60 kV	250 mA	SR60KV-15KW	333 mA	SR60KV-20KW	500 mA	SR60KV-30KW	667 mA	SR60KV-40KW
80 kV	188 mA	SR80KV-15KW	250 mA	SR80KV-20KW	375 mA	SR80KV-30KW	500 mA	SR80KV-40KW
100 kV	150 mA	SR100KV-15KW	200 mA	SR100KV-20KW	300 mA	SR100KV-30KW	400 mA	SR100KV-40KW
120 kV	125 mA	SR120KV-15KW	167 mA	SR120KV-20KW				
150 kV	ON REQUEST							
200 kV	ON REQUEST							

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

**Higher Voltage:** Contact Us

**Example of reference : SR 15KV-40KW**

Mode : SR model (generator)  
 Voltage : Adjustable from 0 to 15 kV  
 Power : 40 kW

HV connectors and cables available



**All our generators are delivered with :**

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

**Mains input:**  
 400 VAC models: 4 terminal block connector

