

DC High Voltage Generators 10kW to over 40kW SR Series From 300V to over 200kV output voltage



SR 20KV-40KW
0 to 20 kV, 0 to 2A

Non-contractual photo



SR 1KV-40KW
0 to 1kV, 0 to 40A

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 setting limitation (locally)
- 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
- 4 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, 7days per week.

Up to 500 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.



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: > 92% at 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: ≥ 0.9 at full load

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



	5U – 19" Rack	7U–19" Rack	10 U – 19" Rack	19" Cabinet
Dimensions (HxWxD)	222x483x600 mm	311x483x600 mm	444x483x600 mm	Height : from 12 to 42 HU Depth : 800 mm

	SR 10 kW Series		SR 15 kW Series		SR 20 kW Series		SR 30 kW Series		SR 40 kW Series	
Voltage	Current	Model	Current	Model	Current	Model	Current	Model	Current	Model
300 V	33,33 A	SR300V-10KW	50.00 A	SR300V-15KW	66.67 A	SR300V-20KW	NOT AVAILABLE			
700 V	14,29 A	SR700V-10KW	21.43 A	SR700V-15KW	28.57 A	SR700V-20KW	42.86 A	SR700V-30KW	57.14 A	SR700V-40KW
1 kV	10,00 A	SR1KV-10KW	15.00 A	SR1KV-15KW	20.00 A	SR1KV-20KW	30.00 A	SR1KV-30KW	40.00 A	SR1KV-40KW
2.5 kV	4,00 A	SR2.5KV-10KW	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	2,00 A	SR5KV-10KW	3.00 A	SR5KV-15KW	4.00 A	SR5KV-20KW	6.00 A	SR5KV-30KW	8.00 A	SR5KV-40KW
10 kV	1,00 A	SR10KV-10KW	1.50 A	SR10KV-15KW	2.00 A	SR10KV-20KW	3.00 A	SR10KV-30KW	4.00 A	SR10KV-40KW
15 kV	667 mA	SR15KV-10KW	1.00 A	SR15KV-15KW	1.33 A	SR15KV-20KW	2.00 A	SR15KV-30KW	2.67 A	SR15KV-40KW
20 kV	500 mA	SR20KV-10KW	750 mA	SR20KV-15KW	1.00 A	SR20KV-20KW	1.50 A	SR20KV-30KW	2.00 A	SR20KV-40KW
30 kV	333 mA	SR30KV-10KW	500 mA	SR30KV-15KW	667 mA	SR30KV-20KW	1.00 A	SR30KV-30KW	1.33 A	SR30KV-40KW
40 kV	250 mA	SR40KV-10KW	375 mA	SR40KV-15KW	500 mA	SR40KV-20KW	750 mA	SR40KV-30KW	1.00 A	SR40KV-40KW
50 kV	200 mA	SR50KV-10KW	300 mA	SR50KV-15KW	400 mA	SR50KV-20KW	600 mA	SR50KV-30KW	800mA	SR50KV-40KW
60 kV	167 mA	SR60KV-10KW	250 mA	SR60KV-15KW	333 mA	SR60KV-20KW	500 mA	SR60KV-30KW	667 mA	SR60KV-40KW
80 kV	125 mA	SR80KV-10KW	188 mA	SR80KV-15KW	250 mA	SR80KV-20KW	375 mA	SR80KV-30KW	500 mA	SR80KV-40KW
100 kV	100 mA	SR100KV-10KW	150 mA	SR100KV-15KW	200 mA	SR100KV-20KW	300 mA	SR100KV-30KW	400 mA	SR100KV-40KW
120 kV	83.3 mA	SR120KV-10KW	125 mA	SR120KV-15KW	167 mA	SR120KV-20KW	CONTACT US			
150 kV	CONTACT US									
200 kV										
> 200 kV										

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-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:
4 pins feed-through terminal

