

DC High Voltage Generators 5 kW to 10 kW SR Series

From 300 V to 150 kV output voltage



SR 16KV-10KW
0 to 16 kV, 0 to 625 mA
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 on 10kW series
- 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 4.5kV generator based on 6 kW model.
In this case, you will get an output voltage adjustable from 0 to 4.5 kV and an output current from 0 to 1.33A.

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.

4 series of power are offered from 5kW to 10kW.

Above 20KV, HV blocks are in oil.

With its low cost per Watt, this series is particularly well adapted in applications looking for power and performance at affordable 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
- ✓ Transportable "all terrain" container
- ✓ 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: ± 0.05 % of full voltage (for 0 – 100% load)
 ± 0.01 % available on request

Line Regulation: ± 0.05 % of full load (for Mains Voltage ± 10 %)
 ± 0.01 % available on request

Current regulation*

Load Regulation: ± 0.05 % of full current (for 0 – 100 % load)

Line Regulation: ± 0.05 % of full load (for Mains Voltage ± 10 %)

Ripple + Noise :

0.1 % RMS of full voltage

Settling time:

100 ms typical for output voltage ≤ 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: ≥ 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 ≥ 120 kV



Physical description

Non-contractual photo



	5U – 19" Rack	7U–19" Rack	19" Cabinet
Dimensions	H222xW483xD480 mm or	H311xW483xD600 mm	Height : from 12 to 30 HU Depth : 800 mm
	H222xW483xD600 mm		

Voltage	SR 5 kW Series		SR 6 kW Series		SR 8 kW Series		SR 10 kW Series	
	Current	Model	Current	Model	Current	Model	Current	Model
300 V	16,67 A	SR300V-5KW	20,00 A	SR300V-6KW	26,67 A	SR300V-8KW	33,33 A	SR300V-10KW
700 V	7,14 A	SR700V-5KW	8,57 A	SR700V-6KW	11,43 A	SR700V-8KW	14,29 A	SR700V-10KW
1 KV	5,00 A	SR1KV-5KW	6,00 A	SR1KV-6KW	8,00 A	SR1KV-8KW	10,00 A	SR1KV-10KW
2.5 KV	2,00 A	SR2.5KV-5KW	2,40 A	SR2.5KV-6KW	3,20 A	SR2.5KV-8KW	4,00 A	SR2.5KV-10KW
5 KV	1,00 A	SR5KV-5KW	1,20 A	SR5KV-6KW	1,60 A	SR5KV-8KW	2,00 A	SR5KV-10KW
10 KV	500 mA	SR10KV-5KW	600 mA	SR10KV-6KW	800 mA	SR10KV-8KW	1,00 A	SR10KV-10KW
15 KV	333 mA	SR15KV-5KW	400 mA	SR15KV-6KW	533 mA	SR15KV-8KW	667 mA	SR15KV-10KW
20 KV	250 mA	SR20KV-5KW	300 mA	SR20KV-6KW	400 mA	SR20KV-8KW	500 mA	SR20KV-10KW
30 KV	167 mA	SR30KV-5KW	200 mA	SR30KV-6KW	267 mA	SR30KV-8KW	333 mA	SR30KV-10KW
40 KV	125 mA	SR40KV-5KW	150 mA	SR40KV-6KW	200 mA	SR40KV-8KW	250 mA	SR40KV-10KW
50 KV	100 mA	SR50KV-5KW	120 mA	SR50KV-6KW	160 mA	SR50KV-8KW	200 mA	SR50KV-10KW
60 KV	83.3 mA	SR60KV-5KW	100 mA	SR60KV-6KW	133 mA	SR60KV-8KW	167 mA	SR60KV-10KW
80 KV	62.5 mA	SR80KV-5KW	75 mA	SR80KV-6KW	100 mA	SR80KV-8KW	125 mA	SR80KV-10KW
100 KV	50 mA	SR100KV-5KW	60 mA	SR100KV-6KW	80 mA	SR100KV-8KW	100 mA	SR100KV-10KW
120 KV	40 mA	SR120KV-5KW	50 mA	SR120KV-6KW	66.7 mA	SR120KV-8KW	83.3 mA	SR120KV-10KW
150 kV	ON REQUEST						ON REQUEST	
200 kV	ON REQUEST						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 : SR40KV-6KW

Mode : SR model (generator)
Voltage : Adjustable from 0 to 40 kV
Power : 6 kW

All our generators are delivered with :

HV output:
HV connector and 3 meters HV cable

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

HV connectors and cables available

