

DC High Voltage Generators 300 W to 3 kW SR Series

From 300 V to 200 kV output voltage



SR20KV-1.2KW
0 to 20 kV, 1200W
Non-contractual photo

Main information

- Compact & industrial design
- Low stored energy
- 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
- 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 with the double resonance technology are already available on these models which constitute the low end range.

Five series of power are offered:
300W, 600W, 1,2kW, 1,5kW and 3kW.

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

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

Above 20KV, HV blocks are in resin.



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
- ✓ Adaptation Customer to remote interface
- ✓ Multichannel control unit
- ✓ 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 turn 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: > 90 % full load

Air Cooling by air :

Dust filter fans on front panel
Easily removable filters for cleaning

Mains Voltage

Up to 1,2 kW: 170 V to 255 VAC 47-63 Hz Single Phase + Earth

Power Factor Correction Input: ≥ 0.98

From 1,5 kW: 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



| | | | |
|------------|--------------------------|--------------------------|--------------------------|
| 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 |

| Voltage | SR 300W Series | | SR 600W Series | | SR 1.2 KW Series | | SR 1.5 KW Series | | SR 3 KW Series | |
|---------|----------------|--------------|----------------|--------------|------------------|---------------|------------------|---------------|----------------|-------------|
| | Current | Model | Current | Model | Current | Model | Current | Model | Current | Model |
| 300 V | NOT AVAILABLE | | | | | | 5.0 A | SR300V-1.5KW | 10.0 A | SR300V-3KW |
| 700 V | 429 mA | SR700V-300W | 857 mA | SR700V-600W | 1.71 A | SR700V-1.2KW | 2.14 A | SR700V-1.5KW | 4.29 A | SR700V-3KW |
| 1 KV | 300 mA | SR1KV-300W | 600 mA | SR1KV-600W | 1.2 A | SR1KV-1.2KW | 1.50 A | SR1KV-1.5KW | 3.00 A | SR1KV-3KW |
| 2.5 KV | 120 mA | SR2.5KV-300W | 240 mA | SR2.5KV-600W | 480 mA | SR2.5KV-1.2KW | 600 mA | SR2.5KV-1.5KW | 1.20 A | SR2.5KV-3KW |
| 5 KV | 60.0 mA | SR5KV-300W | 120 mA | SR5KV-600W | 240 mA | SR5KV-1.2KW | 300 mA | SR5KV-1.5KW | 600 mA | SR5KV-3KW |
| 10 KV | 30.0 mA | SR10KV-300W | 60.0 mA | SR10KV-600W | 120 mA | SR10KV-1.2KW | 150 mA | SR10KV-1.5KW | 300 mA | SR10KV-3KW |
| 15 KV | 20.0 mA | SR15KV-300W | 40.0 mA | SR15KV-600W | 80.0 mA | SR15KV-1.2KW | 100 mA | SR15KV-1.5KW | 200 mA | SR15KV-3KW |
| 20 KV | 15.0 mA | SR20KV-300W | 30.0 mA | SR20KV-600W | 60.0 mA | SR20KV-1.2KW | 75.0 mA | SR20KV-1.5KW | 150 mA | SR20KV-3KW |
| 30 KV | 10.0 mA | SR30KV-300W | 20.0 mA | SR30KV-600W | 40.0 mA | SR30KV-1.2KW | 50.0 mA | SR30KV-1.5KW | 100 mA | SR30KV-3KW |
| 40 KV | 7.50 mA | SR40KV-300W | 15.0 mA | SR40KV-600W | 30.0 mA | SR40KV1.2KW | 37.5 mA | SR40KV-1.5KW | NOT AVAILABLE | |
| 50 KV | 6.00 mA | SR50KV-300W | 12.0 mA | SR50KV-600W | 24.0 mA | SR50KV-1.2KW | 30.0 mA | SR50KV-1.5KW | | |
| 60 KV | 5.00 mA | SR60KV-300W | 10.0 mA | SR60KV-600W | 20.0 mA | SR60KV-1.2KW | 25.0 mA | SR60KV-1.5KW | | |
| 80 KV | 3.75 mA | SR80KV-300W | 7.50 mA | SR80KV-600W | 15.0 mA | SR80KV-1.2KW | 18.7 mA | SR80KV-1.5KW | | |
| 100 KV | 3.00 mA | SR100KV-300W | 6.00 mA | SR100KV-600W | 12.0 mA | SR100KV-1.2KW | ON REQUEST | | | |
| 120 KV | 2.50 mA | SR120KV-300W | 5.00 mA | SR120KV-600W | 10.0 mA | SR120KV-1.2KW | | | | |
| 150 KV | 2.00 mA | SR150KV-300W | 4.00 mA | SR150KV-600W | 8.0 mA | SR150KV-1.2KW | | | | |
| 200 KV | 1.50 mA | SR200KV-300W | 3.00 mA | SR200KV-600W | 6.0 mA | SR200KV-1.2KW | | | | |

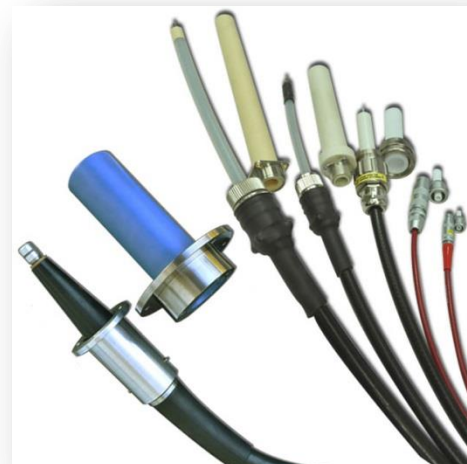
Polarity can be positive, negative, floating (option) or reversible (option)
 Floating or reversibility options can modify the size of the unit

Higher Voltage: Contact Us

Example of reference : SR 15KV- 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:
 230 VAC models: 2 meters CE22 cable
 400 VAC models: 4 pins terminal block connector

