

HIGH VOLTAGE GENERATORS 5 000-10 000 W Series



From 300V to 200 kV Output Voltage

- Compact design
- Customized V and C full scales* with no extracost
- Total protection against arcs, overloads and short circuits
- Remote, Inhibit & Interlock functions
- Voltage & Current Outputs continuously adjustable from 0 to full scale
- V & C Setting and Monitoring from front panel or REMOTE
- High precision regulation
- High reliability
- Double Resonance Technology (ZVC)
- Automatic crossover
- Over Current Limitation and Protection functions
- Polarity display
- Safety switch key
- Master-slaves architecture



* 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 45 000 V generator based on 6 000 W model. In this case, you will get an Output Voltage adjustable from 0 to 45 000 V and an Output Current from 0 to 133.3 mA.

Description

Double Resonance Technology is particularly well adapted for medium/high powers.

In combination with IGB Transistors, operating at high frequencies (50 kHz) provides significant improvements in terms of reliability and efficiency. Internal power dissipation, harmonics & ripple are highly reduced.

Four series of power are offered from 5000 W to 10000 W. This series of HV Power Supplies offers low stored energy suitable for many applications and supports with no problem short-circuits and arcs.

These generators are all based on a 19" rack or cabinet presentation with height depending on voltage and power proposed. An oil tank is integrated for the models from 20 kV and above.

Options

- Other Voltage and Current values available with no extracost*
- Reversibility and Floating outputs
- 4 1/2 digit display
- Non instrumented version
- Power regulation
- Arc Detection and counting
- RS232, GPIB and PROFIBUS interfaces
- Optic fibre transmission
- LABVIEW driver
- Relay interface
- Customer Remote Adaptation
- Single or multichannel consol unit
- Safety signs and devices alerting to Hazard
- Tropicalization
- Transportable "all terrain" container
- Specific AC or DC main power inputs
- OEM version

Any Special requests can be considered

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 an external 0 to 10 V Voltage
- Voltage regulation:**
Load Regulation: ± 0.05 % of full voltage (for 0 – 100 % load change); ± 0.01 % available on request.
Line Regulation: ± 0.05 % of full voltage (for Main Voltage +/- 10 %); ± 0.01 % available on request.
- Current regulation:**
Load Regulation: ± 0.05 % of full current (for 0 – 100 % load change)
Line Regulation: ± 0.05 % of full current (for Main Voltage +/- 10 %)
- Ripple + Noise:** 0.1 % p-p
- Settling Time:** < 100 ms typical, 10 ms available on request.
- Stability after one hour of 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
- Recovery Time After Arc:** < 1 mS
- Stored Energy:** 1J / kW
- Cooling by air:** Dust filter fans on front panel. Easily removable filters for cleaning.
- Main Voltage:** 400 VAC +/- 10 % 47 – 63 Hz 3 Phases + Earth
- Power factor:** > 0.98
- Calibration:**
 with probes periodically approved by Authorized Measurement Laboratories
- CE Marking**

Physical description



	5U - 19" Rack	7U - 19" Rack	19" Cabinet
Dimensions	H 222 x W 483 x D 480 mm H 222 x W 483 x D 600 mm	H 311 x W 483 x D 600 mm	Height: from 12 to 30 HU Depth: 600 mm

Voltage	SR 5 kW Series		SR 6 kW Series		SR 8 kW Series		SR 10 kW Series	
	A	Model	A	Model	A	Model	A	Model
300 V	16.67	SR0.3-X-5000	20.00	SR0.3-X-6000	26.67	SR0.3-X-8000	33.33	SR0.3-X-10000
700 V	7.14	SR0.7-X-5000	8.57	SR0.7-X-6000	11.43	SR0.7-X-8000	14.29	SR0.7-X-10000
1 KV	5.00	SR1-X-5000	6.00	SR1-X-6000	8.00	SR1-X-8000	10.00	SR1-X-10000
2.5 KV	2.00	SR2.5-X-5000	2.40	SR2.5-X-6000	3.20	SR2.5-X-8000	4.00	SR2.5-X-10000
5 KV	1.00	SR5-X-5000	1.20	SR5-X-6000	1.60	SR5-X-8000	2.00	SR5-X-10000
10 KV	0.50	SR10-X-5000	0.60	SR10-X-6000	0.80	SR10-X-8000	1.00	SR10-X-10000
15 KV	0.33	SR15-X-5000	0.40	SR15-X-6000	0.53	SR15-X-8000	0.67	SR15-X-10000
20 KV	0.25	SR20-X-5000	0.30	SR20-X-6000	0.40	SR20-X-8000	0.50	SR20-X-10000
30 KV	0.17	SR30-X-5000	0.20	SR30-X-6000	0.27	SR30-X-8000	0.33	SR30-X-10000
40 KV	0.13	SR40-X-5000	0.15	SR40-X-6000	0.20	SR40-X-8000	0.25	SR40-X-10000
50 KV	0.10	SR50-X-5000	0.12	SR50-X-6000	0.16	SR50-X-8000	0.20	SR50-X-10000
60 KV	0.08	SR60-X-5000	0.10	SR60-X-6000	0.13	SR60-X-8000	0.17	SR60-X-10000
80 KV	0.06	SR80-X-5000	0.08	SR80-X-6000	0.10	SR80-X-8000	0.13	SR80-X-10000
100 KV	0.05	SR100-X-5000	0.06	SR100-X-6000	0.08	SR100-X-8000	0.10	SR100-X-10000
120 KV	0.04	SR120-X-5000	0.05	SR120-X-6000	0.07	SR120-X-8000	0.08	SR120-X-10000
150 KV	0.03	SR150-X-5000	0.04	SR150-X-6000	0.05	SR150-X-8000	0.07	SR150-X-10000

Polarity: P - Positive, N - Negative, R - Reversible, F - Floating outputs.

Higher Voltages: please contact us.

Example of reference: SR-40-F-6000-NI

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Model	SR model (Supply Regulation)	
Voltage	Adjustable Voltage from 0 to 40 kVolts	
Polarity	Floating outputs	
Power	6 000 W power	
Option	NI Non instrumented	