

# 9010F

## R&D Generator



### The plasma power supply for research and development projects

With a tunable, reliable and stable high voltage, dielectric barrier discharge (DBD) processes can be simulated over long periods of time. Time dependent chemical processes in the gas phase as well as on the surfaces can be influenced by the selectable pulse operation, wide power spectrum and the tunable frequency matching. The unique analogue in- and outputs facilitate the coupling to existing lab environment and make time-resolved diagnostics possible. Process examples range from chemical gas conversion to physical deposition processes.

The SOFTAL 9000F generator represents the latest available technology for high voltage generators for a power range up to 1.0 kW.

### Product features

#### Full control over process parameters

Amplitude and frequency of the high voltage can be controlled independently of each other.

#### Switching operation mode

Optional parameters such as pulse width, pulse pause or treatment time can be turned on and off at any time.

#### Ease of operation

The TFT touch screen display allows changing the operating mode and adjustment of all parameters during operation.

#### Additional Inputs and Outputs

Simple coupling of the generator to an existing lab environment for synchronisation of diagnostics and system clock.

*Adhesion guaranteed!*

# Generator 9010F

## Technical features

- The output voltage is adjustable, measured and displayed.
- Optional automatic shut off in intervals of 1 s (1 – 500 s).
- Operation modes:
  - Power control (from 40 W onwards).
  - Output voltage control (high voltage) (from 1 kV onwards).
  - Frequency control and selectable DC link voltage (without limiting the minimum power).
  - Mode selection possible during operation.
- Pulse mode optionally selectable as required.
- Early detection and alarm of deviation from standard (voltage, current, temperature).
- Analogue interfaces for simple coupling of the generator to an existing lab environment for synchronisation of diagnostics and system clock.
- External high voltage output transformer for pre-determined specified load dependent resonant frequency. Suitable for installation close to the DBD-reactor (load).
- Information available on TFT display during operation: power, output voltage, DC link voltage, frequency, pulse, pause, shut off time, error messages.

## Options

- Switchable inductor for ease of matching.
- Additional high voltage transformers can be supplied to increase the range of the load-dependent resonant frequency.

## Technical data

<b>Power range</b>	0 – 1000 W
<b>Output signal</b>	Sinusoidal
<b>Output voltage</b>	60 kV <sub>pp</sub> maximum
<b>Output frequency</b>	10 – 150 kHz The frequency of the output signal is dependent on load, transformer and matching.
<b>Pulse mode</b>	Pulse and pause adjustable in steps of 1 ms (1 – 65000 ms)
<b>Mains voltage</b>	220 – 240V, 50/60 Hz single phase
<b>Dimensions (WxHxD)</b>	540 x 290 x 400 mm 19 inch housing
<b>Protection</b>	IP20
<b>Generator interfaces</b>	- digital interfaces for „Enable“ and „Interlock“ - 3x analog input (BNC) for external signals (control, synchronisation) - 3 x analog output (BNC) for synchronisation of diagnostics - digital output (24 VDC) for status / alarm message



SOFTAL Quality



Uninterrupted operation



Custom-engineered solutions