

9005F

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 9005F generator represents the latest available technology for high voltage generators for a power range up to 500 W.

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 9005F

Characteristics

- Control of the power directly by the primary voltage and applied frequency, alternatively via the measured secondary high voltage amplitude, or via the delivered power as in a normal corona process. These parameters are exactly set and regardless of change of temperature in reactor or transformer kept constant over any time period. Even sensitive test setups that can handle a few Watts or low Voltages only can be safely operated. Power range: 0 .. 500 W.
- Switchable choke coils for easy adjustment of the resonance frequency
- Analog inputs (BNC) for controlling all variables via analog voltages (0 .. 10 V).
- Analog outputs (BNC) for recording the process variables on your own oscilloscope.
- Active pulse function with specification of the length of pulse and pulse pause time directly set on the generators touch screen. The smallest selectable pulse length is a single sine wave.
- Passive pulse function by an external trigger. The generator adapts its switching on and off by an external system clock.
- In a burst mode, after an internal or external trigger signal the number of sine waves is triggered from the generator after which the generator waits again for the next trigger pulse (n = 1 .. 65000).
- Adjustable spark gap for safe operation and effective protection against overvoltage.

Options

- Switch box for switching the transformer tap for more flexibility when selecting the resonance frequency by changing the transmission ratio in the transformer
- Additional transformers

Technical data

Power range	0 – 500 W
Output signal	Sinusoidal 1 – 100 kHz The frequency and amplitude of the output voltage are dependent on load, transformer and matching, and limited by an adjustable spark gap at transformer output.
Mains voltage	220 – 240V, 50/60 Hz single phase
Dimensions (WxHxD)	540 x 290 x 400 mm 19 inch housing

Do you have a special project in mind? Contact us! We are happy to help with the implementation.



SOFTAL Quality



Uninterrupted operation



Custom-engineered solutions