Gambetti
Vacuum Technology
and Related Solutions

AC PLASMA SOURCE 50 KHZ

GGK-LF500.

The AC plasma source that replaces RF and high-voltage DC: a more stable discharge, no matching network, and significantly lower costs.

500 W	50 kHz	250–1500 Ω	~2 kg
Power at 50 kHz	Frequency, sinusoidal	Adjustable impedance	Weight, ultra-compact

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CE Marked

THE PLASMA SOURCE

The smart alternative to RF and high-voltage DC

The **GGK-LF500** is an AC plasma source that delivers **500 watts at 50 kHz** with a sinusoidal waveform, controllable via PC or PLC. A "black box" generator designed for those who want to manage the plasma power supply in a simple, direct and repeatable way.

In many applications the GGK-LF500 replaces radio frequency with **significantly lower costs** and fewer setup problems, and it is the ideal alternative to high-voltage DC sources in glow-discharge applications: the discharge is far more **stable**, with no formation of localised charges.

Thanks to its integrated measurement system and advanced digital control, it is the ideal choice for **dielectric-material sputtering** and for PECVD processes, in both research and production.

Panel with LED diagnostics: RF on/off, power limit, current limit, arc detected.

No matching network

Direct electrode connection: no matching network to tune.

Built-in measurement

RMS voltage, DC self bias and power available on the user port.

Active arc detection

Arc detection and quenching for a consistently clean discharge.

PC/PLC control

"Black box" generator with advanced, repeatable digital control.

WHY CHOOSE IT

All the benefits, no compromises

Full power, any impedance

The full 500 W is available across the entire impedance range with no transformer-tap adjustment. A single instrument covers different loads, from dielectric to conductive, with no manual intervention.

Total protection

Complete protection circuit against overtemperature and overvoltage, with output-power limiting. Production-grade reliability, day after day.

More stable. More affordable. Simpler.

MAIN APPLICATIONS

Where the GGK-LF500 works

- **Glow discharge** as a replacement for conventional DC generators.
- **PECVD deposition** with a stable, repeatable discharge.
- **Sputtering** of small cathodes and dielectric targets.
- **BIAS source** for ICP systems.
- **Cleaning and activation** of surfaces via plasma.
- **Production** of PVD and PECVD reactors, research and development.

FIELDS OF USE

PVD
PVD reactors

PECVD
Plasma-Enhanced CVD

ICP
Bias source

R&D
Research & development

TECHNICAL DATA

Specifications

DIMENSIONS

Footprint	340 D × 150 W × 120 H mm
Weight	about 2 kg

OUTPUT

Power	500 W at 50 kHz
Waveform	Sinusoidal
Impedance	250–1500 Ω
Full power	Over entire range

CONNECTION

Type	Direct to electrode
Matching network	Not required

MEASUREMENT SYSTEM

Built-in	Full and accurate
Readings	RMS V, DC self bias, power
Available on	User port

SAFETY

Arc detection	Active, with quenching
Protections	Overtemp., overvoltage
Output power	Active limiting

CONTROL

Interface	PC or PLC
Type	Advanced digital

COMPLIANCE

Certification	CE Marked

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The GGK-LF500 is manufactured by **G. Gambetti Kenologia Srl**, over 50 years of experience in vacuum technologies, process systems, surface analysis and characterisation.

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