Solid State Microwave Generator
for 1 kW, 2.45 GHz



GENERAL INFORMATION

The Solid State Microwave Generator for 1 kW is a high-performance solid-state microwave generator operating in the 2.4 GHz – 2.5 GHz frequency range, delivering 5 W to 1000 W of precisely controllable output power in 0.1 W increments. Designed for both industrial applications and laboratory use. The DLL and Sweep functions can be used in both continuous-wave (CW) and pulsed modes. The generator is protected against complete mismatch.

FEATURES

- Designed for industry heating, drying and plasma processes
- Frequency band 2400 MHz – 2500 MHz.
- Maximum 1 kW output power.
- 5 W – 1000 W setting range in 0.1 W steps.
- Flexible signal generator with CW or Pulse.
- Protected against total mismatch (isolator)
- High efficiency water cooling mechanical design.
- Interlock
- Knob switch to turn on the generator (lockable)
- Local or remote operation
- HF Output: WR340

SPECIFICATION

Electrical and Technical Data

Frequency band	2400 MHz - 2500 MHz
Input voltage	110 VAC to 240 VAC
Line Frequenzy	50 Hz
Power setting range	5 W - 1.000 W
	0.1 W-steps
Power consumption	3200 VA, single-phase

Mechanical Data

Rack Dimensions	19“ x 5 HE x 594 mm

Preliminary Data Sheet

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Optional Features

- Fast Pulse Mode (Pulse Duration = 1 µs) - Resolution: 10 ns

- Profinet Interface

- Process Data Monitoring / Data Logging via MQTT / OPC-UA (IEC 62541)

Gas Flow 1:
Gas Monitoring/Gas Adjustment: Gas 1 - Flow / Inlet Pressure Monitoring (internal / non-corrosive / dry) (Air / Ar / N2 / CO2) with influence on microwave interlock.
- 0 - 10 sl/min or 0 - 50 sl/min (the required range must be specified by the customer)
- Flow resolution: 0.1 l/min
- Pressure range: 0 – 6 bar
- Pressure resolution: 0.1 bar
- The data is displayed on the HMI and, depending on the selected option, can be read or set via Profinet / MQTT / OPC-UA (IEC 62541).

Gas Flow 2:
Gas Monitoring/Gas Adjustment: Gas 2 - Flow / Inlet Pressure Monitoring (internal / non-corrosive / dry) (Air / Ar / N2 / CO2) with influence on microwave interlock.
- 0 - 10 sl/min or 0 - 50 sl/min (the required range must be specified by the customer)
- Flow resolution: 0.1 l/min
- Pressure range: 0 – 6 bar
- Pressure resolution: 0.1 bar
- The data is displayed on the HMI and, depending on the selected option, can be read or set via Profinet / MQTT / OPC-UA (IEC 62541

- Remote Control via SCPI over USB
- Remote Control via SCPI over RS422

- It is possible to control separate/external MFCs (1 – 8 units), but this must be requested separately, as it affects the delivery time.

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