

# 915 MHz MICROWAVE GENERATOR

## MAXIMUM OUTPUT POWER 54 OR 72 OR 100 kW

Ref. GLP540 / GLP720 / GLP1000 KSM

MK146EN-A

SAIREM's GLP range of microwave generators provide continuous wave (CW) output power adjustable **from 5 to 54 kW or 5 to 72 kW or 5 to 100 kW.**

**High reliability** for your applications:

- **Stable** power output, even at low power
- Designed for long processes
- **Precise** frequency spectrum
- Low ripple
- Automatic Restart Function (ARF)
- **Air tight** design
- Extended magnetron lifetime

The GLP is a continuous wave microwave generator composed of a single cabinet with a switch mode power supplies and a magnetron. For a better efficiency, a PLC controller drives simultaneously the magnetron anodic power, electromagnet field and filament current.

The result is a very low power setting possibility (5 kW, lower setting power optional), maximum efficiency, reduced ripple and increased magnetron life time.

Full water cooling (no air cooling) to function in **dusty, wet, and warm environment.** Can be installed in closed space.



## MAIN APPLICATIONS

### INDUSTRIAL APPLICATIONS

- Industrial heating: liquids, essential oils, wood, rubbers, thermoplastics, biomass ...
- Industrial drying: ceramics, powders ...

### PLASMA APPLICATIONS

- Lab-grown mono and polycrystalline diamonds
- Various plasma generation applications: PECVD, gasification, gas abatement ...



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### KEY BENEFITS

#### COMPACT DESIGN

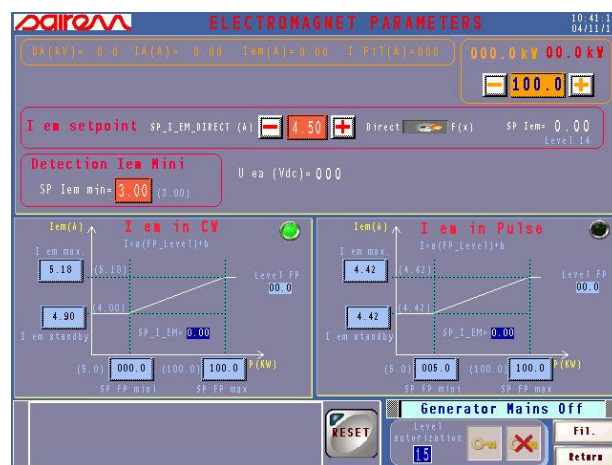
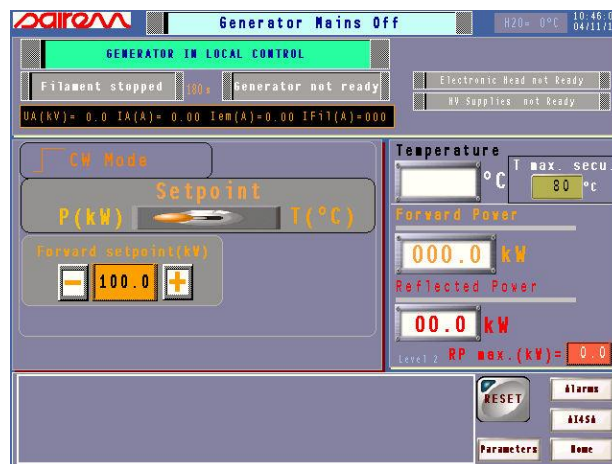
- All-in-one design: controls, power supply, microwave generator, isolator, in the same cabinet
- Stainless steel 304L, air-tight construction

#### HIGH RELIABILITY

- Switch mode allows to get a very precise control of the power
- Automatic Restart Function (ARF), in less than 100 ms, to avoid production stop or loss<sup>1</sup>
- Smart controls that allow maximum efficiency and extended magnetron lifetime
- IP54 protection for installation in wet environment

#### CONTROLS

- All operational parameters and faults are available on the color touch screen



<sup>1</sup> ARF for Magnetron default: arcing, voltage issue ...

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### KEY SPECIFICATIONS

Reference	GLP540KSM IP54	GLP720KSM IP54	GLP100KSM IP54
Output Power	Adjustable from 5 to 54 kW	Adjustable from 5 to 72 kW	Adjustable from 5 to 100 kW
Power Supply	Modular switch mode units		
Frequency	915 MHz $\pm$ 10 MHz or 896 MHz $\pm$ 10 MHz (to be specified) Central frequency is imposed by the magnetron		
HMI Display	7" colour touch screen, all controls & functions accessible, PRO-FACE PLC, fault history...		
Ripple (RMS)	2 % between 5 and 18 kW	2 % between 5 and 36 kW	2 % between 5 and 54 kW
Rise and fall times	10 s to full power in standard KSM (continuous wave) version		
Power Consumption	70 kVA at full power	95 kVA at full power	135 kVA at full power
Operating Mode	Continuous wave (KSM), Automatic Restart Function (ARF)		
Reflected power protection	Protection against 100 % RP		
Max. continuous reflected power	Integrated isolator, SWR = $\infty$ any phase, 25 kW RP (reflected power) by forward power limitation or stop by fault (software choice)	Integrated isolator, SWR = $\infty$ any phase, 30 kW RP (reflected power) by forward power limitation or stop by fault (software choice)	
Remote Control	Analog or Ethernet Modbus. Profibus and CanOpen optional		
Mains	380/415 V, 50 Hz or 60 Hz, 3 phases + ground		
Cooling & Operation Requirements	60 L/min @ 4 bars differential pressure (for max. 25 kW RP dissipated heat), water temperature (18 °C to 23 °C) monitored, each water flow circuit monitored, max. pressure 6 bars. Cooling capacity requirement at full power and maximum reflected power of 36 kW.	80 L/min @ 4 bars differential pressure (for max. 25 kW RP dissipated heat), water temperature (18 °C to 23 °C) monitored, each water flow circuit monitored, max. pressure 6 bars. Cooling capacity requirement at full power and maximum reflected power of 40 kW.	75 L/min to 130 L/min @ 4 bars differential pressure (for max. 25 kW RP dissipated heat), water temperature (18 °C to 23 °C) monitored, each water flow circuit monitored, max. pressure 6 bars. Cooling capacity requirement at full power and maximum reflected power of 50 kW.
Microwave Output	WR975, flange CPR 975		
Cabinet	Stainless steel 304L		
Dimensions	2078 x 1728 x 1134 mm (H x W x D)		
Weight	830 kg	870 kg	950 kg
Protection	IP54		
Safety	Interlock, safety relay, emergency stop, microwave leak detector (optional)		



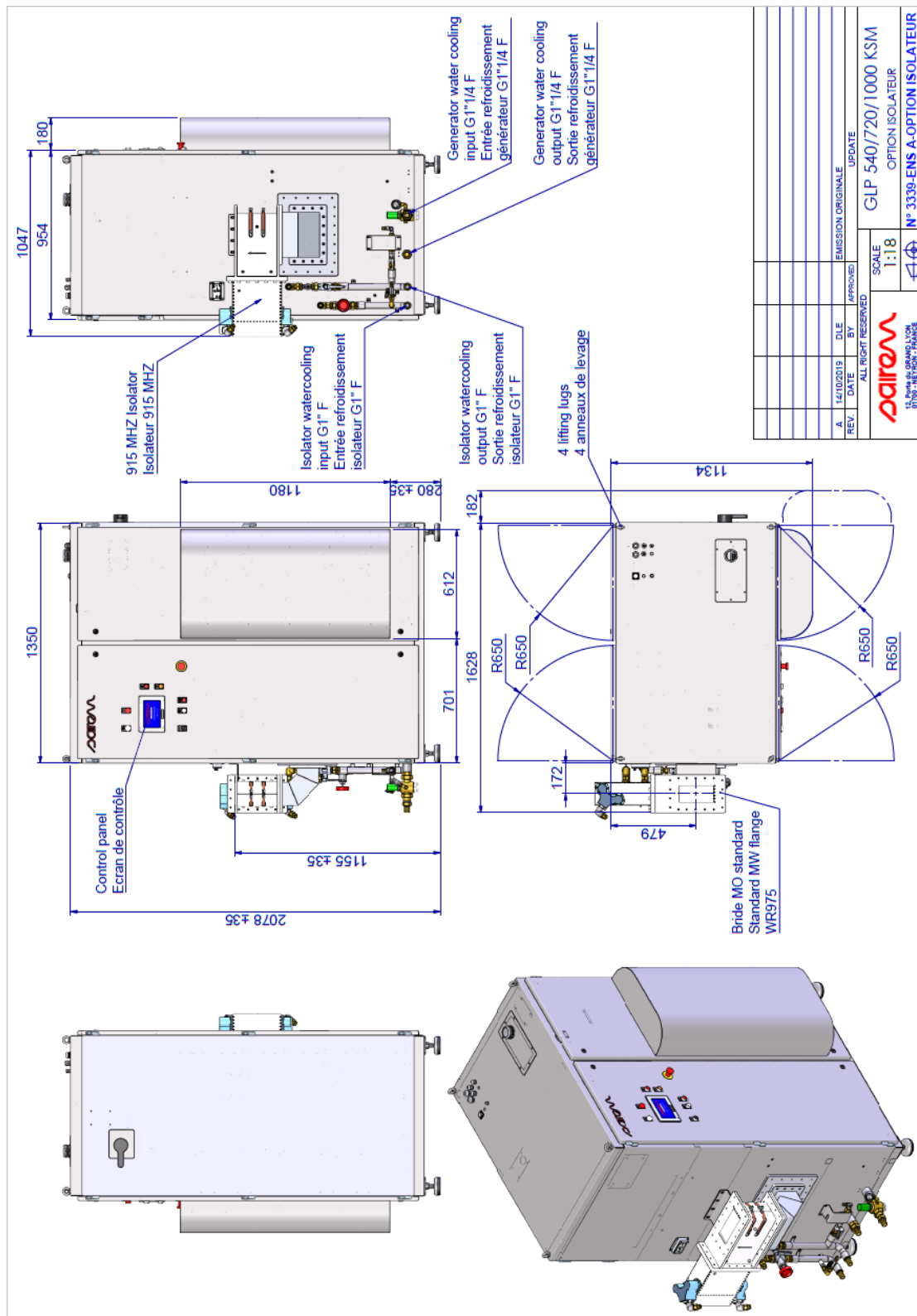
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