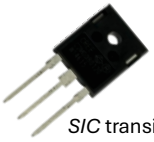


GP – IGBT Parallel type

INDUCTION GENERATOR for Heat treatment

30 Years of Expertise in Static Induction Heating Generators

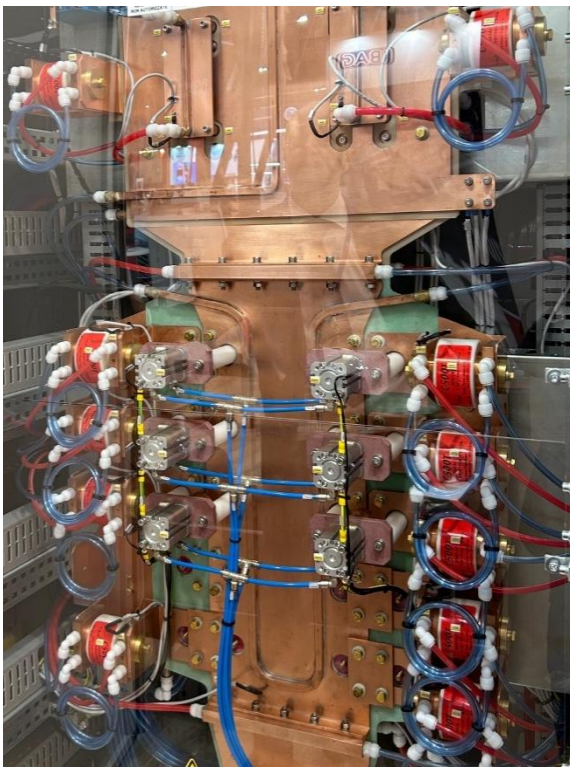
For nearly 30 years, our engineers have designed static induction heating generators, establishing us as a leading European specialist.
Based in Europe, we serve high-tech industries such as **Automotive, Aerospace, Defense, and top industries**.
We use the latest power semiconductors and optimise electronics, resonant circuits, and transistor types **(IGBT, Fast IGBT, or SiC**) for each application.



SIC transistor

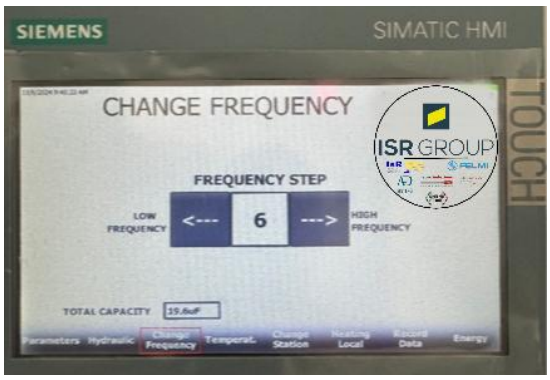


Programmable Operating Frequency



Our generators **adapt automatically across the full power range** and feature **standard full frequency programming**, enabling precise control of heat penetration.

Full Frequency programming is a standard across our entire converter ranges !



A Control System Designed for Performance and Maintenance

All our generators come standard with **2 control displays** for ease of use and full technical oversight.



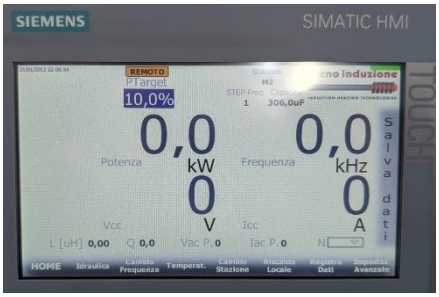
The main **colour touchscreen**, integrated with a Siemens PLC, allows intuitive operation, diagnostics, machine communication, and secure remote support.

The second in-house display, located on the main control board, **assists technicians** during maintenance for faster troubleshooting.

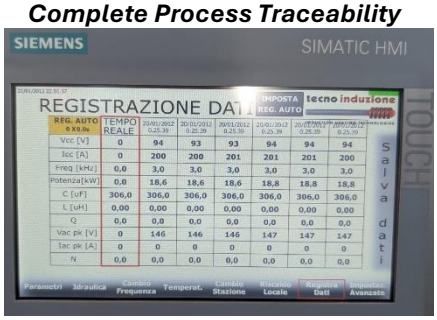
Together, the ultra-fast microcontroller and advanced electronics enable precise control and compatibility with **any transistor technology at any frequency**.

Advanced HMI Screen Example

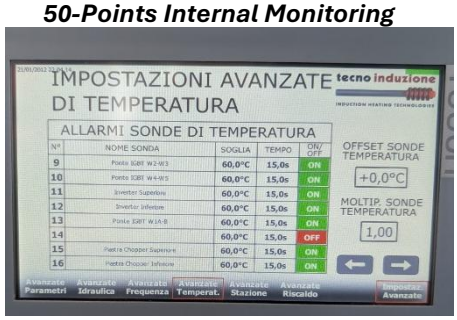
Main screen



Complete Process Traceability



50-Points Internal Monitoring



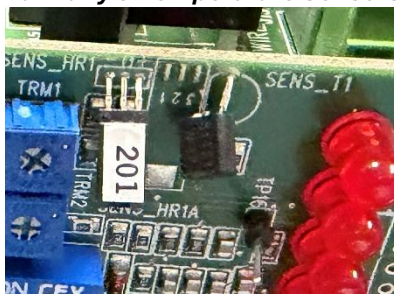
Advanced Technology for Maximum Productivity

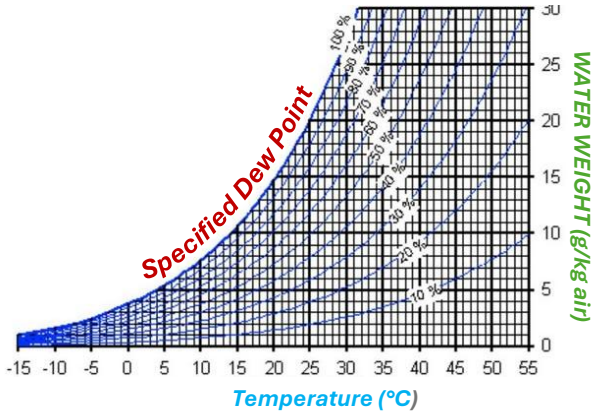
Our engineers have taken electronic monitoring to an exceptional level, ensuring **stable, safe, and continuous production**.



- Generators feature **real-time environmental and thermal monitoring**, including humidity, cooling water, and multiple key components, allowing potential issues to be detected before they affect production.
- Power contacts are **silver-coated** to reduce overheating and prevent electrical arcing, while tropicalized electronics ensure reliable operation even in **high-humidity environments**.
- The dew point is calculated in real time to alert the operator in case of condensation risk and potential internal short circuits.

Integrated
Humidity & Temperature Sensors





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GP and GP Fast (Parallel IGBT) – Low and Medium Frequency

Robustness and Versatility for Heat Treatment

These generators operate from 1 to 60 kHz, ideal for applications needing **deep or medium heat penetration** and controlled energy transfer.

They allow direct part-to-inductor contact safely, thanks to **reinforced transformer insulation** and controlled output voltage.

Careful selection of transformation ratios and capacitor combinations ensures optimal process adaptation.

This design delivers a wide operating range, offering flexibility, stability, and reliable performance in demanding industrial environments.

Efficiency 94-96%

GP	50	60	100	150	200	250	300	400	600
LOAD									
Power (kW)	**50**	**60**	**100**	**150**	**200**	**250**	**300**	**400**	**600**
Power range adjustment (%)	1-100								
Frequence range (kHz)*	**1 - 40**								
Rated MF voltage (V)	600								
Cos Φ	085-0,95								
POWER SUPPLY SPEC.									
Main voltage (V)	400+/- 10% 3ph+ Protective Earth								
Main frequency (Hz)	50/60								
Power Supply (kVA)	62	75	125	188	250	313	375	500	750
CABINET									
Protection level	IP 54								
Length (mm)	1000		1400		2000				
Depth (mm)	1000								
Height (mm)	2400								
Weight (kg)	700		1000	1200	1300			1800	
COOLING									
water quality	Demineralized water, max. conductivity 100 µS/cm								
Pressure (bar)	04 - 05								
MAX Inlet W. Temperature (°C)	27								
MIN Inlet W. temperature (°C)	20								
ΔT heating (°C)	0,8	1	1	1,1	1,25	1,4	1,4	1,3	1,5
Water flowrate (l/min)	50	50	70	100	120	140	170	250	250

Efficiency 90-93%

GP (FAST)	100	150
LOAD		
Power (kW)	**100**	**150**
Power range adjustment (%)	1-100	
Frequence range (kHz)*	**20-60**	
Rated MF voltage (V)	600	
Cos Φ	0,85-0,95	
POWER SUPPLY SPECIFICATION		
Main voltage (V)	400+/- 10% 3ph+ Protective Earth	
Main frequency (Hz)		
Power Supply (kVA)	127	190
CABINET		
Protection level	IP 54	
Length (mm)	2000	
Depth (mm)	1000	
Height (mm)	2400	
Weight (kg)	1100	1200
COOLING		
water quality	Demineralized water, max. conductivity 100 µS/cm	
Pressure (bar)	04 - 05	
MAX Inlet water temperature (°C)	27	
Min Inlet Water temperature (°C)	20	
ΔT heating (°C)	1,5	1,25
Water flowrate (l/min)	100	120

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Choose ISR Group Generators – choose reliability.

- Robustness and production tools that are always available.
- Flawless manufacturing quality.
- Assurance of uninterrupted production.
- Technical support from Europe and Asia, whether for process development, production tooling, or on-site service.

Our electronics take you further – powering your production with precision and confidence.

ISR GROUP

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