EGMA
Series

FELMI
www.felmi.it

EGMA Series is a range of state of the art "Solid State" Induction Heating Generators which grants reliability, safety and repeatability to your heating process.

EGMA is the result of long experience in the field, reached thanks to many years of Felmi's dedication to the Induction Heating application and to its continuous R&D activity.

Superb performances with compact overall dimensions are the distinctive characteristics of these devices. If your production process requires a 6 to 30 kW Power and a 10 to 300 kHz Frequency, **EGMA** is the most suitable solution at the best "quality/price" ratio.

This range of Induction Generators, as well as all the others induction ovens, has to be chilled by means of water. Meeting this need can very often be difficult for the end user since water is not always available in the production factories.

To eliminate this problem, **FELMI** produces the **EGMA R** series equipped with an integrated autonomous chiller, this version does NOT require external water but has an internal tank, in addition to filling the latter, the user only has to supply electricity.

BENEFITS AND ADVANTAGES

The circuits' characteristics of EGMA Generators grant the following advantages:

PROCESS REPEATABILITY
The FELMI generators have an output voltage control system with a "loop" system which, cycle by cycle, guarantees total repeatability of the heating process.

HIGH RELIABILITY
Reliability of different models is the result of a careful design which allows the different power components not to be stressed.

This also thanks to the fitted intrinsic safeties that protect the Generator in case of unexpected situation such as casual openings of the inductor, power supply drops, etc.

OPERATOR'S FRIENDLY EQUIPMENT, "AUTOTUNING"
An automatic "tuning system" of the resonance frequency, so called "Auto Tuning" allows the operator to use different shaped inductors (therefore inductors with different inductance values) without any need of setting or calibrating the device. The Generator itself sets automatically.

ENERGY SAVING / POWER
Transistors technology grants a 95% power output of the inductor compared to the 65% power output of the old style Triodes generators.

MAIN APPLICATIONS

Here below list of Main Applications where use of EGMA is suitable:

- Welding - Brazing
- Surface hardening/tempering
- Hot moulding
- Invigorating
- Keying
- Rod continuous heating
- Electric cables production
- Deformation
- Pipes folding
- Stretching

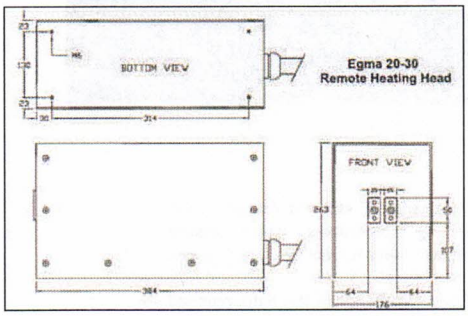
CONTROL PANEL

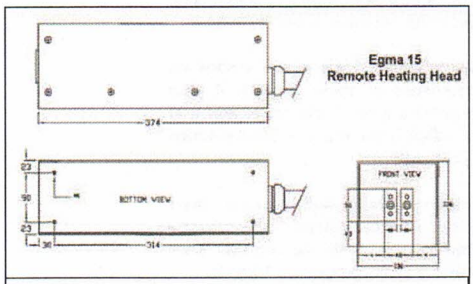
EGMA Generators are equipped with latest technology Control and Visualization Panel. Thanks to the two Microprocessors fitted onto the machine, all operational parameters can be displayed on the control panel and heating length of time can be set with a 0,1 sec. accuracy. Working settings and threshold safety values can be displayed as well. EGMA Generators can operate in the following different modes:

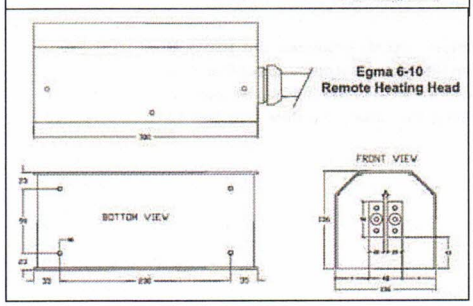
- Process Control
- Continuous mode
- Timing mode

FELMI is one of mains important manufacturer of solid state RF power supplies for induction heating application, produces a wide range of models to cover a broad spectrum of application. With deliverable power ranging from 6 KW to 120 KW and frequency coverage from 10 kHz to 300 kHz.

HEATING HEAD DIMENSIONS







EGMA line power supplies, provide safe, reliable and repeatable power for precision induction heating application.

If your heating process requires up to 30 KW of power and frequency from 50 to 300 kHz, ***EGMA*** is best low-cost solution .

EGMA series line of RF power supplies includes 6 different models: 6-10-15-20-25-30

Flexible Remote Heating Head

To increase operator workspace on the production fllor and provide maximum flexibility, each Unit has got a Remote Heating Head very small and light, which may be located up to 10 mt (standard is 5 mt) from the power supply.

Process Repeatability

For repeatable result, cycle by cycle and day after day, our power supplies has got a automatic tuning system.
This system automatically tunes the Unit to the resonant frequency of the coil and workpiece and providing more flexibility for application which use multiple heat station and different coils for different applications.

Unsurpassed Reliability

Maximum uptime and reliability are achieved through careful design and 100% solid state construction. This approach minimize stress on internal power components and eliminates the maintenance.

Coil Design, Easy Use

To meet specific application needs, EGMA line design allow the use of a wide range of coil, including single and multiple turn, helical and open saddle type.

Self Cooled Design

EGMA line is also available integrated of Water Refrigerator These models don not need of external water cooling.

	EGMA 6	***EGMA 10***	***EGMA 15***	***EGMA 20***	***EGMA 25***	***EGMA 30***
Power Output	6	10	15	20	25	30
Power absorbed KVA	7,2	12	18	24	30	36
Power Supply Dimension	300L x 530D x 470H mm					
Power Supply Weight	40 Kg			55 kG		
Kind of Heating Head	**T1**		**T1 or T2**	**T3**		
Cooling Water Flow Rate	3 liter/min			7 liter/min		
Cooling Water Input pressure	4 bar			5 bar		
Frequency Range	From 50 to 300 kHz					
AC line Power	3 phases 400 50-60 Hz					
Max Output Voltage	400 Vrms	400 Vrms	500 Vrms			
Cable Length to Heating Head	Standard 5 mt, available up to 10 mt					
Operator I/O	0-10 V, 4-20 mA for power regulation, ON-OFF digital and others					
Self Cooled Unit	***EGMA 6R***	***EGMA 10R***	***EGMA 15R***	***EGMA 20R***	***EGMA 25R***	***EGMA 30R***
AC KVA	12,1	16,5	22	27,5	33	38,5
Cooling Capacity to 33 degrees	7 KW	7 KW	7 KW	10 KW	10 KW	10 KW
AC line Power	3 phases 400 50 Hz					
Cooling Gas	R 407C					

HEATING HEAD *(weight and dimension)*			
Kind of HEAD	**T1**	**T2**	**T3**
Dimension	136L x 300D x 136H	136L x 374D X 136H	176L x384D X 263H
Weight	8 Kg	10 Kg	16 Kg