

**2021**

**Datasheet**

**AC Gen**



nanotech  
**SOLUTIONS**

ac magnetic field generation

## **AC Gen Series**

AC magnetic field generator for in vivo hyperthermia.

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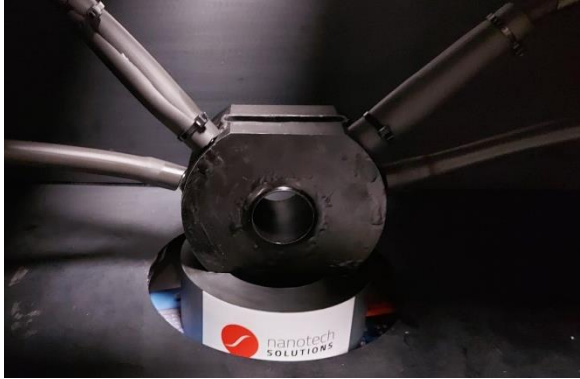
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# AC Gen Series

AC Gen series generates alternating magnetic fields for in vivo (mice) hyperthermia experiments with access for optical measurements and irradiation. AC Gen systems are benchtop, and can be directly plugged into the mains to operate. Since the coil is external to power supply, different field configuration can be achieved in your experiments.



The AC Gen system is a semi-automate alternating magnetic field generator operating in a field frequency range from 10 to 400 KHz and field intensities up to 20 kA/m. Field frequency is manually set by plugging the desire pair of connector at the front panel of power supply. Field intensity is set every 4 kA/m by an user-friendly interface that controls field values (intensity and frequency) within 2% variability. A txt file is recorded, supplying the possibility of post-experiment monitoring of field conditions.

The AC Gen system has an external coil with diameter up to 35 mm and 60 mm length. The internal temperature is set at room temperature or 35° C to preserve physiological conditions of mice during experiments. The coil offers also access (up to 20 x 10 mm) into coil for optical measurements and irradiation. The latest is essential for advanced probing magnetic phenomena and related effects in in vivo studies.

Simple, efficient and reliable instrumentation for supplying alternating magnetic fields in your experiments.

## Installation requirements

Surface of 150x80 cm onto a flat and solid non-metallic table to avoid vibrations;

Three electrical sockets 220/230V - 50Hz connected to a continuous supply secured by differential protection.

Avoid direct exposure to sunlight.

Room should be at constant temperature, ideally around 25°C.

## Technical specifications

Magnetic field conditions

8 frequency values (kHz)  
ranging from 10 till 400

Intensity values  
up to 20 kA/m for all available  
frequencies, varying every 4  
kA/m

Weight and dimensions  
Electronic: 5 kg, 53x40x19 cm  
Coil: 1 kg, 12x5,5 mm

Electrical power consumption  
Up to 150 W

External magnetic field units  
kA/m

Internal coil temperature

Variable from 10 up to 40 °C ( $\pm 0,05^\circ\text{C}$ )

Supplied with PC, cooling unit and user-friendly interface.