

Integrated Ultrasonic Homogenizer

Sonication is a well-established emulsification technique that breaks down the oils into nanoparticles resulting in a stable emulsion with increased bioavailability. A state-of-the-art touch screen interface offers intuitive control and provides a user-friendly experience. The most important feature of a Sonicator is reproducibility. Improved internal circuitry guarantees more efficient operation, sample-to-sample consistency and most importantly, a reliable end result. The Integrated Ultrasonic Homogenizer/Sonicator system comes with high intensity (100µm amplitude) probes that are used to form water-soluble nanoemulsions in R&D/Lab Scale volumes from 0.5 mL – 3.0 Litre.

Integrated Type	Ultrasonic Homogenizer
Power in	100 ~240 Voltage, 50 ~ 60 Hz, auto adapt.
Power out	800 Watt Maximum (1% ~ 100% stepless control)
Frequency	25kHz(standard) optional: 19 ~ 26kHz auto tracking frequency.
Whole Size	30 x 27 x 45 cm 5.5 Kgs Net weight (without probe)
Door Size	26 x 19 cm
	Energy and temperature set-point control Digital Type, 4.7" Touch Screen, Programmable
Probe Materials	Titaninum Alloy
Probe Size	Φ12.7mm diameter tip (standard) optional: Φ3mm, Φ6mm, Φ9mm, Φ20mm, Φ30mm
Maximum Volume	Standard: 10ml ~ 600ml for 12.7mm probe 3 Litre maximum (depends on different probe)
Packing Detail	1 set Integrated Type Homogenizer 1 pc ultrasonic converter with titanium probe 1 power in plug & wire, 3 pcs fuse wire 2 meter HF cable for converter connection

PROGRAMMABILITY:

Parameters including processing times, pulse on/off and amplitude can be saved to memory and run by the touch of a button.

PULSE MODE

Adjustable pulse On and Off times to reduce the heat gain in temperature sensitive samples.

TEMPERATURE MONITORING

An optional temperature probe is available for those customers who wish to monitor the temperature of their sample. If the temperature limit is reached, sonication shuts down to prevent overheating.

RUN MULTIPLE PROGRAMS IN SEQUENCE

Multiple programs can be run in sequence. For example, the unit can be programmed to sonicate at 50% amplitude for 5 minutes, shut off for 2 minutes and re-start at 25% amplitude for 10 minutes. Up to 5 programs can be run in succession.

TOTAL ENERGY OUTPUT DISPLAY

Energy delivered to the probe is displayed in both Watts and Joules.

AUTO TUNING

The Sonicator digitally tracks frequency changes in the converter / tip assembly caused by load and temperature changes and maintains electrical efficiency at all times. Manual tuning is unnecessary.

TOUCH SCREEN CONTROL

A large, color LCD screen clearly displays all operating parameters and options. Intuitively and quickly access any of the Sonicator's functions with a simple touch.

OVERLOAD PROTECTION

The unit is equipped with fault detection circuitry to shut down sonication in the event that a fault occurs.