

# HAMILTON HEATER SHAKER 3G

Fully controlled Heating and Shaking





### **Persistent**

Excels at tough tasks, shaking up to 2500 rpm, heating up to 105°C, and with precise sensor control



## Individualized

Accommodates various plates through standard and custom smart adapters; manual or automated loading of plates



#### **Seamless**

Compact design fits on every deck, accessible for pipetting, scalable integration for workflow optimization

# One step further

We are more than proud to take another step into the future with the Hamilton Heater Shaker 3G - the third generation of this module. Listening carefully to our valued customers, many modifications have made its way into the latest version.

The Hamilton Heater Shaker 3G (HHS 3G) represents remarkable advancements. Notably, the ability to swiftly exchange Smart Adapters on-site adds a new dimension to deck setup and method flexibility. This process, aided by screws, eliminates the need for a new Heater Shaker Base. Enhanced safety and control are ensured through redundant temperature measurement systems and G-Force sensors, which also verify proper Smart Adapter mounting. Performance improvements include faster heat-up times, improved heat distribution, and reduced temperature tolerance. Compatibility mode seamlessly replaces second-generation units while retaining previous behavior. User feedback has led to "comfort" features, complementing the more homogenous temperature distribution and faster heat-up speed.

- Easily swap Smart Adapters on-site, enhancing setup and method flexibility without the need for a new Heater Shaker Base.
- Faster heat-up time and better heat distribution across the adapter enhances efficiency. Compatibility mode ensures the seamless transition from the second-generation Heater Shaker, maintaining consistent behavior.
- The complete unit has been improved in terms of liquid penetration.

ParametersSpecificationsAvailable Shaking Orbits $1.5 \text{ mm} / 2.0 \text{ mm} / 3.0 \text{ mm} / 4.0 \text{ mm}$ Max. Shaking SpeedDepending on Smart Adapter / Plate combination $25 ^{\circ}\text{C} - 37 ^{\circ}\text{C}$ in 3 min (Tolerance band $\pm 1 ^{\circ}\text{C}$ ) $25 ^{\circ}\text{C} - 60 ^{\circ}\text{C}$ in 5 min (Tolerance band $\pm 1.5 ^{\circ}\text{C}$ ) $25 ^{\circ}\text{C} - 90 ^{\circ}\text{C}$ in 6.5 min (Tolerance band $\pm 2 ^{\circ}\text{C}$ ) $25 ^{\circ}\text{C} - 105 ^{\circ}\text{C}$ in 7.5 min (Tolerance band $\pm 2.5 ^{\circ}\text{C}$ )Dimensions*Length = 150 mm / Width = 105 mm / Height = 90 mmShaker Acceleration $2.0 ^{\circ}\text{S}$ (from 0 to max. rpm)Shaker Deceleration $2.0 ^{\circ}\text{S}$ (from max. rpm to 0)	TECHNICAL DATA	
Max. Shaking Speed Depending on Smart Adapter / Plate combination $ 25  ^{\circ}\text{C} - 37  ^{\circ}\text{C} \text{ in 3 min (Tolerance band } \pm 1  ^{\circ}\text{C}) $ $ 25  ^{\circ}\text{C} - 60  ^{\circ}\text{C} \text{ in 5 min (Tolerance band } \pm 1.5  ^{\circ}\text{C}) $ $ 25  ^{\circ}\text{C} - 90  ^{\circ}\text{C} \text{ in 6.5 min (Tolerance band } \pm 2  ^{\circ}\text{C}) $ $ 25  ^{\circ}\text{C} - 105  ^{\circ}\text{C} \text{ in 7.5 min (Tolerance band } \pm 2.5  ^{\circ}\text{C}) $ Dimensions* $ \text{Length} = 150  \text{mm / Width} = 105  \text{mm / Height} = 90  \text{mm} $ Shaker Acceleration $ 2.0  \text{s (from 0 to max. rpm)} $	Parameters	Specifications
Heat-up times	Available Shaking Orbits	1.5 mm / 2.0 mm / 3.0 mm / 4.0 mm
Heat-up times	Max. Shaking Speed	Depending on Smart Adapter / Plate combination
Shaker Acceleration 2.0 s (from 0 to max. rpm)	Heat-up times	25 °C - 60 °C in 5 min (Tolerance band ±1.5 °C) 25 °C - 90 °C in 6.5 min (Tolerance band ±2 °C)
	Dimensions*	Length = 150 mm / Width = 105 mm / Height = 90 mm
Shaker Deceleration 2.0 s (from max. rpm to 0)	Shaker Acceleration	2.0 s (from 0 to max. rpm)
	Shaker Deceleration	2.0 s (from max. rpm to 0)
Environment Operating Temperature 15 °C - 35 °C	Environment Operating Temperature	15 °C - 35 °C
Heating Range Room temperature +5 °C up to +105 °C	Heating Range	Room temperature +5 °C up to +105 °C
Communication CAN (via instrument) or USB (direct from PC)	Communication	CAN (via instrument) or USB (direct from PC)
Power 42 VDC / 140 W (max.)	Power	42 VDC / 140 W (max.)

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