multi therm shaker with temperature calibration function

Multi therm shaker is a set of constant temperature control and oscillation mixing function in one of the experimental instruments, widely used in life sciences, chemical analysis, drug development and other fields.

The multi therm shaker has a precise temperature control system and efficient mixing function, which is suitable for a variety of experimental processes such as sample incubation, reaction, catalysis and preservation.

The main features of the multi therm shaker:

1, large-capacity dual-module platform: can handle multiple sample containers at the same time, support batch operation, improve work efficiency.

2, adjustable hot cap function: hot cap temperature can be adjusted according to the demand, manual and automatic two modes to choose, to prevent the phenomenon of sample evaporation or burst tube, to improve the uniformity of temperature control.

3, high-frequency mixing function: mixing frequency up to 2000rpm, to adapt to a variety of liquid and solid mixing needs, to ensure uniformity of the sample.

4, DC brushless motor: the equipment uses low-noise, high-efficiency, maintenance-free DC brushless motor to avoid motor loss and reduce experimental noise and vibration interference.

5, Multi-point operation and cycle settings: support multi-point operation and can be customized multi-point cycle times, flexible to meet the experimental needs.

6, automatic warm-up function: the device automatically enters the warm-up mode after power on, saving preparation time and improving the efficiency of the experiment.

7, power failure automatic recovery function: in the event of an accidental power failure, the device can automatically recover to the state before the power failure, to avoid the loss of experimental data caused by power problems.

8, power-on automatic operation function: the device can automatically start working after startup, reducing human interference and ensuring convenient operation.

9, temperature calibration function: built-in temperature calibration system to ensure the accuracy of temperature control, to avoid experimental errors due to equipment errors.

10, double over-temperature protection: hardware and software double over-temperature protection design, to ensure that the equipment will not be damaged due to temperature anomalies in the working process, to improve the safety of use.

Core advantages:

1, high-precision temperature control: PID intelligent temperature control technology, automatic adjustment of the heating rate to ensure accurate control of the temperature during the experiment, to avoid experimental errors caused by temperature fluctuations.

2, Strong reliability: Equipped with temperature calibration and double over-temperature protection to ensure the safety of equipment operation and reduce the risk of experimental failure.

3, high efficiency and energy saving: through the optimization of the preheating and automatic operation function, save the standby time and energy consumption, improve the efficiency of the experiment.

4, wide adaptability: dual-module platform and adjustable thermal cover design, to ensure that the equipment can handle different volumes and types of samples, with good adaptability.

5, low maintenance cost: the use of maintenance-free DC brushless motor, and automatic recovery and self-calibration function, reducing the burden of routine maintenance of the equipment.

Working principle:

1, constant temperature control: the equipment internal integrated PID intelligent temperature control system, through real-time monitoring of the temperature, automatically adjust the heating rate to ensure that the temperature remains within the set range. The heating function provides a stable and uniform heat source through the cooperative work of the heating plate and the heat cover, preventing the samples from being affected by excessive heating or too low temperature.

2, Oscillation and homogenization: The equipment is driven by a DC brushless motor to oscillate the platform, and the mixing frequency can be adjusted to reach 2000rpm of high-frequency oscillation to ensure that all kinds of solutions, suspensions and samples are evenly mixed. The oscillation system is suitable for experiments that require efficient mixing, such as dissolution, catalytic and incubation reactions.

3, automation and intelligent control: the equipment built-in automatic preheating, automatic operation, power failure recovery and other intelligent functions to enhance the convenience and stability of operation. Combined with double over-temperature protection design, it effectively avoids equipment damage or experimental failure caused by abnormal temperature fluctuations.

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Model	**TH20**
Temperature range	ambient+5°C to 100°C
Temperature resolution	0.1°C
Temperature accuracy	≤±0.2°C, at 37°C
Temperature uniformity	≤±0.2°C, at 37°C

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Model	**TH20**
Hot lid temperature setting range	auto, 0°C to +15°C
Hot lid temperature control mode	auto, manual
Speed	200 rpm to 2000 rpm
Orbit diameter	2 mm
Temperature rise time	≤15 minutes, 25°C to 100°C

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Model	**TH20**
Multi-point operation	5 points
Multi-point cycle operation	99 cycles
Timer	1 minute to 99 hours 59 minutes or continuous
External dimensions	340x320x200mm
Power supply	220Vac, 50-60Hz, 450W
Weight	11kg

Optional accessories

Order code	Descriptions
mk30	96x0.2ml, 0.2ml PCR plate
mk31	54x0.5ml
mk32	35x1.5ml
mk33	35x2.0ml
mk34	15x0.5ml+20x1.5ml