



# Incubating Cooling Thermal Shakers



## ***Intuitive Incubating Cooling Thermal Shakers for Consistent High-Speed Shaking***

Thermal Shakers are designed for applications that require consistent and precise high-speed shaking with temperature control to 100°C. With heating and shaking capabilities, OHAUS shakers use interchangeable blocks to accommodate tubes and microplates. Intuitive LCD touchscreen allows the user to save and track progress of 5 user-defined programs, each with 5 individual steps. Enhanced electronics provide dependable temperature settings across the operating range.

### ***Standard Features:***

- **Program Control for Five, 5-Step Programs**  
Program control capabilities allow user programmable operation for automated use and memory. Storage for five separate, 5-step programs, or unlimited if using the USB.
- **Enhanced Electronics Provide Accurate Temperatures Across the Range**  
Enhanced electronics provide accurate and dependable temperature settings across the operating range. Cooling models utilize dual temperature sensors to reach temperatures down to 17°C below ambient.
- **Store and Transfer Data Easily With the Multi-Functional USB**  
The USB port allows for easily transferring test data to a flash drive for data logging and storage. Also ideal for program storage and performing software updates.

# Incubating Cooling Thermal Shakers

| Model                          | ISTHBLHTS   | ISTHBLCTS   |
|--------------------------------|---|---|
| Shaker Type                    | Thermal Shaker  | Cooling Thermal Shaker  |
| Control                        | Touchscreen   |   |
| Motion                         | Orbital, 3 mm   |   |
| Speed Range                    | 300 – 3000 rpm  |   |
| Speed Accuracy                 | ± 2%  |   |
| Temperature Range              | Ambient + 4 °C – 100 °C                                   | 17 °C below Ambient – 100 °C  |
| Temperature Accuracy           | +/- 1 °C between 20 °C and 45 °C;<br>+/- 2 °C above 45 °C | +/- 0.5 °C between 20 °C and 45 °C;<br>+/- 2 °C below 20 °C and above 45 °C |
| Heating Rate                   | 5 °C/min  |   |
| Cooling Rate                   | Above ambient 2-3 °C/min, Below ambient 0.5-10 °C/min     |   |
| Timer                          | 1 second – 99 hours, 59 minutes                           |   |
| Capacity                       | 1 Thermal block   |   |
| Working Environment            | 5 °C – 35 °C, 80% Relative Humidity, non-condensing       |   |
| Display                        | 10.9 cm color touchscreen LCD                             |   |
| Drive System                   | Brushless DC Motor  |   |
| Overall Dimensions (L x W x H) | 269 x 262 x 137 mm  |   |
| Net Weight                     | 4.9 kg  |   |
| Power                          | 230V, 0.9A, 50/60Hz                                       |   |
| Power Consumption              | 210 W   |   |

## Other Standard Features and Equipment

Unit supplied with block for 24 x 1.5 mL tubes, removable rack and cover. Detachable 3-wire cord and plug (included).

Additional features: hot top indicator, audible alarm, maximum temperature limiting function, temperature priority function, pulse/quick mix mode, temperature calibration mode, temperature ramp rate function

## Compliance

- **Product Safety:** EN 61010-1, EN 61010-2-010, EN 61010-2-051
- **Electromagnetic Compatibility:** EN 61326-1 Class A, Industrial Environments
- **Compliance Marks:** CE, RCM; TÜV SÜD

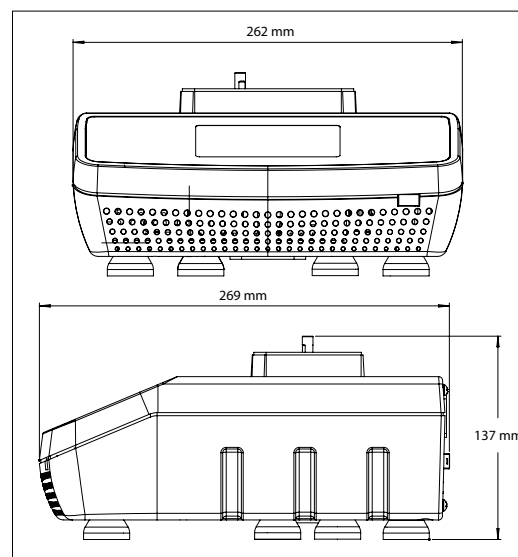
## Applications

DNA, RNA, cell cultures, hybridizations, protein studies

## Accessories

| Item No. | Description                                    |
|----------|--|
| 30400126 | Microplate Thermal Block                       |
| 30400127 | 384 Well PCR Plate Thermal Block               |
| 30400128 | 0.2 mL PCR Plate/Tube Thermal Block            |
| 30400129 | Block For 30 x 0.5 mL Tubes                    |
| 30400130 | Block For 24 x 1.5 mL Tubes                    |
| 30400131 | Block For 24 x 2.0 mL Tubes                    |
| 30400132 | Block For 24 x 5-7 mL Tubes (12 mm)            |
| 30400133 | Block For 24 x 2.0 mL Cryotubes                |
| 30400134 | Block For 9 x 5 mL Eppendorf Tubes             |
| 30400135 | Block For 8 x 15 mL Conical Tubes              |
| 30400136 | Block For 4 x 50 mL Conical Tubes              |
| 30400250 | Rack For 30 x 0.5 mL Tube Block                |
| 30400251 | Rack For 24 x 1.5 / 24 x 2.0 mL Tube Blocks    |
| 30400252 | Cover For 0.5 mL / 1.5 mL / 2.0 mL Tube Blocks |

## Dimensions



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*The management system governing the manufacture of this product is ISO 9001:2015 certified.*

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