

## WATER BATHS

- GENERAL WATER BATH
- STIRRER WATER BATH
- THERMAL BLOCKS
- SHAKING WATER BATH
  - ORBITAL SHAKING
  - RECIPROCAL SHAKING

### GENERAL WATER BATH

NB-301/ NB-301L



NB-301



NB-301L

### STIRRER WATER BATH

NB-302/ NB-302L



NB-302



NB-302L

### SHAKING WATER BATH

NB-303 (ORBITAL)



### SHAKING WATER BATH

NB-304 (RECIPROCAL)



### THERMAL BLOCKS

NB-305CB/ NB-305TB



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# GENERAL WATER BATH (NB-301/NB-301L)

- By maintaining constant temperature, water bath is suitable for fat examining, cell incubating, ferment reaction, solvent extraction engaged in clinic, medical technology, pharmacy, micro-biology.



NB-301



NB-301L



Tray



Water Level



Uniform temperature distribution



Bath Cover

## Features

- Artificial intelligence system (NB TAC Sys) which maintains precise thermostatic condition is controlled by MICOM.
- High Temperature humanity and details by intelligent thermostat even though in the case of no water circulation.
- The heater for chamber is located outside bottom of water chamber, not inside chamber.
- LED indicates temperature, speed, time and state of power failure.
- Convenient adjustment of water level with engraved level scale in chamber.



## Specification

| Items                | Unit  | NB-301                     | NB-301L                    |
|----------------------|-------|----------------------------|----------------------------|
| <b>Temperature</b>   |       |                            |                            |
| range                | °C    | Ambient +5°C to 100°C      | Ambient +5°C to 100°C      |
| accuracy             | °C    | ±0.1°C at 37°C             | ±0.1°C at 37°C             |
| controller           | °C    | Microprocessor Digital PID | Microprocessor Digital PID |
| <b>Bath capacity</b> | liter | 12 liters                  | 22 liters                  |
| <b>Dimensions</b>    |       |                            |                            |
| in                   | mm    | 240(W)x300(D)x150(H)mm     | 500(W)x290(D)x150(H)mm     |
| out                  | mm    | 270(W)x345(D)x225(H)mm     | 555(W)x390(D)x230(H)mm     |
| <b>Power</b>         | V/Hz  | 110/220V, 50/60Hz, 300W    | 110/220V, 50/60Hz, 600W    |
| <b>Weight</b>        | kg    | 7kg                        | 14kg                       |



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STIRRER WATER BATH (NB-302/NB-302L)

- By maintaining constant temperature, water bath is used for fat examining, cell incubating, ferment reaction, solvent extraction in the field such as clinic, medical technology, pharmacy, micro-biology.



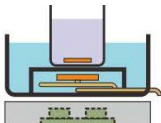
NB-302



NB-302L



Shaking Type



NB-302



NB-302L



Tray



Water Level



Possible to use two stirrer  
(Only NB-302L)



Bath Cover

Features

- Artificial intelligence system (NB TAC Sys) which maintains precise thermostatic condition is controlled by MICOM
- Built in magnetic stirrer located at bottom of water tank.
- The heater for chamber is located at outside bottom of water chamber, not inside chamber.
- LED indicates temperature, speed, time and state of power failure.
- Convenient adjustment of water level with engraved level scale in chamber.
- Possible to control RPM and Temperature.
- By circulating water in chamber, stirring sample is conducted under precise temperature.



Specification

| Items                | Unit  | NB-302                     | NB-302L                    |
|----------------------|-------|----------------------------|----------------------------|
| <b>Temperature</b>   |       |                            |                            |
| range                | °C    | Ambient +5°C to 100°C      | Ambient +5°C to 100°C      |
| accuracy             | °C    | ±0.1°C at 37°C             | ±0.1°C at 37°C             |
| controller           | °C    | Microprocessor Digital PID | Microprocessor Digital PID |
| <b>Speed</b>         |       |                            |                            |
| range                | rpm   | 60 to 1000rpm              | 60 to 1000rpm              |
| controller           |       | Solid State Control        | Solid State Control        |
| <b>Bath capacity</b> | liter | 12 liters                  | 22 liters                  |
| <b>Dimensions</b>    |       |                            |                            |
| in                   | mm    | 240(W)x300(D)x150(H)mm     | 500(W)x290(D)x150(H)mm     |
| out                  | mm    | 270(W)x345(D)x225(H)mm     | 555(W)x390(D)x230(H)mm     |
| <b>Power</b>         | V/Hz  | 110/220V, 50/60Hz, 750W    | 110/220V, 50/60Hz, 1KW     |
| <b>Weight</b>        | kg    | 7kg                        | 14kg                       |





SHAKING WATER BATH (NB-303/NB-304)

- By maintaining constant temperature and using orbital or reciprocal shaking, water bath is used for fat examining, cell incubating, ferment reaction, solvent extraction.



NB-303



Shaking Type



Round Concussion



Bath Cover(option)

- Spring rack is basically equipped
- Additional option for Bath Cover on using bath at high temperature



NB-304



Shaking Type



Reciprocating



Bath Cover(option)

Features

- Artificial intelligence system (NB-Tac Sys) which maintains precise thermostatic condition is controlled by using MICOM.
- The heating element is located under the bath, not chamber inside.
- Brushless DC motor provides low noise and no vibration.
- LED indicates temperature, speed, time and state of power failure.

Specification

| Items          | Unit  | NB-303                        | NB-304                        |
|----------------|-------|-------------------------------|-------------------------------|
| Motion         |       | Orbital                       | Reciprocating                 |
| Temp. range    | °C    | Ambient +5°C to 80°C          | Ambient +5°C to 80°C          |
| Temp. accuracy | °C    | ±0.1°C at 37°C                | ±0.1°C at 37°C                |
| Motor          |       | Plate Type Brushless DC Motor | Plate Type Brushless DC Motor |
| Orbit Diameter | mm    | 25mm                          | 25mm                          |
| Speed range    | rpm   | 30 to 200rpm                  | 30 to 200rpm                  |
| Time range     |       | Continuous or up to 47h 59min | Continuous or up to 47h 59min |
| Controller     |       | Microprocessor Digital PID    | Microprocessor Digital PID    |
| Bath capacity  | liter | 12 liters                     | 12 liters                     |
| Dimensions     | mm    | 310(W)x345(D)x260(H)mm        | 310(W)x345(D)x260(H)mm        |
| Power          | V/Hz  | 110/220V, 50/60Hz, 300W       | 110/220V, 50/60Hz, 300W       |
| Weight         | kg    | 14kg                          | 14kg                          |
| Optional acc.  |       | Lid for high temperature      | Lid for high temperature      |





THERMAL BLOCKS (NB-305CB/NB-305TB)

- Thermal Blocks are used in the experiment for ferment reaction & analysis, solvent extraction, cell incubation, heat treatment in test tube as well as used like concentrator, disintegrator, reaction bath by quick and uniformity heating.
- Possible to use two blocks at same time (NB-305TB)



NB-305CB



NB-305TB

Features

- Hinged transparent lid provides thermal stability and allows easy viewing samples.
- Models hold 1-2 interchangeable blocks to accommodate variety of tubes. (NB-305TB)
- Microprocessor digital control of temperature from - 4°C to + 80°C (NB-305CB)

Accessories



BL-0.5/42  
BS-0.5/18



BL-1.5/30  
BS-1.5/15



BL-10/20  
BS-10/08



BL-15/20  
BS-15/08

Specification

| Items           | Unit  | NB-305CB                   | NB-305TB                   |
|-----------------|-------|----------------------------|----------------------------|
| Temperature     |       |                            |                            |
| range           | °C    | -4°C to 80°C               | Ambient +5°C to 120°C      |
| accuracy        | °C    | ±0.1°C                     | ±0.1°C                     |
| method          |       | Peltier                    | Heater                     |
| control         |       | Microprocessor Digital PID | Microprocessor Digital PID |
| Operating Panel |       | Touch Button               | Touch Button               |
| Display         |       | 5 Digit LED                | 5 Digit LED                |
| Block material  |       | Solid anodized aluminum    | Solid anodized aluminum    |
| Block Capacity  |       | BLx1ea, BSx2ea             | BLx2ea, BSx4ea             |
| Dimensions      | mm    | 250(W)x250(D)x175(H)mm     | 250(W)x250(D)x175(H)mm     |
| Power           | V, Hz | 110/220V, 50/60Hz, 100W    | 110/220V, 50/60Hz, 130W    |
| Weight          | kg    | 5kg                        | 5kg                        |

