



Professional Laboratory Apparatus Manufacturer

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## Horizontal Drying Oven

◎High precision and large density sample drying treatment.

### Characteristics:

- Horizontal forced air type, high space utilization and good temperature uniformity.
- 101: Forced fan cooling intake structure, the maximum working temperature <50 °C, the fan long-term longevity operation.
- 202: Classical natural convection drying method.
- New anti-hot handle.



Patent No. : ZL 2018 3 0094606.5

### Main technical parameters:

| Model                |                                 | 101-0A/101-0AB                                                                                                         | 101-1A/101-1AB | 101-2A/101-2AB | 101-3A/101-3AB |
|----------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| Cycle Mode           |                                 | 101 means Forced convection; 202 means Natural convection                                                              |                |                |                |
| Function             | Temp. Range                     | RT+10~250°C                                                                                                            |                |                |                |
|                      | Temp. Resolution Ratio          | 0.1°C                                                                                                                  |                |                |                |
|                      | Temp. Motion                    | ± 1°C                                                                                                                  |                |                |                |
|                      | Temp. Uniformity                | ± 2.5%                                                                                                                 |                |                |                |
| Structure            | Inner Chamber                   | B model: High quality stainless steel;<br>without B model: High strength galvanized sheet                              |                |                |                |
|                      | Outer Shell                     | Cold rolling steel electrostatic spraying exterior                                                                     |                |                |                |
|                      | Insulation layer                | High quality rock wool board (with CE)                                                                                 |                |                |                |
|                      | Heater                          | 101 model with Stainless steel electric heating tube;<br>202 model with Nickel chromium alloy heating wire             |                |                |                |
|                      | Power rating                    | 1.2kW                                                                                                                  | 1.6kW          | 2.3kW          | 3.0kW          |
|                      | Exhaust hole                    | φ 28mm top (with function of test hole)                                                                                |                |                |                |
| Controller           | Temp. control mode              | Two temperature section PID intelligent                                                                                |                |                |                |
|                      | Temp. setting mode              | Touch button setting                                                                                                   |                |                |                |
|                      | Temp. display mode              | LED Digital display                                                                                                    |                |                |                |
|                      | Timer                           | 0~9999min (with timing wait function)                                                                                  |                |                |                |
|                      | Operation function              | Fixed temperature operation, timing function, auto stop.                                                               |                |                |                |
|                      | Additional function             | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |                |                |                |
|                      | Sensor                          | pt100                                                                                                                  |                |                |                |
| Safety device        |                                 | Over temperature sound-light alarm                                                                                     |                |                |                |
| Specification        | Inner Chamber size (W*L*H) (mm) | 350*350*350                                                                                                            | 450*350*450    | 550*450*550    | 600*500*750    |
|                      | Exterior size (W*L*H) (mm)      | 652*472*587                                                                                                            | 752*472*687    | 852*572*786    | 902*622*986    |
|                      | Packing size (W*L*H) (mm)       | 755*615*735                                                                                                            | 855*615*835    | 955*715*935    | 1005*765*1135  |
|                      | Volume                          | 43L                                                                                                                    | 71L            | 136L           | 225L           |
|                      | Shelf number                    | 9                                                                                                                      | 13             | 17             | 21             |
|                      | Load per rack                   | 15kg                                                                                                                   |                |                |                |
|                      | Shelf space                     | 25mm                                                                                                                   |                |                |                |
|                      | (50/60HZ) Current rating        | AC220V/5.5A                                                                                                            | AC220V/7.3A    | AC220V/9.1A    | AC220V/13.6A   |
| Accessory            | NW/GW (kg)                      | 33/37                                                                                                                  | 45/50          | 62/68          | 77/96          |
|                      | Shelf                           | 2                                                                                                                      |                |                |                |
|                      | Shelf frame                     | 4                                                                                                                      |                |                |                |
| optional accessories |                                 | Shelf                                                                                                                  |                |                |                |

## Forced Air Drying Oven

◎ Used for drying, baking, wax, heat treatment.

### Characteristics:

- Horizontal air circularly by double air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With fan switch, LED digital display, high temperature blast motor.
- New anti-hot handle

**WGLL-BE series have the following characteristics other than the above functions.**

- LCD temperature controller. SSR to make sure the safety
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- Independent temperature limiter.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

| Model                |                               | WGL-30B                                                                                                                                                                                                                                                                                                                                                                                                  | WGL-45B     | WGL-65B     | WGL-85B     | WGL-125B     | WGL-230B     | WGL-625B           |
|----------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|--------------|--------------|--------------------|
|                      |                               | WGLL-30BE                                                                                                                                                                                                                                                                                                                                                                                                | WGLL-45BE   | WGLL-65BE   | WGLL-85BE   | WGLL-125BE   | WGLL-230BE   | WGLL-625BE         |
| Function             | Cycle Mode                    | Forced convection                                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |                    |
|                      | Temp. Range                   | RT+10~300°C                                                                                                                                                                                                                                                                                                                                                                                              |             |             |             |              |              |                    |
|                      | Temp. Resolution Ratio        | 0.1°C                                                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |                    |
|                      | Temp. Motion                  | ± 1°C                                                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |                    |
| Structure            | Temp. Uniformity              | ± 2.5%                                                                                                                                                                                                                                                                                                                                                                                                   |             |             |             |              |              |                    |
|                      | Inner Chamber                 | Mirror Stainless Steel                                                                                                                                                                                                                                                                                                                                                                                   |             |             |             |              |              |                    |
|                      | Outer Shell                   | Cold rolling steel electrostatic spraying exterior                                                                                                                                                                                                                                                                                                                                                       |             |             |             |              |              |                    |
|                      | Insulation layer              | High quality rock wool board(with CE)                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |                    |
|                      | Heater                        | Stainless steel heater                                                                                                                                                                                                                                                                                                                                                                                   |             |             |             |              |              |                    |
|                      | Power rating                  | 0.8kW                                                                                                                                                                                                                                                                                                                                                                                                    | 1.2kW       | 1.6kW       | 2.0kW       | 2.3kW        | 3.0kW        | 5.0kW              |
| Controller           | Exhaust hole                  | Φ 28mm top (with function of test hole)                                                                                                                                                                                                                                                                                                                                                                  |             |             |             |              | Rear exhaust | Top double exhaust |
|                      | Temp. control mode            | Two temperature section PID intelligent                                                                                                                                                                                                                                                                                                                                                                  |             |             |             |              |              |                    |
|                      | Temp. setting mode            | Touch button setting                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |                    |
|                      | Temp. display mode            | B model: Measuring temperature: display on the four digital tubes upper row, setting temperature: display on the lower row<br>BE model: Measuring temperature display on upper LCD screen, setting temperature display on the lower row                                                                                                                                                                  |             |             |             |              |              |                    |
|                      | Timer                         | 0~9999min (with timing wait function)                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |                    |
|                      | Operation function            | Fixed temperature operation, timing function, auto stop.                                                                                                                                                                                                                                                                                                                                                 |             |             |             |              |              |                    |
|                      | Additional function           | B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory<br>BE model: Mechanical independent temperature limiter, 4 grades 3 speed adjustable-speed fan (230 and 625 model BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |             |             |             |              |              |                    |
|                      | Sensor                        | pt100                                                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |                    |
| Specification        | Inner Chamber size(W*L*H)(mm) | 310*310*310                                                                                                                                                                                                                                                                                                                                                                                              | 350*350*350 | 400*360*450 | 450*420*450 | 500*450*550  | 600*500*750  | 660*760*1250       |
|                      | Exterior size (W*L*H)(mm)     | 450*500*690                                                                                                                                                                                                                                                                                                                                                                                              | 490*540*730 | 540*550*830 | 590*610*830 | 640*640*930  | 730*680*1250 | 890*925*1830       |
|                      | Packing size (W*L*H)(mm)      | 550*585*845                                                                                                                                                                                                                                                                                                                                                                                              | 590*625*885 | 640*635*985 | 690*695*985 | 740*725*1085 | 860*790*1400 | 1000*1080*2000     |
|                      | Volume                        | 30L                                                                                                                                                                                                                                                                                                                                                                                                      | 45L         | 65L         | 85L         | 125L         | 230L         | 625L               |
|                      | Shelf number                  | 6                                                                                                                                                                                                                                                                                                                                                                                                        | 7           | 9           | 9           | 13           | 17           | 17                 |
|                      | Load per rack                 | 15kg                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |                    |
|                      | Shelf space                   | 35mm                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |                    |
|                      | Power rating (50/60HZ)        | AC220V/3.6A                                                                                                                                                                                                                                                                                                                                                                                              | AC220V/5.5A | AC220V/7.2A | AC220V/9.0A | AC220V/10.5A | AC220V/13.6A | AC380V/7.6A        |
| Accessory            | NW/GW (kg )                   | 33/37                                                                                                                                                                                                                                                                                                                                                                                                    | 37/43       | 44/49       | 50/56       | 60/66        | 94/120       | 120/160            |
|                      | Shelf                         | 2                                                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |                    |
|                      | Shelf frame                   | 4                                                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |                    |
| optional accessories |                               | B model: Shelf; BE model: Shelf, RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage                                                                                                                                                                                                                                                      |             |             |             |              |              |                    |

## Constant-temperature Drying Oven

◎ Used for drying, baking, heat treatment .

### Characteristics:

- In the workroom, the hot air is convective naturally and cyclically.
- PID micro-computer intelligent temperature controller with functions of over-temperature protection.
- Standard highlight LED instrument running light.
- New anti-hot handle.

**WHLL-BE series have the following characteristics other than the above functions.**

- LCD temperature controller. SSR to make sure the safety.
- Over-temperature protection system.
- Independent temperature limiter.



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### Main Technical Parameters:

| Model                | WHL-30B                        | WHL-45B                                                                                                                                                                      | WHL-65B     | WHL-85B     | WHL-125B     |              |
|----------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------|--------------|
| Cycle Mode           | WHL-30BE                       | WHLL-45BE                                                                                                                                                                    | WHLL-65BE   | WHLL-85BE   | WHLL-125BE   |              |
| Function             | Natural convection             |                                                                                                                                                                              |             |             |              |              |
|                      | Temp. Range                    | RT+10~300°C                                                                                                                                                                  |             |             |              |              |
|                      | Temp. Resolution Ratio         | 0.1°C                                                                                                                                                                        |             |             |              |              |
|                      | Temp. Motion                   | ± 1°C                                                                                                                                                                        |             |             |              |              |
| Structure            | Temp. Uniformity               | ± 3.5%                                                                                                                                                                       |             |             |              |              |
|                      | Inner Chamber                  | Mirror Stainless Steel                                                                                                                                                       |             |             |              |              |
|                      | Outer Shell                    | Cold rolling steel electrostatic spraying exterior                                                                                                                           |             |             |              |              |
|                      | Insulation layer               | High quality rock wool board(with CE)                                                                                                                                        |             |             |              |              |
|                      | Heater                         | Stainless steel heater                                                                                                                                                       |             |             |              |              |
|                      | Power rating                   | 0.8kW                                                                                                                                                                        | 1.2kW       | 1.6kW       | 2.0kW        | 2.5kW        |
| Controller           | Exhaust hole                   | φ 28mm top (with function of test hole)                                                                                                                                      |             |             |              |              |
|                      | Temp. control mode             | Two temperature section PID intelligent                                                                                                                                      |             |             |              |              |
|                      | Temp. setting mode             | Touch button setting                                                                                                                                                         |             |             |              |              |
|                      | Temp. display mode             | B model: display on LED<br>BE model: display on upper LCD                                                                                                                    |             |             |              |              |
|                      | Timer                          | 0~9999min (with timing wait function)                                                                                                                                        |             |             |              |              |
|                      | Operation function             | Fixed temperature operation, timing function, auto stop.                                                                                                                     |             |             |              |              |
|                      | Additional function            | B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory                                              |             |             |              |              |
|                      |                                | BE model: Mechanical independent temperature limiter, sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |             |             |              |              |
| Specification        | Sensor                         | pt100                                                                                                                                                                        |             |             |              |              |
|                      | Inner Chamber size (W*L*H)(mm) | 310*310*310                                                                                                                                                                  | 350*350*350 | 400*360*450 | 450*420*450  | 500*450*550  |
|                      | Exterior size (W*L*H)(mm)      | 460*510*695                                                                                                                                                                  | 500*550*735 | 550*550*840 | 590*610*830  | 636*680*915  |
|                      | Packing size (W*L*H)(mm)       | 550*585*845                                                                                                                                                                  | 590*625*885 | 640*635*985 | 690*695*985  | 740*725*1085 |
|                      | Volume                         | 30L                                                                                                                                                                          | 45L         | 65L         | 85L          | 125L         |
|                      | Shelf number                   | 6                                                                                                                                                                            | 7           | 9           | 9            | 13           |
|                      | Load per rack                  | 15kg                                                                                                                                                                         |             |             |              |              |
|                      | Shelf space                    | 35mm                                                                                                                                                                         |             |             |              |              |
|                      | (50/60HZ)Current rating        | AC220V/3.6A                                                                                                                                                                  | AC220V/5.5A | AC220V/7.2A | AC220V/10.5A | AC220V/10.5A |
|                      | NW/GW (kg )                    | 33/37                                                                                                                                                                        | 37/43       | 44/49       | 50/60        | 60/66        |
| Accessory            | Shelf                          | 2                                                                                                                                                                            |             |             |              |              |
|                      | Shelf frame                    | 4                                                                                                                                                                            |             |             |              |              |
| optional accessories |                                | B model: Shelf; BE model: Shelf, RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage                          |             |             |              |              |

## Hot Air Sterilizing Drying Oven

◎ Easy to operate efficient dry heat sterilizer.

### Characteristics:

- Horizontal air circularly by double Air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With fan switch, LED digital display, high temperature blast motor.
- New anti-hot handle.

**GXB series have the following characteristics other than the above functions.**

- LCD temperature controller, SSR to make sure the safety
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- Independent temperature limiter.



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### Main Technical Parameters:

| Model                          | GX-30B                                                                                                                                                                                                                                                                                                                                                                                      | GX-45B      | GX-65B      | GX-85B      | GX-125B      | GX-230B      |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|--------------|--------------|
|                                | GX-30BE                                                                                                                                                                                                                                                                                                                                                                                     | GX-45BE     | GX-65BE     | GX-85BE     | GX-125BE     | GX-230BE     |
| Cycle Mode                     | Forced convection                                                                                                                                                                                                                                                                                                                                                                           |             |             |             |              |              |
| Function                       | Temp. range RT+10~300°C                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |
| Structure                      | Temp. Resolution Ratio 0.1°C                                                                                                                                                                                                                                                                                                                                                                |             |             |             |              |              |
|                                | Temp. Motion ± 1°C                                                                                                                                                                                                                                                                                                                                                                          |             |             |             |              |              |
|                                | Temp. Uniformity ± 2.5%                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |
| Inner Chamber                  | Mirror Stainless Steel                                                                                                                                                                                                                                                                                                                                                                      |             |             |             |              |              |
| Outer Shell                    | Cold rolling steel electrostatic spraying exterior                                                                                                                                                                                                                                                                                                                                          |             |             |             |              |              |
| Insulation layer               | High quality rock wool board (with CE)                                                                                                                                                                                                                                                                                                                                                      |             |             |             |              |              |
| Heater                         | stainless steel heater                                                                                                                                                                                                                                                                                                                                                                      |             |             |             |              |              |
| Power rating                   | 0.8kW                                                                                                                                                                                                                                                                                                                                                                                       | 1.2kW       | 1.6kW       | 2.0kW       | 2.3kW        | 3.0kW        |
| Exhaust hole                   | φ 28mm top (with function of test hole)                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |
| Temp. control mode             | Two temperature section PID intelligent                                                                                                                                                                                                                                                                                                                                                     |             |             |             |              |              |
| Temp. setting mode             | Touch button setting                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |
| Temp. display mode             | B model: LED Digital Display<br>BE model: LCD Digital display                                                                                                                                                                                                                                                                                                                               |             |             |             |              |              |
| Timer                          | 0~9999min (with timing wait function)                                                                                                                                                                                                                                                                                                                                                       |             |             |             |              |              |
| Operation function             | Fixed temperature operation, timing function, auto stop.                                                                                                                                                                                                                                                                                                                                    |             |             |             |              |              |
| Additional Function            | B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory<br>BE model: Mechanical independent temperature limiter, 4 grades 3 speed adjustable-speed fan (GX230BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |             |             |             |              |              |
| Sensor                         | Pt100                                                                                                                                                                                                                                                                                                                                                                                       |             |             |             |              |              |
| Inner Chamber size (W*L*H)(mm) | 310*310*310                                                                                                                                                                                                                                                                                                                                                                                 | 350*350*350 | 400*360*450 | 450*420*450 | 500*450*550  | 600*500*750  |
| Exterior size (W*L*H)(mm)      | 460*510*695                                                                                                                                                                                                                                                                                                                                                                                 | 500*550*735 | 550*550*840 | 590*610*830 | 636*680*915  | 730*680*1250 |
| Packing size (W*L*H)(mm)       | 550*585*845                                                                                                                                                                                                                                                                                                                                                                                 | 590*625*885 | 640*635*985 | 690*695*985 | 740*725*1085 | 860*790*1400 |
| Volume                         | 30L                                                                                                                                                                                                                                                                                                                                                                                         | 45L         | 65L         | 85L         | 125L         | 230L         |
| Shelf number                   | 6                                                                                                                                                                                                                                                                                                                                                                                           | 7           | 9           | 9           | 13           | 17           |
| Load per rack                  | 15kg                                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |
| Shelf space                    | 35mm                                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |              |              |
| Current rating (50/60HZ)       | AC220V/3.6A                                                                                                                                                                                                                                                                                                                                                                                 | AC220V/5.5A | AC220V/7.2A | AC220V/9.0A | AC220V/10.5A | AC220V/13.6A |
| NW/GW (kg )                    | 33/37                                                                                                                                                                                                                                                                                                                                                                                       | 37/43       | 44/49       | 50/56       | 60/66        | 94/120       |
| Accessory                      | Shelf<br>Shelf frame<br>optional accessories B model: Shelf; BE model: Shelf, RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage                                                                                                                                                                                            |             |             |             |              |              |

# Drying oven/Incubator (Double function)

◎ Drying, baking, wax, heat treatment and bacterial culture in one chamber.

## Characteristics:

- Horizontal air circularly by double air ducts, high efficiency and high uniformity.
- PID controller, with over-temperature protection function.
- With oven/Incubator change switch, fan switch; and high temperature blast motor, LED digital display.
- New anti-hot handle.

**GP-BE series have the following characteristics other than the above functions.**

- LCD temperature controller. SSR to make sure the safety
- 4 grades speed fan, adjustable for different requirements.
- Over-temperature protection system.
- Independent temperature limiter.



Patent No. : ZL 2018 3 0094606.5

## Main Technical Parameters:

| Model                  | GP-30B                                                                                                                                                                                                                                                                                                                                                                                      | GP-45B      | GP-65B      | GP-85B      | GP-125B     | GP-230B      |  |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|--------------|--|
|                        | GP-30BE                                                                                                                                                                                                                                                                                                                                                                                     | GP-45BE     | GP-65BE     | GP-85BE     | GP-125BE    | GP-230BE     |  |
| Cycle Mode             | Forced convection                                                                                                                                                                                                                                                                                                                                                                           |             |             |             |             |              |  |
| Function               | Temp. range Incubator:RT+5~80°C Drying oven:80~300°C                                                                                                                                                                                                                                                                                                                                        |             |             |             |             |              |  |
| Temp. Resolution Ratio | 0.1°C                                                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |              |  |
| Temp. Motion           | ± 1°C                                                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |              |  |
| Temp. Uniformity       | Incubator: ± 1.0°C Drying oven: ± 2.5%                                                                                                                                                                                                                                                                                                                                                      |             |             |             |             |              |  |
| Structure              | Inner Chamber Mirror Stainless Steel                                                                                                                                                                                                                                                                                                                                                        |             |             |             |             |              |  |
| Outer Shell            | Cold rolling steel electrostatic spraying exterior                                                                                                                                                                                                                                                                                                                                          |             |             |             |             |              |  |
| Insulation layer       | High quality rock wool board(with CE)                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |              |  |
| Heater                 | Stainless steel heater                                                                                                                                                                                                                                                                                                                                                                      |             |             |             |             |              |  |
| Power rating           | 0.8kW                                                                                                                                                                                                                                                                                                                                                                                       | 1.2kW       | 1.6kW       | 2.0kW       | 2.3kW       | 3.0kW        |  |
| Exhaust hole           | φ 28mm top (with function of test hole)                                                                                                                                                                                                                                                                                                                                                     |             |             |             |             |              |  |
| Controller             | Temp. control mode PID Two temperature section intelligent PID                                                                                                                                                                                                                                                                                                                              |             |             |             |             |              |  |
| Temp. setting mode     | Touch button setting                                                                                                                                                                                                                                                                                                                                                                        |             |             |             |             |              |  |
| Temp. display mode     | B type: LED Digital Display<br>BE model: LCD Digital display                                                                                                                                                                                                                                                                                                                                |             |             |             |             |              |  |
| Timer                  | 0~9999min (with timing wait function)                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |              |  |
| Operation function     | Fixed temperature operation, timing function, auto stop.                                                                                                                                                                                                                                                                                                                                    |             |             |             |             |              |  |
| Additional function    | B model: Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory<br>BE model: Mechanical independent temperature limiter, 4 grades 3 speed adjustable-speed fan (GP230BE without fan speed adjustor), sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |             |             |             |             |              |  |
| Sensor                 | Pt100                                                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |              |  |
| Specification          | Inner Chamber size(W*L*H)(mm)                                                                                                                                                                                                                                                                                                                                                               | 310*310*310 | 350*350*350 | 400*360*450 | 450*420*450 | 500*450*550  |  |
|                        | Exterior size(W*L*H)(mm)                                                                                                                                                                                                                                                                                                                                                                    | 460*510*695 | 500*550*735 | 550*550*840 | 590*610*830 | 636*680*915  |  |
|                        | Packing size(W*L*H)(mm)                                                                                                                                                                                                                                                                                                                                                                     | 550*585*845 | 590*625*885 | 640*635*985 | 690*695*985 | 740*725*1085 |  |
|                        | Volume                                                                                                                                                                                                                                                                                                                                                                                      | 30L         | 45L         | 65L         | 85L         | 125L         |  |
|                        | Shelf number                                                                                                                                                                                                                                                                                                                                                                                | 6           | 7           | 9           | 9           | 13           |  |
|                        | Load per rack                                                                                                                                                                                                                                                                                                                                                                               | 15kg        |             |             |             |              |  |
|                        | Shelf space                                                                                                                                                                                                                                                                                                                                                                                 | 35mm        |             |             |             |              |  |
|                        | Current rating                                                                                                                                                                                                                                                                                                                                                                              | AC220V/3.6A | AC220V/5.5A | AC220V/7.2A | AC220V/9.0A | AC220V/10.5A |  |
|                        | NW/GW (kg )                                                                                                                                                                                                                                                                                                                                                                                 | 33/37       | 37/43       | 44/49       | 50/56       | 60/66        |  |
| Accessory              | Shelf                                                                                                                                                                                                                                                                                                                                                                                       | 2           |             |             |             |              |  |
|                        | Shelf frame                                                                                                                                                                                                                                                                                                                                                                                 | 4           |             |             |             |              |  |
| Optional accessories   | B model: Shelf; BE model: Shelf, RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage                                                                                                                                                                                                                                         |             |             |             |             |              |  |

## Vacuum Drying Oven

◎ For the design of drying heat sensitive and easy decomposition, easy oxidation material, inert gas into.



### Characteristics:

Patent No. : ZL 2018 3 0094764.0

- 4-sides heating method, temperature conduction by shelves, more efficiency.
- With inflatable port, once-forming thermostability silica gel sealant strip, with good tightness
- Double observation glass window, inner is explosion – proof glass, outside is resin protection plate, more safety.
- Fastening handle, convenient for opening and closing.

### Main Technical Parameters:

| Model                                            | DZ-1A II                                                                                                                                | DZ-2A II    | DZ-3A II    |             |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
|                                                  | DZ-1BC II                                                                                                                               | DZ-2BC II   | DZ-3BC II   |             |
| Heating mode                                     | Four walls heat conduction and decompression                                                                                            |             |             |             |
| Temp. Range                                      | RT+10~250°C                                                                                                                             |             |             |             |
| Function                                         | Useful vacuum degree Range                                                                                                              |             |             |             |
| Temp. Resolution Ratio                           | <133Pa                                                                                                                                  |             |             |             |
| Temp. motion                                     | 0.1°C                                                                                                                                   |             |             |             |
| Heating-up time                                  | 80min                                                                                                                                   | 100min      | 120min      |             |
| Structure                                        | Inner Chamber BC model: High quality hairline stainless steel sheet; A model: Anticorrosion treatment of high strength galvanized sheet |             |             |             |
| Outer Shell                                      | Cold rolling steel electrostatic spraying exterior                                                                                      |             |             |             |
| Insulation layer                                 | Aluminum silicate fiber                                                                                                                 |             |             |             |
| Heater                                           | Stainless steel electric heating tube                                                                                                   |             |             |             |
| Observation window                               | Bullet proof glass, acrylic exterior protection                                                                                         |             |             |             |
| Vacuum meter                                     | Pointer type, accuracy class 2.5                                                                                                        |             |             |             |
| Nozzle diameter                                  | 10mm                                                                                                                                    |             |             |             |
| Power rating                                     | 0.8kW                                                                                                                                   | 1.4kW       | 2.0kW       |             |
| Controller                                       | Temp. control mode Two temperature section PID intelligent                                                                              |             |             |             |
| Temp. setting mode                               | Touch button setting                                                                                                                    |             |             |             |
| Temp. display mode                               | Measuring temperature: display on the four digital tubes upper row ; setting temperature: display on the lower row                      |             |             |             |
| Timer                                            | 0~9999min(with timing wait function)                                                                                                    |             |             |             |
| Operation function                               | Fixed temperature operation, timing function, auto stop                                                                                 |             |             |             |
| Additional function                              | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory                  |             |             |             |
| Sensor                                           | pt100                                                                                                                                   |             |             |             |
| Safety device Over temperature sound-light alarm |                                                                                                                                         |             |             |             |
| Specification                                    | Inner Chamber size(W*L*H)(mm)                                                                                                           | 300*300*270 | 415*370*340 | 450*450*450 |
|                                                  | Exterior size (W*L*H)(mm)                                                                                                               | 480*480*606 | 560*540*680 | 640*590*780 |
|                                                  | Packing size (W*L*H)(mm)                                                                                                                | 590*550*750 | 704*620*814 | 739*700*889 |
|                                                  | Volume                                                                                                                                  | 24L         | 52L         | 91L         |
| Number of shelf                                  | 2                                                                                                                                       |             |             |             |
| Load per rack                                    | 15kg                                                                                                                                    |             |             |             |
| Shelf space                                      | 100mm                                                                                                                                   | 140mm       | 185mm       |             |
| 50/60HZ)Current rating                           | AC220V/3.6A                                                                                                                             | AC220V/6.3A | AC220V/9.1A |             |
| NW/GW (kg )                                      | 42/52                                                                                                                                   | 67/92       | 82/105      |             |
| Accessory                                        | Shelf                                                                                                                                   | 2           |             |             |
|                                                  | Shelf frame                                                                                                                             | 4           |             |             |
| Optional accessories                             | Silica gel connecting pipe, vacuum pump                                                                                                 |             |             |             |

## Automatic Precision Vacuum Drying Oven

- For the design of drying heat sensitive and easy decomposition, easy oxidation material, inert gas into.

### Characteristics:

- Independent shelf heating, fax valued or programmable operating mode, real – time temperature curve records.
- Standard vacuum pumps and inflatable port, air duct is equipped with air filter.manual and electric double air release, adopt integral forming and high temperature resistant silicone sealing strip, with good tightness.
- Independent temperature limiter: imported mechanical temperature limiter, set the workroom to limit the temperature.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0094764.0

| Model                                                                                                                          | DZ-1BLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DZ-2BLT      | DZ-3BLT      |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Heating mode                                                                                                                   | Shelf direct heating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |
| Function                                                                                                                       | Temp. Range RT+10~250°C<br>Useful vacuum degree Range <133Pa<br>Tem. Resolution Ratio 0.1°C<br>Temp. motion ± 1°C<br>Heating-up time ≤ 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |              |
| Structure                                                                                                                      | Inner Chamber High quality mirror stainless steel sheet<br>Outer Shell Cold rolling steel electrostatic spraying exterior<br>Insulation layer High quality rock wool board(with CE)<br>Heater Mica electrothermal film<br>Observation window Bullet proof glass, acrylic exterior protection<br>Vacuum meter Pointer type +true color touch screen display<br>Vacuum pump system pump rating 2L/S with dry filter   pump rating 2L/S with dry filter   pump rating 4L/S with dry filter<br>Nozzle diameter 10mm<br>Power rating 0.8kW   1.2kW   1.6kW                                 |              |              |
| Controller                                                                                                                     | Temp. control mode true color 5.0 inch touch screen multi-stage PID program temperature control, single shelf independent temperature control, program control vacuum degree<br>Temp. setting mode Touch screen monitor<br>Timer Fixed temperature operate 10000 hours, program run 99 hours / step<br>Operation function Fixed temperature operation, timing function, auto stop<br>Program mode 30 sections, 40 steps<br>Additional function Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory<br>Sensor Pt100 |              |              |
| Safety device Over temperature alarm, mechanical independent temperature limiter, sensor fault alarm, over vacuum degree alarm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |              |
| Specification                                                                                                                  | Inner Chamber size(W*L*H)(mm) 300*300*270                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 415*370*340  | 450*450*450  |
|                                                                                                                                | Exterior size (W*L*H)(mm) 520*475*1160                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 635*540*1235 | 670*645*1340 |
|                                                                                                                                | Packing size (W*L*H)(mm) 689*635*1316                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 804*705*1391 | 840*785*1496 |
|                                                                                                                                | Volume 24L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 52L          | 91L          |
| Number of shelf                                                                                                                | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |              |
| Load per rack                                                                                                                  | 15kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |
| Shelf space                                                                                                                    | 100mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 140mm        | 185mm        |
| Power supply (50/60HZ) Current rating                                                                                          | AC220V/3.6A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | AC220V/6.3A  | AC220V/9.1A  |
| NW/GW (kg )                                                                                                                    | 42/52                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 67/92        | 82/105       |
| Accessory                                                                                                                      | Shelf 2<br>Shelf frame 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |              |
| Optional accessories                                                                                                           | RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |              |

## Automatic Vacuum Drying Oven

For the design of drying heat sensitive and easy decomposition, easy oxidation material, inert gas into.

### Characteristics:

- Large LCD screen display shows vacuum degree and temperature and multiple sets of data , Intelligent PID temperature and gas control system, control temperature accurately, automatic vacuum degree control system.
- Intelligent temperature and vacuum programmable design to meet different experiment requirements.
- Standard inflatable port, gas pipeline equipped with air filter to extend the life of the vacuum pump, manual and electric double sets of deflation device, adopt integral forming and high temperature resistant silicone sealing strip, with good tightness.
- Independent temperature limiter: imported mechanical mechanical temperature limiter, set the workroom to limit the temperature.



Patent No. : ZL 2018 3 0094764.0

### Main Technical Parameters:

| Model                | DZ-1BL                                       | DZ-2BL                                                                                                                 | DZ-3BL       |              |
|----------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Heating mode         | Four walls heat conduction and decompression |                                                                                                                        |              |              |
| Function             | Temp. Range                                  | RT+10~250°C                                                                                                            |              |              |
|                      | Vacuum degree Range                          | <133Pa                                                                                                                 |              |              |
|                      | Temp. Resolution Ratio                       | 0.1°C                                                                                                                  |              |              |
|                      | Temp. motion                                 | ± 1°C                                                                                                                  |              |              |
|                      | Heating-up time                              | 80min                                                                                                                  | 100min       | 120min       |
| Structure            | Inner Chamber                                | High quality hairline stainless steel sheet                                                                            |              |              |
|                      | Outer Shell                                  | Cold rolling steel electrostatic spraying exterior                                                                     |              |              |
|                      | Insulation layer                             | High quality rock wool board(with CE)                                                                                  |              |              |
|                      | Heater                                       | Stainless steel electric heating tube                                                                                  |              |              |
|                      | Observation window                           | Bullet proof glass, acrylic exterior protection                                                                        |              |              |
|                      | Vacuum meter                                 | LCD Display                                                                                                            |              |              |
|                      | Nozzle diameter                              | 10mm                                                                                                                   |              |              |
|                      | Power rating                                 | 0.8kW                                                                                                                  | 1.4kW        | 2.0kW        |
| Controller           | Temp. control mode                           | Intelligent PID multi-stage temperature control, program control vacuum                                                |              |              |
|                      | Temp. setting mode                           | Touch button setting                                                                                                   |              |              |
|                      | Temp. display mode                           | LCD Display                                                                                                            |              |              |
|                      | Timer                                        | 0~9999 min (with timing wait function)                                                                                 |              |              |
|                      | Operation function                           | Fixed temperature operation, timing function, auto stop                                                                |              |              |
|                      | Additional function                          | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |              |              |
|                      | Sensor                                       | Pt100                                                                                                                  |              |              |
| Specification        | Safety device                                | Over temperature sound-light alarm, mechanical temperature limiter, sensor fault alarm, over vacuum degree alarm       |              |              |
|                      | Inner Chamber size(W*L*H)(mm)                | 300*300*270                                                                                                            | 415*370*340  | 450*450*450  |
|                      | Exterior size (W*L*H)(mm)                    | 480*480*1106                                                                                                           | 560*540*1180 | 640*590*1280 |
|                      | Packing size (W*L*H)(mm)                     | 590*550*1250                                                                                                           | 704*620*1314 | 739*700*1389 |
|                      | Volume                                       | 24L                                                                                                                    | 52L          | 91L          |
|                      | Number of shelf                              | 2                                                                                                                      |              |              |
|                      | Load per rack                                | 15kg                                                                                                                   |              |              |
|                      | Shelf space                                  | 100mm                                                                                                                  | 140mm        | 185mm        |
|                      | Current rating (50/60HZ)                     | AC220V/3.6A                                                                                                            | AC220V/6.3A  | AC220V/9.1A  |
|                      | NW/GW (kg )                                  | 42/52                                                                                                                  | 67/92        | 82/105       |
| Accessory            | Shelf                                        | 2                                                                                                                      |              |              |
|                      | Shelf frame                                  | 4                                                                                                                      |              |              |
| Optional Accessories |                                              | RS485 interface, printer, recorder, remote control, wireless SMS alarm, USB data storage                               |              |              |

## Big Forced Air Drying Oven

Large capacity industrial high precision drying oven to meet the requirements of military industry.

### Characteristics:

- PID or program temperature control controller, with over-temperature alarm system.
- Double doors ensure that use is convenient.
- Forced air system, with Low-noise fan, centrifugal cycle mothod, high tempearture uniformity.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0094606.5

| Model                  | DGF-4A                                                                                          | DGF-5A                                          | DGF-6A         | DGF- 7A        | DGF-8A         |                |
|------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------|----------------|----------------|----------------|
|                        | DGF-4AB                                                                                         | DGF-5AB                                         | DGF-6AB        | DGF-7AB        | DGF-8AB        |                |
| Cycle Mode             | Fan – forced circulation                                                                        |                                                 |                |                |                |                |
| Function               | Temp. Range RT+10–250°C                                                                         |                                                 |                |                |                |                |
| Temp. Resolution Ratio | 0.1°C                                                                                           |                                                 |                |                |                |                |
| Temp. Motion           | ± 1°C                                                                                           |                                                 |                |                |                |                |
| Temp. Uniformity       | ± 3%                                                                                            |                                                 |                |                |                |                |
| Structure              | Inner Chamber A: Iron inner chamber AB: Stainless steel inner chamber                           |                                                 |                |                |                |                |
| Outer Shell            | Galvanized sheet electrostatic spraying exterior                                                |                                                 |                |                |                |                |
| Insulation layer       | High quality rock wool board(with CE)                                                           |                                                 |                |                |                |                |
| Heater                 | Stainless steel heating tube                                                                    |                                                 |                |                |                |                |
| Power Rating           | 5.4kW                                                                                           | 6.6kW                                           | 9kW            | 12kW           | 18kW           |                |
| Exhaust hole           | On top or side                                                                                  |                                                 |                |                |                |                |
| Controller             | Temp. Control mode PID intelligent control or Multi – segment programmable control ( optional ) |                                                 |                |                |                |                |
| Temp. Setting mode     | Touch button setting                                                                            |                                                 |                |                |                |                |
| Temp. Display mode     | LCD Digital Display                                                                             |                                                 |                |                |                |                |
| Timer                  | 0–9999min (with timing wait function )                                                          |                                                 |                |                |                |                |
| Operation Function     | Fixed temperature operation, timing function, auto stop.                                        |                                                 |                |                |                |                |
| Additional Function    | Temperature deviation correction, menu locked, power-off memory                                 |                                                 |                |                |                |                |
| Sensor                 | PT100                                                                                           |                                                 |                |                |                |                |
| Safety Device          | One key to start overheat power off                                                             |                                                 |                |                |                |                |
| Specification          | Inner Chamber size (W*L*H)(mm)                                                                  | 800*800*1000                                    | 1000*1000*1000 | 1000*1000*1300 | 1200*1200*1300 | 1600*1200*1600 |
|                        | Exterior size (W*L*H)(mm)                                                                       | 940*1000*1400                                   | 1040*1200*1400 | 1230*1200*1670 | 1330*1400*1670 | 1750*1400*2070 |
|                        | Packing size (W*L*H)(mm)                                                                        | 1040*1110*1520                                  | 1260*1290*1520 | 1350*1300*1890 | 1550*1500*1890 | 1950*1500*2290 |
|                        | Volume                                                                                          | 640L                                            | 1000L          | 1300L          | 1870L          | 3070L          |
|                        | Shelf Number                                                                                    | 11                                              | 11             | 15             | 15             | 20             |
|                        | Shelf Space                                                                                     | 70MM                                            |                |                |                |                |
|                        | Power Supply (50/60HZ)                                                                          | 380V                                            |                |                |                |                |
| Accessory              | NW/GW ( kg )                                                                                    | 200                                             | 260            | 350            | 480            | 800            |
|                        | Shelf                                                                                           | 2                                               |                |                |                |                |
|                        | Shelf frame                                                                                     | No                                              |                |                |                |                |
|                        | Optional Accessories                                                                            | Shelf, RS485 interface, printer, remote control |                |                |                |                |

# Desktop Constant-temperature Drying Oven

## Desktop Constant-temperature Incubator

◎ Light natural convection drying oven / incubator.

### Characteristics:

- In the workroom, the hot air is convective naturally and cyclically.
- Digital display microcomputer intelligent PID temperature controller.
- New anti-hot handle.



Patent No. : ZL 2018 3 0094606.5

### Main Technical Parameters:

| Model                | WHL-25A/WHL-25AB              | WP-25A/ WP-25AB                                                                                                        |
|----------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Cycle Mode           | Natural convection            |                                                                                                                        |
| Function             | Temp. Range                   | RT+10~300°C                                                                                                            |
|                      | Temp. Resolution Ratio        | 0.1°C                                                                                                                  |
|                      | Temp. Motion                  | ± 1°C                                                                                                                  |
|                      | Temp. Uniformity              | ± 3.5%      ± 2.0°C                                                                                                    |
| Structure            | Inner Chamber                 | B model: mirror stainless steel; without B model: High strength galvanized sheet                                       |
|                      | Outer Shell                   | cold rolling steel electrostatic spraying exterior                                                                     |
|                      | Insulation layer              | High quality rock wool board(with CE)                                                                                  |
|                      | Heater                        | Nickel chromium alloy heating wire                                                                                     |
|                      | Power rating                  | 0.6kW      0.18kW                                                                                                      |
|                      | Exhaust hole                  | φ 28mm top (with function of test hole)                                                                                |
| Controller           | Temp. control mode            | Two temperature section intelligent PID                                                                                |
|                      | Temp. set mode                | Touch button setting                                                                                                   |
|                      | Temp. display mode            | Measuring temperature: display on the four digital tubes upper row ; setting temperature: display on the lower row     |
|                      | Timer                         | 0~9999min (with timing wait function)                                                                                  |
|                      | Operation function            | fixed temperature operation, timing function, auto stop                                                                |
|                      | Additional function           | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |
|                      | Sensor                        | K model      CU50                                                                                                      |
| Specification        | Safety device                 | over temperature sound-light alarm                                                                                     |
|                      | Inner Chamber size(W*L*H)(mm) | 260*260*260                                                                                                            |
|                      | Exterior size (W*L*H)(mm)     | 380*455*568                                                                                                            |
|                      | Packing size (W*L*H)(mm)      | 500*530*657                                                                                                            |
|                      | Volume                        | 18L                                                                                                                    |
|                      | Shelf number                  | 6                                                                                                                      |
|                      | Load per rack                 | 15kg                                                                                                                   |
|                      | Shelf space                   | 29mm                                                                                                                   |
|                      | (50/60HZ)Current rating       | AC220V/2.7A      AC220V/0.8A                                                                                           |
|                      | NW/GW (kg )                   | 27/35                                                                                                                  |
| Accessory            | Shelf                         | 2                                                                                                                      |
| Optional accessories |                               | Shelf                                                                                                                  |

## Constant-Temperature Incubator

◎ Classical bacterial microorganism incubator.



### Characteristics:

Patent No. : ZL 2018 3 0095051.6

- New panel 5 degree angle, new glass inner door knob switch.
- The double door structure adopts high quality glass, easy to observe samples, the door with magnetic strip is easy to be opened and closed, good sealing and open door power-off function.

### Main Technical Parameters:

| Model                | DH3600 II                          | DH4000 II                                                                                                              | DH5000 II   | DH6000 II   |              |
|----------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------|
|                      | DH3600B II                         | DH4000B II                                                                                                             | DH5000B II  | DH6000B II  |              |
| Cycle Mode           | Natural convection                 |                                                                                                                        |             |             |              |
| Function             | Temp. Range                        | RT+5~70°C                                                                                                              |             |             |              |
|                      | Temp. Resolution Ratio             | 0.1°C                                                                                                                  |             |             |              |
|                      | Temp. Motion                       | ± 0.5°C                                                                                                                |             |             |              |
|                      | Temp. Uniformity                   | ± 1.5°C                                                                                                                |             |             |              |
| Structure            | Inner Chamber                      | B :mirror stainless steel; without B :High strength galvanized sheet                                                   |             |             |              |
|                      | Outer Shell                        | Cold rolling steel electrostatic spraying exterior                                                                     |             |             |              |
|                      | Insulation layer                   | High quality foam board                                                                                                |             |             |              |
|                      | Heater                             | Mica electrothermal film                                                                                               |             |             |              |
|                      | Power Rating                       | 0.25kW                                                                                                                 | 0.25kW      | 0.5kW       | 0.6kW        |
|                      | Exhaust hole                       | φ 28mm top with function of test hole                                                                                  |             |             |              |
| Controller           | Temp. control mode                 | PID Intelligent                                                                                                        |             |             |              |
|                      | Temp. setting mode                 | Touch button setting                                                                                                   |             |             |              |
|                      | Temp. display mode                 | Measuring temperature: LED upper row; setting temperature: the lower row                                               |             |             |              |
|                      | Timer                              | 0~9999min (with timing wait function)                                                                                  |             |             |              |
|                      | Operation function                 | Fixed temperature operation, timing function,auto stop.                                                                |             |             |              |
|                      | Additional function                | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |             |             |              |
|                      | Sensor                             | CU50                                                                                                                   |             |             |              |
| Safety device        |                                    |                                                                                                                        |             |             |              |
| Specification        | Over temperature sound-light alarm |                                                                                                                        |             |             |              |
|                      | Inner Chamber size(W*L*H)(mm)      | 350*350*350                                                                                                            | 400*350*450 | 500*450*550 | 600*580*600  |
|                      | Exterior size (W*L*H)(mm)          | 525*480*620                                                                                                            | 575*480*720 | 675*580*820 | 775*710*870  |
|                      | Packing size (W*L*H)(mm)           | 605*572*775                                                                                                            | 655*572*875 | 755*672*975 | 855*802*1025 |
|                      | Shelf number                       | 7                                                                                                                      | 9           | 13          | 14           |
|                      | Load per rack                      | 15kg                                                                                                                   |             |             |              |
|                      | Shelf space                        | 35mm                                                                                                                   |             |             |              |
|                      | Current rating                     | AC220V/1.1A                                                                                                            | AC220V/1.1A | AC220V/2.3A | AC220V/2.7A  |
|                      | NW/GW (kg )                        | 27/30                                                                                                                  | 32/35       | 45/49       | 58/63        |
| Accessory            | Shelf                              | 2                                                                                                                      |             |             |              |
| Optional accessories |                                    |                                                                                                                        |             |             |              |

# High Precision Constant Temperature Incubator

◎ High precision bacterial microbial incubator.

## Characteristics:

- The double door structure adopts high quality glass, easy to observe samples, the outdoor with magnetic strip is easy to be opened and closed, good sealing, open door power-off function.
- Standard lights, UV lamps, with breeze circulation fan, 485 communication interface.
- Independent temperature limiter: imported mechanical temperature limiter, set the workroom limited temperature.



## Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                | DH45L                         | DH65L                                                                                                      | DH125L      | DH210L      |              |
|----------------------|-------------------------------|------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------|
| Cycle Mode           | Breeze circulation            |                                                                                                            |             |             |              |
| Function             | Tem. Range                    | RT+5~65°C                                                                                                  |             |             |              |
|                      | Tem. Resolution Ratio         | 0.1°C                                                                                                      |             |             |              |
|                      | Tem. Motion                   | ± 0.5°C                                                                                                    |             |             |              |
|                      | Tem. Uniformity               | ± 0.8°C                                                                                                    |             |             |              |
| Structure            | Inner Chamber                 | Mirror stainless steel                                                                                     |             |             |              |
|                      | Outer Shell                   | Cold rolling steel electrostatic spraying exterior                                                         |             |             |              |
|                      | Insulation layer              | High quality foam board                                                                                    |             |             |              |
|                      | Heater                        | Mica electrothermal film                                                                                   |             |             |              |
|                      | Power Rating                  | 0.25kW                                                                                                     | 0.25kW      | 0.5kW       | 0.6kW        |
|                      | Exhaust hole                  | φ 28mm top (with function of test hole)                                                                    |             |             |              |
| Controller           | Tem. control mode             | PID Intelligent                                                                                            |             |             |              |
|                      | Tem. setting mode             | Touch button setting                                                                                       |             |             |              |
|                      | Tem. display mode             | Measuring temperature: LCD upper row; Setting temperature: the lower row                                   |             |             |              |
|                      | Timer                         | 0~9999 min (with timing wait function)                                                                     |             |             |              |
|                      | Operation function            | Fixed temperature operation, timing function, auto stop.                                                   |             |             |              |
|                      | Additional funciton           | LED Floodlight, Sensor deviation correction, temperature overshoot self-tuning, power-off parameter memory |             |             |              |
|                      | Sensor                        | PT100                                                                                                      |             |             |              |
| Safety device        |                               | Mechanical independent temperature limiter, over temperature sound-light alarm                             |             |             |              |
| Specification        | Inner Chamber size(W*L*H)(mm) | 350*350*350                                                                                                | 400*350*450 | 500*450*550 | 600*580*600  |
|                      | Exterior size (W*L*H)(mm)     | 525*480*620                                                                                                | 575*480*720 | 675*580*820 | 775*710*870  |
|                      | Packing size (W*L*H)(mm)      | 605*572*775                                                                                                | 655*572*875 | 755*672*975 | 855*802*1025 |
|                      | Volume                        | 45L                                                                                                        | 65L         | 125L        | 210L         |
|                      | Shelf number                  | 7                                                                                                          | 9           | 13          | 14           |
|                      | Load per rack                 | 15kg                                                                                                       |             |             |              |
|                      | Shelf space                   | 35mm                                                                                                       |             |             |              |
|                      | Supply(50/60HZ)Current rating | AC220V/1.1A                                                                                                | AC220V/1.1A | AC220V/2.3A | AC220V/2.7A  |
| Accessory            | NW/GW (kg )                   | 27/30                                                                                                      | 32/35       | 45/49       | 58/63        |
|                      | Shelf                         | 2                                                                                                          |             |             |              |
|                      | Shelf frame                   | 4                                                                                                          |             |             |              |
| Optional accessories |                               | Shelf, USB interface, printer, recorder, External Communication, remote control, wireless SMS alarm        |             |             |              |

## Constant-temperature Incubator

◎ High precision experimental bacterial incubator.

### Characteristics:

- Unique vertical double duct supply horizontal air circularly.
- 4 grades 3 speed adjustable speed fan, LED running indicator light.
- Over-temperature protection system: LED red light on meanwhile cut off heating circuit to improve product safety when workroom temperature exceed the alarm value.
- Setting the workroom limit temperature on imported mechanical temperature limiter.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

| Model         | WPL-30BE                      | WPL-45BE                                                                                                                 | WPL-65BE    | WPL-85BE    | WPL-125BE   | WPL-230BE    |              |
|---------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|--------------|--------------|
| Cycle Mode    | Forced convection             |                                                                                                                          |             |             |             |              |              |
| Function      | Temp. range                   | RT+5~120°C                                                                                                               |             |             |             |              |              |
|               | Temp. Resolution Ratio        | 0.1°C                                                                                                                    |             |             |             |              |              |
|               | Temp. Motion                  | ± 1°C                                                                                                                    |             |             |             |              |              |
|               | Temp. Uniformity              | ± 1.0°C                                                                                                                  |             |             |             |              |              |
| Structure     | Inner Chamber                 | Mirror Stainless Steel                                                                                                   |             |             |             |              |              |
|               | Outer Shell                   | Cold rolling steel electrostatic spraying exterior                                                                       |             |             |             |              |              |
|               | Insulation layer              | High quality foam board                                                                                                  |             |             |             |              |              |
|               | Heater                        | Stainless steel heater                                                                                                   |             |             |             |              |              |
|               | Power rating                  | 0.4kW                                                                                                                    | 0.5kW       | 0.7kW       | 0.9kW       | 1.1kW        | 1.5kW        |
|               | Exhaust hole                  | φ 28mm top( with function of test hole)                                                                                  |             |             |             |              |              |
| Controller    | Temp control mode             | Two temperature section intelligent PID                                                                                  |             |             |             |              |              |
|               | Temp. setting mode            | Touch button setting                                                                                                     |             |             |             |              |              |
|               | Temp. display mode            | Measuring temperature: LCD upper screen; setting temperature: the lower row                                              |             |             |             |              |              |
|               | Timer                         | 0~9999min(with timing wait function)                                                                                     |             |             |             |              |              |
|               | Operation function            | Fixed temperature operation, timing function, auto stop.                                                                 |             |             |             |              |              |
|               | Additional function           | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory   |             |             |             |              |              |
|               | Sensor                        | pt100                                                                                                                    |             |             |             |              |              |
| Specification | Inner Chamber size(W*L*H)(mm) | 310*310*310                                                                                                              | 350*350*350 | 400*360*450 | 450*420*450 | 500*450*550  | 600*500*750  |
|               | Exterior size (W*L*H)(mm)     | 460*510*695                                                                                                              | 500*550*735 | 550*550*840 | 590*610*830 | 636*680*915  | 730*680*1250 |
|               | Packing size (W*L*H)(mm)      | 550*585*845                                                                                                              | 590*625*885 | 640*635*985 | 690*695*985 | 740*725*1085 | 860*790*1400 |
|               | Volume                        | 30L                                                                                                                      | 45L         | 65L         | 85L         | 125L         | 230L         |
|               | Shelf number                  | 6                                                                                                                        | 7           | 9           | 9           | 13           | 17           |
|               | Load per rack                 | 15kg                                                                                                                     |             |             |             |              |              |
|               | Shelf space                   | 35mm                                                                                                                     |             |             |             |              |              |
|               | Current rating                | 220V/3.6A                                                                                                                | 220V/5.5A   | 220V/7.2A   | 220V/9.0A   | 220V/10.5A   | 220V/13.6A   |
|               | NW/GW (kg )                   | 33/37                                                                                                                    | 37/43       | 44/49       | 50/56       | 60/66        | 94/120       |
| Accessory     | Shelf                         | 2                                                                                                                        |             |             |             |              |              |
|               | Optional accessories          | Shelf,RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage |             |             |             |              |              |

## Portable Incubator

◎ Can carry the training equipment everywhere.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

| Model         |                               | DH2500AB                                                                                                               |
|---------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Cycle Mode    |                               | Natural convection                                                                                                     |
| Function      | Tem. Range                    | RT+5~50°C                                                                                                              |
|               | Tem. Resolution Ratio         | 0.1°C                                                                                                                  |
|               | Tem. Motion                   | ± 0.5°C                                                                                                                |
|               | Tem. Uniformity               | ± 1.5°C                                                                                                                |
| Structure     | Inner Chamber                 | Mirror stainless steel                                                                                                 |
|               | Outer Shell                   | Cold rolling steel electrostatic spraying exterior                                                                     |
|               | Insulation layer              | High quality foam board                                                                                                |
|               | Heater                        | Heating Wire                                                                                                           |
|               | Power Rating                  | 0.3kW                                                                                                                  |
| Controller    | Tem. control mode             | PID Intelligent                                                                                                        |
|               | Tem. setting mode             | Touch button setting                                                                                                   |
|               | Tem. display mode             | Measuring temperature: LED upper row ; Setting temperature: the lower row                                              |
|               | Timer                         | 0~9999min (with timing wait function)                                                                                  |
|               | Operation function            | Fixed temperature operation, timing function, auto stop.                                                               |
|               | Additional funciton           | Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power-off parameter memory |
|               | Sensor                        | CU50                                                                                                                   |
| Safety device |                               | Over temperature sound-light alarm                                                                                     |
| Specification | Inner Chamber size(W*L*H)(mm) | 200*160*230                                                                                                            |
|               | Exterior size (W*L*H)(mm)     | 300*330*330                                                                                                            |
|               | Packing size (W*L*H)(mm)      | 340*370*390                                                                                                            |
|               | Volume                        | 7.4L                                                                                                                   |
|               | Supply(50/60HZ)Current rating | AC220V/1.3A                                                                                                            |
|               | NW/GW (kg )                   | 9/11                                                                                                                   |
|               | Optional accessories          | Vehicular supply/DC12Vsupply                                                                                           |

# Cooling Incubator/Refrigerated Incubator BOD Incubator

Various constant temperature experiments and environmental tests at 0~65°C, water analysis, microbe culture of BOD / bacteria, plant breeding, and sample preservation.

## Characteristics:

- Unique internal wind circulation structure design, fan breeze circulation.
- The double door structure, with high quality glass easy to observe the samples, the outer door with magnetic strip, good sealing.
- Intelligent defrosting function ensures long frost-free operation of the equipment.

## BL model additional characteristics:

- LCD display 30 stage programs control, ladder operation.
- Sensor fault alarm.



## Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                | SPX-70BIV                                                                                                                                                  | SPX-150BIV                                                                                                               | SPX-250BIV   |              |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
|                      | SPX-70BL                                                                                                                                                   | SPX-150BL                                                                                                                | SPX-250BL    |              |
| Cycle Mode           | Forced convection                                                                                                                                          |                                                                                                                          |              |              |
| Function             | Temp. range                                                                                                                                                | 0 ~ 65°C                                                                                                                 |              |              |
|                      | Temp. Resolution Ratio                                                                                                                                     | 0.1°C                                                                                                                    |              |              |
|                      | Temp. Motion                                                                                                                                               | High Temp.: ± 0.5°C    Low Temp.: ± 1°C                                                                                  |              |              |
|                      | Temp. Uniformity                                                                                                                                           | ± 1°C                                                                                                                    |              |              |
| Structure            | Inner Chamber                                                                                                                                              | Mirror Stainless Steel                                                                                                   |              |              |
|                      | Outer Shell                                                                                                                                                | Cold rolling steel electrostatic spraying exterior                                                                       |              |              |
|                      | Insulation layer                                                                                                                                           | Polyurethane                                                                                                             |              |              |
|                      | Heater                                                                                                                                                     | Stainless steel heater                                                                                                   |              |              |
|                      | Power rating                                                                                                                                               | 0.8kW                                                                                                                    | 1.0kW        | 1.2kW        |
|                      | Compressor                                                                                                                                                 | Air cooled hermetic compressor                                                                                           |              |              |
|                      | Cryogen                                                                                                                                                    | R134a                                                                                                                    |              |              |
|                      | Defrost structure                                                                                                                                          | Automatic control intelligent defrosting                                                                                 |              |              |
|                      | Test hole                                                                                                                                                  | Stainless steel inner diameter 50mm(one)                                                                                 |              |              |
|                      | Controlled external power supply                                                                                                                           | Universal socket (one)                                                                                                   |              |              |
|                      | Temp. setting mode                                                                                                                                         | Touch button setting                                                                                                     |              |              |
|                      | Temp. display mode                                                                                                                                         | Measuring temperature: LCD upper screen; setting temperature: the lower row                                              |              |              |
|                      | Timer                                                                                                                                                      | BIII model: 0 ~ 99.9h    BL model: 0 ~ 99.9h × 30 Segment                                                                |              |              |
|                      | Operation function                                                                                                                                         | BIII model: Fixed value operation, timing function, auto stop.<br>BL model: Program operation                            |              |              |
| Sensor               | PT100                                                                                                                                                      |                                                                                                                          |              |              |
|                      | BIII model: LED light, Deviation correction, Menu key lock, Power failure parameter memory<br>BL model additional character: UV light, loop self diagnosis |                                                                                                                          |              |              |
| Specification        | Over temperature alarm, mechanical temperature limiter                                                                                                     |                                                                                                                          |              |              |
|                      | Inner Chamber size(W*L*H)(mm)                                                                                                                              | 420*350*500                                                                                                              | 500*500*600  | 600*500*840  |
|                      | Exterior size (W*L*H)(mm)                                                                                                                                  | 580*610*1190                                                                                                             | 660*760*1290 | 760*760*1530 |
|                      | Packing size (W*L*H)(mm)                                                                                                                                   | 708*716*1368                                                                                                             | 788*866*1468 | 888*866*1708 |
|                      | Volume                                                                                                                                                     | 70L                                                                                                                      | 150L         | 250L         |
|                      | Load per rack                                                                                                                                              | 15kg                                                                                                                     |              |              |
|                      | Shelf number                                                                                                                                               | 9                                                                                                                        | 12           | 18           |
|                      | Shelf space                                                                                                                                                | 35mm                                                                                                                     |              |              |
|                      | Power Supply Current rating                                                                                                                                | AC220V/2.3A                                                                                                              | AC220V/3.6A  | AC220V/5.5A  |
|                      | NW/GW (kg )                                                                                                                                                | 69/92                                                                                                                    | 86/114       | 100/139      |
| Accessory            | Shelf                                                                                                                                                      | 2                                                                                                                        |              |              |
| Optional accessories |                                                                                                                                                            | Shelf, Touch screen controller, RS485 interface, Printer, Recorder, Remote control, Wireless SMS alarm, USB data storage |              |              |

## Cooling Incubator/Refrigerated Incubator/Bod Incubator



Patent No. : ZL 2018 3 0095051.6

### Characteristics:

- 1. Stainless steel inner chamber; foursquare semicircle transition, convenient to clean; space between shelves is adjustable.
- 2. Micro-computer control system; LCD with functions of time setting, parameter memorizing and power reset recovering.
- 3. Fluoride-free refrigeration and gentle breeze circulation.
- 4. Test hole of c 52mm at left side of container.
- 5. Double door seal; tempered glass silicon rubber seal inner door and magnetic rubber seal outer door, which are convenient to on/off; inner chamber with light for convenient observation.

### Main Technical Parameters:

| Model                    | Standard form   | SPX-70BIII           | SPX-150BIII      | SPX-250BIII      |
|--------------------------|-----------------|----------------------|------------------|------------------|
|                          | Functional form | SPX-70BX             | SPX-150BX        | SPX-250BX        |
| voltage                  |                 | 220V/50Hz            |                  |                  |
| Tem.Range(°C)            |                 | 0~65°C               |                  |                  |
| Tem.Resolution Ratio(°C) |                 | 0.1°C                |                  |                  |
| Tem.Motion(°C)           |                 | ± 0.5°C              |                  |                  |
| Tem.uniformity(°C)       |                 | ± 1°C                |                  |                  |
| Power(W)                 | 300             | 500                  | 800              |                  |
| Coolant                  |                 | R134a                |                  |                  |
| Ambient tem.(°C)         |                 | 5~30°C               |                  |                  |
| Inner Chamber Size(mm)   |                 | 420 × 350 × 500      | 500 × 500 × 600  | 600 × 500 × 840  |
| Exterior Size(mm)        |                 | 570 × 560 × 1030     | 640 × 620 × 1290 | 820 × 760 × 1450 |
| Packing Size(mm)         |                 | 730 × 730 × 1190     | 820 × 760 × 1450 | 880 × 825 × 1665 |
| N.W.(Kg)                 | 69              | 86                   | 100              |                  |
| G.W.(Kg)                 | 92              | 114                  | 139              |                  |
| Timing                   |                 | 1~9999min            |                  |                  |
| Load per rack            |                 | 2pieces (15kg/piece) |                  |                  |

# Mould Cultivation Cabinet

◎ Constant temperature experiments and environmental tests for the need for humidity.

## Characteristics:

- Unique internal wind circulation, fan breeze circulation.
- Large screen LCD intelligence PID, multi group data display on screen.
- The double door structure, with high quality glass easy to observe the samples, the outer door with magnetic strip, good sealing.
- The upgraded humidifying system has the advantages of small particles, good humidity uniformity and low water consumption.

## BI model additional characteristics:

- LCD display 30 stage programs control, ladder operation; Imported humidity sensor module, humidity automatic control, high precision.
- Loop self diagnosis, sensor fault alarm.



## Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                | MJX-70BIII                        | MJX-150BIII                                                                                                                                                | MJX-250BIII                                                    |                  |
|----------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------|
|                      | MJX-70BL                          | MJX-150BL                                                                                                                                                  | MJX-250BL                                                      |                  |
| Cycle Mode           |                                   |                                                                                                                                                            |                                                                |                  |
| Function             | Temp. range                       | No humidification: 0 ~ 65°C; humidification: 10 ~ 65°C                                                                                                     |                                                                |                  |
|                      | Temp. Resolution Ratio            | 0.1°C                                                                                                                                                      |                                                                |                  |
|                      | Temp. Motion                      | High Temp.: ± 0.5°C                                                                                                                                        |                                                                | Low Temp.: ± 1°C |
|                      | Temp. Uniformity                  | ± 1°C                                                                                                                                                      |                                                                |                  |
|                      | Humidity Range                    | 50% ~ 90%RH                                                                                                                                                |                                                                |                  |
|                      | Humidity Stability                | ± 5%RH                                                                                                                                                     |                                                                |                  |
| Structure            | Inner Chamber                     | Mirror Sainless Steel                                                                                                                                      |                                                                |                  |
|                      | Outer Shell                       | Cold rolling steel electrostatic spraying exterior                                                                                                         |                                                                |                  |
|                      | Insulation layer                  | Polyurethane                                                                                                                                               |                                                                |                  |
|                      | Heater                            | Stainless steel heater                                                                                                                                     |                                                                |                  |
|                      | Power rating                      | 0.8kW                                                                                                                                                      | 1.0kW                                                          | 1.2kW            |
|                      | Compressor                        | Air cooled hermetic compressor                                                                                                                             |                                                                |                  |
|                      | Cryogen                           | R134a                                                                                                                                                      |                                                                |                  |
|                      | Defrost structure                 | Automatic control intelligent defrosting                                                                                                                   |                                                                |                  |
|                      | Humidifying method                | External                                                                                                                                                   |                                                                |                  |
|                      | Test hole                         | Stainless steel inner diameter 50mm(one)                                                                                                                   |                                                                |                  |
|                      | Controlled external power supply  | Universal socket (one)                                                                                                                                     |                                                                |                  |
|                      | Temp. setting mode                | Touch button setting                                                                                                                                       |                                                                |                  |
|                      | Temp. display mode                | Measuring temperature: LCD upper row; Setting temperature: the lower row                                                                                   |                                                                |                  |
|                      | Humidity control mode             | BIII model: Manual; BL model: Auto                                                                                                                         |                                                                |                  |
|                      | Timer                             | BIII model: 0 ~ 99.9h                                                                                                                                      | BL model: 0 ~ 99.9h × 30 Segment ( with timing wait function ) |                  |
|                      | Operation function                | BIII model: Fixed value operation, timing function, auto stop.<br>BL model: Program operation                                                              |                                                                |                  |
|                      | Sensor                            | PT100                                                                                                                                                      |                                                                |                  |
|                      | Humidity sensor                   | BIII model: without; BL model: with                                                                                                                        |                                                                |                  |
|                      | Additional funciton               | BIII model: LED light, Deviation correction, Menu key lock, Power failure parameter memory<br>BL model additional character: UV light, loop self diagnosis |                                                                |                  |
| Safety device        |                                   |                                                                                                                                                            |                                                                |                  |
| Specification        | Inner Chamber size (W*L*H)(mm)    | 420*350*500                                                                                                                                                | 500*500*600                                                    | 600*500*840      |
|                      | Exterior size (W*L*H)(mm)         | 580*610*1190                                                                                                                                               | 660*760*1290                                                   | 760*760*1530     |
|                      | Packing size (W*L*H)(mm)          | 708*716*1368                                                                                                                                               | 788*866*1468                                                   | 888*866*1708     |
|                      | Volume                            | 70L                                                                                                                                                        | 150L                                                           | 250L             |
|                      | Load per rack                     | 15kg                                                                                                                                                       |                                                                |                  |
|                      | Shelf number                      | 9                                                                                                                                                          | 12                                                             | 18               |
|                      | Shelf space                       | 35mm                                                                                                                                                       |                                                                |                  |
|                      | Supply ( 50/60Hz ) Current rating | AC220V/2.3A                                                                                                                                                | AC220V/3.6A                                                    | AC220V/5.5A      |
| Accessory            |                                   | NW/GW (kg)                                                                                                                                                 | 69/92                                                          | 86/114           |
| Shelf                |                                   | 2                                                                                                                                                          |                                                                |                  |
| Optional accessories |                                   | Shelf, Touch screen controller, RS485 interface, Printer, Recorder, Remote control, Wireless SMS alarm, USB data storage                                   |                                                                |                  |

## Constant Temperature and Humidity Incubators

◎ Constant temperature experiment and environmental test of humidity range.

### Characteristics:

- Unique internal wind circulation, fan breeze circulation.
- Intelligent PID temperature control system, high temperature control accuracy. imported humidity sensor module.
- The double door structure, with high quality glass easy to observe the samples, the outer door with magnetic strip, good sealing.
- The upgraded humidifying system has the advantages of small particles, good humidity uniformity and low water consumption.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

| Model                | HWS-70B                                 | HWS-150B                                                                                                                 | HWS-250B         |              |
|----------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|--------------|
| Cycle Mode           | Forced convection                       |                                                                                                                          |                  |              |
| Function             | Temp. range                             | No humidification: 0 ~ 65°C; humidification: 10 ~ 65°C                                                                   |                  |              |
|                      | Temp. Resolution Ratio                  | 0.1°C                                                                                                                    |                  |              |
|                      | Temp. Motion                            | High Temp.: ± 0.5°C                                                                                                      | Low Temp.: ± 1°C |              |
|                      | Temp. Uniformity                        | ± 1°C                                                                                                                    |                  |              |
|                      | Humidity Range                          | 45% ~ 95%RH                                                                                                              |                  |              |
|                      | Humidity Stability                      | ± 5%RH                                                                                                                   |                  |              |
| Structure            | Inner Chamber                           | Mirror Stainless Steel                                                                                                   |                  |              |
|                      | Outer Shell                             | Cold rolling steel electrostatic spraying exterior                                                                       |                  |              |
|                      | Insulation layer                        | Polyurethane                                                                                                             |                  |              |
|                      | Heater                                  | Stainless steel heater                                                                                                   |                  |              |
|                      | Power rating                            | 0.8kW                                                                                                                    | 1.0kW            |              |
|                      | Compressor                              | Air cooled hermetic compressor                                                                                           | 1.2kW            |              |
|                      | Cryogen                                 | R134A                                                                                                                    |                  |              |
|                      | Defrost structure                       | Automatic control intelligent defrosting                                                                                 |                  |              |
|                      | Humidifying method                      | External                                                                                                                 |                  |              |
|                      | Test hole                               | Stainless steel inner diameter 50mm(one)                                                                                 |                  |              |
| Controller           | Controlled external power supply        | Universal socket (one)                                                                                                   |                  |              |
|                      | Temp. control mode                      | 30 section LCD program                                                                                                   |                  |              |
|                      | Temp. setting mode                      | Touch button setting                                                                                                     |                  |              |
|                      | Temp. display mode                      | Measuring temperature: LCD upper row; Setting temperature: the lower row                                                 |                  |              |
|                      | Humidity control mode                   | Automatic                                                                                                                |                  |              |
|                      | Timer                                   | 0 ~ 99.9h x 30 section ( with timing wait function )                                                                     |                  |              |
|                      | Operation function                      | Program operation, timing function,auto stop.                                                                            |                  |              |
|                      | Sensor                                  | Pt100                                                                                                                    |                  |              |
| Specification        | Additional function                     | UV lamp、LED light、Deviation correction、Menu key lock、Self diagnosis of power failure parameter memory loop               |                  |              |
|                      | Safety device                           | Over temperature alarm, mechanical temperature limiter                                                                   |                  |              |
|                      | Inner Chamber size(W*L*H)(mm)           | 420*350*500                                                                                                              | 500*500*600      | 600*500*840  |
|                      | Exterior size (W*L*H)(mm)               | 580*610*1190                                                                                                             | 660*760*1290     | 760*760*1530 |
|                      | Packing size (W*L*H)(mm)                | 708*716*1368                                                                                                             | 788*866*1468     | 888*866*1708 |
|                      | Volume                                  | 70L                                                                                                                      | 150L             | 250L         |
|                      | Load per rack                           | 15kg                                                                                                                     |                  |              |
|                      | Shelf number                            | 9                                                                                                                        | 12               | 18           |
|                      | Shelf space                             | 35mm                                                                                                                     |                  |              |
|                      | Power Supply ( 50/60Hz ) Current rating | AC220V/2.3A                                                                                                              | AC220V/3.6A      | AC220V/5.5A  |
| Accessory            | NW/GW (kg )                             | 69/92                                                                                                                    | 86/114           | 100/139      |
|                      | Shelf                                   | 2                                                                                                                        |                  |              |
| Optional accessories |                                         | Shelf, Touch screen controller, RS485 interface, Printer, Recorder, Remote control, Wireless SMS alarm, USB data storage |                  |              |

## Climate Chamber With Illumination

◎ Light culture of microorganism, cell tissue, seedling, insect and small animal.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                | 3-side Illumination | GZX250E                                                                                                                           | GZX300E      | GZX400E      |
|----------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
|                      | 4-side Illumination | GZX250EF                                                                                                                          | GZX300EF     | GZX400EF     |
| <b>Cycle Mode</b>    |                     | Forced convection                                                                                                                 |              |              |
| <b>Function</b>      |                     | Tem. Range Without illumination: 0~65°C;with illumination: 10~65°C                                                                |              |              |
|                      |                     | Tem. Resolution Ratio 0.1°C                                                                                                       |              |              |
|                      |                     | Tem. Motion ± 1°C                                                                                                                 |              |              |
|                      |                     | Tem. Uniformity ± 1.5°C                                                                                                           |              |              |
|                      |                     | Illuminance (LX) 0~15000LX 6 degrees for adjusting                                                                                |              |              |
| <b>Structure</b>     |                     | Inner Chamber sus304 mirror stainless steel                                                                                       |              |              |
|                      |                     | Outer Shell cold rolling steel electrostatic spraying exterior                                                                    |              |              |
|                      |                     | Insulation layer Polyurethane                                                                                                     |              |              |
|                      |                     | Heater Stainless steel heater                                                                                                     |              |              |
|                      |                     | Power Rating 1.0kW                                                                                                                | 1.1kW        | 1.2kW        |
|                      |                     | Compressor Air-cooled hermetic compressor                                                                                         |              |              |
|                      |                     | Coolant R134A                                                                                                                     |              |              |
|                      |                     | Defrosting Structure Automatic                                                                                                    |              |              |
| <b>Controller</b>    |                     | Leading wire hole No                                                                                                              |              |              |
|                      |                     | Tem. control mode 30 sections LCD program                                                                                         |              |              |
|                      |                     | Tem. setting mode Touch button setting                                                                                            |              |              |
|                      |                     | Tem. display mode Measuring temperature: LCD upper row;Setting temperature: the lower row                                         |              |              |
|                      |                     | Timer 0 ~ 99.9h × 30 ( with timing wait function )                                                                                |              |              |
|                      |                     | Operation Function Fixed temperature operation, timing function,auto stop/ appointment start, program run                         |              |              |
|                      |                     | Program Pattern Standard configuration                                                                                            |              |              |
|                      |                     | Sensor Pt100                                                                                                                      |              |              |
| <b>Specification</b> |                     | Additional Function Deviation correction, menu locked, power failure back-up, power failure memory, intelligent defrosting        |              |              |
|                      |                     | Safety Device Over temperature alarm, circuit diagnosis                                                                           |              |              |
|                      |                     | Inner Chamber size(W*L*H)(mm) 500*530*950                                                                                         | 550*580*950  | 590*620*1100 |
|                      |                     | Exterior size (W*L*H)(mm) 690*705*1650                                                                                            | 740*755*1650 | 780*795*1800 |
|                      |                     | Packing size (W*L*H)(mm) 890*905*1870                                                                                             | 940*955*1870 | 980*990*2020 |
|                      |                     | Volume 250L                                                                                                                       | 300L         | 400L         |
|                      |                     | Load Per Rack 15KG                                                                                                                |              |              |
|                      |                     | Shelf Number 6                                                                                                                    | 6            | 7            |
| <b>Accessories</b>   |                     | Shelf Space 120mm                                                                                                                 |              |              |
|                      |                     | Current Rating ( 50/60Hz ) AC220V/4.5A                                                                                            | AC220V/5.0A  | AC220V/5.5A  |
|                      |                     | NW/GW (kg ) 76/117                                                                                                                | 78/119       | 81/122       |
|                      |                     | Optional accessories interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage |              |              |

# Climate Chamber with Humidity Control

## Plant Growth Chamber

- Light culture of microorganism, cell tissue, seedling, insect and small animal under the control of precise humidity.

### Characteristics:

- Independent humidification, humidity is uniform.
- Centrifugal turbo forced air supply, the temperature is more uniform.
- Intelligent frost.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                 | 3-side Illumination               | RGX250E                                                                                                                   | RGX300E                                               | RGX400E      |  |
|-----------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------|--|
|                       | 4-side Illumination               | RGX250EF                                                                                                                  | RGX300EF                                              | RGX400EF     |  |
| Cycle Mode            |                                   | Forced convection                                                                                                         |                                                       |              |  |
| Function              |                                   | Tem. Range Without illumination: 0 ~ 65°C; with illumination: 10 ~ 65°C                                                   |                                                       |              |  |
| Tem. Resolution Ratio |                                   | 0.1°C                                                                                                                     |                                                       |              |  |
| Tem. Motion           |                                   | ± 1°C                                                                                                                     |                                                       |              |  |
| Tem. Uniformity       |                                   | ± 1.5°C                                                                                                                   |                                                       |              |  |
| Illumination (LX)     |                                   | 0~15000LX 6 degrees for adjusting                                                                                         |                                                       |              |  |
| Humidity Range        |                                   | 40% ~ 90%RH                                                                                                               |                                                       |              |  |
| Humidity Motion       |                                   | ± 7% RH                                                                                                                   |                                                       |              |  |
| Structure             | Inner chamber                     | sus304 mirror stainless steel                                                                                             |                                                       |              |  |
|                       | Outer Shell                       | Cold rolling steel electrostatic spraying exterior                                                                        |                                                       |              |  |
|                       | Insulation layer                  | Polyurethane                                                                                                              |                                                       |              |  |
|                       | Heater                            | Stainless steel heating tube                                                                                              |                                                       |              |  |
|                       | Power Rating                      | 1.0kW                                                                                                                     | 1.1kW                                                 | 1.2kW        |  |
|                       | Compressor                        | Air cooled hermetic compressor                                                                                            |                                                       |              |  |
|                       | Coolant                           | R134A                                                                                                                     |                                                       |              |  |
|                       | Defrosting Structure              | Automatic                                                                                                                 |                                                       |              |  |
|                       | Humidity control mode             | Automatic                                                                                                                 |                                                       |              |  |
|                       | Leading wire hole                 | No                                                                                                                        |                                                       |              |  |
| Controller            | Tem. control mode                 | 30 sections LCD program                                                                                                   |                                                       |              |  |
|                       | Tem. setting mode                 | Touch button setting                                                                                                      |                                                       |              |  |
|                       | Tem. display mode                 | Measuring temperature: LCD upper row; setting temperature: the lower row                                                  |                                                       |              |  |
|                       | Timer                             | 0 ~ 99.9h x 30 ( with timing wait function )                                                                              |                                                       |              |  |
|                       | Operation function                | Fixed temperature operation, timing function, auto stop.                                                                  |                                                       |              |  |
|                       | Program pattern                   | Standard configuration                                                                                                    |                                                       |              |  |
|                       | Sensor                            | Pt100                                                                                                                     |                                                       |              |  |
|                       | Additional function               | Deviation correction, menu locked, power failure back-up, power failure memory, intelligent defrosting                    |                                                       |              |  |
| Specification         | Safety device                     |                                                                                                                           | Over temperature sound-light alarm, Circuit diagnosis |              |  |
|                       | Inner Chamber size(W*L*H)(mm)     | 500*530*950                                                                                                               | 550*580*950                                           | 590*620*1100 |  |
|                       | Exterior size (W*L*H)(mm)         | 690*705*1650                                                                                                              | 740*755*1650                                          | 780*795*1800 |  |
|                       | Packing size (W*L*H)(mm)          | 890*905*1870                                                                                                              | 940*955*1870                                          | 980*990*2020 |  |
|                       | Volume                            | 250L                                                                                                                      | 300L                                                  | 400L         |  |
|                       | Load per rack                     | 15kg                                                                                                                      |                                                       |              |  |
|                       | Shelf number                      | 6                                                                                                                         | 6                                                     | 7            |  |
|                       | Shelf space                       | 120mm                                                                                                                     |                                                       |              |  |
|                       | Supply ( 50/60Hz ) Current rating | AC220V/4.5A                                                                                                               | AC220V/5.0A                                           | AC220V/5.5A  |  |
|                       | NW/GW (kg )                       | 76/117                                                                                                                    | 78/119                                                | 81/122       |  |
| Accessory             | Shelf                             | 2                                                                                                                         |                                                       |              |  |
| Optional accessories  |                                   | Shelf, RS485 interface, printer, program temperature control device, remote control, wireless SMS alarm, USB data storage |                                                       |              |  |

## Cooling Shaking Incubator

◎ Vertical constant temperature oscillating equipment with multiple amplitudes.

### Characteristics:

- Large-screen LCD, shows temperature, speed, working time. menu operation interface, easy to operate.
- Multi-segment speed, temperature, time control system, a variety of different speed, temperature, time experiment mode can be set at one time, automatic conversion during operation.
- Standard UV sterilization, unique air duct breeze circulation, independent over temperature limiter, automatic cut off heating after over limit temperature.
- Speed control : intelligent brushless DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake flask liquid.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

| Model                | Vertical single door                                  |                                                                                                         | Vertical double door              |                                             |
|----------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------|
|                      | FSI-200                                               | FSI-200B                                                                                                | FSI-550                           | FSI-550B                                    |
| Function             | Temp. Range                                           | RT+5 ~ 65°C                                                                                             | 4 ~ 65°C                          | RT+5 ~ 65°C                                 |
|                      | Temp. Resolution                                      |                                                                                                         | 0.1°C                             |                                             |
|                      | Temp. Motion                                          |                                                                                                         | ± 0.5°C                           |                                             |
|                      | Temp. Uniformity                                      |                                                                                                         | ± 1°C                             |                                             |
|                      | Amplitude                                             |                                                                                                         | φ 26mm(can customize φ 20 ~ 50mm) |                                             |
|                      | Rotary Speed                                          |                                                                                                         | 30 ~ 300rpm                       |                                             |
|                      | Rotary Speed Precision                                |                                                                                                         | ± 1rpm                            |                                             |
| Structure            | Chamber Material                                      | Mirror Stainless Steel                                                                                  |                                   |                                             |
|                      | Outer Shell                                           | Cold rolling steel electrostatic spraying exterior                                                      |                                   |                                             |
|                      | Thermal Insulation Material                           | Polyurethane                                                                                            |                                   |                                             |
|                      | Heater                                                | Stainless steel heating tube                                                                            |                                   |                                             |
|                      | Drive Mode                                            | Multi-dimensional drive                                                                                 |                                   |                                             |
|                      | Shelf                                                 | Mirror Stainless Steel                                                                                  |                                   |                                             |
|                      | Wind cycle mode                                       | Breeze circulation                                                                                      |                                   |                                             |
|                      | Cooling System                                        | No                                                                                                      | Yes                               | No                                          |
| Controller           | Power Rating                                          | 1.2kW                                                                                                   |                                   | 1.6kW                                       |
|                      | Temp. Control Mode                                    | LCD PID intelligent control                                                                             |                                   |                                             |
|                      | Cyclotron Control Mode                                |                                                                                                         |                                   |                                             |
|                      | Setting Mode                                          | Touch button setting                                                                                    |                                   |                                             |
|                      | Temp. Display Mode                                    | LCD display                                                                                             |                                   |                                             |
|                      | Speed Display Mode                                    |                                                                                                         |                                   |                                             |
|                      | Timer                                                 | 0 ~ 9999min ( with timing wait function )                                                               |                                   |                                             |
|                      | Operation Function                                    | Fixed value operation, timing function, bidirectional automatic switchover, auto stop, quick stop start |                                   |                                             |
|                      | Temperature Sensor                                    | Pt100                                                                                                   |                                   |                                             |
|                      | Speed Sensor                                          | Hoare                                                                                                   |                                   |                                             |
|                      | Gating System                                         | Yes                                                                                                     |                                   |                                             |
|                      | Additional Function                                   | Deviation correction, menu keys locked, power-off memory                                                |                                   |                                             |
| Specification        | Safety Device                                         | over temperature alarm, menu keys locked, gating system, power-off protection, plugging turn protection |                                   |                                             |
|                      | Inner Chamber Size (W*L*H)(mm)                        | 600*480*700                                                                                             |                                   | 870*690*900                                 |
|                      | Exterior Size (W*L*H)(mm)                             | 720*730*1530                                                                                            |                                   | 1200*800*1600                               |
|                      | Packing Size (W*L*H)(mm)                              | 910*920*1770                                                                                            |                                   | 1385*1010*1840                              |
|                      | Shelf Size ( mm )                                     | 505*380                                                                                                 |                                   | 775*555                                     |
|                      | Max capacity of Shelf for single specification(ml/pc) | 50*44/100*44/250*26/500*20/750*18                                                                       |                                   | 50*120/100*120/250*66/500*56/750*40/1000*30 |
|                      | Number of flask clamp as standar ( ml/pc )            | 250*24                                                                                                  |                                   | 500*40                                      |
|                      | Inside Volume                                         | 200L                                                                                                    |                                   | 540L                                        |
|                      | Shelf Load Bearing                                    | 50kg/layer                                                                                              |                                   |                                             |
|                      | Shelf Layer                                           | 2                                                                                                       |                                   |                                             |
|                      | Shelf Layer                                           | 340mm                                                                                                   |                                   | 430mm                                       |
|                      | Power Supply ( 50/60Hz ) Current Rating               | AC220V/5.1A                                                                                             |                                   | AC220V/7.0A                                 |
|                      | NW/GW (kg )                                           | 220/260                                                                                                 |                                   | 335/385                                     |
| Optional Accessories |                                                       | RS485 interface, printer, recorder, remote control, wireless SMS alarm, USB data storage                |                                   |                                             |

## Multifunctional Water Baths Shaker

◎ Low noise and steady reciprocating oscillating water bath cultivation equipment.

### Characteristics:

- Large-screen background LCD, shows the measured value, set value and the setting time and the remaining time.
- High-precision temperature control, resume operation automatically if power off unexpectedly.
- High - precision speed control: PID feedback control, motor speed stable and accurate. slow start design, automatically locked after speed out of control, adjustable start speed prevent splashing of shaking bottle liquid.
- Tube rack and water bath flask seat for standard configuration, with function of water bath.



Patent No. : ZL 2018 3 0095051.6

### Main Technical Parameters:

|               | Model                                         | FWS-30                                                                                               |
|---------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------|
|               | Mode                                          | Reciprocating oscillation + thermostatic water bath                                                  |
| Function      | Operating Temp Range                          | RT ~ 100°C                                                                                           |
|               | Tem. Resolution Ratio                         | 0.1°C                                                                                                |
|               | Tem. Motion                                   | ± 0.1°C                                                                                              |
|               | Tem. Uniformity                               | ± 0.2°C                                                                                              |
|               | Reciprocal Oscillation Amplitude              | 16 or 24mm (Ex-factory is 24mm)                                                                      |
|               | Reciprocating Frequency Range                 | 20 ~ 200 ( r/min )                                                                                   |
|               | Reciprocating Frequency Accuracy              | ± 1rpm                                                                                               |
| Structure     | Water Tank                                    | Mirror stainless steel                                                                               |
|               | Outer Shell                                   | Cold rolling steel electrostatic spraying exterior                                                   |
|               | Upper Cover                                   | Mirror stainless steel                                                                               |
|               | Insulating Layer                              | Polyurethane                                                                                         |
|               | Heater                                        | Stainless Steel Heater                                                                               |
|               | Driving Mode                                  | Crankshaft+ double link + four wheels                                                                |
|               | Shelf                                         | Mirror stainless steel                                                                               |
| Controller    | Power rating                                  | 1.5kW                                                                                                |
|               | Tem. Control Mode                             | LCD PID Intelligent control                                                                          |
|               | Reciprocating Control Mode                    |                                                                                                      |
|               | Setting Mode                                  | Touch button setting                                                                                 |
|               | Tem. Display Mode                             |                                                                                                      |
|               | Speed Display Mode                            | LCD Display                                                                                          |
|               | Timer                                         | 0 ~ 9999 min                                                                                         |
| Specification | Operation Function                            | Fixed value operation, timing function, auto stop, quickly stop start                                |
|               | Temperature Sensor                            | Pt100                                                                                                |
|               | Speed Sensor                                  | Hoare                                                                                                |
|               | Additional Function                           | Deviation correction, menu keys locked, power-off memory                                             |
|               | Safety device                                 | over temperature alarm, menu locked, water full or shortage protection, Motor shaft lock protection; |
|               | Water Tank Size (W*L*H)(mm)                   | 500*310*200                                                                                          |
|               | Exterior Size (W*L*H)(mm)                     | 828*360*425                                                                                          |
|               | Packing Size (W*L*H)(mm)                      | 908*440*505                                                                                          |
|               | Spring Shock Basket Size ( mm )               | 395*250                                                                                              |
|               | Shock Basket Largest Single Size ( ml /piece) | 100ml*12/250*8/500*6                                                                                 |
|               | Inside Volume                                 | 31L                                                                                                  |
|               | Shock Basket Bearing                          | 5kg/layer                                                                                            |
|               | Current Rating ( 50Hz )                       | AC220V/6.8A                                                                                          |
|               | NW/GW (kg )                                   | 20/30                                                                                                |
| Accessories   |                                               | Water bath flask seat, tube rack                                                                     |

# Constant Temperature Shaking Incubator

Small desktop constant temperature shaking culture equipment.

## Characteristics:

- Large-screen LCD, shows temperature, speed, working time. menu operation interface, easy to operate.
- Microcomputer control temperature and oscillation frequency with timing functions, built-in power-off protection can automatically resume operation after power on.
- Unique air duct breeze circulation, large observation window.
- Speed control : intelligent brushless DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake flask liquid.



## Main Technical Parameters:

Patent No. : ZL 2018 3 0095051.6

|               | Model                                                 | FS-50B                                                                                                  | FS-70B                       |
|---------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------|
|               | Shaking Mode                                          | Cyclotron Oscillation                                                                                   |                              |
| Function      | Amplitude                                             | Φ20mm                                                                                                   |                              |
|               | Temp. Resolution                                      | 0.1°C                                                                                                   |                              |
|               | Temp. Motion                                          | ± 0.1°C                                                                                                 |                              |
|               | Temp. Uniformity                                      | ± 1°C                                                                                                   |                              |
|               | Temp. Range                                           | RT+5 ~ 65°C                                                                                             | 4 ~ 65°C                     |
|               | Rotary Speed                                          | 30 ~ 300rpm                                                                                             | 30 ~ 300rpm                  |
|               | Rotary Speed Precision                                | ± 1rpm                                                                                                  |                              |
| Structure     | Chamber Material                                      | Mirror Stainless Steel                                                                                  |                              |
|               | Outer Shell                                           | ABS                                                                                                     |                              |
|               | Observation Window Material                           | Imported resin                                                                                          |                              |
|               | Thermal Insulation Material                           | Polyurethane                                                                                            |                              |
|               | Cooling System                                        | No                                                                                                      | Yes                          |
|               | Coolant                                               | No                                                                                                      | R134a                        |
|               | Heater                                                | Stainless steel heating tube                                                                            |                              |
|               | Drive Mode                                            | Three-axis level                                                                                        |                              |
|               | Oscillating Plate                                     | Spring Wire Rack                                                                                        |                              |
|               | Air Circulation Mode                                  | Horizontal convection                                                                                   |                              |
| Controller    | Power Rating                                          | 0.6kW                                                                                                   | 0.8kW                        |
|               | Temp. Control Mode                                    | LCD PID intelligent control                                                                             |                              |
|               | Cyclotron Control Mode                                | Automatic changes of rotation direction                                                                 |                              |
|               | Setting Mode                                          | Touch button setting                                                                                    |                              |
|               | Temp. Display Mode                                    | LCD display                                                                                             |                              |
|               | Speed Display Mode                                    |                                                                                                         |                              |
|               | Timer                                                 | 0 ~ 9999min                                                                                             |                              |
|               | Operation Function                                    | Fixed value operation, timing function, bidirectional automatic switchover, auto stop, quick stop start |                              |
|               | Temperature Sensor                                    | Pt100                                                                                                   |                              |
|               | Speed Sensor                                          | Hoare                                                                                                   |                              |
| Specification | Gating System                                         | Yes                                                                                                     |                              |
|               | Additional Function                                   | Deviation correction, menu keys locked, power-off memory                                                |                              |
|               | Safety Device                                         | over temperature alarm, menu locked, gating system ,power-off protection ,plugging turn protection      |                              |
|               | Inner Chamber Size (W*L*H)(mm)                        | 455*380*290                                                                                             | 560*390*320                  |
|               | Exterior Size (W*L*H)(mm)                             | 500*640*480                                                                                             | 600*770*500                  |
|               | Packing Size (W*L*H)(mm)                              | 812*630*670                                                                                             | 923*730*683                  |
|               | Shelf Size ( mm )                                     | 380*320                                                                                                 | 480*315                      |
|               | Max capacity of Shelf for single specification(ml/pc) | 100ml*16/250*10/500*6                                                                                   | 100ml*28/250*15/500*8/1000*6 |
|               | Number of flask clamp as standard ( ml/pc )           | 250*8                                                                                                   | 250*12                       |
|               | Inside Volume                                         | 50L                                                                                                     | 70L                          |
|               | Shelf Load Bearing                                    | ≤10kg/layer                                                                                             | ≤15kg/layer                  |
|               | Shelf Layer                                           | 1                                                                                                       |                              |
|               | Power Supply ( 50/60Hz ) Current Rating               | AC220V/2.5A                                                                                             | AC220V/3.5A                  |
|               | NW/GW (kg )                                           | 25/35                                                                                                   | 65/85                        |

## Decoloration Shaker

Experiment of sample shake in solution, fixation of electrophoretic gel separate band, oscillate shaking of coomassie blue dyeing and decolorization, Immobilization, staining and development of silver nitrate.

### Characteristics:

- Temperature setting, measuring, and running state show on one large LCD screen, with rotary encoder switch.
- The operating parameters can be remembered and protected. automatically resume operation if the power supply cut off.
- Speed control : intelligent brushless DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake flask liquid.



### Main Technical Parameters:

| Model         |                                   | FBS-O20                                                                                             |
|---------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|
| Shaking Mode  |                                   | Cyclotron oscillation                                                                               |
| Function      | Amplitude                         | φ 20mm                                                                                              |
|               | Rotary Speed range                | 30 ~ 200 ( r/min )                                                                                  |
|               | Rotary Speed Precision            | ± 1rpm                                                                                              |
| Structure     | Out Shell                         | ABS                                                                                                 |
|               | Motor type                        | Brushless motor                                                                                     |
|               | Tray                              | Anodizing Alluminum                                                                                 |
|               | Driving mode                      | Four horizontal points                                                                              |
|               | Power rating                      | 0.03kW                                                                                              |
| Controller    | Cyclotron Control Mode            | LCD, PID intelligent control                                                                        |
|               | Cyclotron Setting Mode            | Rotary coding switch                                                                                |
|               | Speed display Mode                | LCD display                                                                                         |
|               | Timer                             | 0 ~ 9999 min ( with timing function )                                                               |
|               | Operation function                | Fixed value operation、timing function、bidirectional automatic switchover、auto stop、quick stop start |
|               | Speed Sensor                      | Hoare                                                                                               |
|               | Additional funciton               | Deviation calibration, power-off memory                                                             |
| Safety device |                                   | Intelligent low speed start, blocking protection                                                    |
| Specification | Exterior size (W*L*H)(mm)         | 365*450*222                                                                                         |
|               | Packing size (W*L*H)(mm)          | 415*500*275                                                                                         |
|               | Tray size ( mm )                  | 320*320                                                                                             |
|               | Load per tray                     | ≤5kg                                                                                                |
|               | Tray Number                       | 1                                                                                                   |
|               | Supply ( 50/60Hz ) Current rating | AC220V/0.14A                                                                                        |
|               | NW/GW ( kg )                      | 10/15                                                                                               |

## Ceramic Fiber Muffle Furnace

◎ Sintering, melting, elemental analysis and physical measurement within 1200°C of precise control.

### Characteristics:

- Mirror stainless steel mouth, long-term use will not change color.
- Imported double insulated ceramic liner, stable performance
- Vacuum forming polycrystalline mullite fiber furnace, high efficiency insulation.
- In the double shell, the air sleeve is insulated, and the double guiding air passage.

### SX4 model also has the following characteristics:

- Adding exhaust devices is beneficial to ashing.
- Split design, circuit detachable, easy to maintenance and repair.
- P model is program temperature control type. program temperature controller can programme multistage program.



Patent No. : ZL 2015 3 0282033.5

### Main Technical Parameters:

| Model         | SX3-2.5-12                                                                                                                                       | SX3-5-12                                                                                                                                                                   | SX3-8-12     | SX3-10-12    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
|               | SX3-2.5-12B                                                                                                                                      | SX3-5-12B                                                                                                                                                                  | SX3-8-12B    | SX3-10-12B   |
|               | SX4-2-12                                                                                                                                         | SX4-7-12                                                                                                                                                                   | SX4-12-12    | SX4-16-12    |
|               | SX4-2-12B                                                                                                                                        | SX4-7-12B                                                                                                                                                                  | SX4-12-12B   | SX4-16-12B   |
|               | SX4-2-12P                                                                                                                                        | SX4-7-12P                                                                                                                                                                  | SX4-12-12P   | SX4-16-12P   |
|               | SX4-2-12PB                                                                                                                                       | SX4-7-12PB                                                                                                                                                                 | SX4-12-12PB  | SX4-16-12PB  |
| Heating mode  | Alloy wire heating in three sides left; right; top side.                                                                                         |                                                                                                                                                                            |              |              |
| Function      | Temp. Range                                                                                                                                      | 100~1200°C                                                                                                                                                                 |              |              |
|               | Temp. Resolution Ratio                                                                                                                           | 1°C                                                                                                                                                                        |              |              |
|               | Temp. motion                                                                                                                                     | ± 1°C                                                                                                                                                                      |              |              |
|               | Temp.Rising time to max temp                                                                                                                     | ≤30min                                                                                                                                                                     |              |              |
| Structure     | Chamber material                                                                                                                                 | Ceramic fiber                                                                                                                                                              |              |              |
|               | Outer shell                                                                                                                                      | cold rolling steel electrostatic spraying exterior; B model: stainless steel                                                                                               |              |              |
|               | Insulation layer                                                                                                                                 | Ceramic fiber                                                                                                                                                              |              |              |
|               | Heater                                                                                                                                           | Alloy heating wire                                                                                                                                                         |              |              |
|               | Power rating                                                                                                                                     | 1.5kW                                                                                                                                                                      | 3.0kW        | 4.5kW        |
|               | Exhaust hole                                                                                                                                     | Φ 30mm(chimney size 80*60mm)                                                                                                                                               |              |              |
| Controller    | Temp. control mode                                                                                                                               | SX3 model: domestic brand single controller; SX4 model: Imported single controller form Japan; P model: Imported 40 sections program temperature control device form Japan |              |              |
|               | Temp. setting mode                                                                                                                               | Touch button setting                                                                                                                                                       |              |              |
|               | Temp. display mode                                                                                                                               | Measuring temperature: LED upper row, setting temperature: the lower row                                                                                                   |              |              |
|               | Timer                                                                                                                                            | 0~9999min (with timing wait function)<br>SX3 Series no timing function                                                                                                     |              |              |
|               | Operation function                                                                                                                               | Fixed temperature operation, timing function, auto stop.                                                                                                                   |              |              |
|               | Additional function                                                                                                                              | Sensor deviation correction, Temperature overshoot self-tuning, Internal parameter locked, Power-off parameter memory                                                      |              |              |
|               | Sensor                                                                                                                                           | SX3:Platinum-rhodium sensor; SX4:High precision K type sensor                                                                                                              |              |              |
| Safety device | Manual door security lock, over temperature sound-light alarm, door opening electrical outage, over-temperature protection, thermocouple failure |                                                                                                                                                                            |              |              |
| Specification | Inner Chamber size (W*L*H)(mm)                                                                                                                   | 120*200*80                                                                                                                                                                 | 200*300*120  | 200*300*200  |
|               | Exterior size (W*L*H)(mm)                                                                                                                        | 450*685*600                                                                                                                                                                | 530*785*640  | 530*785*720  |
|               | Packing size (W*L*H)(mm)                                                                                                                         | 580*775*730                                                                                                                                                                | 660*875*770  | 660*875*850  |
|               | Volume                                                                                                                                           | 2L                                                                                                                                                                         | 7L           | 12L          |
|               | Current rating (50/60HZ)                                                                                                                         | AC220V/6.6A                                                                                                                                                                | AC220V/13.6A | AC220V/20.4A |
|               | NW/GW (kg )                                                                                                                                      | 33/37                                                                                                                                                                      | 45/50        | 62/68        |
| Optional type | LCD program temperature control device with USD date storage                                                                                     |                                                                                                                                                                            |              |              |

## Laminar Flow Cabinet (Vertical Type)

◎ Vertical flow, airflow direction in the work space down from top to bottom.

### Characteristics:

- Vertical laminar flow, with SUS 304 stainless steel bench board, effectively prevents external air into the cleaning work environment.
- High quality low noise centrifugal fan ensures the stable speed. touch type air flow control system, the five sections wind speed control.
- High quality filter ensures dust can be filtered more than 0.3um.



Patent No. : ZL 2015 3 0282033.5

### Main Technical Parameters:

| Model              | CJ-1D                                                                                                                                                                                                                                                                                                                                                                 | CJ-1S                  | CJ-2D                | CJ-2S                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|-------------------------|
| Applicable Station | one person one side                                                                                                                                                                                                                                                                                                                                                   | one operator two sides | two persons one side | two operators two sides |
| Airflow Direction  | Vertical                                                                                                                                                                                                                                                                                                                                                              |                        |                      |                         |
| Function           | Cleanliness Class 100<br>Collection Efficiency ≥99.9% of 0.5um particle<br>Colony Count ≤0.5/vessel (petri dish is φ 90mm )<br>Wind Speed initial:0.6 ( m/s ), final: 0.2 ( m/s )<br>Wind Speed Range 0.2–0.6 ( m/s )<br>Noise Level ≤62db<br>Vibration Semi-Peak Value ≤3um<br>Illumination Intensity ( Lx ) ≥300LX ( Activity Center )<br>Work Surface Bearing 50kg |                        |                      |                         |
| Composition        | Inner Chamber Stainless steel plate<br>Outer Shell Cold rolling steel electrostatic spraying exterior<br>Operation door Tempered Glass<br>HEPA Filter ( mm ) 820*600*50 one piece<br>Pre-Filter ( mm ) 520*490*5 one piece<br>Fluorescent Lamp 20W*1<br>UV Lamp 20W*1<br>Top Fan 300W one piece                                                                       |                        |                      |                         |
| Controller         | Display LED<br>Wind Speed Control Intelligent multi-level adjustable<br>Additional Function The bottom horizontal adjustment, one key to open and close lighting sterilization                                                                                                                                                                                        |                        |                      |                         |
| Specification      | Inner Size (W*L*H)(mm) 780*670*550<br>Exterior Size (W*L*H)(mm) 935*725*1690<br>Packing Size (W*L*H)(mm) 1100*900*1840<br>Max Power 0.4kW<br>Current Rating ( 50/60Hz ) AC220V/1.8A<br>NW/GW kg 160/225                                                                                                                                                               |                        |                      |                         |
|                    | 1310*710*550<br>1487*733*1690<br>1655*905*1840<br>0.8kW<br>AC220V/3.6A<br>200/305                                                                                                                                                                                                                                                                                     |                        |                      |                         |
|                    | 1310*790*550<br>1487*788*1690<br>1655*960*1840<br>205/310                                                                                                                                                                                                                                                                                                             |                        |                      |                         |

## Laminar Flow Cabinet (Horizontal Type)

◎ The horizontal flow, airflow direction from the back to the forward.

### Characteristics:

- Horizontal laminar flow, with SUS 304 stainless steel bench board, effectively prevents external air into the cleaning work environment.
- High quality low noise centrifugal fan ensures the stable speed. touch type air flow control system, the five sections wind speed control.
- High quality filter ensures dust can be filtered more than 0.3um.



Patent No. : ZL 2015 3 0282033.5

### Main Technical Parameters:

|                    | Model                         | HS840                                                                                 | HS1300                |
|--------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------|
| Applicable Station | one person one side           | two persons one side                                                                  |                       |
| Airflow Direction  | Horizontal                    |                                                                                       |                       |
| Function           | Cleanliness                   | Class 100                                                                             |                       |
|                    | Collection Efficiency         | ≥99.9% of 0.5um particle                                                              |                       |
|                    | Colony Count                  | ≤0.5/vessel (petri dish is φ 90mm )                                                   |                       |
|                    | Wind Speed                    | initial:0.6 ( m/s ), final: 0.2 ( m/s )                                               |                       |
|                    | Wind Speed Range              | 0.2–0.6 ( m/s )                                                                       |                       |
|                    | Noise Level                   | ≤62db                                                                                 |                       |
|                    | Vibration Semi-Peak Value     | ≤3um                                                                                  |                       |
|                    | Illumination Intensity ( Lx ) | ≥300LX ( Activity Center )                                                            |                       |
|                    | Work Surface Bearing          | 50kg                                                                                  |                       |
| Composition        | Inner Chamber                 | Stainless steel plate                                                                 |                       |
|                    | Outer Shell                   | Cold rolling steel electrostatic spraying exterior                                    |                       |
|                    | Operation door                | No                                                                                    |                       |
|                    | HEPA Filter ( mm )            | 760*610*50 one piece                                                                  | 610*610*50 two pieces |
|                    | Pre-Filter ( mm )             | 760*610*5 one piece                                                                   | 610*610*5 two pieces  |
|                    | Fluorescent Lamp              | 20W*1                                                                                 | 30W*1                 |
|                    | UV Lamp                       | 20W*1                                                                                 | 30W*1                 |
|                    | Bottom Fan                    | 300W one piece                                                                        | 300W two pieces       |
| Controller         | Display                       | LED                                                                                   |                       |
|                    | Wind Speed Control            | Intelligent multi-level adjustable                                                    |                       |
|                    | Additional Function           | The bottom horizontal adjustment, one key to open and close lighting<br>sterilization |                       |
| Specification      | Inner Size (W*L*H)(mm)        | 660*650*570                                                                           | 1210*660*570          |
|                    | Exterior Size (W*L*H)(mm)     | 840*825*1340                                                                          | 1300*810*1440         |
|                    | Packing Size (W*L*H)(mm)      | 1040*1020*1620                                                                        | 1460*990*1570         |
|                    | Max Power                     | 0.4kW                                                                                 | 0.8kW                 |
|                    | Current Rating ( 50/60Hz )    | AC220V/1.8A                                                                           | AC220V/3.6A           |
|                    | NW/GW kg                      | 120/170                                                                               | 170/235               |

## Mini Laminar Flow Cabinet

◎ Table type clean equipment.

### Characteristics:

- HEPA filter with efficiency: 99.9999% at 0.3um.
- Microprocessor control system, LED Display.
- Manual front window is 5mm toughened glass, anti-ultraviolet radiation.
- Air speed adjustable.
- Desktop type, with a handle, saving space and easy to move.
- Pre-filter is polyester fiber, washable and anti-ultraviolet radiation.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095053.5

|                   | Model                          | CJ-600P                                            | CJ-600N                          |
|-------------------|--------------------------------|----------------------------------------------------|----------------------------------|
| Application Scope |                                | Protect experiment samples                         | Protect operator and environment |
| Airflow Direction |                                | Vertical                                           |                                  |
| Function          | Cleanliness                    | Class 100                                          |                                  |
|                   | HEPA Filter                    | ≥99.9% of 0.5um particle                           |                                  |
|                   | Colony Count                   | 0.5/vessel (petri dish is φ 90mm )                 |                                  |
|                   | Wind Speed                     | initial:0.6 ( m/s ) ; final: 0.2 ( m/s )           | >0.5 ( m/s )                     |
|                   | Wind Speed Range               | 0.2–0.6 ( m/s )                                    |                                  |
|                   | Noise Level                    | ≤62db                                              |                                  |
|                   | Vibration Semi-Peak Value      | ≤3um                                               |                                  |
|                   | Work surface bearing           | 10kg                                               |                                  |
| Composition       | Inner Chamber                  | SUS304 Stainless steel plate                       |                                  |
|                   | Outer Shell                    | Cold rolling steel electrostatic spraying exterior |                                  |
|                   | Operation door                 | Tempered glass                                     |                                  |
|                   | Operation door biggest opening | 310mm                                              |                                  |
|                   | Pre-Filter                     | Polyurethane                                       |                                  |
|                   | LED Lamp                       | 8W*1                                               |                                  |
|                   | UV Lamp                        | 8W*1                                               |                                  |
|                   | Top Fan                        | 90W one piece                                      |                                  |
| Controller        | Display                        | LED                                                |                                  |
|                   | Wind Speed Control             | Intelligent multi-level adjustable                 |                                  |
|                   | Additional Function            | One key to open and close lighting sterilization   |                                  |
| Specification     | Inner Size (W*L*H)(mm)         | 480*340*370                                        |                                  |
|                   | Exterior Size (W*L*H)(mm)      | 550*460*700                                        |                                  |
|                   | Packing Size (W*L*H)(mm)       | 680*590*920                                        |                                  |
|                   | Max Power                      | 0.11kW                                             |                                  |
|                   | Current Rating ( 50/60Hz )     | AC220V/0.5A                                        |                                  |
|                   | NW/GW kg                       | 36/41                                              |                                  |
|                   | Optional Accessories           | No                                                 |                                  |

## Magnetic Stirrer

◎ Magnetic mixing equipment with heating.

### Characteristics:

- Heating power and stirring speed is stepless adjustable.
- With adjustable thermometer rack, stainless steel rods and the stir bar.



### Main Technical Parameters:

Patent No. : ZL 2018 3 0095053.5

|               | Model                      | SH-2A                            | SH-2B    | SH-2  | SH-3A       | SH-3B   | SH-3     |  |  |  |  |  |  |  |
|---------------|----------------------------|----------------------------------|----------|-------|-------------|---------|----------|--|--|--|--|--|--|--|
| Function      | Max. Volume (ml)           | –                                | 2000     | 2000  | –           | 5000    | 5000     |  |  |  |  |  |  |  |
|               | Speed (r.p.m)              | –                                | 100~2000 | –     | 100~2000    | –       | 100~2000 |  |  |  |  |  |  |  |
|               | Working time               | Continuous                       |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Minimum revolution (r.p.m) | –                                | 100      | 100   | –           | 100     | 100      |  |  |  |  |  |  |  |
|               | Max.Temp. ( °C )           | 380                              | –        | 380   | 380         | –       | 380      |  |  |  |  |  |  |  |
| Structure     | Exterior                   | Cast aluminium, Surface spraying |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Plate size(mm)             | 120×120                          |          |       | 170×170     |         |          |  |  |  |  |  |  |  |
|               | Driving mode               | –                                | Motor    |       | –           | Motor   |          |  |  |  |  |  |  |  |
|               | Motor power (W)            | –                                | 10       |       | –           | 20      |          |  |  |  |  |  |  |  |
|               | Heating Power(kW)          | 0.18                             | –        | 0.18  | 0.5         | –       | 0.5      |  |  |  |  |  |  |  |
|               | Stir bar                   | –                                | PTFE     |       | –           | PTFE    |          |  |  |  |  |  |  |  |
| Controller    | Continuous operation       | Yes                              |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Setting mode               | Scale                            |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Speed display mode         | –                                | Scale    |       | –           | Scale   |          |  |  |  |  |  |  |  |
|               | Timer                      | No                               |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Operation function         | No                               |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Temp. Sensor               | No                               |          |       |             |         |          |  |  |  |  |  |  |  |
| Specification | Exterior size (W*L*H)(mm)  | 200×120×90                       |          |       | 265×185×190 |         |          |  |  |  |  |  |  |  |
|               | Packing size (W*L*H)(mm)   | 250×180×120                      |          |       | 280×210×220 |         |          |  |  |  |  |  |  |  |
|               | Plate size ( mm )          | 120×120                          |          |       | 170×170     |         |          |  |  |  |  |  |  |  |
|               | Plate load                 | 3KG                              |          |       | 10KG        |         |          |  |  |  |  |  |  |  |
|               | Power supply ( 50/60Hz )   | 110V or 220V                     |          |       |             |         |          |  |  |  |  |  |  |  |
|               | Current rating             |                                  |          |       |             |         |          |  |  |  |  |  |  |  |
|               | NW/GW (kg )                | 1.9/3                            | 1.9/3    | 1.9/3 | 2.2/3.4     | 2.2/3.4 | 2.2/3.4  |  |  |  |  |  |  |  |

## Ceramic Magnetic Stirrer

◎ Magnetic stirring ceramic equipment with heating.

### Characteristics:

- Stretched shell and cover prevent leaking.
- Heating and stirring can proceed simultaneously.
- Enclosed hot plate with flame protection, fast warm-up and durability.
- Heating power and stirring speed is stepless adjusted.
- With the adjustable PT100 sensor rack and stainless steel rods.

### ■ New digital model SH-II-4C Ceramic Magnetic Stirrer with the following function:

- Setting temperature precisely.
- Precisely control temperature and speed adjustable, with speed switch to start or stop the stirring at any time
- Timing function (0~9999min), audible and visual alarm.
- Dual inside and outside sensors, the outside PT100 sensor for heated liquid. The inside K sensor for hot plate.
- One key to shift inside and outside sensor.
- Large screen LCD display can indicate temperature, rotational speed and timing at the same time.



Patent No. : ZL 2018 3 0095053.5

### Main Technical Parameters:

|               | Model                                 | SH-4A                                | SH-4B    | SH-4               | SH-4C                       | SH-II-4C |
|---------------|---------------------------------------|--------------------------------------|----------|--------------------|-----------------------------|----------|
|               | Mode                                  | Heating                              | Stirring | Heating + Stirring | Digital+ Heating + Stirring |          |
| Function      | Max. Volume(ML)                       | 5000                                 | 5000     | 5000               | 5000                        | 5000     |
|               | Speed(r.p.m)                          | -                                    |          | 200 ~ 2000         |                             |          |
|               | Working time                          |                                      |          | Continuous         |                             |          |
|               | Minimum revolution ( R.P.M.)          | -                                    | 200      | 200                | 200                         | 200      |
|               | Max. temp ( °C )                      | 380                                  | -        | 380                | 350                         | 350      |
| Structure     | Exterior                              | Iron plate welding, surface spraying |          |                    |                             |          |
|               | Heating plate                         | Aluminum tensile                     |          |                    |                             |          |
|               | Driving mode                          | -                                    |          | Motor              |                             |          |
|               | Motor power (W)                       | -                                    | 20       | 20                 | 20                          | 20       |
|               | Heating power(kW)                     | 0.6                                  | -        | 0.6                | 0.6                         | 0.6      |
|               | Stir bar                              | no                                   |          | PTFE               |                             |          |
| Controller    | Continuous operation                  | yes                                  |          |                    |                             |          |
|               | Setting mode                          | Scale                                |          |                    | Digital                     |          |
|               | Speed display mode                    | Scale                                |          |                    | Digital                     | Digital  |
|               | Timer                                 | no                                   |          |                    | yes                         |          |
|               | Operation function                    | no                                   |          |                    | yes                         |          |
|               | Sensor                                | no                                   |          |                    | PT100                       | PT100    |
| Specification | Exterior size (W*L*H)(mm)             | 320 × 190 × 125                      |          |                    |                             |          |
|               | Packing size (W*L*H)(mm)              | 390 × 240 × 230                      |          |                    |                             |          |
|               | Plate size ( mm )                     | 190 × 190                            |          |                    |                             |          |
|               | Plate load                            | 10KG                                 |          |                    |                             |          |
|               | Power supply( 50/60Hz )Current rating | 110V or 220V                         |          |                    |                             |          |
|               | NW/GW (kg )                           | 5/6                                  | 5/6      | 5/6                | 5/6                         | 5/6      |

## Mini Magnetic Stirrer

◎ Beautiful mini mixing equipment.

### Characteristics:

- Shell is all plastic material ( ABS ), lightweight and durable.
- Mixing smoothly and fast, stirring speed stepless adjustable
- SH-II-2: with LED light      ● SH-II-3: without LED light



### Main Technical Parameters:

Patent No. : ZL 2015 3 0547467.3

|               | Model                                   | SH-II-2                 | SH-II-3       |
|---------------|-----------------------------------------|-------------------------|---------------|
|               | Mode                                    | With light              | Without light |
| Function      | Max. Volume (ml)                        | 1000                    |               |
|               | Speed (r.p.m)                           | 100 ~ 500 or 100 ~ 2000 |               |
|               | Working time                            | Continuous              |               |
|               | Minimum revolution ( R.P.M.)            | 100                     |               |
| Structure     | Exterior                                | Plastic                 |               |
|               | Plate size                              | 120mm                   |               |
|               | Driving mode                            | Motor                   |               |
|               | Motor power                             | 0.01kW                  |               |
| Controller    | Continuous operation                    | Yes                     |               |
|               | Setting mode                            | Scale                   |               |
|               | Speed display mode                      | Scale                   |               |
|               | Timer                                   | No                      |               |
|               | Operation function                      | No                      |               |
|               | Speed & Temp. Sensor                    | No                      |               |
|               |                                         |                         |               |
| Specification | Exterior size (W*L*H)(mm)               | c 138*60                |               |
|               | Packing size (W*L*H)(mm)                | 210*170*88              |               |
|               | Plate size ( mm )                       | c 128                   |               |
|               | Power supply ( 50/60Hz ) Current rating | 100V~240V               |               |
|               | NW/GW (kg )                             | 0.6/0.7                 |               |

## Overhead Stirrer

◎ Large capacity mechanical mixing equipment.

### Characteristics:

- Brushless DC motor drive, low noise and maintenance free.
- Stainless steel head restraints, more durable. Stirrer with digital type has three kinds of rotation mode as positive rotation, inversion, reciprocal and mutual conversion.



Patent No. : ZL 2015 3 0547467.3

### Main Technical Parameters:

|               | Model                                   | SH-II-6         | SH-II-6C   | SH-II-7C   |
|---------------|-----------------------------------------|-----------------|------------|------------|
| Function      | Max. Volume(L)                          | 20              | 20         | 40         |
|               | digital                                 | -               | LCD        | LCD        |
|               | Speed(r.p.m)                            | 100 ~ 2500      | 100 ~ 2500 | 100 ~ 2500 |
|               | Working time                            | Continous       |            |            |
|               | Minimum revolution (r.p.m)              | 100             | 100        | 100        |
| Structure     | Exterior                                | Plastic shell   |            |            |
|               | Driving mode                            | Motor           |            |            |
|               | Motor power (kW)                        | 0.06            | 0.06       | 0.08       |
| Controller    | Continuous operation                    | Yes             |            |            |
|               | Setting mode                            | Scale           | Digital    | Digital    |
|               | Speed display mode                      | Scale           | Digital    | Digital    |
|               | Timer                                   | No              | Yes        | Yes        |
|               | Operation function                      | No              | Yes        | Yes        |
| Specification | Exterior size (W*L*H)(mm)               | 115 × 95 × 240  |            |            |
|               | Packing size (W*L*H)(mm)                | 400 × 250 × 210 |            |            |
|               | Plate size ( mm )                       | 200 × 300       |            |            |
|               | Plate load                              | 50KG            |            |            |
|               | Power supply ( 50/60Hz ) Current rating | 100 ~ 240V      |            |            |
|               | NW/GW (kg )                             | 5/6             | 6/7        | 7/8        |

## Four Rows Magnetic stirrer

◎ Magnetic mixing equipment.

### Characteristics:

- 4 unit stainless hotplate can work together or separately.
- Stirring speed is stepless adjusted.



Patent No. : ZL 2015 3 0547467.3

### Main Technical Parameters:

|               | Model                                   | SH-6                                       | SH-7        |
|---------------|-----------------------------------------|--------------------------------------------|-------------|
| Function      | Max. volume(ml)                         | 1000ml*4                                   | 3000ml*4    |
|               | Speed(r.p.m)                            | 100 ~ 2000                                 |             |
|               | Working time                            | Continuous                                 |             |
|               | Minimum revolution                      | 100                                        |             |
| Structure     | Exterior                                | Cold plate spraying, stainless steel plate |             |
|               | Driving mode                            | Motor                                      |             |
|               | Motor power                             | 0.01kW                                     | 0.02kW      |
| Controller    | Continuous operation                    | Yes                                        |             |
|               | Setting mode                            | Scale                                      |             |
|               | Speed display mode                      | Scale                                      |             |
|               | Timer                                   | No                                         |             |
|               | Operation function                      | No                                         |             |
| Specification | Exterior size (W*L*H)(mm)               | 300*270*80                                 | 400*320*120 |
|               | Packing size (W*L*H)(mm)                | 340*310*110                                | 440*360*150 |
|               | Plate size ( mm )                       | 300*250                                    | 400*300     |
|               | Plate load                              | 5KG                                        | 20KG        |
|               | Power supply ( 50/60Hz ) Current rating | 110 or 220V                                |             |
|               | NW/GW (kg )                             | 3/3.6                                      | 6/7         |

## Electronic Control Heating Mantle

◎ Up to 450 °C general heating.

### Characteristics:

- Electronic temperature regulation mode with characteristics of stepless speed adjustable.



### Main Technical Parameters:

|               | Model 98-I-B             |                                       |     |             |      |                 |                 |                 |                 |                 |       |
|---------------|--------------------------|---------------------------------------|-----|-------------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|
| Function      | Capacity(ml)             | 50                                    | 100 | 250         | 500  | 1000            | 2000            | 3000            | 5000            | 10000           | 20000 |
|               | Heating Mode             | Surface heat-conduction               |     |             |      |                 |                 |                 |                 |                 |       |
| Structure     | Surface Max. Temp.( °C ) | 450°C                                 |     |             |      |                 |                 |                 |                 |                 |       |
|               | Heating element          | Nichrome wire                         |     |             |      |                 |                 |                 |                 |                 |       |
| Specification | Shell (insulation layer) | High quality aluminum silicate cotton |     |             |      |                 |                 |                 |                 |                 |       |
|               | Heat power (kW)          | 0.08                                  | 0.1 | 0.15        | 0.25 | 0.35            | 0.45            | 0.6             | 0.8             | 1.2             | 2.5   |
| Controller    | Working Mode             | Continuous                            |     |             |      |                 |                 |                 |                 |                 |       |
|               | Exterior Size (mm)       | c 220 × 165                           |     | c 280 × 220 |      | c 330 × 230     | c 340 × 245     | c 350 × 250     | c 425 × 320     | c 470 × 340     |       |
|               | Packing Size (mm)        | 230 × 230 × 195                       |     | 300         |      | 340 × 340 × 350 | 360 × 360 × 300 | 390 × 390 × 310 | 380 × 380 × 330 | 510 × 510 × 380 |       |
|               | Voltage(V)               | 100 ~ 120V or 200 ~ 240V              |     |             |      | 200 ~ 240V      |                 |                 |                 |                 |       |
|               | N.W.(Kg)                 | 2.5                                   |     | 5.5         |      | 6.5             | 7.5             | 8               | 9.8             | 16              |       |
|               | G.W. (Kg)                | 2.8                                   |     | 6           |      | 7               | 8               | 9.2             | 12              | 20              |       |

## Magnetic Stirring Heating Mantles

◎ Up to 450 °C general heating equipment.

### Characteristics:

- Heating and stirring can be used simultaneously, stepless speed adjustable.



### Main Technical Parameters:

|            | Model 98-II-B            |                                       |     |             |      |                 |                 |                 |                 |                 |       |
|------------|--------------------------|---------------------------------------|-----|-------------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|
| Function   | Capacity(ml)             | 50                                    | 100 | 250         | 500  | 1000            | 2000            | 3000            | 5000            | 10000           | 20000 |
|            | Heating Mode             | Surface heat-conduction               |     |             |      |                 |                 |                 |                 |                 |       |
|            | Surface Max.Temp.( °C )  | 450°C                                 |     |             |      |                 |                 |                 |                 |                 |       |
|            | Speed range              | 0 ~ 1600rpm                           |     |             |      |                 |                 |                 |                 |                 |       |
| Structure  | Heating element          | Nichrome wire                         |     |             |      |                 |                 |                 |                 |                 |       |
|            | Stir bar                 | PTFE                                  |     |             |      |                 |                 |                 |                 |                 |       |
|            | Shell (insulation layer) | High quality aluminum silicate cotton |     |             |      |                 |                 |                 |                 |                 |       |
|            | Motor power              | 0.01kW                                |     |             |      |                 |                 |                 |                 |                 |       |
|            | Heating power (kW)       | 0.08                                  | 0.1 | 0.15        | 0.25 | 0.35            | 0.45            | 0.6             | 0.8             | 1.2             | 2.5   |
| Controller | Working Mode             | Continuous                            |     |             |      |                 |                 |                 |                 |                 |       |
|            | Exterior Size (mm)       | c 220 × 165                           |     | c 280 × 220 |      | c 330 × 230     | c 340 × 245     | c 350 × 250     | c 425 × 320     | c 470 × 340     |       |
|            | Packing Size (mm)        | 230 × 230 × 195                       |     | 300         |      | 340 × 340 × 350 | 360 × 360 × 300 | 390 × 390 × 310 | 450 × 440 × 360 | 510 × 510 × 380 |       |
|            | Voltage(V)               | 100 ~ 120V or 200 ~ 240V              |     |             |      | 200 ~ 240V      |                 |                 |                 |                 |       |
|            | N.W.(Kg)                 | 2.5                                   |     | 5.5         |      | 6.5             | 7.5             | 8               | 9.8             | 16              |       |
|            | G.W. (Kg)                | 2.8                                   |     | 6           |      | 7               | 8               | 9.2             | 12              | 20              |       |

## Digital Display Heating Mantle

◎ Up to 450 °C general heating equipment.



### Characteristics:

- PID single screen temperature controller, fast heating, temperature uniformity and high precise temperature control.
- Several rows type, produce as customer inquiry, beautiful shape, easy to operate and effective.
- PT100 Temperature sensor, with adjustable sensor rack and stainless rods.

### Main Technical Parameters:

| Model         |                           | 98-II-C                               |     |             |                 |             |                 |                 |                 |                 |                 |
|---------------|---------------------------|---------------------------------------|-----|-------------|-----------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Function      | Capacity(ml)              | 50                                    | 100 | 250         | 500             | 1000        | 2000            | 3000            | 5000            | 10000           | 20000           |
|               | Heating Mode              | Surface heat-conduction               |     |             |                 |             |                 |                 |                 |                 |                 |
|               | Surface Max. Temp.(°C)    | 450°C                                 |     |             |                 |             |                 |                 |                 |                 |                 |
|               | Temperature control range | RT+20 ~ 250°C                         |     |             |                 |             |                 |                 |                 |                 |                 |
| Structure     | Heating element           | Nichrome wire                         |     |             |                 |             |                 |                 |                 |                 |                 |
|               | Shell(insulation layer)   | High quality aluminum silicate cotton |     |             |                 |             |                 |                 |                 |                 |                 |
|               | Heating power (kW)        | 0.08                                  | 0.1 | 0.15        | 0.25            | 0.35        | 0.45            | 0.6             | 0.8             | 1.2             | 2.5             |
| Controller    | Working Mode              | Continuous                            |     |             |                 |             |                 |                 |                 |                 |                 |
|               | Exterior size (mm)        | c 220 × 165                           |     | c 280 × 220 |                 | c 330 × 230 | c 340 × 245     | c 350 × 250     | c 425 × 320     | c 470 × 340     |                 |
| Specification | Packing size (mm)         | 230 × 230 × 195                       |     |             | 290 × 290 × 300 |             | 340 × 340 × 350 | 360 × 360 × 300 | 390 × 390 × 310 | 380 × 380 × 330 | 510 × 510 × 380 |
|               | Voltage(V)                | 100 ~ 120V or 200 ~ 240V              |     |             |                 | 200 ~ 240V  |                 |                 |                 |                 |                 |
|               | N.W. (Kg)                 | 2.5                                   |     | 5.5         |                 | 6.5         | 7.5             | 8               | 9.8             | 16              |                 |
|               | G.W. (Kg)                 | 2.8                                   |     | 6           |                 | 7           | 8               | 9.2             | 12              | 20              |                 |

## Digital & Magnetic Stirring Heating Mantles

◎ Up to 450 °C general heating equipment.



### Characteristics:

- PID single screen temperature controller.
- Heating and stirring can be used simultaneously, stepless speed adjustable.
- PT100 temperature sensor, with adjustable sensor rack and stainless rods.

### Main Technical Parameters:

| Model         |                           | 98-III-B                              |     |      |                 |            |                 |                 |                 |                 |                 |
|---------------|---------------------------|---------------------------------------|-----|------|-----------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Function      | Capacity(ml)              | 50                                    | 100 | 250  | 500             | 1000       | 2000            | 3000            | 5000            | 10000           | 20000           |
|               | Heating Mode              | Surface heat-conduction               |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Surface Max. Temp.(°C)    | 450°C                                 |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Temperature control range | RT+20 ~ 250°C                         |     |      |                 |            |                 |                 |                 |                 |                 |
| Structure     | Speed range               | 0 ~ 1600rpm                           |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Heating element           | Nichrome wire                         |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Stir bar                  | PTFE                                  |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Shell(insulation layer)   | High quality aluminum silicate cotton |     |      |                 |            |                 |                 |                 |                 |                 |
| Controller    | Motor power               | 0.01kW                                |     |      |                 |            |                 |                 |                 |                 |                 |
|               | Heating power (kW)        | 0.08                                  | 0.1 | 0.15 | 0.25            | 0.35       | 0.45            | 0.6             | 0.8             | 1.2             | 2.5             |
|               | Working mode              | Continuous                            |     |      |                 |            |                 |                 |                 |                 |                 |
| Specification | Exterior size (mm)        | c 220 × 165                           |     |      | c 280 × 220     |            | c 330 × 230     | c 340 × 245     | c 350 × 250     | c 425 × 320     | c 470 × 340     |
|               | Packing size (mm)         | 230 × 230 × 195                       |     |      | 290 × 290 × 300 |            | 340 × 340 × 350 | 360 × 360 × 300 | 390 × 390 × 310 | 380 × 380 × 330 | 510 × 510 × 380 |
|               | Voltage(V)                | 100 ~ 120V or 200 ~ 240V              |     |      |                 | 200 ~ 240V |                 |                 |                 |                 |                 |
|               | N.W. (Kg)                 | 2.5                                   |     | 5.5  |                 | 6.5        | 7.5             | 8               | 9.8             | 16              |                 |
|               | G.W. (Kg)                 | 2.8                                   |     | 6    |                 | 7          | 8               | 9.2             | 12              | 20              |                 |

## Several Rows Magnetic Stirring Heating Mantles

◎ Up to 450 °C general heating stirring equipment.

### Characteristics:

- 98-IV-B: Electronic temperature regulation heating mode.
- 98-V-B: Electronic temperature regulation heating mode, heating and stirring can proceed simultaneously; stepless speed adjustment.
- 98-V-B model without 100ml



### Main Technical Parameters:

| Model         |                          | 98-IV-B/98-V-B                            |             |             |             |             |             |             |             |             |             |              |              |
|---------------|--------------------------|-------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Function      | Specification(ml)        | 2 × 100                                   | 2 × 250     | 2 × 500     | 2 × 1000    | 4 × 100     | 4 × 250     | 4 × 500     | 4 × 1000    | 6 × 100     | 6 × 250     | 6 × 500      | 6 × 1000     |
|               | Heating mode             | Surface heat conduction                   |             |             |             |             |             |             |             |             |             |              |              |
|               | Surface Max. temperature | 450°C                                     |             |             |             |             |             |             |             |             |             |              |              |
|               | Temp. range              | RT+50~250°C                               |             |             |             |             |             |             |             |             |             |              |              |
| Structure     | Speed range              | 98-IV-B :no/98-V-B: 0~1600rpm             |             |             |             |             |             |             |             |             |             |              |              |
|               | Heating element          | Nickel chromium alloy wire                |             |             |             |             |             |             |             |             |             |              |              |
|               | Stir bar                 | 98-IV-B :no /98-V-B: PTFE                 |             |             |             |             |             |             |             |             |             |              |              |
|               | Outer shell              | Cold rolled steel plate, surface spraying |             |             |             |             |             |             |             |             |             |              |              |
| Controller    | Motor power              | 98-IV-B :no/98-V-B: 0.01kW                |             |             |             |             |             |             |             |             |             |              |              |
|               | Heating Power (kW)       | 2 × 0.1                                   | 2 × 0.15    | 2 × 0.25    | 2 × 0.35    | 4 × 0.1     | 4 × 0.15    | 4 × 0.25    | 4 × 0.35    | 6 × 0.1     | 6 × 0.15    | 6 × 0.25     | 6 × 0.35     |
|               | Work model               | Continuous                                |             |             |             |             |             |             |             |             |             |              |              |
|               | Exterior Size (mm)       | 280*140*106                               | 320*160*170 | 360*180*180 | 420*210*200 | 530*140*160 | 610*160*170 | 690*180*180 | 810*210*200 | 820*140*160 | 940*160*170 | 1060*180*170 | 1240*210*200 |
| Specification | Packing size(mm)         | 320*180*190                               | 360*190*200 | 400*220*210 | 570*180*190 | 570*180*190 | 650*190*200 | 730*220*210 | 850*250*230 | 860*180*190 | 980*190*200 | 1100*220*210 | 1280*250*230 |
|               | Voltage                  | 100~120V or 200~240V                      |             |             |             |             |             |             |             |             |             |              |              |
|               | N.W.(Kg)                 | 4                                         | 4           | 4           | 7           | 8           | 8           | 8           | 14          | 12          | 12          | 12           | 21           |
|               | G.W.(Kg)                 | 5                                         | 5           | 5           | 8           | 10          | 10          | 10          | 16          | 15          | 15          | 15           | 24           |

## Hot Plate

◎ Uniform temperature hot plate.

### Characteristics:

- Aluminum hot plate, uniform surface temperature
- Heating up fast and uniform, heating power is stepless adjustable
- Digital hot plate has the more functions as follows:  
Digital display can read the temperature more clearly.



### Main Technical Parameters:

| Model      |                           | SH-5A/5C                             | SH-6A/6C | SH-7A/7C                             | SH-8A/8C | SH-9A/9C |
|------------|---------------------------|--------------------------------------|----------|--------------------------------------|----------|----------|
| Structure  | Working time              | Continuous                           |          | 350°C                                |          |          |
|            | Max Temp. ( °C )          | 350°C                                |          | Iron plate welding, surface spraying |          |          |
|            | Outer Shell               | Iron plate welding, surface spraying |          | Aluminum tensile                     |          |          |
|            | Hot plate                 | Aluminum tensile                     |          | No                                   |          |          |
| Controller | Driving mode              | No                                   |          | Yes                                  |          |          |
|            | Heating power(W)          | 1200                                 | 1800     | 2000                                 | 2600     | 3000     |
|            | Continuous operation      | Yes                                  |          | Scale/Digital                        |          |          |
|            | Setting method            | Scale/Digital                        |          | No/Digital                           |          |          |
|            | Timer                     | No                                   |          | K model                              |          |          |
|            | Operation function        | No                                   |          | K model                              |          |          |
|            | Temperature sensor        | K model                              |          | 45°47'22                             |          | 47°65'22 |
|            | Exterior size (W*L*H)(cm) | 34*37*22                             | 42*50*22 | 45*47*22                             | 42*65*22 | 47*65*22 |
|            | Please size ( mm )        | 300*300                              | 350*450  | 400*400                              | 350*600  | 400*600  |
| Parameter  | Plate load                | 20KG                                 | 30KG     | 30KG                                 | 38KG     | 40KG     |
|            | Power supply ( 50/60Hz )  | 220V                                 |          | 220V                                 |          |          |
|            | NW/GW (kg)                | 6.2/7                                | 8.4/9.6  | 8.5/9.8                              | 11/13    | 12/14.2  |

## Thermostatic Water Baths

◎ Used for precision constant temperature and auxiliary.



### Characteristics:

- Inner tank: 1 hole, 2 holes, 2 rows & 4 four holes, 2 rows & 6 holes are stainless steel stretching inner chamber.
- 1 row & 4 holes, 1 row & 6 holes, 2 rows & 8 holes are stainless steel inner chamber.

### Main Technical Parameters:

| Name          | 1 hole                                              | 1 row & 2 holes                                                                                                     | 1 row & 4 holes | 1 row & 6 holes | 2 rows & 4 holes | 2 rows & 6 holes | 2 rows & 8 holes |             |
|---------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|------------------|------------------|------------------|-------------|
| Model         | WB-3-1                                              | WB-7-2                                                                                                              | WB-13-4         | WB-19-6         | WB-12-4          | WB-18-6          | WB-20-8          |             |
| Heating mode  | Bottom heating,water temperature natural convection |                                                                                                                     |                 |                 |                  |                  |                  |             |
| Function      | Temp. range                                         | RT+5~100°C                                                                                                          |                 |                 |                  |                  |                  |             |
|               | Temp. Resolution Ratio                              | 0.1°C                                                                                                               |                 |                 |                  |                  |                  |             |
|               | Temp. Motion                                        | ±0.5°C                                                                                                              |                 |                 |                  |                  |                  |             |
|               | Temp. Uniformity                                    | ±1°C                                                                                                                |                 |                 |                  |                  |                  |             |
| Structure     | Water sink                                          | Stainless steel, surface electrolysis treatment                                                                     |                 |                 |                  |                  |                  |             |
|               | Outer shell                                         | Cold rolled steel plate, surface electrostatic powder spray                                                         |                 |                 |                  |                  |                  |             |
|               | Heater                                              | Stainless steel U type heating tube                                                                                 |                 |                 |                  |                  |                  |             |
|               | Power rating                                        | 300W                                                                                                                | 600W            | 1000W           | 1500W            | 800W             | 1200W            | 1500W       |
| Controller    | Temp. control mode                                  | PID                                                                                                                 |                 |                 |                  |                  |                  |             |
|               | Temp. setting mode                                  | Touch button setting                                                                                                |                 |                 |                  |                  |                  |             |
|               | Temp. display mode                                  | Measuring temperature: display on the three digital tubes upper row , setting temperature: display on the lower row |                 |                 |                  |                  |                  |             |
|               | Timer                                               | 0~999 min { with timing function }                                                                                  |                 |                 |                  |                  |                  |             |
|               | Timing function                                     | Fixed temperature operation, timing function, auto stop.                                                            |                 |                 |                  |                  |                  |             |
|               | Program schema                                      | Optional: multi-section program control                                                                             |                 |                 |                  |                  |                  |             |
|               | Additional function                                 | Deviation correction, menu key lock, power failure back-up, power-off parameter memory, PID adjustable              |                 |                 |                  |                  |                  |             |
| Specification | Sensor                                              | Thermal resistor                                                                                                    |                 |                 |                  |                  |                  |             |
|               | Safety device                                       | Over-temperature alarm, short-circuit protection                                                                    |                 |                 |                  |                  |                  |             |
|               | Inner Chamber size(W*L*H)(mm)                       | 160*160*130                                                                                                         | 305*160*130     | 600*165*130     | 900*165*130      | 305*305*130      | 470*305*130      | 600*290*130 |
|               | Exterior size (W*L*H)(mm)                           | 200*210*210                                                                                                         | 340*210*210     | 635*165*210     | 930*210*210      | 340*350*210      | 510*350*210      | 635*340*210 |
|               | Packing size (W*L*H)(mm)                            | 270*270*275                                                                                                         | 405*275*275     | 715*260*275     | 1000*260*275     | 415*415*275      | 575*410*275      | 700*415*275 |
|               | Internal volume                                     | 3.3L                                                                                                                | 6.3L            | 12.8L           | 19.3L            | 12L              | 18.6L            | 20.6L       |
|               | Cover aperture                                      | Ø 120mm                                                                                                             |                 |                 |                  |                  |                  |             |
|               | Cover material                                      | PP Plastic                                                                                                          |                 |                 |                  |                  |                  |             |
|               | Cover number per hole                               | 5                                                                                                                   |                 |                 |                  |                  |                  |             |
|               | Power Supply ( 50/60Hz ) Current rating             | AC220V 1.4A                                                                                                         | AC220V 2.7A     | AC220V 4.5A     | AC220V 6.8A      | AC220V 3.6A      | AC220V 5.4A      | AC220V 6.8A |
|               | NW/GW (kg )                                         | 3KG/3.5KG                                                                                                           | 4KG/5KG         | 7KG/8KG         | 8KG/10KG         | 6KG/7KG          | 8KG/9KG          | 9KG/11KG    |

# Thermostatic Water Baths (Stretching Inner Chamber)

Used for precision constant temperature and auxiliary.



## Characteristics:

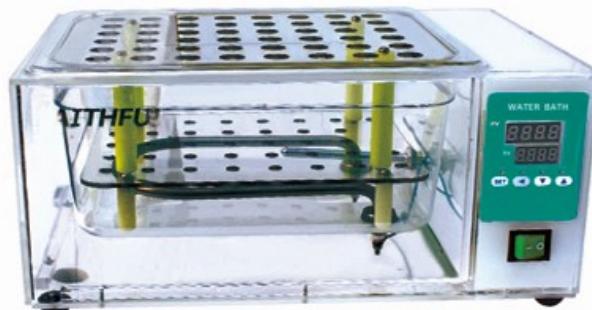
- Stainless steel stretching inner container and roof cover.
- Intelligent temperature controller with PID program, digital tube display and function of timing and over-temperature protection.

## Main Technical Parameters:

| Classification Specifications           |              | 1 hole                                                                                                         | 1 row & 2 holes | 2 rows & 4 holes | 2 rows & 6 holes |
|-----------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------|-----------------|------------------|------------------|
| Model                                   | DK-2000-IIIL | ✓                                                                                                              | ✓               | ✓                | ✓                |
| Heating Mode                            |              | Nature water convection heat transfer                                                                          |                 |                  |                  |
| Function                                |              | RT+5 ~ 100°C                                                                                                   |                 |                  |                  |
| Temp. Range                             |              | 0.1°C                                                                                                          |                 |                  |                  |
| Temp. Resolution Ratio                  |              | ± 0.5°C                                                                                                        |                 |                  |                  |
| Temp. Motion                            |              | ± 1.0°C                                                                                                        |                 |                  |                  |
| Temp. Uniformity                        |              |                                                                                                                |                 |                  |                  |
| Structure                               |              | Inner Chamber                                                                                                  |                 |                  |                  |
|                                         |              | Stainless steel                                                                                                |                 |                  |                  |
| Outer Shell                             |              | Cold – rolled steel plate, resistance to chemical reagents coating on the surface                              |                 |                  |                  |
| Heater                                  |              | Stainless steel heating tube                                                                                   |                 |                  |                  |
| Power Rating                            |              | 0.4kW                                                                                                          | 0.5kW           | 1.0kW            | 1.5kW            |
| Controller                              |              | PID (without DK-98-II)                                                                                         |                 |                  |                  |
| Temp. Control Mode                      |              | Touch button setting                                                                                           |                 |                  |                  |
| Temp. Setting Mode                      |              |                                                                                                                |                 |                  |                  |
| Temp. Display Mode                      |              | Measuring temperature displays on the three digital tubes upper row, set temperature displays on the lower row |                 |                  |                  |
| Timer                                   |              | 0 ~ 9999min ( with timing wait function )                                                                      |                 |                  |                  |
| Operation Function                      |              | Fixed temperature operation, timing function, auto stop.                                                       |                 |                  |                  |
| Program Mode                            |              | Optional                                                                                                       |                 |                  |                  |
| Additional Function                     |              | Deviation Correction, menu key locked, power failure back-up, power-off memory                                 |                 |                  |                  |
| Sensor                                  |              | CU50                                                                                                           |                 |                  |                  |
| Safety Device                           |              | Over temperature alarm                                                                                         |                 |                  |                  |
| Specification                           |              | 150*135*150                                                                                                    | 300*135*150     | 325*300*150      | 500*300*150      |
| Inner Chamber size(W*L*H)(mm)           |              | 170*154*210                                                                                                    | 318*2168*210    | 350*318*210      | 524*322*210      |
| Exterior size (W*L*H)(mm)               |              | 240*230*280                                                                                                    | 390*240*280     | 420*390*280      | 600*390*280      |
| Packing size (W*L*H)(mm)                |              | 3.4L                                                                                                           | 6.6L            | 12.7L            | 18.7L            |
| Volume                                  |              | 5kg                                                                                                            |                 |                  |                  |
| Load per rack                           |              | 1                                                                                                              |                 |                  |                  |
| Shelf Number                            |              |                                                                                                                |                 |                  |                  |
| Power Supply ( 50/60Hz ) Current rating |              | AC220V/1.8A                                                                                                    | AC220V/2.3A     | AC220V/4.5A      | AC220V/6.8A      |
| NW/GW (kg)                              |              | 3.3/4                                                                                                          | 4.5/5           | 6/7              | 7.5/9            |

## Transparent Water Bath

◎ Used for precision constant temperature and auxiliary.



### Characteristics:

- Using innovative design structure, effectively prevent steam leakage.
- Intelligent temperature control instrument with high brightness digital display, light-touch type key has the advantages of simple operation and high precision temperature control.
- Shell, interior and cover of the product are all made of transparent engineering plastics, can clearly see the object to be heated.

### Main Technical Parameters:

| Model                      | DK-98-IV                   |
|----------------------------|----------------------------|
| Voltage (V)                | 200–240V/100–120V          |
| Power (kW)                 | 0.8                        |
| Temp. Motion (°C)          | ± 0.5                      |
| Temp. Range (°C)           | Rt+5~100                   |
| Temp. Sensitivity (°C)     | ≤ ± 1                      |
| Shelves Height (mm)        | Distance from bottom 100mm |
| Shelves Holes Diameter     | ¢ 5 X104mm                 |
| Inner Chamber Size (L*W*H) | 280 x 220 x150mm           |
| Exterior Size (L*W*H)      | 400 x260x 190mm            |
| Packing Size (L*W*H)       | 450 x350 x270mm            |
| N.W. (KG)                  | 3.5                        |
| G.W. (KG)                  | 5                          |

## Thermostatic Water Baths

Used for precision constant temperature and auxiliary.



### Characteristics:

- SHHW21.420AII model cover for the two holes water bath, can be used as a digital two holes water bath.
- SHHW21.600AII model cover for the six holes water bath, can be used as a digital six holes water bath.

### Main Technical Parameters:

|                      | Model                             | HHW21.420AII                                                                                                        | SHHW21.420AII | HHW21.600AII | SHHW21.600AII |
|----------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------|--------------|---------------|
| Function             | Tem. Range                        | RT+5 ~ 65°C                                                                                                         | RT+5 ~ 100°C  | RT+5 ~ 65°C  | RT+5 ~ 100°C  |
|                      | Tem. Resolution Ratio             |                                                                                                                     | 0.1°C         |              |               |
|                      | Tem. Motion                       |                                                                                                                     | ± 0.5°C       |              |               |
|                      | Tem. Uniformity                   |                                                                                                                     | ± 1.0°C       |              |               |
| Structure            | Inner Chamber                     | High quality hairline stainless steel plate                                                                         |               |              |               |
|                      | Outer Shell                       | Cold rolling steel electrostatic spraying exterior                                                                  |               |              |               |
|                      | Cover                             | High quality hairline stainless steel plate                                                                         |               |              |               |
|                      | Cover circle                      | Without                                                                                                             | With          | Without      | With          |
|                      | Test tube rack                    | Without                                                                                                             | With          | Without      | With          |
| Controller           | Heater                            | Stainless steel heating tube                                                                                        |               |              |               |
|                      | Power Rating                      | 0.5kW                                                                                                               | 1kW           | 0.75kW       | 2kW           |
|                      | Tem. control mode                 | PID                                                                                                                 |               |              |               |
|                      | Tem. setting mode                 | Touch button setting                                                                                                |               |              |               |
|                      | Tem. display mode                 | Measuring temperature: display on the three digital tubes upper row ; setting temperature: display on the lower row |               |              |               |
|                      | Timer                             | 0 ~ 9999min ( with timing wait function )                                                                           |               |              |               |
|                      | Operation function                | Fixed temperature operation, timing function, auto stop.                                                            |               |              |               |
|                      | Program function                  | No                                                                                                                  |               |              |               |
|                      | Additional function               | Deviation correction、Menu key lock、Power-off compensation、Power failure memory                                      |               |              |               |
| Specification        | Sensor                            | CU50                                                                                                                |               |              |               |
|                      | Safety device                     | Over temperature alarm                                                                                              |               |              |               |
|                      | Sink size(W*L*H)(mm)              | 420*180*140                                                                                                         |               | 600*300*200  |               |
|                      | Exterior size (W*L*H)(mm)         | 570*230*270                                                                                                         |               | 750*350*360  |               |
|                      | Packing size (W*L*H)(mm)          | 670*320*335                                                                                                         |               | 860*460*380  |               |
|                      | Volume                            | 11L                                                                                                                 |               | 36L          |               |
|                      | Supply ( 50/60Hz ) Current rating | AC220V/2.3A                                                                                                         | AC220V/4.5A   | AC220V/6.8A  | AC220V/9.1A   |
|                      | NW/GW (kg )                       | 8/9.5                                                                                                               | 8.5/10        | 17/19        | 18/20         |
| Optional accessories |                                   | No                                                                                                                  |               |              |               |

## Optional configuration introduction

| Optional configuration                                  | Optional configuration introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Picture | Price   |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| Color touch paperless recorder                          | 1. 3 – inch LED display, with a standard USB2.0 interface.<br>2. Support USB data transfer function.<br>3. Easy for user to save the data that the GMP certification needed.                                                                                                                                                                                                                                                                                                                                  |         | 5500RMB |
| Wireless text messages, alarm system                    | 1. If the device goes wrong and user are not in the scene, the system will gather failure promptly to send the text message to the receiving people on the mobile phone, ensure to troubleshoot, recover experiment, avoid damage.<br>2. Can immediately check the working status of equipment and control.<br>3. Excluding mobile phone.                                                                                                                                                                     |         | 2000RMB |
| Embedded, thermal printer                               | Print the required data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         | 1500RMB |
| Embedded, needle type printer                           | 1. Print the required data<br>2. Printer + controller + power                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         | 1800RMB |
| 16 channel temperature inspecting meter introduction    | 1.Used for temperature uniformity test in the box-type chamber.<br>2.High-precision, 3 meter long, PT100 sensor. Measuring range: 0~300°C<br>3.Backlight type 3.5 inch 128*64 high resolution LCD display screen, 16 channel data display on one screen, can search historical data, change time scale on curve.<br>4.With multiple protection and isolation design, the anti-interference ability is strong and the reliability is high<br>5.Measurement accuracy: 0.2%FS ± 1d, refresh cycle 2S/16 channel. |         | 4500RMB |
| Multi – segment programmable LCD temperature controller | 1. Micro – computer controller, time and heating rate.<br>2. Can preset 30 – step programmable in paragraph 15, each setting time 1~99 hours, 99 minutes.<br>3. Multi – segment programmable control, you can simplify the complex process of experiment, the actual realization of automatic control and operation.                                                                                                                                                                                          |         | 1500RMB |
| Liquid rose – independent temperature limit controller  | Exceeding the limit temperature interrupt automatically, ensures experiments to run safely.                                                                                                                                                                                                                                                                                                                                                                                                                   |         | 180RMB  |
| RS485/232 Communication Interface                       | Display, monitor the data of the experiment via connecting computers.                                                                                                                                                                                                                                                                                                                                                                                                                                         |         | 600RMB  |
| U-Disk data storage, with USB module                    | USB data transfer interfaces, available with data transfer, with USB module.                                                                                                                                                                                                                                                                                                                                                                                                                                  |         | 1000RMB |
| BOD socket                                              | BOD instrument – specific socket                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         | 150RMB  |