



- "Three-In-One" and "Six-In-One" Hot plate stirrers
- Individually controlled stirring and heating positions
- Ideal for several applications at one time
- Multiple type and compact design
- Max. Temperature : 380°C
- Max. speed : 1500rpm
- Feedback speed control
- Precise speed control by feedback control

### Features

- ▶ It is possible to use stir only, heat only, or heat and stir same time
- ▶ It is individually controlled stirring and heating positions that let you perform different applications simultaneously
- ▶ Ceramic coated top plate provides excellent chemical resistance, thermal-proof, and corrosion resistance
- ▶ Bright white color lets you easily view stirring processes
- ▶ High-heat conductivity of top plate provides thermal uniformity over the entire heating surface
- ▶ Heating temperature controlled by the electronic energy regulator(Time proportional ON/OFF auto control)
- ▶ Electronic feedback control maintains a precise speed
- ▶ Smooth acceleration of stirring speed ensures no spillage.

### Specifications

Model		HS12-03P	HS15-03P	HS12-06P	HS15-26P
Heating & Stirring Positions		3 Positions		6 Positions	
Temperature	Range	Max,380°C			
	Display	Scale(Temperature)			
	Controller	Analog temperature controller			
Heater Power		350W×3	480W×3	350W×6	480W×6
Stirring	Speed	100~1500rpm			
	Speed display	Scale(rpm)			
	Capacity(H <sub>2</sub> O)	up to 1L	up to 2L	up to 1L	up to 2L
Speed Controller		Feedback control			
Top Plate		Ceramic coated top plate			
Dimensions	Plate area(mm)	Each 120×120	Each 150×150	Each 120×120	Each 150×150
	Overall(W×D×H)(mm)	410×250×125	500×280×125	830×250×125	540×450×125
Electrical Supply		220V 50/60Hz or 110V 50/60Hz			
Weight		6.3Kg	7.7Kg	12Kg	13.5Kg





- Three-In-One Hot plate stirrers
- Individually controlled stirring and heating positions with digital display
- Max. temperature : 380°C
- Max. speed : 1500rpm
- Precise temperature control by PID auto-tuning, built-in timer
- Feedback speed control with digital display
- Excellent precision and accuracy of the temperature and speed control
- Ideal for several applications at one time
- Multiple type and compact design

### Features

- ▶ It is individually controlled stirring and heating positions
- ▶ It is possible to change stirring speed and heating temperature on same and different condition
- ▶ By use of the temperature controller with function of the built-in digital PID auto-tuning, control temperature accurately and confirm set temperature and actual temperature at the same time
- ▶ Temperature controller with built-in timer function (99hr 59min.)
- ▶ Possible to control the temperature of the sample with external sensor(Option)
- ▶ Digital display of stirring speed and precise speed by feedback control
- ▶ It is individually controlled stirring and heating positions that let you perform different applications simultaneously
- ▶ Ceramic coated top plate provides excellent chemical resistance, thermal-proof, and corrosion resistance
- ▶ Bright white color lets you easily view stirring processes
- ▶ High-heat conductivity of top plate provides thermal uniformity over the entire heating surface
- ▶ Smooth acceleration of stirring speed ensures no spillage.

### Specifications

Model		HSD120-03P	HSD150-03P
Heating & Stirring Positions		3 Positions	
Temperature	Range	Max.380°C	
	Accuracy	±1°C	
	Controller	Digital PID auto-tuning	
	Times	99hr 59min	
Heater Power		350W×3	480W×3
Stirring	Speed	100~1500rpm	
	Speed display	Digital	
	Capacity	up to 1L	up to 2L
Speed Controller		Feedback control	
Top Plate		Ceramic coated top plate	
Dimensions	Plate area(mm)	Each 120×120	Each 150×150
	Overall(W×D×H)(mm)	480×260×125	510×300×125
Electrical Supply		220V 50/60Hz or 110V 50/60Hz	
Weight		7.3Kg	8.3Kg





- Space saving design with compact and light weight (MS12, MS15)
- Portable & ideal for stirring of the small vessels (MS12, MS15)
- Various sizes of the top plate
- Ceramic coated top plate
- Precise speed by electronic feedback control
- Max. speed : 1500rpm

### Features

- ▶ Various sizes of the top plate and flexible choice
- ▶ Ceramic coated top plate provides excellent chemical resistance, thermal-proof, and corrosion resistance
- ▶ Reflective, bright white color ceramic coated plate enhances sample visibility
- ▶ Electronic feedback control maintains a precise speed
- ▶ Smooth acceleration of stirring speed ensures no spillage.

### Specifications

Model		MS12	MS15	MS200	MS33
Type		Magnetic Stirrer			
Stirring	Speed	100~1500rpm			100~1300rpm
	Speed display	Scale(rpm)			
	Capacity(H <sub>2</sub> O)	up to 1L	up to 2L	up to 5L	up to 15L
Speed Controller		Feedback control			
Top Plate		Ceramic coated top plate			
Dimensions	Plate area(mm)	120×120	150×150	180×180	300×300
	Overall(W×D×H)(mm)	160×280×107	160×280×107	200×310×107	310×430×120
Electrical Supply		220V 50/60Hz or 110V 50/60Hz			
Weight		2.4Kg	2.5Kg	3.4Kg	5.8Kg





- Accurate temperature control by PID auto-tuning function, built-in timer
- Uniform heat distribution on the heating plate
- Max. temperature : 380°C
- Max. temperature : 350°C (HS330)

- Various sizes of the top plate and flexible choice
- Speed display by scale(rpm)
- Electronic feedback control maintains a precise speed
- Max. speed : 1500 rpm

## Features

- ▶ By use of the temperature controller with function of the built-in digital PID auto-tuning, control temperature accurately and confirm set temperature and actual temperature at the same time
- ▶ Temperature controller with built-in timer function (99hr 59min.)
- ▶ High-heat conductivity of top plate provides thermal uniformity over the entire heating surface
- ▶ Ceramic coated top plate provides excellent chemical resistance, thermal-proof, and corrosion resistance
- ▶ Possible to control the temperature of the sample with external sensor(Option)
- ▶ Electronic feedback control maintains a precise speed
- ▶ Smooth acceleration of stirring speed ensures no spillage.
- ▶ Speed display by scale(rpm)

## Specifications

Model		HS120	HS150	HS180	HS330
Type		Hot plate & magnetic stirrer			
Temperature	Range	Max.380°C			Max.350°C
	Accuracy	±1°C			
	Controller	Digital PID auto-tuning			
	Timer	99hr 59min			
Heater Power		350W	480W	680W	1400W
Stirring	Speed	100~1500rpm			100~1300rpm
	Speed display	Scale(rpm)			
	Capacity(H <sub>2</sub> O)	up to 1L	up to 2L	up to 5L	up to 15L
Speed Controller		Feedback control			
Top Plate		Ceramic coated top plate			
Dimensions	Plate area(mm)	120×120	150×150	180×180	300×300
	Overall(W×D×H)(mm)	160×280×107	160×280×107	200×310×107	310×430×120
Electrical Supply		220V 50/60Hz or 110V 50/60Hz			
Weight		2.7Kg	2.8Kg	3.8Kg	7Kg





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- Uniform heat distribution on the heating plate
- Max. temperature : 380°C
- Max. temperature : 350°C (HSD330)
- Various sizes of the top plate and flexible choice
- Speed display by digital
- Electronic feedback control maintains a precise speed
- Max. speed : 1500 rpm

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- ▶ Electronic feedback control maintains a precise speed
- ▶ Smooth acceleration of stirring speed ensures no spillage.
- ▶ Speed display by digital

### Specifications

Model		HSD120	HSD150	HSD180	HSD330
Type		Hot plate & magnetic stirrer			
Temperature	Range	Max.380°C			Max.350°C
	Accuracy	±1°C			
	Controller	Digital PID auto-tuning			
	Timer	99hr 59min			
Heater Power		350W	480W	680W	1400W
Stirring	Speed	100~1500rpm			100~1300rpm
	Speed display	Digital			
	Capacity(H <sub>2</sub> O)	up to 1L	up to 2L	up to 5L	up to 15L
Speed Controller		Feedback control			
Top Plate		Ceramic coated top plate			
Dimensions	Plate area(mm)	120×120	150×150	180×180	300×300
	Overall(W×D×H)(mm)	160×280×107	160×280×107	200×310×107	310×430×120
Electrical Supply		220V 50/60Hz or 110V 50/60Hz			
Weight		2.7Kg	2.8Kg	3.8Kg	7Kg