

# Magnetic Stirrer

## Analog type



### Quick speed control of stirring with real time response

#### ■ Structural Functional Features

- 3 models according to size, shape.
- Polypropylene (PP) material with excellent chemical resistance.
- Minimized vibration during high-speed stirring with rubber feet.
- Using special permanent magnets for maintaining stirring ability.

#### ■ Use Convenience Features

- Quick control of stirring speed in real time according to degree of control knobs.
- The two types of black and white covers are very useful for observing changes according to samples.
- Convenient LED lamp for checking operation status.
- Lightweight makes handling convenient.

MS-17B



#### ■ Outstanding Safety

- Safety ensured by BLDC motor that does not generate sparks.
- Spill-proof design minimizes inflow solution into device.
- Provides Silicon-based top plate cover to prevent slipping accidents of glassware.

### Specification

Model		MS-12B	MS-17B	MS-22B
Stirring	Speed range (rpm)	150 to 2500	150 to 2500	150 to 2500
	Capacity (L / cu ft, H <sub>2</sub> O)	2 / 0.07	4 / 0.14	5 / 0.18
	Magnetic bar, Max. (L x Ø, mm)	30 x 8 / 1.18 x 0.31	40 x 8 / 1.57 x 0.31	50 x 10 / 1.97 x 0.39
	Load, Max. (kg / lbs)	15 / 33.07	20 / 44.09	25 / 55.12
Material	Top plate	Polypropylene with silicone cover	Polypropylene with silicone cover	Polypropylene with silicone cover
	Body	Polypropylene	Polypropylene	Polypropylene
	Motor type	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)
Dimensions	Top plate (Ø or W x D, mm / inch)	120 / 4.72	170 / 6.69	220 / 8.66
	Exterior (W x D x H, mm / inch)	130 x 133 x 65 / 5.11 x 5.24 x 2.56	180 x 186 x 65 / 7.09 x 7.32 x 2.56	230 x 235 x 65 / 9.05 x 9.25 x 2.56
	Net weight (kg / lbs)	0.6 / 1.32	0.9 / 1.98	1.1 / 2.42
Electrical requirements		AC 100 ~ 240V, 50/60Hz with power adapter, 0.2A Max.		
Power consumption (W)		5	6	6
Cat. No.	KR plug	AAH330115BK	AAH330215BK	AAH330315BK
	US plug	AAH330115BU	AAH330215BU	AAH330315BU

Accessories Page 153 Plate Cover, Power Adapter, Magnetic Bar, Magnetic Retriever

# Magnetic Stirrer

## Multi Position type

### Differentiated multi-stirring control for multi-purpose use

#### ■ Structural Functional Features

- Maintains accurate speed with feedback control even when sample viscosity and amount change.
- Display of stirring position on the upper part of the stainless steel.
- Using special permanent magnets for maintaining stirring ability.



MS-53M

#### ■ Use Convenience Features

- Simultaneous display of set speed and actual speed.
- Count-down timer provided.  
(up to 99 hours and 59 minutes)
- Six models provided according to the quantity and size of stirring.

#### ■ Outstanding Safety

- Safety ensured by BLDC motor that does not generate sparks.
- Spill-proof design minimizes inflow solution into device.
- Prevents samples splash with smooth operation at the start and stop of stirring.
- Silicon pad (option) to prevent slip-related accidents of glassware.

### Differentiated Multi Control

- Four kinds of stirring control methods and timer function allow for performance of various stirring experiments simultaneously.  
(MS-51M has two control methods.)
- Display LED point window for easy setting and confirmation.

#### All Mode

Simultaneous stirring with same speed.

#### Column Mode

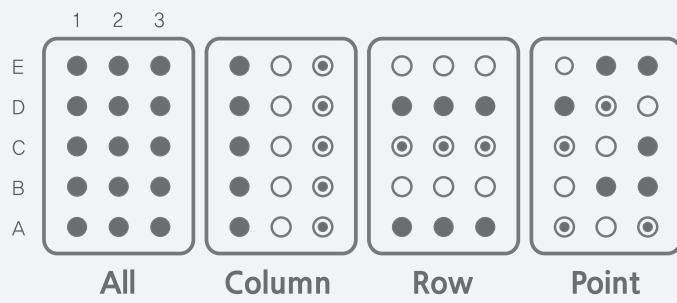
Stirring with different speeds for each column.

#### Row Mode

Stirring with different speeds for each row.

#### Point Mode

Stirring with different speeds for each point



**MS-52M****MS-53M****MS-33M****MS-51M****MS-32M****MS-23M**

## Specification

Model		MS-51M	MS-23M	MS-32M	MS-33M	MS-52M	MS-53M
Stirring	Speed range (rpm)	30 to 2000	30 to 2000	30 to 2000	30 to 2000	30 to 2000	30 to 2000
	Capacity per point at 2000rpm (H <sub>2</sub> O, mL)	250	250	250	250	250	250
	Operating mode	2 (All, Point)	4 (All, Column, Row, Point)	4 (All, Column, Row, Point)	4 (All, Column, Row, Point)	4 (All, Column, Row, Point)	4 (All, Column, Row, Point)
	Position (Row x Column)	5 (5 x 1)	6 (2 x 3)	6 (3 x 2)	9 (3 x 3)	10 (5 x 2)	15 (5 x 3)
	Point distance (W x D, mm / inch)	90 / 3.54	117 x 170 / 4.61 x 6.69	117 x 90 / 4.61 x 3.54	117 x 90 / 4.61 x 3.54	117 x 90 / 4.61 x 3.54	117 x 90 / 4.61 x 3.54
	Magnetic bar , Max. (L x Ø, mm / inch)	30 x 8 / 1.18 x 0.31	30 x 8 / 1.18 x 0.31	30 x 8 / 1.18 x 0.31	30 x 8 / 1.18 x 0.31	30 x 8 / 1.18 x 0.31	30 x 8 / 1.18 x 0.31
	Load, Max. (kg / lbs)	30 / 66.14	30 / 66.14	30 / 66.14	30 / 66.14	30 / 66.14	30 / 66.14
Material	Top plate	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Body	Powder coated steel, PET	Powder coated steel, PET	Powder coated steel, PET	Powder coated steel, PET	Powder coated steel, PET	Powder coated steel, PET
	Motor type	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)	BLDC (Brushless Direct Current)
Dimensions	Top plate (W x D, mm / inch)	124 x 485 / 4.88 x 19.09	362 x 318 / 14.25 x 12.52	242 x 318 / 9.53 x 12.52	362 x 318 / 14.25 x 12.52	246 x 485 / 9.68 x 19.09	367 x 485 / 14.45 x 19.09
	Exterior (W x D x H, mm / inch)	131 x 603 x 82 / 5.56 x 23.74 x 3.23	377 x 436 x 82 / 14.84 x 17.16 x 3.23	254 x 436 x 82 / 10 x 17.16 x 3.23	344 x 436 x 81 / 13.54 x 17.16 x 3.19	254 x 602 x 82 / 10 x 23.7 x 3.23	377 x 599 x 82 / 14.84 x 23.58 x 3.23
	Net weight (kg / lbs)	4 / 8.81	6 / 13.23	5 / 11.02	7 / 15.43	8 / 17.64	11 / 24.25
Timer		Max. 99 hrs 59 min.	Max. 99 hrs 59 min.	Max. 99 hrs 59 min.	Max. 99 hrs 59 min.	Max. 99 hrs 59 min.	Max. 99 hrs 59 min.
Electrical requirements		AC 100 ~ 240V, 50/60Hz, 11.0A Max.					
Power consumption (W)		45	45	45	54	85	135
Cat. No.	KR plug	AAH332415K	AAH332115K	AAH332215K	AAH332315K	AAH332515K	AAH332615K
	US plug	AAH332415U	AAH332115U	AAH332215U	AAH332315U	AAH332515U	AAH332615U

**Accessories** Page 153 Silicone Pad, Magnetic Bar, Magnetic Retriever