Open-air Shakers (Dual-action)

OS-2000/3000 (20 to 500 rpm)



Dual-action benchtop platform shakers accommodate flask up to 6L

The most versatile shakers at a reasonable price offer an ideal solution for your mixing needs







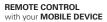
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OS models with the optional dedicated platform

rtan ammin	, marrian manning manning					
Model		OS-2000	OS-3000			
	Motion type	Orbital or Reciprocating motion selectable				
Chalda a	Amplitude size (mm / inch, dia.)	12.7, 19.1 / 0.5, 0.8 (standard 19.1 / 0.75)	19.1, 25.4 / 0.8, 1 (standard 19.1 / 0.75)			
Shaking system	Speed range 2) (rpm)	20 to 500				
System	Accuracy	±1% of set speed (≥100rpm) / ±1 (≤100rpm)				
	Timer	1 min. to 999 hr. 59 min.				
Max. load (kg	(lbs)	10 / 22.0 at 500 rpm in orbital shaking motion 8.5 / 18.7 at 500 in reciprocating shaking motion				
	Platform (W×D) (mm / inch)	320×260 / 12.6×10.2	350×350 / 13.8×13.8			
Dimension	Body (WxDxH) (mm/inch) 1)	354x388x146/ 13.9x15.3x5.7	409x508x141/ 16.1x20x5.6			
	Net weight (Kg / Ibs)	22 / 48.5	28 / 61.7			
Electrical requ	uirements (230V, 50 / 60Hz)	0.3A	0.3A			
Cat. No.		AAH3D1115K	AAH3D1215K			
Electrical requ	uirements (120V, 50 / 60Hz)	0.6A	0.6A			
Cat. No.		AAH3D1165U AAH3D1265U				

¹⁾ Main body dimension without accessories.

* FDA establishment registered company. FDA listed products.



Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Automatic run after power

Audible/Visible alarm activated by shaking speed

Shaker protection system against over-current, stalled platform check

and shaking speed calibration

Dual-action shaking motions

· Orbital or reciprocating

Timer range

• 1 min to 999 hr 59 min

User friendly control panel

- Lab Companion's unique VFDbright, clear, easy to read
- Durable membrane touch switch and control knob

Speed is basically set and displayed in increments of 1 rpm. Speed increment interval can be set among 1, 5, 10 rpm according to users preference

RS-232 port and USB port for external control and data collection

Wide speed range even with heavy workload by built in the maintenance-free BLDC motor

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Low-profile design minimizes vibration or sliding caused by the high speed shaking motion.

²⁾ In case of operating at high speed (350 to 500 rpm), it is recommended to use optional attachments to be fixed on the working surface.



Powerful driving system with a durable body structure increases shaking capacity

Suitable for larger or heavier workloads requiring accurate and reproducible results























OS models with the optional platform

Model		OS-4000		OS-7100	OS-7200	
Control syste	m	PID feedback control				
Display VFD						
	Motion type	Orbital				
Shaking	Amplitude size (mm / inch, dia.)	19.1 / 0.75 (standard)	25.4 / 1 (adjustable)	25.4 / 1	50.8 / 2	
system	Speed range 2) (rpm)	20 to 500	20 to 450	30 to 500	30 to 300	
	Accuracy	±1% of set speed (≥100rpm) / ±1 (≤100rpm)				
	Timer	1 min. to 999 hr. 59 min.				
Max. load (kg	g / Ibs)	14 / 30.9 at 500 rpm 21 / 46.3 at 400 rpm	10 / 22.0 at 450 rpm 21 / 46.3 at 300 rpm	10 / 22.0 at 500 rpm 25 / 55.1 at 400 rpm	23 / 50.7 at 300 rpm 35 / 77.2 at 200 rpm	
	Platform (W×D) (mm / inch)	450×450 / 17.7×17.7		755×520 / 29.6×20.5		
Dimension	Body 1) (W×D×H) (mm/inch)	510x632x156 / 20.1x24.9x6.1		755x627x151 / 29.7x24.7x5.9		
	Net weight (Kg / lbs)	43 / 94.8		117 / 257.9		
Electrical requirements (230V, 50 / 60Hz)		0.3A		0.4A		
Cat. No.		AAH	3D1315K	AAH3D1415K	AAH3D1515K	
Electrical req	uirements (120V, 50 / 60Hz)	0.6A		0.8A		
Cat. No.		AAH3D1365U		AAH3D1465U	AAH3D1565U	

- 1) Main body dimension without accessories.
- 2) In case of operating at high speed (350 to 500 rpm), it is recommended to use optional attachments to be fixed on the working surface.
- * Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%). * CSA for OS-4000. * FDA establishment registered company. FDA listed products.



Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Automatic run after power

Audible/Visible alarm activated by shaking speed

Shaker protection system against over-current, stalled platform check

and shaking speed calibration

Timer range

• 1 min to 999 hr 59 min

User friendly control panel

- · Lab Companion's unique VFD-
- Durable membrane touch switch and control knob

Speed is basically set and displayed in increments of 1 rpm. Speed increment interval can be set among 1, 5, 10 rpm according to users preference

RS-232 port and USB port for external control and data collection

Wide speed range even with heavy workload

- Ideal DD(Direct Drive) Brushless Motor and triple cam system support heavy load, quiet, maintenance free operation and deliver high torque at high speeds and smooth rotation (only for OS-7100/7200)
- · Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion (only for OS-4000)

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Low-profile design minimizes vibration or sliding caused by the high speed shaking motion.



Innovative triple-cam shaking mechanism with offering reliable performance across a wide speed range

Specially designed to carry out heavy-duty and trouble-free operations continuously

















SKC models with the optional dedicated platform

	Model		SKC-6075	SKC-6100	SKC-6200	SKC-7075	SKC-7100	SKC-7200
Control syster	n		PID feedback c	ontrol				
Display			VFD					
	Motion type		Orbital					
Shaking	Amplitude size (m	m / inch, dia)	19 / 0.75	25 / 1	50 / 2	19 / 0.75	25 / 1	50 / 2
system	Speed range 2) (rp	m)	30 to 500					
	Accuracy at 100 r	pm	±1					
	Platform Small (W×D) (mm / inch) Large		580×520 / 22.8	580×520 / 22.8×20.5 755×520 / 29.7×20.5			×20.5	
			660×520 / 26×20.5			885×520 / 34.8×20.5		
Dimension	Body 1) (W×D×H) (mm / inch)		582.8×618 ×122.2			754.8×662×122.2		
	Bouy (WXDXH) (mi	m / Incn)	22.9×24.3×4.8			29.7×26.1×4.8		
	Net weight (kg / lbs	s)	65 / 143.3			75 / 165.4		
Electric requirements (230V, 50 / 60Hz)				C).4A			
Cat. No.		AAH30105K	AAH30115K	AAH30125K	AAH30205K	AAH30215K	AAH30225K	
Electric requirements (120V, 60Hz)				C).8A			
Cat. No.			AAH30106U	AAH30116U	AAH30126U	AAH30206U	AAH30216U	AAH30226U

- 1) Main body dimension without accessories.
- 2) In case of operating at high speed (350 to 500 rpm), it is recommended to use optional attachments to be fixed on the working surface.



Progressive Program Operation

- Shaking Motion
 Forward & Backward, Pause

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Automatic run after power

against over-current

Microprocessor PID control maintaining constant speed

Dual wait on/off timer modes

• 1 min to 99 hr 59 min

User friendly control panel

- Lab Companion's unique VFDbright, clear, easy to read
- Durable membrane touch switch and control knob

Wide speed range even with heavy workload by built in DD(Direct Drive) Brushless Motor and triple cam system

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Exceptional low-profile design (only 12cm from bottom to platform) minimizes vibration or sliding caused by the high speed shaking motion

Chemical-resistant and durable construction

Easy-exchangeable slide type universal platform reduces physical fatigue when handling the heavy load samples (optional)



Digital incubating benchtop shakers

Transparent lid offers great visibility and gas spring supports ensure hand-down handling of the samples by allowing immediate and easy access to your samples.



3 Points Temperature Calibration



Over Temp.

























IST-4075 with the optional universal attachment

Model		IST-	3075	IST-	4075	
	Range (℃ / °F)	Amb. +5 to 80 / Amb. +9 to 176		Amb. +5 to 80 / Amb. +9 to 176		
Temperature	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18				
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90				
	Refrigerator (Hp)	-		-		
	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	19.1 / 0.75				
Shaking	Speed range (RPM)	20 to 500				
system	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)				
	Timer	1 min. to 999 hr 59 min.				
	Max. load (kg / lbs)	10 / 22.0 at 500 rpm, 15 / 3	3.1 at 400 rpm	14 / 30.9 at 500 rpm, 21 / 46.3 at 400 rpm		
	Volume (L / cu ft)	53 / 1.9		83 / 2.9		
	Platform (W×D) (mm / inch)	350×350 / 13.8×13.8		450×450 / 17.7×17.7		
Dimension	Interior (WxDxH) (mm / inch)	410×410×320 / 16.1×16.1×	12.6	510×510×320 / 20.1×20.1×12.6		
	Exterior (W×D×H) (mm / inch)	440x785x510 / 17.3x30.9x2	0.1	540x 890 x510 / 21.3x35x20.1		
	Net weight (Kg / lbs)	65 / 143.3		81 / 178.6		
Electrical requirements (230V)		60Hz, 4A	50Hz, 4A	60Hz, 4A	50Hz, 4A	
Cat. No.		AAH23411K	AAH23422K	AAH23611K	AAH23622K	
Electrical requ	uirements (120V)	60Hz, 7.5A		60Hz, 7.5A		
Cat. No.		AAH23465U		AAH23665U		

^{*} FDA establishment registered company. FDA listed products.



Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

Shaking Timer range

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity Temperature and shaking speed deviation alarm

Shaker protection system against over-current, stalled platform check

Microprocessor PID control and auto-tuning

Three point temperature calibration

Mechanical over-temperature protection device

Wide speed range even with heavy workload by built in the maintenance-free BLDC motor

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Transparent acryl lid with bright LED lamps for wide sample monitoring and gas spring lid for convenient sample loading

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution

Accessories



Large capacity up to five 6L flasks and heavy workload shaking with rapid heating performance.































	Model	ISF-7100	ISF-7200			
	Range (°C / °F)	Amb. +5 to 80 / Amb. +9 to 176	Amb. +5 to 80 / Amb. +9 to 176			
Temperature	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18				
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90				
	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	25.4 / 1	50.8 / 2			
	Speed range (rpm)	30 to 500	30 to 300			
Shaking	Accuracy	±1% of set speed (>100rpm) /±1 (<100rpm)				
system	Timer	1 min. to 999 hr 59 min.				
	Max. load (kg / lbs)	15 / 33.1 at 500 rpm 25 / 55.1 at 400 rpm 35 / 77.2 at 300 rpm	20 / 44.1 at 300 rpm 35 / 77.2 at 200 rpm			
	Volume (L / cu ft)	270 / 9.5				
	Platform (W×D) (mm / inch)	755×520 / 29.7×20.5				
Dimension	Interior (W×D×H) (mm / inch)	894×634×480 / 35.2×25×18.9				
	Exterior (WxDxH) (mm / inch)	1128×854×1035 / 44.4×33.6×40.8				
	Net weight (Kg / Ibs)	277 / 610.7	277 / 610.7			
Electrical requirements (230V)		50 / 60Hz, 3.7A	50 / 60Hz, 3.7A			
Cat. No.		AAH23342K	AAH23442K			
Electrical requ	uirements (120V)	60Hz, 7.3A 60Hz, 7.3A				
Cat. No.		AAH23375U AAH23475U				

**Temp. change may occur during automatic defrost. (for ISF-7100R/7200R)

* FDA establishment registered company. FDA listed products.

Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

ShakingTimer range

• 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Temperature and shaking speed deviation alarm

Shaker protection system against over-current

Three point temperature calibration

Triple independent temperature monitor system

- Temperature deviation alarm (High/Low)
 Electronic temperature limiter (High/Low)
 Mechanical over-temperature limiter (High)

Wide speed range even with heavy workload by built in DD(Direct Drive) Brushless Motor and triple cam system

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

The gentle inclined top lid with viewing window and bright LED lamp provide easy sample monitoring and easy sample loading in the chamber.

Easy-access drain system with a quick disconnect valve

Air-tight silicone door seal with lockable door for safe storage of samples.

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution



Incubated Shakers

ISS-7100/7200 (Amb. +10 to 80°C, 30 to 400 rpm)



Stackable up to three units for maximum utilization of lab spaces.

Multi-purpose incubated shakers feature a wide range of temperature control and large chamber volume.













Temperature Calibration





REMOTE CONTROL with your **MOBILE DEVICE**









ISS-7100 with the optional accessoriesISS-7200 with the optional accessories

Model		ISS-	7100	ISS-	7200	
_	Range (℃ / °F)	Amb. +10 to 80 /Amb. +18 to 176		Amb. +10 to 80 / Amb. +18 to 176		
Temp.	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18				
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90				
	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	25.4 / 1		50.8 / 2		
	Speed range (rpm)	30 to 400 (stackable ²⁾ : 30 to 25	50)	30 to 300 (stackable ²⁾ : 30 to 20	0)	
Shaking	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)				
system	Timer	1 min. to 999 hr 59 min.				
,	Max. Load (kg / lbs)	20 / 44.1 at 400 rpm 15 / 33.1 at 250 rpm (stacked) 20 / 33.1 at 200 rpm (stacked)		20 / 44.1 at 300 rpm 15 / 33.1 at 200 rpm (stacked) 20 / 44.1 at 150 rpm (stacked)		
	Volume (L / cu ft)	198 / 7.0				
	Platform (W×D, mm / inch)	755x520 / 29.7x20.5				
Dimension	Interior (W×D×H, mm / inch)	809×624×393 / 31.9×24.6×15.5				
	Exterior1) (WxDxH, mm / inch)	1310x996×755 / 51.6x39.2x	29.7			
	Net weight (kg / lbs)	365 / 804.7		365 / 804.7		
Electrical requirements (230V)		60Hz, 3.7A	50Hz, 3.7A	60Hz, 3.7A	50Hz, 3.7A	
Cat. No.		AAH238131K	AAH238132K	AAH239131K	AAH239132K	
Electrical req	uirements (120V)	60H	z, 7.1A	60Hz, 7.1A		
Cat. No.		AAH238115U		AAH23	AAH239115U	

^{**}Temp. change may occur during automatic defrost. (for ISS-7100R/7200R)
** FDA establishment registered company. FDA listed products.

¹⁾ Main body dimension with retractable foot caster. 2) Stacked with stand or products.



Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

ShakingTimer range

• 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

High-velocity fan ensures uniform temp. distribution

Shaker protection system against over-current

Microprocessor PID control and auto-tuning

calibration

Triple independent temperature monitor system

- Temperature deviation alarm (High/Low)
 Electronic temperature limiter (High/Low)
 Mechanical over-temperature limiter (High)

Large shaking capacity chamber allows user to freely organize different size of samples

Maximize your space with our triple stackable incubated shaker

Lift up opening door and slide out platform enables easy sample handling

Optional stand is available and highly recommended for comfort use (optional)

Wide speed range even with heavy workload by built in DD(Direct Drive) Brushless Motor and triple cam system

Stopping the shaking platform always at the same position

Smooth start and stop function prevents chemical spills

Viewing window with bright LED lamps

Easy-access drain system with a quick disconnect valve

Unit comes with retractable foot caster



37.5°

400

☑ 001:25

Set 400

- Stacking kits
- · Retractable foot caster



Specially designed to be doublestacked on the floor or located on the lab benches for space saving

> **RoHS** Compliant

Safety

500

Deviation Warning

REMOTE CONTROL with your MOBILE DEVICE









ISS-3075 with the optional universal attachment and dedicated platform

ISS-4075 with the optional dedicated platform

Cumpitution	varing ration							
	Model	ISS-	3075	ISS-	4075			
	Range (°c / °F)	Amb. +5 to 80 / Amb. +9 to	o 176	Amb. +5 to 80 / Amb. +9 to 176				
Ta	Fluctuation at 37℃ in flask (±℃ / °F)	0.1 / 0.18						
Temperature	Variation at 37℃ in flask (±℃ / ℉)	0.5 / 0.90						
	Refrigerator (Hp)	-		-				
	Motion type	Orbital						
	Amplitude size (mm / inch, dia.)	19.1 / 0.75	19.1 / 0.75					
	Speed range (rpm)	20 to 500 (stackable : 20 to 250)						
Shaking	Accuracy	±1% of set speed (>100rpm) / ±1 (<100rpm)						
system	Timer	1 min. to 999 hr 59 min.						
	Max. Load (kg / lbs)	10 / 22.0 at 500 rpm, 15 / 3 250 rpm (stacked)	33.1 at 400 rpm, 15 / 33.1 at	10 / 22.0 at 500 rpm 21 / 46.3 at 400 rpm 21 / 46.3 at 250 rpm (stacked)				
	Volume (L / cu ft)	80 / 2.8		150 / 5.3				
	Platform (W×D, mm / inch)	350×350 / 13.8×13.8		450×450 / 17.7×17.7				
Dimension	Interior (WxDxH, mm / inch)	440×440×418 / 17.3×17.3×	16.5	540×540×518 / 21.3×21.3×20.4				
Difficusion	Exterior (W×D×H, mm / inch)	578×815×854 / 22.8x32.1x	33.6	678×895×934 / 26.7x35.2x36.8				
	No. of wire shelf (standard / max.)	2/8		2 / 11				
	Net weight (kg / lbs)	153 / 337.3		183 / 403.4				
Electrical requirements (230V)		60Hz, 6.2A	50Hz, 6.2A	60Hz, 6.2A	50Hz, 6.2A			
Cat. No.		AAH23431K	AAH23432K	AAH23631K	AAH23632K			
Electrical requ	uirements (120V)	60Hz	, 9.5A	60Hz, 9.5A				
Cat. No.		AAH2	3415U	AAH23615U				

^{**}Temp. change may occur during automatic defrost. (for ISS-3075R/4075R)

** FDA establishment registered company. FDA listed products.



interruption Built-in RS-232 port and

USB port for datalog ShakingTimer range • 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Temperature and shaking speed deviation alarm

Shaker protection system against over-current, stalled platform check

Microprocessor PID control and auto-tuning

Three point temperature calibration

Triple independent temperature monitor system

- Temperature deviation alarm (High/Low)
 Electronic temperature limiter (High/Low)
- Mechanical over-temperature limiter (High)

Chambers stackable, up to two levels

Wide speed range even with heavy workload by built in the maintenance-free BLDC motor

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Clear observation of samples without affecting inner hamber's environment by the viewing window with bright LED lamps

Easy-access drain system with a quick disconnect valve Two wire shelves are provided as standard accessories

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution

Retractable foot caster, beneficial for easy mobility during installation or relocation

Built-in electrical outlet with a safety cover inside the chamber



^{• 2} wire shelves

IST-3075R/4075R (Amb. -15 [Min. 15] to 80°C, 20 to 500 rpm)



Digital incubating/ refrigerating benchtop shakers

Transparent lid offers great visibility and gas spring supports ensure hand-down handling of the samples by allowing immediate and easy access to your samples.



Safety

3 Points

Temperature Calibration







500











REMOTE CONTROL with your MOBILE DEVICE









IST-3075R with the optional dedicated platfonsT-4075R with the optional universal attachment

	Model	IST-3	075R	IST-40	75R	
	Range (℃ / °F)	Amb15 (Min. 15) to 80 / Amb27 (Min. 27) to 176		Amb15 (Min. 15) to 80 / Amb27 (Min. 27) to 176		
Temperature	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18				
	Variation at 37℃ in flask (±℃ / ℉)	0.5 / 0.90				
	Refrigerator (Hp)	1 / 6 HBP		1 / 6 HBP		
	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	19.1 / 0.75				
Shaking	Speed range (RPM)	20 to 500				
system	Accuracy	±1% of set speed (>100rpm) / ±1 (<100rpm)				
	Timer	1 min. to 999 hr 59 min.				
	Max. load (kg / lbs)	10 / 22.0 at 500 rpm, 15 / 33	3.1 at 400 rpm	14 / 30.9 at 500 rpm, 21 / 46.3 at 400 rpm		
	Volume (L / cu ft)	53 / 1.9		83 / 2.9		
	Platform (W×D) (mm / inch)	350×350 / 13.8×13.8		450×450 / 17.7×17.7		
Dimension	Interior (WxDxH) (mm / inch)	410×410×320 / 16.1×16.1×	12.6	510×510×320 / 20.1×20.1×12.6		
	Exterior (W×D×H) (mm / inch)	440x785x510 / 17.3x30.9x20	0.1	540x 890 x510 / 21.3x35x20.1		
	Net weight (Kg / lbs)	73 / 160.9		90 / 198.4		
Electrical requirements (230V)		60Hz, 5.5A	50Hz, 5.5A	60Hz, 5.5A	50Hz, 5.5A	
Cat. No.		AAH23511K	AAH23522K	AAH23711K	AAH23722K	
Electrical requ	irements (120V)	60Hz, 10.1A		60Hz, 10.1A		
Cat. No.		AAH23565U		AAH23765U		

^{*} FDA establishment registered company. FDA listed products.



Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

ShakingTimer range

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Temperature and shaking speed deviation alarm

Shaker protection system against over-current, stalled platform check

Microprocessor PID control and auto-tuning

Mechanical over-temperature protection devices

Wide speed range even with heavy workload by built in the maintenance-free BLDC motor

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Transparent acryl lid with bright LED lamps for wide sample monitoring and gas spring lid for convenient sample loading

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution

Environment-friendly CFCfree refrigerant

ISF-7100R/7200R (Amb. -20 [Min. 4] to 80°C, 30 to 500/300 rpm)



Large capacity up to five 6L flasks and heavy workload shaking with rapid heating and cooling performance.













Patented

3 Pc Temperature Calibration





















/\u00aan	on over tempt views treat						
	Model	ISF-7	100R	ISF-7	200R		
	Range (℃ / °F)	Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176		Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176			
Temperature	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18					
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90					
	Refrigerator (Hp)	1/6Hp		1/6Hp			
	Motion type	Orbital	Orbital				
	Amplitude size (mm / inch, dia.)	25.4 / 1		50.8 / 2			
	Speed range (rpm)	30 to 500		30 to 300			
Shaking	Accuracy	±1% of set speed (>100rpm) / ±1 (<100rpm)					
system	Timer	1 min. to 999 hr 59 min.					
	Max. load (kg / lbs)	15 / 33.1 at 500 rpm 25 / 55.1 at 400 rpm 35 / 77.2 at 300 rpm		20 / 44.1 at 300 rpm 35 / 77.2 at 200 rpm			
	Volume (L / cu ft)	270 / 9.5					
	Platform (W×D) (mm / inch)	755×520 / 29.7×20.5					
Dimension	Interior (WxDxH) (mm / inch)	894×634×480 / 35.2×25×1	8.9				
	Exterior (WxDxH) (mm / inch)	1128×854×1035 / 44.4×33.6	6x40.8				
	Net weight (Kg / Ibs)	287 / 632.7		287 / 632.7			
Electrical requirements (230V)		60Hz, 5.6A	50Hz, 5.6A	60Hz, 5.6A	50Hz, 5.6A		
Cat. No.		AAH23542K	AAH23541K	AAH23642K	AAH23641K		
Electrical requ	uirements (120V)	60Hz	, 10A	60Hz, 10A			
Cat. No.		AAH2	3575U	AAH23675U			

^{**}Temp. change may occur during automatic defrost. (for ISF-7100R/7200R)

** FDA establishment registered company. FDA listed products.



Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

ShakingTimer range

• 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Temperature and shaking speed deviation alarm

Shaker protection system against over-current

and auto-tuning

Three point temperature

Triple independent temperature monitor system

- Electronic temperature limiter (High/Low)

Wide speed range even with heavy workload by built in DD(Direct Drive) Brushless Motor and triple cam system

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

The gentle inclined top lid with viewing window and bright LED lamp provide easy sample monitoring and easy sample loading in the chamber.

Easy-access drain system with a quick disconnect valve

Air-tight silicone door seal with lockable door for safe storage of samples.

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution

Environment-friendly CFCfree refrigerant

ISS-7100R/7200R (Amb. -20 [Min. 4] to 80°C, 30 to 400/300 rpm)



Stackable up to three units for maximum utilization of lab spaces.

Multi-purpose incubated shakers feature a wide range of temperature control and large chamber volume.











Temperature Calibration







REMOTE CONTROL with your MOBILE DEVICE









ISS-7100R with the optional accessories ISS-7200R with the optional accessories

Model		ISS-7	100R	ISS-7	7200R	
	Range (℃ / °F)	Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176		Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176		
Temp.	Fluctuation at 37℃ in flask (±℃ / ℉)	0.1 / 0.18				
	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90				
	Refrigerator (Hp)	1/6Hp		1/6Hp		
	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	25.4 / 1		50.8 / 2		
	Speed range (rpm)	30 to 400 (stackable ²⁾ : 30 to 25	(0)	30 to 300 (stackable ²⁾ : 30 to 20	00)	
Shaking	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)				
system	Timer	1 min. to 999 hr 59 min.				
	Max. Load (kg / lbs)	20 / 44.1 at 400 rpm 15 / 33.1 at 250 rpm (stacked 20 / 33.1 at 200 rpm (stacked		20 / 44.1 at 300 rpm 15 / 33.1 at 200 rpm (stacked) 20 / 44.1 at 150 rpm (stacked)		
	Volume (L / cu ft)	198 / 7.0				
	Platform (W×D, mm / inch)	755x520 / 29.7x20.5				
Dimension	Interior (WxDxH, mm / inch)	809×624×393 / 31.9×24.6×	15.5			
	Exterior ¹⁾ (WxDxH, mm / inch)	1310x996×755 / 51.6x39.2x	29.7			
Net weight (kg / lbs)		375 / 826.7		375 / 826.7		
Electrical requirements (230V)		60Hz, 5.6A	50Hz, 5.6A	60Hz, 5.6A	50Hz, 5.6A	
Cat. No.		AAH238231K	AAH238232K	AAH239231K	AAH239232K	
	uirements (120V)	60Hz,10A		60Hz,10A		
Cat. No.		AAH23	8215U	AAH2	39215U	

¹⁾ Main body dimension with retractable foot caster. 2) Stacked with stand or products.



Set 37.5

Intuitive touch screen LCD with easy icons

Automatic run after power

Built-in RS-232 port and USB port for datalog

ShakingTimer range

• 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

High-velocity fan ensures uniform temp. distribution

Shaker protection system against over-current

Microprocessor PID control and auto-tuning

Three point temperature calibration

Triple independent

- Temperature deviation alarm (High/Low)
 Electronic temperature limiter (High/Low)
 Mechanical over-temperature limiter (High)

Large shaking capacity chamber allows user to freely organize different size of samples

Maximize your space with our triple stackable incubated shaker

Lift up opening door and slide out platform enables easy sample handling

Optional stand is available and highly recommended for comfort use (optional)

Environment-friendly CFCfree refrigerant

Wide speed range even with heavy workload by built in DD(Direct Drive) Brushless Motor and triple cam system

Stopping the shaking platform always at the same position

Smooth start and stop function prevents chemical spills

Viewing window with bright LED lamps

Easy-access drain system with a quick disconnect valve

Unit comes with retractable foot caster



400

☑ 001:25

- Stacking kits
- · Retractable foot caster

ISS-3075R/4075R (Amb. -20 [Min. 4] to 80°C, 20 to 500 rpm)



Multi-purpose incubated shakers feature a wide range of temperature control and large chamber volume











3 Points

Temperature Calibration





Auto Run



500

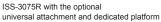


REMOTE CONTROL with your MOBILE DEVICE











ISS-4075R with the optional dedicated platform

Model		ISS-30)75R	ISS-4075R			
Range (℃ / ℉)		Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176 Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176			(Min. 7.2) to 176		
T	Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18	0.1 / 0.18				
Temperature	Variation at 37°C in flask (±°C / °F)	0.5 / 0.90					
	Refrigerator (Hp)	1/6Hp		1/6Hp			
	Motion type	Orbital					
	Amplitude size (mm / inch, dia.)	19.1 / 0.75					
	Speed range (rpm)	20 to 500 (stackable : 20 to 250)	20 to 500 (stackable : 20 to 250)				
Shaking	Accuracy	±1% of set speed (>100rpm) /±1 (≤100rpm)					
system	Timer	1 min. to 999 hr 59 min.					
,	Max. Load (kg / lbs)	10 / 22.0 at 500 rpm 15 / 33.1 at 400 rpm 15 / 33.1 at 250 rpm (stacke	d)	10 / 22.0 at 500 rpm 21 / 46.3 at 400 rpm 21 / 46.3 at 250 rpm (stacked)			
	Volume (L / cu ft)	80 / 2.8		150 / 5.3			
	Platform (W×D, mm / inch)	350×350 / 13.8x13.8		450×450 / 17.7×17.7			
Dimension	Interior (WxDxH, mm / inch)	440×440×418 / 17.3×17.3×1	6.5	540×540×518 / 21.3×21.3×20.4			
Difficusion	Exterior (W×D×H, mm / inch)	578×815×854 / 22.8x32.1x3	33.6	678×895×934 / 26.7x35.2x36.8			
	No. of wire shelf (standard / max.)	2/8		2 / 11			
	Net weight (kg / lbs)	160 / 352.7		190 / 418.9			
Electrical requirements (230V)		60Hz, 7.9A	50Hz, 7.9A	60Hz, 7.9A	50Hz, 7.9A		
Cat. No.		AAH23531K	AAH23532K	AAH23731K	AAH23732K		
Electrical requ	uirements (120V)	60Hz, 13A		60Hz, 13A			
Cat. No.		AAH23	515U	AAH23715U			

[※]Temp. change may occur during automatic defrost. (for ISS-3075R/4075R)

※ FDA establishment registered company. FDA listed products.



Intuitive touch screen LCD with easy icons

Automatic run after power interruption

Built-in RS-232 port and USB port for datalog

ShakingTimer range

• 1 min to 999 hr 59 min

Audible/Visible alarm activated by shaking speed deviation

Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity

Temperature and shaking speed deviation alarm

Shaker protection system against over-current, stalled platform check

Microprocessor PID control and auto-tuning

Three point temperature

Triple independent temperature monitor system

- Temperature deviation alarm (High/Low)
- Electronic temperature limiter (High/Low)
 Mechanical over-temperature limiter (High)

Chambers stackable, up to two levels

Wide speed range even with heavy workload by built in the maintenance-free BLDC motor

Stopping the shaking platform always at the same position, beneficial for automated dosing or sampling

Smooth start and stop function prevents chemical spills

Clear observation of samples without affecting inner hamber's environment by the viewing window with bright LED lamps

Easy-access drain system with a quick disconnect valve Two wire shelves are provided as standard accessories

Corrosion resistance stainless steel interior

High-velocity fan ensures uniform temp. distribution

Retractable foot caster, beneficial for easy mobility during installation or relocation (optional)

Built-in electrical outlet with a safety cover inside the chamber.

Environment-friendly CFCfree refrigerant



· 2 wire shelves



Compact and lightweight design for space saving and portability with a real-time responsive speed control knob







	Model	CMS-350
Control system		PID feedback control
Display		VFD
	Motion type	Orbital
	Speed range (rpm)	50 to 300
Shaking	Accuracy at 100 rpm	±5
system	Timer	1min. to 99hr. 59min.
	Orbit size (mm / inch, dia)	13 / 0.51
	Max. load (kg / lbs)	up to 5.2 / 11.46
	Tray (W×D) (mm / inch)	276×276 / 10.87×10.87
Dimension	Platform (W×D) (mm / inch)	250×250 / 9.8×9.8
Difficusion	Body 1) (WxDxH) (mm / inch)	249×325×109 / 9.8×12.8×4.3
	Net weight (kg / lbs)	8 / 17.6
Electrical requirements		AC 100 ~ 240 V, 50 / 60 Hz
Cat. No.	KR Plug	AAH3B1115K
Cat. NO.	US Plug	AAH3B1115U

- 1) Main body dimension without accessories.
- * Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).
- * FDA establishment registered company. FDA listed products.



Microprocessor PID control

Suitable for low rpm sensitive applications

Speed range: 50 to 300 rpm

dependent shaking operations
(1 min to 99 hour 59 min)

Orbit size: 13mm dia. (0.51" dia.)

Digital VFD display for speed and shaking motion

Equipped with a maintenancefree BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion

Vivid and colorful vacuum fluorescent display (VFD) with touch–sensitive keypad

Compact and lightweight design allowing for use inside chambers

Removable tray for easy transport of well-plates (Max. 6 ea) and dishes (optional)

Its polypropylene main body is highly chemical-resistant and easy-to-clean

Various accessories

Accessories



Fitted with 4 microplates and wider speed range to accommodate various sample testing

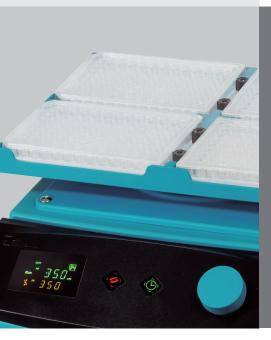






	Model	CPS-350			
Control system		PID feedback control			
Display		VFD			
	Motion type	Orbital			
	Speed range (rpm)	150 to 1,200			
Shaking	Accuracy at 500 rpm	±15			
system	Timer	1min. to 99hr. 59min.			
	Orbit size (mm / inch, dia)	3/0.12			
	Max. load (kg / lbs)	4/8.8			
	Tray (W×D) (mm /inch)	269×185 / 10.6×7.3			
Dimension	Body 1) (WxDxH) (mm /inch)	269×325×128 / 10.6×12.8×5.0			
	Net weight (kg / lbs)	7.7 / 17			
Electrical requirements		AC 100 ~ 240 V, 50/60 Hz			
Cat. No.	KR Plug	AAH3C1115K			
	US Plug	AAH3C1115U			

- 1) Main body dimension without accessories.
- Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).
 FDA establishment registered company. FDA listed products.



One-touch timer for time-dependent shaking operations (1 min to 99 hour 59 min)

Smooth start feature to avoid sample contamination

Orbital size: 3 mm (0.12")

Automatic shut down:
 Overload (max. load: 4kg)

Digital VFD display for speed and shaking motion

Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion

Vivid and colorful vacuum fluorescent display (VFD) with touch–sensitive keypad

Compact and lightweight design allowing for use inside chambers

Its polypropylene main body is highly chemical-resistant and easy-to-clean

Various accessories

• Optional tube racks also available for 1.5ml microtubes, 15ml conical tubes, and 50ml conical tubes

Rocking Shaker / Waving Shaker

CRS-350 (5 to 100 rpm) / CWS-350 (8 to 100 rpm)



Rocking Shaker

Adjustable tilt angle and precise digital speed control providing desired rocking motion

Waving Shaker

Enhanced conveniences for tilt adjustment, removable tray, and digital controlling









Model		CRS-350	CWS-350			
Control system		PID feedback control				
Display		VFD				
	Motion type	Rocking	Waving			
	Speed range (rpm)	5 to 100	8 to 100			
Shaking system	Accuracy at 100 rpm	±5				
dystom	Tilt angle	7 to 13°	0 to 13°			
	Max. load (kg / lbs)	5 / 11.02				
Material	Dimpled mat (standard)	PP(polypropylene), Silicone				
Materiai	Body	PP (polypropylene)				
	Tray (W×D) (mm / inch)	276×276 / 10.87×10.87				
Dimension	Body 1) (W×D×H) (mm / inch)	249×325×138 / 9.8×12.8×5.4				
	Net weight (kg / lbs)	3.7 / 8.16				
Electrical requirements		AC 100 ~ 240 V, 50/60 Hz				
Cat. No.	KR Plug	AAH391115K	AAH381115K			
Cat. IVO.	US Plug	AAH391115U	AAH381115U			

- 1) Main body dimension without accessories.
- ** Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).
- * FDA establishment registered company. FDA listed products.



Digital speed control providing gentle to vigorous motion

Max. speed up to 100 rpm

Easy to adjust tilt angle

- 7 to 13° for CRS-350 0 to 13° for CWS-350

One-touch timer range (1 min to 100 hr)

Smooth, quiet, uniform, and yet powerful shaking motion

Vivid and colorful vacuum fluorescent display (VFD) with touch-sensitive keypad

Compact and lightweight design allowing for use inside chambers

Three types of removable rubber mat for easy transport of well-plates, test tubes, etc. (included Dimpled mat, and optional Rubber mat, Universal harness)

[•] Dimpled Mat (Tray, Silicone pad), 2 Rubber Bands



Useful for a variety of molecular biology applications

Interval mix function in program mode can be properly set according to user's experimental conditions



CBS-350 with the optional tube block set





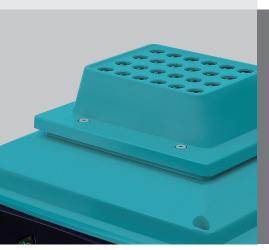






	Model		CBS-350		
Control		PID feedback control			
Display		VFD (0.1°C resolution)			
- .	Range (℃ / ℉)	Amb. +5 to 100 / 41 to 212			
	Fluctuation at 80°C (±°C / °F)	0.5/0.9			
Temperature	Variation at 80°C (±°C / °F)	0.15 / 0.27			
	Heating power (W)	360			
Safety	Overtemp	Heating plate			
	Over temp.	PCB			
	Over current	Current limit protection			
	Motion type	Orbital			
	Speed range (rpm)	96-well tube block	150 to 1500		
		0.5ml tube block	150 to 1000		
Shaking		1.5ml tube block	150 to 1000		
system		15ml tube block	150 to 900		
(WxDxH)		Ø12 tube block	150 to 850		
		Ø13 tube block	150 to 850		
		50ml tube block	150 to 800		
	Orbit size (mm / inch, dia.)	2/0.08			
Dimension	Body 1) (mm/inch)	249 x 325 x 120 / 9.8 x 12.8 x 4.7			
(WxDxH)	Net weight (Kg / Ibs)	8.3 / 18.3			
Electrical requirements (230V,50Hz/60Hz)		1.7A			
Cat. No.		AAHJ4015K			
Electrical requirements (120V,60Hz)		3.4A			
Cat. No.		AAHJ4013U			

- 1) Main body dimension without accessories.
- * Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).
- * FDA establishment registered company. FDA listed products.



Microprocessor PID control

Temperature calibration

Memory function of programs allowing relevant parameters (such as temp., rpm, time) of each program step to be stored

Two types of timer modes

 User can set timer to starts immediately after the timer setting or only after reaching the set temp.

Smooth start feature

Equipped with a maintenancefree BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion

Vivid and colorful vacuum fluorescent display (VFD) with touch–sensitive keypad

Optimal heat transfer is achieved by the tight coupling design of the main body and the corrosion-resistant anodized aluminum blocks

Compact and lightweight design allowing for use inside chambers

Low-profile design with rubber feet for minimal vibration and noise

Blocks can be easily interchanged by the included block lifter

Accessories

Separatory Funnel Shaker

RS-1 (50 to 300 rpm)



Intensive vertical reciprocating agitation for quick solvent extraction

Shaking up to 6 samples in identical conditions for any series or comparative protocols in chemistry, biotech, and medical labs



Model		RS-1				
Shaking	Motion type	Vertical reciprocating				
	Speed range (rpm)	50 to 300				
system	Timer	60 min or continuous operation				
	Vertical stroke length (mm / inch)	40 / 1.6				
	Exterior (W×D×H) (mm / inch)	445×730×505 / 17.5×28.7×19.9				
Dimension	Max. load per each side (kg / lbs)	3/6.6				
	Net weight (Kg / lbs)	53 / 116.8				
Electrical requirements (230V)		50Hz, 0.4A	60Hz, 0.4A			
Cat. No.		AAH32012K	AAH32015K			

^{**} Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%).



Vertical reciprocating motion with maximum stroke length of 40mm (1.6*)

Easy to operate

Wide speed range (50 to 300 rpm) suitable for most applications

Timer range

Digital LED speed indicator

Audible alarm and automatic shut down at the end of each shaking session

Easily adjustable funnel holders

Maximum number of funnels installable: 10 (up to 5 holders per each side)



[•] Funnel Holder 6 Sets (ordering information - Cat. No.: AAA32501)

 $[\]ensuremath{\mathbb{X}}$ FDA establishment registered company. FDA listed products.



for Open-air Shakers (OS models) / Mini Shaker







Universal platforms (OS models)

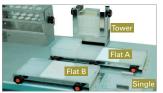
Universal platform (CMS-350)

Test tube racks









Flask clamps (stainless steel)

Flask clamps (plastic)

Funnel clamps

Microplate holders (universal platform is optional)

Dan	ovintion	Model	OS-2000	OS-3000	OS-4000	OS-7100 OS-7200	CMS-350
Desc	Description		320×260mm / 13.8×10.2″	350×350mm / 13.8×13.8″	450×450mm / 17.7×17.7″	755×520mm / 29.7×20.5″	276×276mm / 10.9×10.9″
Universal platform		AAA3A501-V2	AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA3B501	
	Erlenmeyer flask size		Max. mountable	flask clamps			
Flask	for 50 ml	AAA23550	20	36	49	88	16
	for 100 ml	AAA23551	16	28	39	68	9
	for 250 ml	AAA23552	8	14	24	39	9
	for 300 ml	AAA23556	8	14	24	39	9
clamps	for 500 ml	AAA23553	6	10	16	28	5
(Stainless steel)	for 1L	AAA23554	3	6	9	18	4
	for 2L	AAA23555	-	4	6	11	1
	for 2.8L	AAA23557	-	3	5	8	-
	for 4L	AAA23558	-	1	4	6	-
	for 6L	AAA23559	-	1	3	5	-
	Erlenmeyer flask size		Max. mountable	flask clamps			
	for 50 ml	AAA30570	20	36	49	88	16
	for 100 ~ 125 ml	AAA30571	12	19	29	48	9
Flask	for 200 ml	AAA30572	8	13	21	35	9
clamps	for 250 ml	AAA30573	8	13	19	35	9
(plastic)	for 300 ml	AAA30574	6	12	19	35	9
	for 500 ml	AAA30575	6	9	12	24	5
	for 1L	AAA30576	3	5	9	12	4
	for 2L	AAA30577	-	4	5	8	1
	Separating funnel size		Max. mountable funnel clamps				
	for 250 ml	AAA23562	4	4	6	15	3
Funnel	for 500 ml	AAA23563	3	3	4	10	2
clamps	for 1L	AAA23564	3	3	3	7	2
	for 2L	AAA23565	-	2	2	5	-
	Test tube size		Mountable capa	city of racks	_	-	
	for 86 test tubes, ø8"	AAA23581	- Woulders out	2	4	7	2
	for 86 test tubes, ø10"	AAA23582					
	for 58 test tubes, ø12"	AAA23583					
	for 58 test tubes, ø14"	AAA23584					
Test Tube Racks ¹⁾	for 32 test tubes, Ø17"	AAA23585	2				
	for 19 test tubes, Ø25"	AAA23586					
	for 10 test tubes, Ø30"	AAA23587					
	for 10 test tubes, Ø35"	AAA23594					
	for 4 test tubes, ø50"	AAA23593					
	Microplate holders type		Max. mountable	e microplate holde	rs	1	1
	Single	AAA23654	6	8	15	25	6
Microplate holders	Tower	AAA23651	4	6	10	21	6
iviloropiato riolaera	Flat A (large)	AAA23652	-	-	2	4	-
	Flat B (small)	AAA23653	1	2	3	6	-

¹⁾ No declination.

^{*} Above accessories need to be mounted on a universal platform which is sold separately.