# **Incubated Shaker** Multi-stackable type

# Maximal space-saving multi-stackable model

#### Structural Functional Features

- · Large-capacity triple stackable incubated shaker.
- · Up to 80°C, 400rpm enables experimental conditions for various
- · Three operating modes: Temperature & Shaking, Temperature, or Shaking.
- · Shaking structure with minimized vibration.
- · Convenient to change samples with glide-up door.
- · Stable shaking of high-load samples. (registration KR 10-1678160)
- · Applied a direct drive motor that has outstanding durability, a 5-year warranty for the motor.

#### Use Convenience Features

- · Accurate rpm and temperature control through temperature auto-tuning / microprocessor PID and calibration.
- · Monitor via mobile app anytime, anywhere with LC Connected. (mobile monitoring system) (when purchased LC GreenBox)
- · Countdown timer (999 hours 59 minutes) of shaking operation.
- · Intuitive operation with color touch display.
- · High brightness / low-power LED illumination makes it easy to observe inside.
- · Spill drain port for internal cleanliness and easy maintenance.

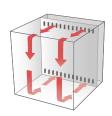
## Outstanding Safety

- · Electronic over temperature protection system. (A-OT, advanced over temperature limiter) Independent precision temperature sensor and controller provides more secure and reliable over temperature protection.
- · Conventional over-temperature protection system. (B-OT, backup over temperature limiter) A backup device against electronic system failure, mechanically preventing over temperature even when there are electronic errors.
- · Soft start and stop shaking function.
- · Malfunction prevented by controller lock function.
- · Displays all information such as device operation and error occurrence.
- · Overcurrent protection device restricts operation when objects are caught inside the system and shaking is not possible.



**ISS-7100R** 

with Universal Platform, Flask Clamp (option)







Color touch display.



Door lift-up structure for safe and convenient sample handling.



Rail-type platform allowing samples to be removed/mounted by pulling out the platform to the front.





































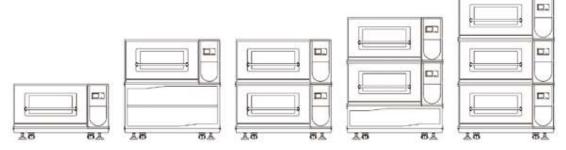


# Smart Self-diagnosis

Real-time self-diagnostics to check equipment for abnormal conditions.

- · Alarm is generated by monitoring difference between actual rpm/temperature and set rpm/temperature.
- · Automatic rpm adjustment when device instability occurs. (high rpm, overload, weight imbalance, etc.)
- · Automatic restart as it was operated after power recovery.





### **Specification**

Model	ISS-7100	ISS-7100R	ISS-7200	ISS-7200R
Temperature				
Range (°C / °F) <sup>1)</sup>	Amb. +10 to 80 / Amb. +18 to 176	Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176	Amb. +10 to 80 / Amb. +18 to 176	Amb20 (Min. 4) to 80 / Amb36 (Min. 7.2) to 176
Fluctuation at 37°C in flask (±°C / °F)	0.1 / 0.18	0.1 / 0.18	0.1 / 0.18	0.1 / 0.18
Variation at 37°C in flask (±°C / °F)	0.6 / 1.08	0.5 / 0.90	0.6 / 1.08	0.5 / 0.90
Refrigerator (Hp)	-	1/6	-	1/6
Shaking system				
Motion type	Orbital	Orbital	Orbital	Orbital
Speed range (rpm)	30 to 400 (stackable: 30 to 250)	30 to 400 (stackable: 30 to 250)	30 to 300 (stackable: 30 to 200)	30 to 300 (stackable: 30 to 200)
Max. speed per permissible load (rpm)	1 unit only 400 (max. 20 kg / 44.1 lbs)	1 unit only 400 (max. 20 kg / 44.1 lbs)	1 unit only 300 (max. 20 kg / 44.1 lbs)	1 unit only 300 (max. 20 kg / 44.1 lbs)
	Stacked units 250 (max. 15 kg / 33.1 lbs) 200 (max. 20 kg / 44.1 lbs)	Stacked units 250 (max. 15 kg / 33.1 lbs) 200 (max. 20 kg / 44.1 lbs)	Stacked units 200 (max. 15 kg / 33.1 lbs) 150 (max. 20 kg / 44.1 lbs)	Stacked units 200 (max. 15 kg / 33.1 lbs) 150 (max. 20 kg / 44.1 lbs)
Amplitude size (mm / inch, dia.)	25.4 / 1	25.4 / 1	50.8 / 2	50.8 / 2
Speed stability <sup>2)</sup> (rpm, %)	±1	±1	±1	±1
Timer (count-down)	999 hr 59 min.	999 hr 59 min.	999 hr 59 min.	999 hr 59 min.
Dimension (1 unit)				
Chamber volume (L / cu ft)	198 / 7.0	198 / 7.0	198 / 7.0	198 / 7.0
Platform (W x D, mm / inch)	755 x 520 / 29.7 x 20.5	755 x 520 / 29.7 x 20.5	755 x 520 / 29.7 x 20.5	755 x 520 / 29.7 x 20.5
Interior (W x D x H, mm / inch)	809 x 624 x 393 / 31.9 x 24.6 x 15.5	809 x 624 x 393 / 31.9 x 24.6 x 15.5	809 x 624 x 393 / 31.9 x 24.6 x 15.5	809 x 624 x 393 / 31.9 x 24.6 x 15.5
Exterior (W x D x H, mm / inch) <sup>3)</sup>	1 unit; 1307 x 996 x 755 / 51.5 x 39.2 x 29.7 1 unit+stand-I or 2 units stacked; 1307 x 996 x 1355 / 51.5 x 39.2 x 53.3 2 units+stand-II stacked; 1307 x 996 x 1655 / 51.5 x 39.2 x 65.2 3 units stacked; 1307 x 996 x 1955 / 51.5 x 39.2 x 77.0			
Net weight (Kg / lbs)	300 / 661.4	320 / 705.5	300 / 661.4	320 / 705.5
Electrical requirements (230V, 50/60Hz, A)	3.7	5.6	3.7	5.6
Cat. No.	AAH238132K	AAH238232K	AAH239132K	AAH239232K
Electrical requirements (120V, 60Hz, A)	7.1	10	7.1	10
Cat. No.	AAH238115U	AAH238215U	AAH239115U	AAH239215U

- 1) The temperature control range of the ISS-7100 and ISS-7200 models are from 10°C above the ambient temperature of the equipment. (15°C to 40°C) to 80°C The temperature control range of the ISS-7100R and ISS-7200R models are from 20°C below the ambient temperature (18°C to 35°C) of the device to 80°C. (However, the lowest control temperature is 4°C)
- 2) Actual rpm allowable error for set rpm is 1rpm if setting is less than 100rpm, ±1% if setting is higher than 100rpm. 3) Product height: 600mm, height of Stand I: 600mm, height of Stand II: 300mm, height of wheel attachment: 155mm.

#### Accessories Page 108

Universal Platform, Flask Clamp, Funnel Clamp, Test Tube Rack, Microplate Holder, Lab Sticker, Spring Wire Rack, Dedicated Platform, Rubber Mat, Universal Attachment, Stand, Stacking Kit, LC GreenBox