

Incubators

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General Applications

Incubators & Low Temp. Incubators

Antibody testing, Clinical science, Hematological testing, Microbiological determinations, Microorganism, Organism germs for life science, Organism pharmacy, Tissue culturing.

Incubated Shakers

Molecular biology, Plant and animal cells culture, Fermentation, Hybridization studies, Genetic research and drug discovery protocols.

Product Name		Incubators (General Model)	Incubators (Economy Model)	Incubators (2/4-Chamber Model)
Model		IB-G	IB-E	IB-G-C
Description		Natural convection (air-Jacket)	Natural convection, Film type heater	Forced convection, Multi chambers
Chamber volume (L)		60, 102, 151	65, 150, 205	60 x 2 Chambers, 60 x 4 Chambers
Temp. control	Temp. range (/)	Amb. +5 to 70 / Amb. +9 to 158	Amb. +3 to 60 / Amb. +5.4 to 140	Amb. +5 to 70 / Amb. +9 to 158
	Temp. fluctuation (± /)	0.1, 0.2 at 37 / 0.18, 0.36 at 98.6	0.2, 0.3, 0.1 at 37 / 0.36, 0.54, 0.18 at 98.6	0.1 at 37 / 0.18 at 98.6
	Temp. variation (± /)	0.6, 0.2 at 37 / 1.08, 0.36 at 98.6	0.6, 0.8, 1.1 at 37 / 1.08, 1.44, 1.98 at 98.6	0.6 at 37 / 1.08 at 98.6
Control	Timer	Wait on /off	Wait on /off	Wait on /off
	Auto-tuning	0	0	0
	Program function	-	-	-
	Adjustable fan speed	-	-	-
	Computer interface	RS-232 port	-	-
	JeioTech network	-	-	-
Safety	Over temp. limit	0	0	0
	Door open alarm	0	0	0
	Over current limit	0	0	0
	Auto-run (power failure)	0	0	0

Product Name		Incubated Shaker (Benchtop Model)	Incubated Shaker (Floor Standing Model)	Incubated Shaker (Stackable Model)	Incubated Shaker (Chamber Model)
Model		IST-3075(R) / 4075(R)	ISF-7100(R) / 7200(R)	ISS-7100(R) / 7200(R)	ISS-3075(R) / 4075(R)
Platform size (WxD, mm)		350x350, 450x450	755x520	755x520	350x350, 450x450
Chamber volume (L)		53, 83	270	198	80, 150
Temp. control	Temp. range (/)	Amb. +5 to 80 / Amb. +9 to 176, Amb. -15 (min. 15) to 80 / Amb. -27 (min. 27) to 176	Amb. +5 to 80 / Amb. +9 to 176, Amb. -20 (min. 4) to 80 / Amb. -36 (min. 72) to 176	Amb. +10 to 80 / Amb. +18 to 176, Amb. -20 (min. 4) to 80 / Amb. -36 (min. 72) to 176	Amb. +5 to 80 / Amb. +9 to 176, Amb. -20 (min. 4) to 80 / Amb. -36 (min. 72) to 176
	Temp. fluctuation (± /) at 37 in flask	0.1 / 0.18	0.1 / 0.18	0.1 / 0.18	0.1 / 0.18
	Temp. variation (± /) at 37 in flask	0.5 / 0.90	0.5 / 0.90	0.5 / 0.90	0.5 / 0.90
RPM control	Motion	Orbital	Orbital	Orbital	Orbital
	Diameter (mm)	19.1	25.4, 50.8	25.4, 50.8	19.1
	Speed range ¹⁾ (rpm)	20 to 500	30 to 500 30 to 300	30 to 400 (stackable ²⁾ : 250), 30 to 300 (stackable ²⁾ : 200)	20 to 500 (stackable : 250)
Control	PID feedback control	0	0	0	0
	Timer	Wait off	Wait off	Wait off	Wait off
	Auto-tuning	0	0	0	0
	Computer interface	RS-232 port, USB port	RS-232 port, USB port	RS-232 port, USB port	RS-232 port, USB port
	JeioTech network	0	0	0	0
Safety	Over temp. limit	0	0	0	0
	Door open alarm	0	0	0	0
	Over current limit	0	0	0	0
	Auto-run (power failure)	0	0	0	0
	Temp / Shaking deviation limit	0	0	0	0
	Best effort run	0	0	0	0

1) Max. rpm is dependable by amplitude size.

2) Stacked with stand or products.

Low Temp. Incubators (Forced Convection Model)	Low Temp. Incubators (Air-jacketed Model)	Low Temp. Incubators (Personal Model)	Low Temp. Incubators (2/4-Chamber Model)	Mini Incubator	Hybridization Oven
IL3	IL3-A	ILP	IL-C	IM	HO
Forced convection	Natural convection (air-Jacket)	Forced convection, Peltier technology	Forced convection, Multi chambers	Forced convection	Forced convection, Rocking shaking
150, 242	156, 254	14, 48	150 x 2 chambers, 150 x 4 chambers	10	10
0 to 80 / 32 to 176	4 to 70 / 39.2 to 158	+10 to 40 (at 25)	0 to 60 / 32 to 140	Amb. +5 to 65 / Amb. +9 to 140	Amb. +5 to 65 / Amb. +9 to 140
0.1 at 37 / 0.18 at 98.6	0.2 at 37 / 0.36 at 98.6	0.1 at 25 / 0.18 at 77	0.1 at 25 / 0.18 at 77	0.5 at 37 / 0.9 at 98.6	0.5 at 50 , 9rpm / 0.9 at 122 . 9rpm
0.8, 1.0 at 37 / 1.44, 0.18 at 98.6	0.7, 1.0 at 37 at / 1.26, 0.18 at 98.6	0.5 at 25 / 0.9 at 77	0.5 at 25 / 0.9 at 77	0.5 at 37 / 0.9 at 98.6	0.5 at 50 , 9rpm / 0.9 at 122 . 9rpm
Wait on /off	Wait on /off	Wait on /off	Wait on /off	-	-
0	0	0	0	-	-
-	-	0	0	-	0
-	-	0	0	-	-
RS-232 port, USB port	RS-232 port, USB port	RS-232 port	-	-	-
0	0	-	-	-	-
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	-	-

Incubators (General)



Versatile air-jacketed natural convection incubators.



IB-05G

Standard accessories

- Wire shelves (2ea)

Optional accessories

see page 94

- Perforated shelves
- Stacking kits for stackable chambers

Performance

- Temperature range from ambient +5°C to 70°C.
- Microprocessor PID control / Temperature calibration / Automatic tuning.
- Vibration-free design ideal for yeast cultivation.
 - Air-jacketed natural convection is beneficial for uniform temperature distribution and minimal sample contamination caused by external air intrusion.
- Durable incoloy heating element with radiator fans for efficient heat dissipation.

Convenience

- Intuitive control panel with bright LED display. (0.1 resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Corrosion-resistant stainless steel interior with rounded corners for easy cleaning and optimal airflow.
- Fully insulated dual-wall door with magnetic rubber gasket.
- Built-in cable port to use other instruments inside the chamber. (diameter: 38mm, provided silicon or rubber cap)
- RS-232 interface for external control and data collection.
- Stackable up to 2 units using the optional stacking kit. (optional)

Safety

- Automatic run after power interruption.
- Keypad lock function prevents accidental changes during operation.
- Over-temperature and over-current protection.
- Audible and visible open door alarms.

Model		IB-05G	IB-15G	IB-25G
Chamber volume (L / cu ft)		60 / 2.1	102 / 3.6	151 / 5.3
Temperature	Range (/)	Amb. +5 to 70 / Amb. +9 to 158		
	Fluctuation ¹⁾ at 37 (± /)	0.1 / 0.18	0.1 / 0.18	0.2 / 0.36
	Variation ¹⁾ at 37 (± /)	0.6 / 1.08	0.2 / 0.36	0.6 / 1.08
Dimension (WxDxH)	Interior (mm / inch)	400×360×420 / 15.7×14.2×16.5	480×410×520 / 18.9×16.1×20.5	610×460×540 / 24×18×21.3
	Exterior (mm / inch)	595×555×745 / 23×22×29	675×605×855 / 27×24×34	805×655×885 / 32×26×35
	No. of wire shelf (standard / max.)	2 / 7	2 / 11	2 / 11
	Net weight (Kg / lbs)	45 / 99	55 / 121	62 / 136
Electrical requirements (230V, 50 / 60Hz)		1.3A	2.2A	3.1A
Cat. No.		AAH21162K	AAH21172K	AAH21182K
Electrical requirements (120V, 60Hz)		2.8A	4.6A	6.4A
Cat. No.		AAH21166U	AAH21176U	AAH21186U

1) Technical data according to DIN 12880.

FDA establishment registered company. FDA listed products.



Performance

- Temperature range from ambient +3°C to 60°C.
- Microprocessor PID control / Temperature calibration / Automatic tuning.
- Vibration-free design ideal for yeast cultivation.
 - Free from noise, vibration, and mechanical troubles by film type heating method.

Convenience

- Intuitive control panel with bright LED display. (0.1 resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Corrosion-resistant incoloy sheath heating element and stainless steel interior.
- Rounded inner chamber corners for easy cleaning and optimal airflow.
- Stackable up to 2 units using the optional stacking kit. (optional)

Safety

- Automatic run after power interruption.
- Keypad lock function prevents accidental changes during operation.
- Over-temperature and over-current protection.
- Audible and visible open door alarms.

Affordable yet exceptionally reliable incubators featuring film type heaters.



IB-01E

Standard accessories

- Wire shelves (2ea)

Optional accessories

see page 94

- Perforated shelves
- Stacking kits for stackable chambers

Model		IB-01E	IB-11E	IB-21E
Chamber volume (L / cu ft)		65 / 2.3	150 / 5.3	205 / 7.2
Temperature	Range (/)	Amb. +3 to 60 / Amb. +5.4 to 140		
	Fluctuation ¹⁾ at 37 (± /)	0.2 / 0.36	0.3 / 0.54	0.1 / 0.18
	Variation ¹⁾ at 37 (± /)	0.6 / 1.08	0.8 / 1.44	1.1 / 1.98
Dimension (WxDxH)	Interior (mm / inch)	423×355×445 / 16.7×14×17.5	500×515×585 / 19.7×20.3×23	632×515×630 / 24.9×20.3×24.8
	Exterior (mm / inch)	533×475×725 / 21×18.7×28.5	595×630×865 / 23.5×24.8×34	740×630×910 / 29.1×24.8×35.8
	No. of wire shelf (standard / max.)	2 / 10	2 / 13	2 / 14
	Net weight (Kg / lbs)	33 / 72.8	47 / 103.6	57 / 125.7
Electrical requirements (230V, 50 / 60Hz)		1.1A	2.2A	2.4A
Cat. No.		AAH26015K	AAH26025K	AAH26035K
Electrical requirements (120V, 60Hz)		2.1A	4.2A	4.6A
Cat. No.		AAH26016U	AAH26026U	AAH26036U

1) Technical data according to DIN 12880.

FDA establishment registered company. FDA listed products.

Incubators (2 / 4-Chamber)



Suitable for conducting independent experiment in two or four chamber incubators.



IB-02G-4C

Standard accessories • Wire shelves (2ea per chamber)

Optional accessories • Perforated shelves
see page 94

Performance

- Temperature range from ambient +5 to 70 °C.
- Independent temperature and timer control of each chamber using microprocessor PID.
- Temperature calibration.
- Automatic tuning.
- Forced air convection generated by a noiseless and powerful sirocco fan ensuring optimal air circulation, temperature uniformity.

Convenience

- Two or four independently controlled 60L chambers merged into a single unit for space saving.
- Intuitive control panel with bright LED display. (0.1 °C resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Three most commonly used temperature settings programmable.
- Corrosion-resistant incoloy sheath heating element and stainless steel interior.
- Rounded inner chamber corners for easy cleaning and optimal airflow.
- Built-in cable port to use other instruments inside the chamber.
- Built-in casters for easy transport and installation.

Safety

- Automatic run after power interruption.
- Keypad lock function prevents accidental changes during operation.
- Over-temperature and over-current protection.
- Audible and visible open door alarms.

Model		IB-02G-2C	IB-02G-4C
Chamber volume (L / cu ft)		60 / 2.1 x 2 chambers	60 / 2.1 x 4 chambers
Temperature	Range (°C / °F)	Amb. +5 to 70 / Amb. +9 to 158	
	Fluctuation ¹⁾ at 37 °C (± / %)	0.1 / 0.18	
	Variation ¹⁾ at 37 °C (± / %)	0.6 / 1.08	
Dimension (WxDxH)	Interior (mm / inch)	400×360×420 / 15.7×14.2×16.5 x 2 chambers	400×360×420 / 15.7×14.2×16.5 x 4 chambers
	Exterior (mm / inch)	570×640×1360 / 22.4×25.2×53.5	1170×640×1360 / 46.1×25.2×53.5
	No. of wire shelf (standard / max.)	2 / 7 per chamber	2 / 7 per chamber
	Net weight (Kg / lbs)	110 / 242.5	168 / 370.4
Electrical requirements (230V, 50 / 60Hz)		4.1A	4.1A x 2EA
Cat. No.		AAH2A115K	AAH2A015K
Electrical requirements (120V, 60Hz)		7.5A	7.5A x 2EA
Cat. No.		AAH2A116U	AAH2A016U

1) Technical data according to DIN 12880.

FDA establishment registered company. FDA listed products.

Low Temp. Incubators (Forced Convection)



Performance

- Temperature range from 0°C to 80°C.
 - Silent cooling system reduces water evaporation within the chamber.
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Forced air convection using an optimal cross flow fan for chamber temperature uniformity.

Convenience

- Large chamber volume: maximum 242L.
- Bright VFD display (0.1 resolution) with heating level indication and quick adjustable dial knob.
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Built-in electrical outlet with a safety cover inside the chamber.
- Convenient sample monitoring without affecting chamber temperature via inner tempered-glass door.
- Rounded corners for easy cleaning and optimal airflow.
- Quick-release front grill for easy cleaning of the condenser.
- Built-in RS-232 port and USB port for external control and data collection.

Safety

- Automatic run after power interruption.
- Over-current protection.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Keypad lock function prevents accidental changes during operation.
- Audible and visible open door alarms.

Superb low temperature incubation by noiseless compressor cooling system.



REMOTE CONTROL
with your **MOBILE DEVICE**
see page 8-9



IL3-25

- Standard accessories**
- Wire shelves (2ea for IL3-15, 3ea for IL3-25)
- Optional accessories**
- Perforated shelves
 - Gateway
- see page 94

Model		IL3-15		IL3-25	
Chamber volume (L / cu ft)		150 / 5.3		242 / 8.5	
Refrigerator (Hp)		1 / 6 HBP		1 / 6 HBP	
Temperature	Range (/)	0 to 80 / 32 to 176			
	Fluctuation ¹⁾ at 37 (± /)	0.1 / 0.18			
	Variation ¹⁾ at 37 (± /)	0.8 / 1.44		1.0 / 0.18	
Dimension (WxDxH)	Interior (mm / inch)	600×500×500 / 24×20×20		500×520×930 / 20×20.5×36.6	
	Exterior (mm / inch)	720×760×1070 / 28.3×29.9×42.1		620×770×1680 / 24.4×30.3×66.1	
	No. of wire shelf (standard / max.)	2 / 11		3 / 25	
	Net weight (Kg / lbs)	100 / 220		135 / 297	
Electrical requirements (230V)		60Hz, 4.5A		60Hz, 6.4A	
Cat. No.		AAH220422K		AAH220522K	
Electrical requirements (120V)		60Hz, 8.3A		60Hz, 10.6A	
Cat. No.		AAH220462U		AAH220562U	

1) Technical data according to DIN 12880.
Temperature change may occur during automatic defrost.
FDA establishment registered company. FDA listed products.

Low Temp. Incubators (Air-jacketed)



Specially designed for optimal temperature control as well as minimal sample contamination caused by external air intrusion.



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see page 8-9



IL3-15A

Standard accessories

- Wire shelves (2ea for IL3-15A, 3ea for IL3-25A)

Optional accessories

see page 94

- Perforated shelves
- Gateway

Performance

- Temperature range from 4°C to 70°C.
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Natural convection within the chamber induced by the heater and the fan located inside the air jacket.

Convenience

- Large chamber volume: maximum 254L.
- Bright VFD display (0.1 resolution) with heating level indication and quick adjustable dial knob.
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Built-in electrical outlet with a safety cover inside the chamber.
- Convenient sample monitoring without affecting chamber temperature via inner tempered-glass door.
- Rounded corners for easy cleaning and optimal airflow.
- Quick-release front grill for easy cleaning of the condenser.
- Built-in RS-232 port and USB port for external control and data collection.

Safety

- Automatic run after power interruption.
- Over-current protection.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Keypad lock function prevents accidental changes during operation.
- Audible and visible open door alarms.

Model		IL3-15A		IL3-25A	
Chamber volume (L / cu ft)		156 / 5.5		254 / 8.97	
Refrigerator (Hp)		1 / 6 HBP		1 / 6 HBP	
Temperature	Range (/)	4 to 70 / 39.2 to 158			
	Fluctuation ¹⁾ at 37 (± /)	0.2 / 0.36			
	Variation ¹⁾ at 37 (± /)	0.7 / 1.26		1.0 / 0.18	
Dimension (WxDxH)	Interior (mm / inch)	600x520x500 / 24x20.5x20		500x540x940 / 20x21.3x37	
	Exterior (mm / inch)	770x790x1115 / 30.3x31.1x43.9		670x805x1668 / 26.4x31.7x65.7	
	No. of wire shelf (standard / max.)	2 / 11		3 / 25	
	Net weight (Kg / lbs)	108 / 238.1		145 / 319.7	
Electrical requirements (230V)		60Hz, 6.6A		50Hz, 6.6A	
Cat. No.		AAH220622K		AAH220612K	
Electrical requirements (120V)		60Hz, 10.2A		60Hz, 8A	
Cat. No.		AAH220632U		AAH220722K	
				50Hz, 8A	
				AAH220712K	
				60Hz, 12.3A	
				AAH220732U	

¹⁾ Technical data according to DIN 12880.

Temperature change may occur during automatic defrost.

FDA establishment registered company. FDA listed products.



Performance

- Temperature range from 10 °C to 40 °C.
- Contrary to conventional compressor-cooled incubators, peltier cooling technology generates little vibration, noise, and heat.
- Microprocessor PID control / Temperature calibration / Automatic tuning.
- Adjustable 3-step fan speed with defrosting time and period control.

Convenience

- Space-saving design allows even the smaller (14L) unit to hold two 1000mL Erlenmeyer flasks.
- Intuitive control panel with bright LED display. (0.1 °C resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Up to 9 temperature steps and maximum 200 cycles of repetition programmable for each profile.
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Corrosion-resistant incoloy sheath heating element and stainless steel interior.
- Environment-friendly insulation material (EPDM) used for safety and convenience. (compliant with ASTM-C534 specification)
- RS-232 interface for external control and data collection.

Safety

- Automatic run after power interruption.
- Keypad lock function prevents accidental changes during operation.
- Over-temperature and over-current protection.
- Audible and visible open door alarms.

Compact, stackable, energy-efficient, and yet exceptionally reliable low temperature incubators using peltier technology.



ILP-02

stackable unit

Standard accessories • Wire shelves (1ea for ILP-02, 2ea for ILP-12)

Optional accessories • Perforated shelves
see page 94

Model	ILP-02		ILP-12	
Chamber volume (L / cu ft)	14 / 0.5		48 / 1.7	
Temperature	Range at 25 °C (°F)	10 to 40 / 50 to 104		
	Fluctuation ¹⁾ at 25 °C (± / °F)	0.1 / 0.18		
	Variation ¹⁾ at 25 °C (± / °F)	0.5 / 0.9	0.4 / 0.72	
Dimension (WxDxH)	Interior (mm / inch)	315×200×230 / 12.4×7.9×9.1		334×334×430 / 13.1×13.1×17
	Exterior (mm / inch)	430×495×400 / 17×19.4×15.7		430×665×620 / 17×26.2×24.4
	No. of wire shelf (standard / max.)	1 / 5		2 / 10
	Net weight (Kg / lbs)	27.5 / 60.6		49 / 108
Electrical requirements (230V)	60Hz, 1.8A	50Hz, 1.8A	60Hz, 3.5A	50Hz, 3.5A
Cat. No.	AAH24031K	AAH24032K	AAH24041K	AAH24042K
Electrical requirements (120V)	60Hz, 3.4A		60Hz, 6.7A	
Cat. No.	AAH24033U		AAH24043U	

1) Technical data according to DIN 12880.
FDA establishment registered company. FDA listed products.

Two or four incubation chambers in a single unit.

Designed to offer an ideal and cost-effective solution for laboratories with limited space and budget.



IL-11-4C

Standard accessories • Wire shelves (2ea per chamber)

Optional accessories • Perforated shelves
see page 94



Performance

- Temperature range from 0 to 60 °C.
- Silent cooling system reduces water evaporation within the chamber.
- Microprocessor PID control.
- Temperature calibration.
- Automatic tuning.
- Adjustable 3-step fan speed with defrosting time and period control.

Convenience

- Intuitive control panel with bright LED display. (0.1 °C resolution)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)
- Convenient preset function for 3 most commonly used temperature settings.
- Up to 9 temperature steps and maximum 200 cycles of repetition programmable for each profile.
- Convenient sample monitoring without affecting chamber temperature via the inner tempered-glass door.
- Corrosion-resistant stainless steel interior with rounded corners for easy cleaning and optimal airflow.
- Built-in casters for easy transport and installation.

Safety

- Automatic run after power interruption.
- Keypad lock function prevents accidental changes during operation.
- Over-temperature and over-current protection.
- Audible and visible open door alarms.

Efficient lab space use with multi-chamber incubator

- Designed to offer an ideal and cost-effective solution for laboratories with limited space and budget.
- Two or four 150L chambers merged into a single unit.
- Optimum model selection between two and four chamber unit according to application demand.
- Suitable for conducting each different experiment at once.
- Independent temperature and timer control of each chamber using microprocessor PID.



Model		IL-11-2C	IL-11-4C
Chamber volume (L / cu ft)		150 / 5.3 x 2 chambers	150 / 5.3 x 4 chambers
Refrigerator (Hp)		1/8 HBP x 2EA	1/8 HBP x 4EA
Temperature	Range (/)	0 to 60 / 32 to 140	
	Fluctuation ¹⁾ at 25 (± /)	0.1 / 0.18	
	Variation ¹⁾ at 25 (± /)	0.5 / 0.9	
Dimension (WxDxH)	Interior (mm / inch)	600x500x500 / 23.6x19.7x19.7 x 2 chambers	600x500x500 / 23.6x19.7x19.7 x 4 chambers
	Exterior (mm / inch)	760x760x1690 / 29.9x29.9x66.1	1500x760x1690 / 59.1x29.9x66.1
	No. of wire shelf (standard / max.)	2 / 11 per chamber	2 / 11 per chamber
	Net weight (Kg / lbs)	180 / 397	350 / 772
Electrical requirements (230V, 60Hz)		9A	9A x 2EA
Cat. No.		AAH28111K	AAH28011K
Electrical requirements (230V, 50Hz)		9A	9A x 2EA
Cat. No.		AAH28112K	AAH28012K
Electrical requirements (120V, 60Hz)		16.5A	16.5A x 2EA
Cat. No.		AAH28113U	AAH28013U

1) Technical data according to DIN 12880.
 Temperature change may occur during automatic defrost.
 FDA establishment registered company. FDA listed products.

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.



REMOTE CONTROL
with your **MOBILE DEVICE.**
see page 8-9



IST-3075 / IST-4075R

with optional dedicated platform and universal attachment

Optional accessories

- Universal platforms, Rubber mats
- Flask clamps, Funnel clamps, Test tube racks, Gateway

see page 95-97

Above products design can be changed without prior notice.



Control display



Gas spring lid



Performance

- Temperature range:
 - Ambient +5°C to 80°C for IST-3075 / 4075.
 - Ambient -15°C (Min. 15) to 80°C for IST-3075R / 4075R.
- Competitive high shaking speed up to 500 rpm.
- Orbital shaking motion in 19mm diameter.
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Wide speed range even with heavy workload.
 - Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
 - Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Pleasant test environment by the smooth acceleration and deceleration control.
 - Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal to provide excellent temperature uniformity.

Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Wide sample monitoring and convenient sample loading.
 - Convenient sample monitoring without affecting inside environment thanks to the three side transparent acrylic lid with bright LED lamps.
 - Gas spring lid supports providing smooth motion, soft opening and closing.
- Repetitive task can be easily performed as the platform stops where it starts.
 - Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Corrosion resistance stainless steel interior.
- Built-in RS-232 port and USB port for external control and data collection.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Mechanical over-temperature protection device.
- Environment-friendly CFC-free refrigerant. (for IST-3075R / 4075R)
- Audible and visible open door alarms.

Model		IST-3075		IST-3075R		IST-4075		IST-4075R	
Temperature	Range (/)	Amb. +5 to 80 / Amb. +9 to 176		Amb. -15 (Min. 15) to 80 / Amb. -27 (Min. 27) to 176		Amb. +5 to 80 / Amb. +9 to 176		Amb. -15 (Min. 15) to 80 / Amb. -27 (Min. 27) to 176	
	Fluctuation at 37 in flask (± /)	0.1 / 0.18							
	Variation at 37 in flask (± /)	0.5 / 0.90							
	Refrigerator (Hp)	-		1 / 6 HBP		-		1 / 6 HBP	
Shaking system	Motion type	Orbital							
	Amplitude size (mm / inch, dia.)	19.1 / 0.75							
	Speed range (RPM)	20 to 500							
	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 / 33.1 at 400 rpm				14 / 30.9 at 500 rpm 21 / 46.3 at 400 rpm			
Dimension	Volume (L / cu ft)	53 / 1.9				83 / 2.9			
	Platform (WxD) (mm / inch)	350x350 / 13.8x13.8				450x450 / 17.7x17.7			
	Interior (WxDxH) (mm / inch)	410x410x320 / 16.1x16.1x12.6				510x510x320 / 20.1x20.1x12.6			
	Exterior (WxDxH) (mm / inch)	440x785x510 / 17.3x30.9x20.1				540x 890 x510 / 21.3x35x20.1			
	Net weight (Kg / lbs)	65 / 143.3		73 / 160.9		81 / 178.6		90 / 198.4	
Electrical requirements (230V)	60Hz, 4A	50Hz, 4A	60Hz, 5.5A	50Hz, 5.5A	60Hz, 4A	50Hz, 4A	60Hz, 5.5A	50Hz, 5.5A	
Cat. No.	AAH23411K	AAH23422K	AAH23511K	AAH23522K	AAH23611K	AAH23622K	AAH23711K	AAH23722K	
Electrical requirements (120V)	60Hz, 7.5A		60Hz, 10.1A		60Hz, 7.5A		60Hz, 10.1A		
Cat. No.	AAH23465U		AAH23565U		AAH23665U		AAH23765U		

FDA establishment registered company. FDA listed products.

Incubated Shakers (Floor Standing)

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

Exclusive drive mechanism with ergonomic design delivers years of trouble-free service.



REMOTE CONTROL
with your **MOBILE DEVICE**
see page 8-9



ISF-7100R

- Optional accessories** see page 95-97
- Universal/Dedicated platforms
 - Spring wire racks, Microplate holders, Gateway

Above products design can be changed without prior notice.



User-friendly design



Clear viewing window



Gas spring lid



Performance

- Temperature range:
 - Ambient +5°C to 80 °C for ISF-7100 / 7200
 - Ambient -20°C (Min. 4) to 80°C for ISF-7100R / 7200R
- Competitive high shaking speed up to 500 rpm.
 - from 30 to 500 rpm for ISF-7100(R)
 - from 30 to 300 rpm for ISF-7200(R)
- Orbital shaking motion in various diameter.
 - 25.4mm for ISF-7100(R)
 - 50.8mm for ISF-7200(R)
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- 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.
- Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
 - Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Pleasant test environment by the smooth acceleration and deceleration control.
 - Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal with lockable door for safe storage of samples.

Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.

- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Easy sample monitoring and convenient sample loading.
 - Clear observation of samples without affecting inner chamber's environment thanks to the transparent top viewing window with bright LED lamps.
 - The lid is inclined gently towards the front for easy observation of samples in the chamber.
 - Gas spring lid supports providing smooth motion, soft opening and closing.
- Repetitive task can be easily performed as the platform stops where it starts.
 - Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Corrosion resistance stainless steel interior.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Built-in RS-232 port and USB port for external control and data collection.
- Sturdy foot caster, beneficial for easy mobility during installation or relocation.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Environment-friendly CFC-free refrigerant. (for ISF-7100R / 7200R)
- Audible and visible open door alarms.

	Model	ISF-7100	ISF-7100R	ISF-7200	ISF-7200R	
Temperature	Range (/)	Amb. +5 to 80 / Amb. +9 to 176	Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 7.2) to 176	Amb. +5 to 80 / Amb. +9 to 176	Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 7.2) to 176	
	Fluctuation at 37 in flask (± /)	0.1 / 0.18				
	Variation at 37 in flask (± /)	0.5 / 0.90				
	Refrigerator (Hp)	-	1/6Hp	-	1/6Hp	
Shaking system	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	25.4 / 1			50.8 / 2	
	Speed range (rpm)	30 to 500			30 to 300	
	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)				
	Timer	1 min. to 999 hr 59 min.				
Dimension	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 (WxD) (mm / inch)	755x520 / 29.7x20.5				
	Interior (WxDxH) (mm / inch)	894x634x480 / 35.2x25x18.9				
	Exterior (WxDxH) (mm / inch)	1128x854x1035 / 44.4x33.6x40.8				
Electrical requirements (230V)	Net weight (Kg / lbs)	277 / 610.7	287 / 632.7		277 / 610.7	287 / 632.7
	Electrical requirements (230V)	50 / 60Hz, 3.7A	60Hz, 5.6A	50Hz, 5.6A	50 / 60Hz, 3.7A	60Hz, 5.6A / 50Hz, 5.6A
	Cat. No.	AAH23342K	AAH23542K	AAH23541K	AAH23442K	AAH23642K / AAH23641K
Electrical requirements (120V)	Electrical requirements (120V)	60Hz, 7.3A	60Hz, 10A		60Hz, 7.3A	60Hz, 10A
	Cat. No.	AAH23375U	AAH23575U		AAH23475U	AAH23675U

Temp. change may occur during automatic defrost. (for ISF-7100R/7200R)
 FDA establishment registered company. FDA listed products.

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.



REMOTE CONTROL
with your **MOBILE DEVICE**

see page 8-9



Advantages of Stackable Model

- Large shaking capacity chamber allows user to freely organize different size of samples.
 - 198L chamber can accommodate six of 4L flasks and also thirty nine of 250ml flasks. You can make the capacity triple, if you stack three units.
- Maximize your space with our triple stackable incubated shaker.
 - Highly recommended for users who want to maximize limited space. Have three units in your lab while taking up minimal space. In addition, high rpm is still guaranteed even when you stack up 3 units.
- Lift up opening door and slide out platform enables easy sample handling.
 - Door is opened upward and stayed open for hands-free handling. Slide type universal platform let you access to all samples, even ones placed at the back.
- Optional stand is available and highly recommended for comfort use. Setting your incubated shaker at your height let you feel totally relaxed when you use it anytime. (optional)

ISS-7100R / ISS-7200

with optional accessories

Standard accessories

- Stacking kit, Retractable foot caster

Optional accessories

- Universal platforms, Flask clamps, Universal attachments
- Stands, Gateway

see page 95-97

Above products design can be changed without prior notice.

Control display



Lift up opening door





Performance

- Temperature range.
 - Ambient +10°C to 80°C for ISS-7100 / 7200.
 - Ambient -20°C (Min. 4) to 80°C for ISS-7100R / 7200R.
- Competitive high shaking speed up to 400 rpm. (Stackable up to 250rpm)
 - from 30 to 400 rpm (stackable : 30 to 250) for ISS-7100(R)
 - from 30 to 300 rpm (stackable : 30 to 200) for ISS-7200(R)
- Orbital shaking motion in various diameters.
 - 25.4mm for ISS-7100(R)
 - 50.8 mm for ISS-7200(R)
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- 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.
- Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
 - Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Pleasant test environment by the smooth acceleration and deceleration control.
 - Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal to provide excellent temperature uniformity.

Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)
- Wide sample monitoring.
 - Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps.
- Repetitive task can be easily performed as the platform stops where it starts.
 - Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Built-in electrical outlet with a safety cover inside the chamber.
- Corrosion resistance stainless steel interior.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Built-in RS-232 port and USB port for external control and data collection.
- The unit comes with retractable foot caster, beneficial for easy mobility during installation or relocation.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Environment-friendly CFC-free refrigerant. (for ISS-7100R / 7200R)

Model		ISS-7100		ISS-7100R		ISS-7200		ISS-7200R	
Temperature	Range (/)	Amb. +10 to 80 / Amb. +18 to 176		Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 72) to 176		Amb. +10 to 80 / Amb. +18 to 176		Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 72) to 176	
	Fluctuation at 37 in flask (± /)	0.1 / 0.18							
	Variation at 37 in flask (± /)	0.5 / 0.90							
	Refrigerator (Hp)	-		1/6Hp		-		1/6Hp	
Shaking system	Motion type	Orbital							
	Amplitude size (mm / inch, dia.)	25.4 / 1				50.8 / 2			
	Speed range (rpm)	30 to 400 (stackable ² : 30 to 250)				30 to 300 (stackable ² : 30 to 200)			
	Accuracy	±1% of set speed (>100rpm) / ±1 (≤100rpm)							
	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)			
Dimension	Volume (L / cu ft)	198 / 7.0							
	Platform (WxD, mm / inch)	755x520 / 29.7x20.5							
	Interior (WxDxH, mm / inch)	809x624x393 / 31.9x24.6x15.5							
	Exterior ¹ (WxDxH, mm / inch)	1310x996x755 / 51.6x39.2x29.7							
	Net weight (kg / lbs)	365 / 804.7		375 / 826.7		365 / 804.7		375 / 826.7	
Electrical requirements (230V)	60Hz, 3.7A	50Hz, 3.7A	60Hz, 5.6A	50Hz, 5.6A	60Hz, 3.7A	50Hz, 3.7A	60Hz, 5.6A	50Hz, 5.6A	
Cat. No.	AAH238131K	AAH238132K	AAH238231K	AAH238232K	AAH239131K	AAH239132K	AAH239231K	AAH239232K	
Electrical requirements (120V)	60Hz, 7.1A		60Hz, 10A		60Hz, 7.1A		60Hz, 10A		
Cat. No.	AAH238115U		AAH238215U		AAH239115U		AAH239215U		

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.

Incubated Shakers (Chamber)

Specially designed to be double-stacked on the floor or located on the lab benches for space saving.

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



REMOTE CONTROL
with your **MOBILE DEVICE**
see page 8-9



ISS-4075R / ISS-3075

with optional accessories

Standard accessories

- Wire shelves (2ea)

Optional accessories

- Universal platforms, Universal attachments, Flask clamps
- Retractable foot caster, Stacking kits for stackable chambers, Gateway

see page 95-97

Above products design can be changed without prior notice.

Control display





Performance

- Temperature range:
 - Ambient +5°C to 80°C for ISS-3075 / 4075.
 - Ambient -20°C (Min. 4) to 80°C for ISS-3075R / 4075R.
- Competitive high shaking speed up to 500 rpm. (Stackable up to 250rpm)
- Orbital shaking motion in 19.1mm diameter.
- Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Wide speed range even with heavy workload.
 - Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion.
- Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity.
 - Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock.
- Pleasant test environment by the smooth acceleration and deceleration control.
 - Smooth start and smooth stop function prevents chemical spills from flasks or test tubes.
- High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open.
- Air-tight silicone door seal to provide excellent temperature uniformity.

Convenience

- Intuitive touch screen LCD controller with easy icons and logical menus.
- Easy-set digital timer for shaking operation. (1 min. to 999 hr. 59 min.)

- Wide sample monitoring.
 - Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps.
- Repetitive task can be easily performed as the platform stops where it starts.
 - Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process.
- Two adjustable-height shelves provided allow static incubation or refrigeration, which increase storage capacity.
- Built-in electrical outlet with a safety cover inside the chamber.
- Corrosion resistance stainless steel interior.
- Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills.
- Built-in RS-232 port and USB port for external control and data collection.
- Retractable foot caster, beneficial for easy mobility during installation or relocation. (optional)
- Chambers stackable, up to two levels.

Safety

- Automatic run after power interruption.
- Temperature and shaking speed deviation alarm.
- Over-current protection, Stalled platform check.
- Triple independent temperature monitor system.
 - Temperature deviation alarm (High/Low)
 - Electronic temperature limiter (High/Low)
 - Mechanical over-temperature limiter (High)
- Environment-friendly CFC-free refrigerant. (for ISS-3075R / 4075R)
- Audible and visible open door alarms.

Model		ISS-3075	ISS-3075R	ISS-4075	ISS-4075R	
Temperature	Range (/)	Amb. +5 to 80 / Amb. +9 to 176	Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 7.2) to 176	Amb. +5 to 80 / Amb. +9 to 176	Amb. -20 (Min. 4) to 80 / Amb. -36 (Min. 7.2) to 176	
	Fluctuation at 37 in flask (± /)	0.1 / 0.18				
	Variation at 37 in flask (± /)	0.5 / 0.90				
	Refrigerator (Hp)	-	1/6Hp	-	1/6Hp	
Shaking system	Motion type	Orbital				
	Amplitude size (mm / inch, dia.)	19.1 / 0.75				
	Speed range (rpm)	20 to 500 (stackable : 20 to 250)				
	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 / 33.1 at 400 rpm 15 / 33.1 at 250 rpm (stacked)	10 / 22.0 at 500 rpm 21 / 46.3 at 400 rpm 21 / 46.3 at 250 rpm (stacked)			
Dimension	Volume (L / cu ft)	80 / 2.8		150 / 5.3		
	Platform (WxD, mm / inch)	350x350 / 13.8x13.8		450x450 / 17.7x17.7		
	Interior (WxDxH, mm / inch)	440x440x418 / 17.3x17.3x16.5		540x540x518 / 21.3x21.3x20.4		
	Exterior (WxDxH, mm / inch)	578x815x854 / 22.8x32.1x33.6		678x895x934 / 26.7x35.2x36.8		
	No. of wire shelf (standard / max.)	2 / 8		2 / 11		
	Net weight (kg / lbs)	153 / 337.3		160 / 352.7		183 / 403.4
Electrical requirements (230V)	60Hz, 6.2A 50Hz, 6.2A		60Hz, 7.9A 50Hz, 7.9A		60Hz, 6.2A 50Hz, 6.2A	60Hz, 7.9A 50Hz, 7.9A
Cat. No.	AAH23431K AAH23432K		AAH23531K AAH23532K		AAH23631K AAH23632K	AAH23731K AAH23732K
Electrical requirements (120V)	60Hz, 9.5A		60Hz, 13A		60Hz, 9.5A 60Hz, 13A	
Cat. No.	AAH23415U		AAH23515U		AAH23615U AAH23715U	

Temp. change may occur during automatic defrost. (for ISS-3075R/4075R)
 FDA establishment registered company. FDA listed products.

Mini Incubator



Compact design for efficient lab space use.

Maximum 8 microplates can be inserted to inner chamber for ELISA.



IM-10

Standard accessories • Wire shelves (2ea)

Optional accessories • Perforated shelves
see page 94

Performance

- Temperature range from ambient +5 to 65 °C
- Microprocessor PID feedback control of the heater and the fan ensuring temperature uniformity.
- Automatic temperature calibration.

Convenience

- Ease-of-operation provided by a bright VFD (vacuum fluorescent display), responsive touch buttons, and a jog dial.
- Wire shelves are provided for space saving of inner chamber. Maximum 4 wire shelves supporting 8 microplates is especially suitable for ELISA.
- Push buttons for easy opening of door.
- Transparent polycarbonate window providing a clear view of the chamber interior.
- Compact design for space saving of laboratory of the chamber interior.

Safety

- Open door alarm.
- Over-temperature protection, Over-current protection.

Model		IM-10
Temperature	Range (/)	Amb. +5 to 65 / Amb. +9 to 149
	Fluctuation at 37 (± /)	0.5 / 0.9
	Variation at 37 (± /)	0.5 / 0.9
Dimension	Volume (L / cu ft)	10 / 0.4
	Interior (WxDxH) (mm / inch)	278 x 262 x 160 / 11 x 10.4 x 6.3
	Exterior (WxDxH) (mm / inch)	400 x 410 x 264 / 15.7 x 16.1 x 10.4
	No. of wire shelf (standard / max.)	2 / 4
	Net weight (Kg / lbs)	12.8 / 28.2
Electrical requirements (230V, 50/60Hz)		1.0A
Cat. No.		AAH24315K
Electrical requirements (120V, 60Hz)		2.1A
Cat. No.		AAH24316U

1) Technical data according to DIN 12880.
FDA establishment registered company. FDA listed products.



Performance

- Temperature range from ambient +5 to 65
- Rocking motion: Tilt 8.5°.
- Speed range: 5 to 50 rpm.
- Microprocessor PID feedback control of the heater and the fan ensuring temperature uniformity.
- Automatic temperature calibration.

Convenience

- Ease-of-operation provided by a bright VFD, responsive touch buttons, and a jog dial.
- Memory function of programs allowing relevant parameters (such as temperature, rocking speed, time, etc.) of each program step to be stored.
 - Up to 10 program allowed for memory storage.
 - Up to 10 steps allowed for each program.
 - Preheating and precooling functions before hybridization.
- Built-in sliding shelf for quick and convenient insertion or removal of samples.
- Sticky pad on sliding shelf for preventing accidental movement or spills of samples during operation.
- Drying function for the hybridization and washed membranes or strips.
- Transparent polycarbonate window providing a clear view of the chamber interior.
- Compact design for efficient lab space utilization.

Equipped with a precise rocker, this unit is offering ideal reproducibility for various molecular biology applications.



HO-10

Standard accessories • Water tray

Safety

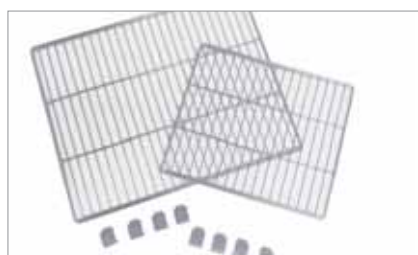
- Audible and visual alarms are activated as:
 - Preset temperature limit is reached.
 - Each step of any programmed mode is terminated.
 - Low humidity level is detected by the sensor.
 - Door is open.
- Over-temperature protection, Over-current protection.

Model		HO-10
Temperature	Range (/)	Amb. +5 to 65 / Amb. +9 to 149
	Fluctuation at 50 , 9RPM (± /)	0.5 / 0.9
	Variation at 50 , 9RPM (± /)	0.5 / 0.9
Shaking system	Motion type	Rocking Motion
	Speed range (RPM)	5 to 50
	Tilt angle	8.5°±1
	Max. load (kg / lbs)	1 / 2.2
Dimension	Volume (L / cu ft)	10 / 0.4
	Sliding shelf (WxD) (mm / inch)	256 x 198 / 10.1 x 7.8
	Interior (WxDxH) (mm / inch)	278 x 262 x 160 / 11 x 10.4 x 6.3
	Exterior (WxDxH) (mm / inch)	400 x 410 x 264 / 15.7 x 16.1 x 10.4
	Net weight (Kg / lbs)	14 / 30.9
Electrical requirements (230V, 60Hz)		1.2A
Cat. No.		AAH1B011K
Electrical requirements (230V, 50Hz)		2.4A
Cat. No.		AAH1B012K

1) Technical data according to DIN 12880.
 FDA establishment registered company. FDA listed products.

Accessories & Options

for Incubators



Wire shelves



Perforated shelves



Universal platforms

Wire shelves

Stainless steel and electro-polished shelves are readily removed without using tools for easy cleaning.

Cat. No.	Description			Suitable for
	Included	Maximum	WxL (mm / inch)	
EDA8136	2	7	366x316 / 14.4x12.4	IB-05G
EDA8135	2	11	446x366 / 17.6x14.4	IB-15G
EDA8137	2	11	576x419 / 22.7x16.5	IB-25G
EDA8136	2	10	366x316 / 14.4x12.4	IB-01E
EDA8220	2	13	466x490 / 17.6x19.3	IB-11E
EDA8219	2	14	566x466 / 22.3x17.6	IB-21E
EDA8136	4	14	366x316 / 14.4x12.4	IB-02G-2C
	8	28		IB-02G-4C
EDA8219	2	11	566x466 / 22.3x17.6	IL3-15(A)
	4	22		IL-11-2C
	8	44		IL-11-4C
EDA8220	3	25	466x490 / 17.6x19.3	IL3-25(A)
EDA8223	1	5	195x310 / 7.7x12.2	ILP-02
EDA8221	2	10	305x299 / 12x11.8	ILP-12
EDA8235	2	8	416x406 / 16.4x16.0	ISS-3075(R)
EDA8233	2	11	516x506 / 20.3x19.9	ISS-4075(R)
EDA8244	2	4	247x247 / 9.7x9.7	IM-10

Perforated shelves

Stainless steel shelves are readily removed without using tools for easy cleaning.

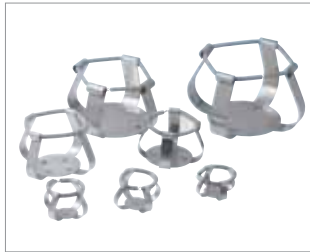
Cat. No.	Description			Suitable for
	Maximum	WxL (mm / inch)		
AAA12531	7	366x316 / 14.4x12.4		IB-05G
AAA12532	11	446x366 / 17.6x14.4		IB-15G
AAA12535	11	576x419 / 22.7x16.5		IB-25G
AAA12531	10	366x316 / 14.4x12.4		IB-01E
AAA22522	13	466x490 / 17.6x19.3		IB-11E
AAA22521	14	566x466 / 22.3x17.6		IB-21E
AAA12531	14	366x316 / 14.4x12.4		IB-02G-2C
	28		IB-02G-4C	
AAA22521	11	566x466 / 22.3x17.6		IL3-15(A)
	22		IL-11-2C	
	44		IL-11-4C	
AAA22522	25	466x490 / 17.6x19.3		IL3-25(A)
AAA24501	5	195x310 / 7.7x12.2		ILP-02
AAA24502	10	305x299 / 12x11.8		ILP-12
AAA24511	4	247x247 / 9.7x9.7		IM-10

Stacking kits

Stackable up to 2 units using exclusive stacking kit for space saving.

Cat. No.	Description	Suitable for
AAA21521	Stacking kit for stackable chambers	IB-05G
AAA21522	Stacking kit for stackable chambers	IB-15G
AAA21523	Stacking kit for stackable chambers	IB-25G
AAA26501	Stacking kit for stackable chambers	IB-01E
AAA26502	Stacking kit for stackable chambers	IB-11E
AAA26503	Stacking kit for stackable chambers	IB-21E

for Incubated Shakers



Flask clamps



Plastic clamps (plastic)



Funnel clamps



Dedicated platforms

Universal platforms / Flask clamps / Funnel clamps

Universal platforms provide flexibility for mixing assortments of test tubes and glassware of varying sizes on a single platform. Various clamps for Erlenmeyer flasks and separatory funnels are available.

Description	Model	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)	
	Platform size	350x350mm / 13.8x13.8inch	450x450mm / 17.7x17.7inch	755x520mm / 29.7x20.5inch	755x520mm / 29.7x20.5inch	350x350mm / 13.8x13.8inch	450x450mm / 17.7x17.7inch	
Universal platform		AAA23501-V3	AAA23502-V3	AAA23503-V3	AAA23503-V4	AAA23501-V3	AAA23502-V3	
Flask clamps (Stainless steel)	Erlenmeyer flask size	Max. mountable flask clamps						
	for 50 ml	AAA23550	36	49	88	88	36	49
	for 100 ml	AAA23551	24	39	68	68	24	39
	for 250 ml	AAA23552	14	20	39	39	14	24
	for 300 ml	AAA23556	14	20	39	39	14	24
	for 500 ml	AAA23553	9	16	28	28	9	16
	for 1L	AAA23554	6	9	18	18	6	9
	for 2L	AAA23555	4	5	11	11	4	6
	for 2.8L	AAA23557	2	4	8	8	2	5
for 4L	AAA23558	-	-	6	6	-	4	
for 6L	AAA23559	-	-	5	-	-	2	
Flask clamps (plastic)	Erlenmeyer flask size	Max. mountable flask clamps						
	for 50 ml	AAA30570	36	49	88	88	36	49
	for 100 ~ 125 ml	AAA30571	19	29	48	48	19	29
	for 200 ml	AAA30572	13	21	35	33	13	21
	for 250 ml	AAA30573	13	19	35	33	13	19
	for 300 ml	AAA30574	12	19	35	33	12	19
	for 500 ml	AAA30575	9	12	24	24	9	12
	for 1L	AAA30576	4	9	12	12	5	9
for 2L	AAA30577	2	4	8	8	4	5	
Funnel clamps	separatory funnel size	Max. mountable funnel clamps						
	for 250 ml	AAA23562	4	6	15	15	4	6
	for 500 ml	AAA23563	2	4	10	10	3	4
	for 1L	AAA23564	-	3	7	7	-	3
	for 2L	AAA23565	-	-	5	5	-	-

Above accessories need to be mounted on a universal platform which is sold separately.

Dedicated platforms

When using a single flask size only, the dedicated platforms with pre-installed clamps provide maximum capacity. 250mL and 500mL clamps are standard but other sizes can be available.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform & 250mL flask clamps	AAA23611-V1	AAA23623-V1	AAA23634	AAA23637	AAA23611-V1	AAA23621-V1
No. of flask clamps	14	20	39	39	14	20
Universal platform & 500mL flask clamps	AAA23612-V1	AAA23622-V1	AAA23635	AAA23636	AAA23612-V1	AAA23622-V1
No. of flask clamps	9	16	28	28	9	16

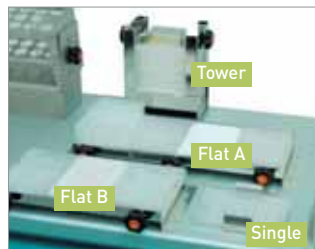
* A dedicated platform is sold with setting each max. mountable amount of flask clamps on.

Accessories & Options

for Incubated Shakers



Test tube racks



Microplate holders
(universal platform is optional)



Rubber mats



Universal attachments

Test tube racks

Easy to release and mount racks made of durable stainless steel with adjustable angle and tube height support. Test tube racks are used with an optional universal platform.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform	AAA23501-V3	AAA23502-V3	AAA23053-V3	AAA23503-V4	AAA23501-V3	AAA23502-V3
Test tube size	Mountable capacity of rack*					
for 86 test tubes, $\varnothing 8\text{mm} / \varnothing 0.3''$	2	4	7	7	2	4
for 86 test tubes, $\varnothing 10\text{mm} / \varnothing 0.4''$						
for 58 test tubes, $\varnothing 12\text{mm} / \varnothing 0.5''$						
for 58 test tubes, $\varnothing 14\text{mm} / \varnothing 0.6''$						
for 32 test tubes, $\varnothing 17\text{mm} / \varnothing 0.7''$						
for 19 test tubes, $\varnothing 25\text{mm} / \varnothing 1.0''$						
for 10 test tubes, $\varnothing 30\text{mm} / \varnothing 1.2''$						
for 10 test tubes, $\varnothing 35\text{mm} / \varnothing 1.4''$						
for 4 test tubes, $\varnothing 50\text{mm} / \varnothing 1.9''$						

* No declination

We can manufacture other size of test tube racks to meet your specific requirements. Contact us for details.

Microplate holders

Available in three styles: tower type, flat type (small and large), and single type. Tower type holder is for 10 standard or deep well plates. Large flat holder is for 4 standard or deep well plates. Small flat holder is for 3 standard or deep well plates. Single type holder is for 1 standard or deep well plate. (standard well plates' height: 14.7mm)

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Universal platform	AAA23501-V3	AAA23502-V3	AAA23053-V3	AAA23503-V4	AAA23501-V3	AAA23502-V3
Microplate holder type	Max. mountable microplate holders					
Single	8	15	25	25	8	15
Tower	5	8	21	21	6	10
Flat A(large)	-	2	4	4	-	2
Flat B(small)	2	2	6	6	2	3

* Microplate holders need to be mounted on an universal platform which is sold separately.

Rubber mats

Designed for low-speed applications, non-skid rubber mats allow quick addition or removal of flasks, plates or tubes.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat. No.	AAA23531-V1	AAA23532-V1	AAA23534	AAA23535	AAA31531	AAA31532

Universal attachments (utility carriers)

Several adjustable clamping bars for quickly securing a variety of glassware or tubes on non-skid rubber mats. Suitable for flat-bottomed flasks of various sizes.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat. No.	AAA23511-V1	AAA23512-V1	AAA23505	AAA23513	AAA23511-V1	AAA23512-V1



Spring wire racks
(two tier rack with flexible crossed spring)



Lab sticker
(universal platform is optional)



Stand (stand 1 / stand 2)



Retractable foot caster

Spring wire racks

Ideal for holding a wide variety of tubes, flasks, and other glassware. All components are made of stainless steel.

Description	IST-3075(R)	IST-4075(R)	ISF-7100(R) ISF-7200(R)	ISS-7100(R) ISS-7200(R)	ISS-3075(R)	ISS-4075(R)
Cat.No.	AAA23521-V1	AAA23522-V2	AAA23514	AAA23526	AAA31521-V1	AAA31522-V1
Erlenmeyer flask size	Max. inserting flasks					
for 50 mL	16	25	45	45	16	25
for 100 mL	9	16	28	28	9	16
for 250 mL	4	9	18	18	4	9
for 300 mL	4	9	18	18	4	9
for 500 mL	4	5	15	15	4	5
for 1L	2	4	10	10	2	4
for 2L	1	2	6	6	1	2
for 2.8L	1	2	4	4	1	2

Lab sticker

An alternative method for securing vessels to a shaker platform. Ideal for containers such as bottles and dishes that cannot be held on the universal platform with conventional flask clamps. For safe operation, gradual RPM increase is recommended.

Cat. No.	Description (WxDxH) (mm / inch)
AAA30551	200×200×5 / 7.9×7.9×0.2

Stacking kits

Units are stackable using exclusive stacking kit for space saving.

Cat. No.	Description	Suitable for
AAA23573	Stacking kit for stackable chambers	ISS-7100(R), ISS-7200(R)
AAA23811	Stacking kit for stackable chambers	ISS-3075(R)
AAA23812	Stacking kit for stackable chambers	ISS-4075(R)

Stands

Perfectly designed to let users feel totally relaxed by leveling the height.

Cat. No.	Description	Suitable for
AAA23571	Stand 1 with stacking kit (600mm / 23.6" height, recommended for stacking 1 unit)	ISS-7100(R), ISS-7200(R)
AAA23572	Stand 2 with stacking kit (300mm / 11.8" height, recommended for stacking 2 units)	

Retractable foot caster

Highly beneficial for easy mobility during installation or relocation.

Cat. No.	Description	Suitable for
AAA23801	Retractable foot caster (700x733x145mm / 27.6x28.9x5.7")	ISS-3075(R)
AAA23802	Retractable foot caster (800x813x225mm / 31.5x32x8.9")	ISS-4075(R)

Gateway

Establish Jeio Tech Network by Gateway. No computer use is required at all. Remote monitoring of operating status through a mobile device (Android only) is simply available when you place a Gateway in your laboratory. Maximum 4 units can be connected to Gateway by RS-232 cable.

Cat. No.	Description	Suitable for
AAAQ1011	Gateway (2.4GHz, 100~240V, 50/60Hz)	IL3 models IST, ISF, ISS models



Gateway



Remote control through a mobile device (Android only)