AEOLUS™ IS-18CA/IS-18A and IS-18C5A/IS-18B5A Stackable CO2/Non-CO2 Incubator Shakers

NEW! 50mm Orbit Available!

AEOLUS™ IS-18CA/IS-18A AND IS-18C5A/IS-18B5A STACKABLE CO2/NON–CO2 INCUBATOR SHAKERS

The CO2 Incubator Shaker features Temperature, Shaking, CO2 Concentration, and Humidity controls. Its stackable design helps maximize floor space, with the capability to stack up to three units high.

PRODUCT FEATURES

- 7" High-Res Color Touch Screen with intuitive graphic interface
- Chamber design features smooth rounded internal corners for easy cleaning
- Capacity is 6 x 5L Erlenmeyer shaker flasks
- Infra-Red(IR) CO2 sensor for precise and reliable CO2 detection
- Optional WiFi and RS485 monitoring and control
- 2 Sets of UV lights for easy sterilization
- Audible and visual alarms
- Mirror finish, pharmaceutical grade stainless steel chamber
- Stackable design up to 3 units.
- 25mm and 50mm orbit models available

Innovative Design

- Three axis eccentric balance system provides stable and reliable shaking
- Terminal feedback system ensures precise shaking speed
- Brushless DC motor is highly efficient, quiet, durable, and produces negligible heat that does not affect the chamber temperature
- Combination of Proportional-Integral-Derivative control and Fuzzy control for temperature ensure temperature accuracy within ±0.1°C
- Program mode allows user to set up to 12 segments of varying temperature and speed
- WiFi and RS485 monitoring and control allows the user to stay in touch with the instrument even outside of the lab

- Highly efficient inverter compressor refrigeration allows for temperatures as low as 20°C below room temperature with low energy consumption (minimum temperature is 4°C)
- Infrared CO2 sensor provides accurate and reliable CO2 detection (IS-18CA/ IS-18C5A only)
- Intuitive 7" capacitive touchscreen makes functions, such as setting alarm parameters, easy to complete
- Slide rail platform makes it easy to load and unload fixtures
- Noise reduction design keeps the instrument noise level to 55 dB
- Polyurethane foam insulation provides excellent thermal insulation.

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CAPACITIVE TOUCH SCREEN DISPLAY
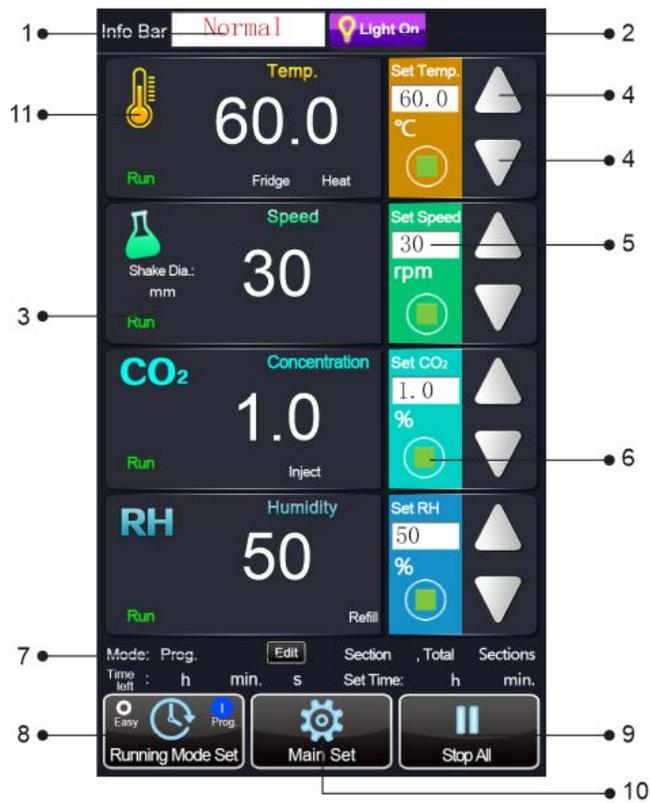
Main Interface:

1. Displays the current instrument status.
2. Light button: Press to turn the light on or off.
3. Displays the current function's running status, orbit diameter (for speed), and any alarms.
4. Plus and Minus buttons: Adjusts the corresponding function's value.
5. Displays the set value and allows user to manually input the set value.
6. Run/Stop button: Runs and stops function.
7. Edit button for programmable mode: Sets up to 12 running segments of varying temperatures and speed.
8. Running mode button: Switches between "Easy" and "Program Control" mode.
9. Run/Stop all button: Runs and stops all functions.
10. Main Settings button: Enters settings page (image below), which features specific settings for the user to edit.
11. Function icon buttons: Graphically displays the real-time function data.
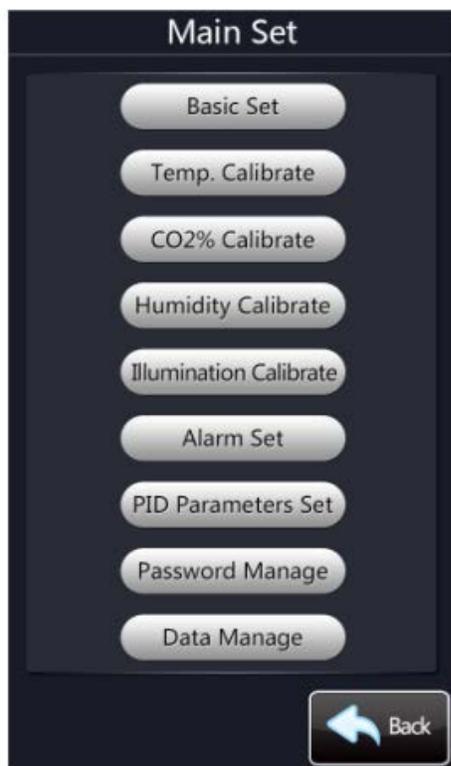
Control Features

- Powerful Data storage: Data is stored for more than 2 years. Recorded in 1 minute intervals.
- Real-time data view: On the display, operator can view the running data from latest 7 days.
- Data export: Easily export more than 2 years (912 days) of parameter data via USB.
- Remote WiFi / Ethernet monitoring accessory and smart phone app enable remote monitoring and control.
- Various Alarms: Alarms can be armed to activate when parameter values deviate outside of users set bounds.
- Alarm recording: Alarm information is stored and viewable.
- Easy Calibration: Calibrating functions only require inputting the difference between set and actual values.

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OVERVIEW

- **High Resolution 7-inch Color Touch Screen**: Modular display presents instrument status and function values in a clear and concise manner.
- **Capacitive Touch Screen**: The capacitive screen is more responsive and durable than a resistance screen as there is no reaction delay when the screen is pressed.
- **Large Capacity**: The chamber can hold up to 6 x 5L Erlenmeyer shaker flasks.
- **Pull Out Rail Platform**: Operators can easily pull the platform out to load or unload fixtures. Only one locking handle in the middle of the platform makes the process fast and convenient.
- **Excellent Temperature Control Performance**: When the incubator is at a stable temperature of 37°C, the uniformity is ±0.2°C.
- **Strong Cooling Capacity**: The incubator chamber can be cooled to 20°C below the ambient temperature (Lowest temp is 4°C).
- **Inverter Compressor**: Makes cooling a noiseless, durable, and highly efficient process while also saving energy.
- **Three Units Can Be Stacked**: This product can be purchased as a single, double, or triple stack.
- **Bi-Directional Ultraviolet Sterilization**: The chamber is equipped with two sets of UV sterilization light components to enhance the germicidal irradiation effect and reach all areas of the chamber.
- **Ultra Quiet Design**: The noise level is less than 55dB when incubator is running and cooling (loudest process), providing a quiet environment for the operator.
- **Slow Acceleration and Deceleration**: Shaking function starts and stops slowly to prevent large shear forces on the bacteria or cells.
- **High Pressure Water Rinse**: Both the platform and chamber feature an integrated draining system that is fast and efficient.
- **Efficient, Durable, and Light-Weight Insulation**: Polyurethane foam insulation provides advanced thermal insulation. The material is also air-tight, waterproof, lightweight, shockproof, electrically insulated, heat resistant, cold resistant, and solvent resistant.

AEOLUS™ IS-18CA/IS-18A AND IS-18C5A/IS-18B5A STACKABLE CO2/NON-CO2 INCUBATOR SHAKERS

PRODUCT SPECIFICATIONS

Model	IS-18A	IS-18B5A	IS-18CA	IS-18C5A
Product Name	AEOLUS™ Incubator Shaker	AEOLUS™ Incubator Shaker (50mm orbit)	AEOLUS™ CO2 Incubator Shaker	AEOLUS™ CO2 Incubator Shaker (50mm orbit)
Platform Dimensions WxD	900 x 560 mm (35.4 x 22 in)			
Max Capacity *	Clamp capacity: 25mLx134 / 50mLx134 / 100mLx60 / 150mLx60 / 200mLx60 / 250mLx60 / 500mLx32 / 1000mLx22 / 2000mLx15 / 5000mL(Shaker Flask)x6 Capacity with Sticky Mats: 25mLx187 / 50mLx187 / 100mLx112 / 150mLx104 / 200mLx84 / 250mLx76 / 500mLx40 / 1000mLx28 / 2000mLx15 / 5000mL(Shaker Flask)x6			
Capacity	302 L			
Max Load	20 kg (44.1 lb)			
Temperature Range	Room Temp. Minus 20°C~60°C (Lowest Temp is 4°C)			
Temperature Accuracy	±0.1°C (@37°C)			
Temperature Uniformity	± 0.2°C (@37°C)			
Temperature Stability	± 0.2°C (@37°C)			
Temp Recover Time After Door is Opened for 30s	≤6min (@37°C)			
Speed**	0(stop), 30~300 RPM			
Speed Accuracy	±1 RPM			
Orbit Diameter	Ø25mm (Ø1.0in)	Ø50mm (Ø2 in)	Ø25mm (Ø1.0in)	Ø50mm (Ø2 in)
CO_2 Sensor	NA		Infrared	
CO_2 Control Range	NA		0~20%	
CO_2 Control Accuracy	NA		±0.1%	
CO_2 Recover Time After Door is Opened for 30s	NA		≤6min (@5%)	
Relative Humidity Type	NA		Active	
Max Humidity	NA		95%	
Programmable Segments	12 Segments			
Timer	0~999hr 59min			
Illumination	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Door Opening Direction	Down-Swing (Optional up-swing door for top unit of triple stack)			
Internal Working Dimensions WxDxH	900 x 560 x 308mm (35.43 x 22.05 x 12.13in)			
External Dimensions WxDxH	1355 x 855 x 535 (+80mm w/ feet) mm (53.35 x 33.66 x 21.06 (+ 3.15in w/ feet) in)			
Internal Working Height	308 mm (12.1 in)			
Net Weight	195 kg (430 lb)			
Display	7" Color Capacitive Touch Screen			
Parameter Protection	Password Protected			
Data Stored	Time, Temperature, Speed, Instrument Status		Time, Temperature, Speed, CO2 Concentration, Humidity, Instrument Status	
Data Storage Interval	1 Minute			
Screen Data Display	Displays Most Recent 7 Days of Data			
USB Data Export	Most Recent 912 Days of Data			
Automatic Defrost	Yes			
Noise Level	≤55dB (When Compressor is Running)			
Auto-Recovery after Power Interuption	Yes			
Power supply	AC 110V±11V, 60Hz			
Power when Heating	≤800W			
Power when Cooling	≤300W			
Max Power	≤1000W			
Mobile Monitoring and Control by WiFi	Optional through IS-A64W Accessory and App			
Warranty	2 Years Parts and Service			
Certification	CE			

*Sticky Mat can be cut to fit platform

**Note: Double Stack units it is recommended that the Shaker Speed of the top unit <250 rpm
Triple Stack units it is recommended that the Shaker Speed of the middle and top unit < 250 rpm.

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PRODUCT DIMENSIONS
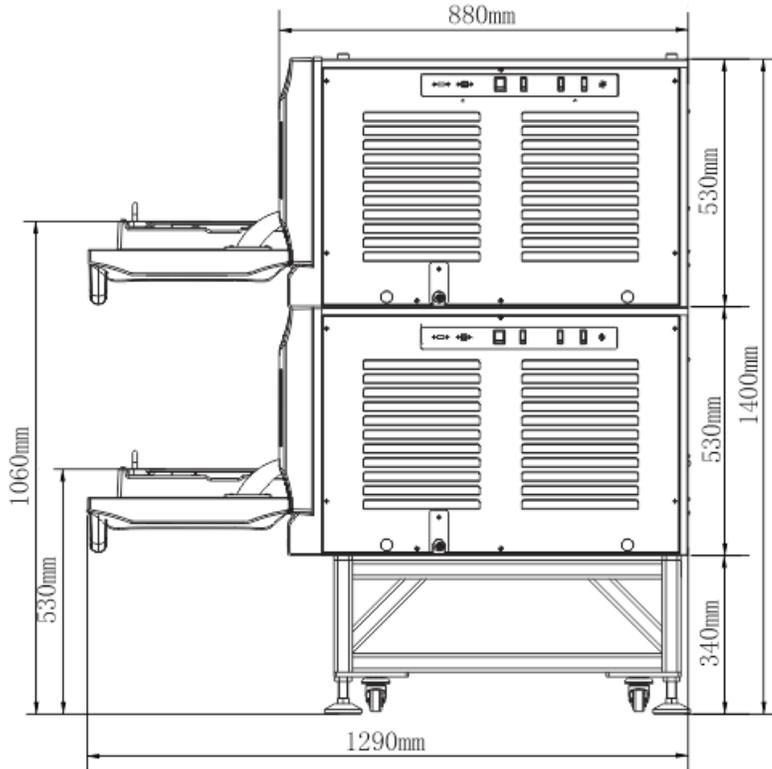
Double Stack with IS-A118 Stand Dimensions

Triple Stack with Down-Swing Doors Dimensions
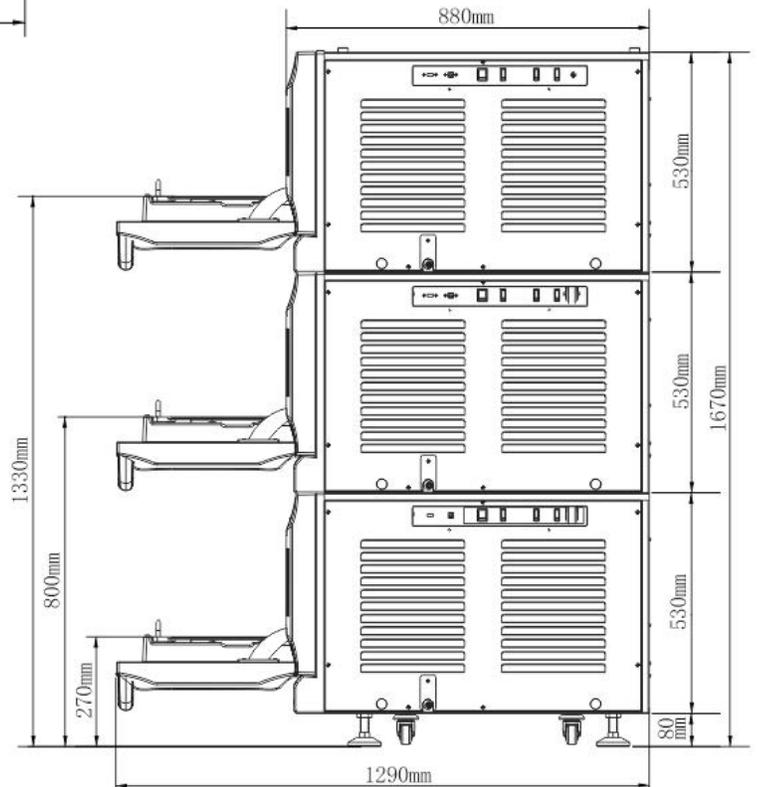
AEOLUS™ IS-18CA/IS-18A AND IS-18C5A/IS-18B5A STACKABLE CO2/NON-CO2 INCUBATOR SHAKERS

PRODUCT DIMENSIONS

Triple Stack with Top Up-Swing Door Dimensions
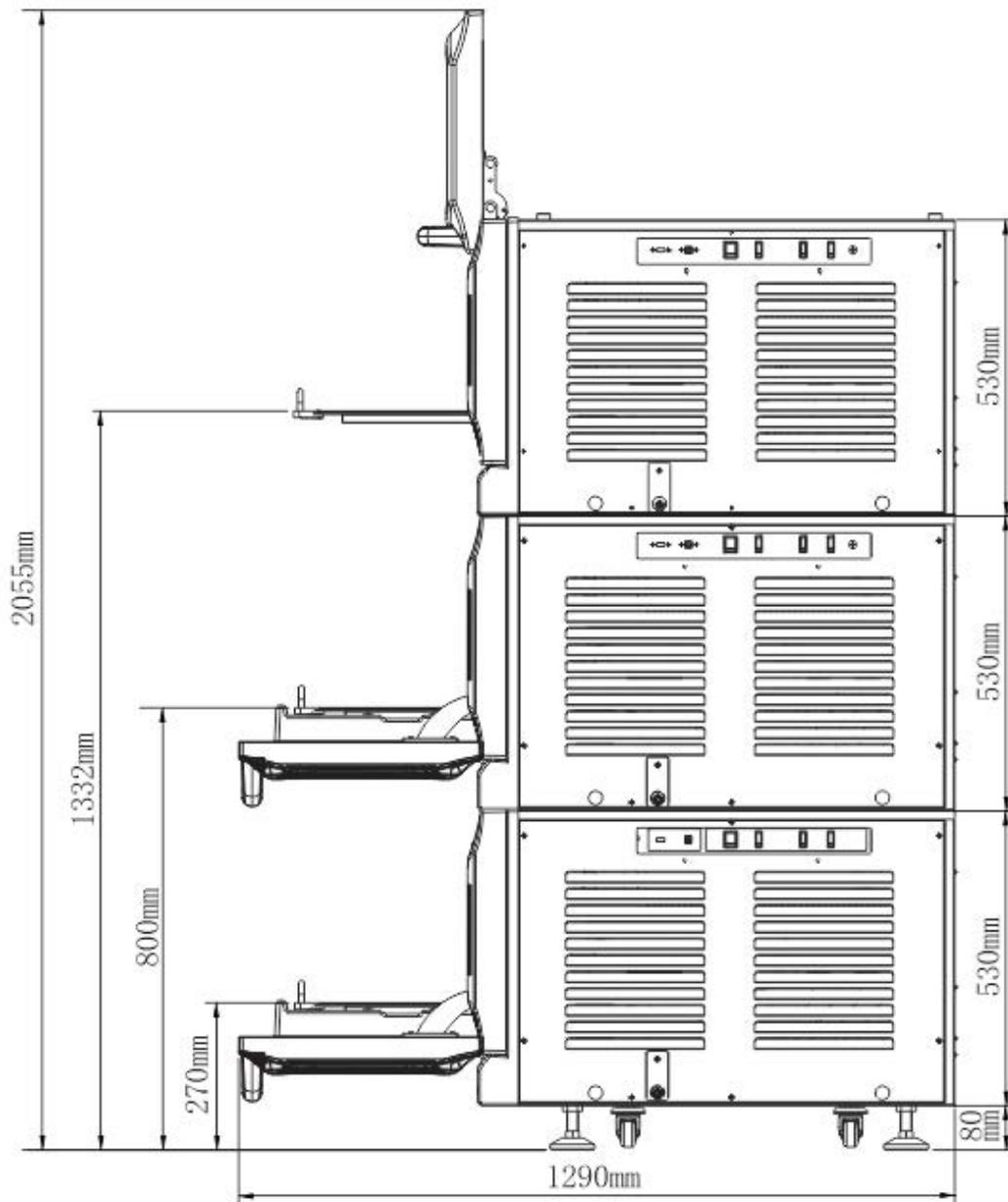
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PRODUCT ACCESSORIES

Tube Rack

Adjustable Tube Rack

Spring Frame

Infusion Bottle Clamp

96-Well Micro-Plate Holder

Flask Clamps
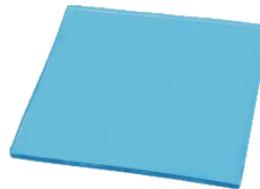
Sticky Mat

Bioreactor Tube Holder

Fixture for Separating Funnel

CO2 Cylinder Pressure Regulator

Water Carboy

Stand for AEOLUS Incubator Shakers

Multi Micro-Plate holder

Visor Cover

ACCESSORY SPECIFICATIONS

Item Number	Item Type	Specifications	Max Capacity
IS-A50	Flask Clamp	Holds 25 mL Flask	134
IS-A1		Holds 50 mL Flask	134
IS-A2		Holds 100 mL Flask	60
IS-A3		Holds 150 mL Flask	60
IS-A4		Holds 200 mL Flask	60
IS-A5		Holds 250 mL Flask	60
IS-A6		Holds 500 mL Flask	32
IS-A7		Holds 1000 mL Flask	22
IS-A9		Holds 3000 mL Flask	12
IS-A10		Holds 5000 mL Flask	6
IS-A11	Tube Rack	Holds 40 Tubes x ø14mm	9
IS-A12		Holds 40 Tubes x ø16mm	9
IS-A23		Holds 40 Tubes x ø18mm	9
IS-A24		Holds 27 Tubes x ø22mm	9
IS-A42		Holds 21 Tubes x ø30mm	9
IS-A20	Adjustable Tube Rack	Holds 40 Tubes x ø14mm	9
IS-A21		Holds 40 Tubes x ø16mm	9
IS-A30		Holds 40 Tubes x ø18mm	9
IS-A31		Holds 27 Tubes x ø22mm	9
IS-A32		Holds 21 Tubes x ø30mm	9
IS-A37		Holds 24 Tubes x ø30mm	6
IS-A33	Infusion Bottle Clamp	Holds 500 mL Infusion Bottle	40
IS-A34		Holds 1000 mL Infusion Bottle	28
IS-A13	Microplate Holder	96-Well Microplate Holder	30
IS-A175	Multi-Microplate Holder	Holds up to 6 Standard Microplates	30
IS-A35	Fixture holds Separating Funnel	Holds Separating Funnels of ≥500mL	4
IS-A47	5.5"x5.5" Sticky Mat	140 x 140mm (5.51 x 5.51 in)	24
IS-A122	11"x11" Sticky Mat	280 x 280 mm (11.02 x 11.02 in)	6
IS-A63	Spring Frame	900 x 540 x 80mm	1
IS-A27		350 x 240 x80mm	4
IS-A22		450 x 400 x 80mm	1
IS-A14		428 x 295 x 80mm	2
IS-A90	Water Carboy	For IS-18CA humidity function Holds 15L 1 can serve up to 3 incubator shakers	1
IS-A118	Stand	Adds 340 mm (13.39in) of height **Recommended for use with single and double stacks**	1
IS-A64W	Remote Monitoring and Control	Connects each unit to users' smart phones via a wifi or wired internet connection and an app available on the Apple Store and Google Play	1
CIA25	CO2 Cylinder Pressure Regulator	Max Inlet Pressure: 3000 psi Max Outlet Pressure: 60 psi	-
IS-A166	Bioreactor Tube Holder	Holds 450mL Bioreactor Conical Tubes	6
IS-A178		Holds 600mL Bioreactor Conical Tubes	6
IS-A176	Visor Cover	Blocks ambient light from entering chamber	1

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For over 25 years Crystal Technology and Industries has been driven to deliver exceptional value to the scientific marketplace by developing innovative equipment and Cryo Storage Solutions for today's scientist.