

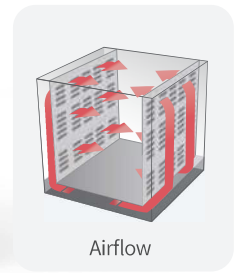
Natural Convection Oven, Advanced type (ON4-V)



ON4-10V



ON4-10VW



Airflow

Intuitive Touch Controller

- Intuitive interface with 5-inch display
- Events and alerts in a single view with real-time graph
- Three frequent temperatures automatically suggested
- ‘Wait on / Wait off’ timer function



Large intuitive display



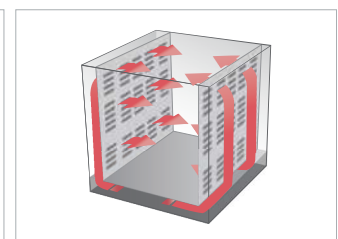
Graphs for real-time process monitoring

Convenient Structural Functions

- Designed with a depth of less than 750 mm, making it easy and stable on a lab table
- Uniform and stable temperature distribution with multi-path airflow improves reliability of experiment data



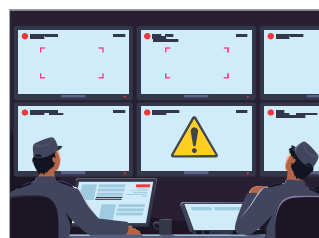
Depth of less than 750 mm allows stable positioning on lab table



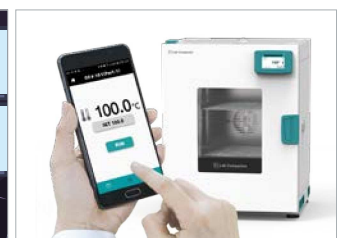
Uniform temperature control with multi-path airflow

Supervise Equipment with Real-time Monitoring

- Monitor the temperature on BMS (Building Management System) for quick responses to abnormalities. (option)
- Monitor and control anywhere, anytime with LC GreenBox (Mobile Monitoring System, option)



Timely responses via BMS-connected monitoring (BMS port: option)



Real-time monitoring via mobile devices (LC GreenBox: option)



Convenient Experiment and Data Checking

- Support RS-232/USB port and software making easy operation and data management from PC
- Test data are automatically stored and easily exported via USB; easy to edit data (in CSV format)
- Logs 36 recent events, including errors, opened door, etc
- Integrated with 21 CFR Part 11 compliant LC DataKeeper, suitable for GMP audits (option)



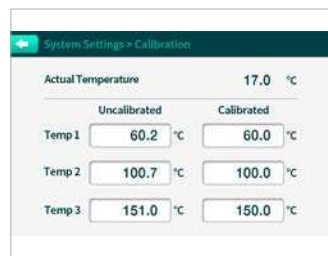
Data storage using USB ports



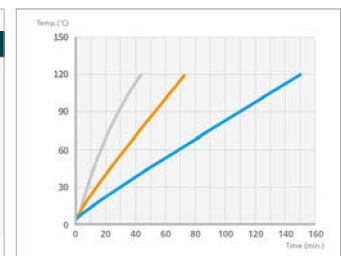
Store recent 36 events

Reliable Temperature Control Performance

- Wide temperature range of up to 250°C
- Temperature accuracy for wide range by 3-point calibration
- 「 Ramp Control™ 」, function that controls the rate of temperature rise by setting ramping rate(°C/min) per experiment
- Uniform temperature distribution through airflow optimized for uniform heat transfer (within ±3.6 °C at 100°C)



Accurate temperature control with 3-point calibration



Ramp Control™ per experiment condition

Specification

Model	Solid door (without window)	ON4-03V	ON4-05V	ON4-10V	ON4-15V
	Window door	ON4-03VW	ON4-05VW	ON4-10VW	ON4-15VW
Chamber volume (L / cu ft)		26 / 0.92	58 / 2.05	110 / 3.88	147 / 5.19
Temperature	Range (°C / °F)	Amb.+15 ~ 250°C / Amb.+27 ~ 482°F			
	Fluctuation at 100°C (°C / °F)	±0.4 / ±0.72	±0.5 / ±0.9	±0.5 / ±0.9	±0.5 / ±0.9
	Variation at 100°C(°C / °F)	±2.8 / ±5.04	±2.6 / ±4.68	±3.6 / ±6.48	±3.5 / ±6.3
	Heating time to 100°C (min.) ¹⁾	25	39	22	21
	Recovery time at 100°C (min.)	17	19	10	9
Control panel		5 inch TFT Color LCD			
Communication interface		USB-B, RS-232			
Function	Recently event record	36 ea			
	Recommended temperature	Suggest three frequently used temperature			
	Graph	Available viewing stored and real-time graphs			
	Data storage	Save your experiment data (in CSV format)			
	Temp. ramping rate (°C/min. °F/min)	0 to 2.2 0 to 3.96	0 to 2 0 to 3.6	0 to 4.4 0 to 7.92	0 to 2.6 0 to 4.68
Dimensions	Interior (W x D x H, mm / inch)	273 x 270 x 350 / 10.75 x 10.63 x 13.78	340 x 390 x 422 / 13.4 x 15.35 x 16.61	441 x 420 x 597 / 17.36 x 16.54 x 23.5	500 x 446 x 659 / 19.69 x 17.56 x 25.95
	Exterior (W x D x H, mm / inch)	478 x 527 x 604 / 18.8 x 20.75 x 23.78	558 x 648 x 684 / 21.97 x 25.5 x 26.93	663 x 677 x 859 / 26.1 x 26.65 x 33.82	728 x 704 x 914 / 28.66 x 27.7 x 36.0
	Net weight (kg / lbs)	33 / 72.8	53 / 116.8	63 / 138.9	73 / 160.9
Shelves	Quantity of shelves (standard/max.)	2 / 4	2 / 5	2 / 8	2 / 9
	Max. Load per shelf (kg / lbs)	20 / 44.09			
Number of air change per hour at 100°C		16			
Electrical requirements	230V, 50/60Hz, A	3.2	3.5	5.7	7.4
Cat. No.	Solid door (without window)	AAH111105K	AAH111115K	AAH111125K	AAH111135K
	Window door	AAH112105K	AAH112115K	AAH112125K	AAH112135K
Electrical requirements	120V, 60Hz, A	6	6.7	10.9	14.2
Cat. No.	Solid door (without window)	AAH111106U	AAH111116U	AAH111126U	AAH111136U
	Window door	AAH112106U	AAH112116U	AAH112126U	AAH112136U

1) Heating time is defined as the time taken to reach 98% of the set temperature.

※ Technical data according to DIN 12880

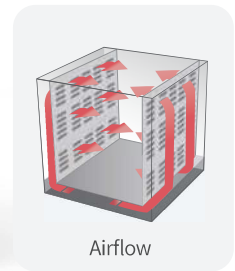
Natural Convection Oven, Standard type (ON4-S)



ON4-10S



ON4-10SW



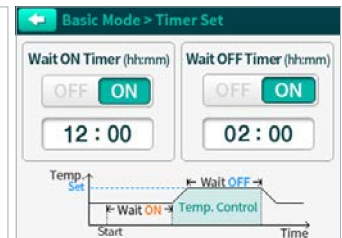
Airflow

Intuitive Touch Controller

- Intuitive interface with 3.5-inch display
- 'Wait on / Wait off' timer function



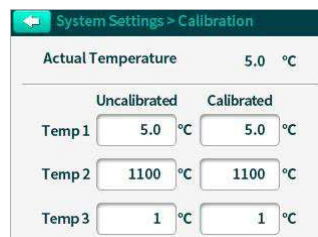
3.5-inch touch display



Wait on & Wait off timer

Reliable Temperature Control Performance

- Wide temperature range of up to 250°C
- Temperature accuracy for wide range by 3-point calibration
- The upper and lower temperature limits can be set, enabling alerts for deviations to trigger quick actions
- Uniform temperature distribution through airflow optimized for uniform heat transfer (within $\pm 3.6^\circ\text{C}$ at 100°C)



Accurate temperature control with 3-point calibration



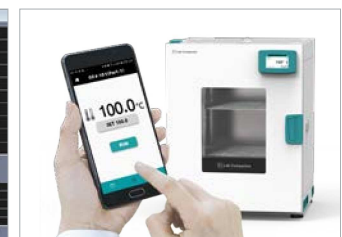
Settings for temperature deviation

Convenient Experiment and Data Checking

- Support RS-232/USB port and software making easy operation and data management from PC (option)
- Monitor and control anywhere, anytime with LC GreenBox (Mobile Monitoring System, option)
- Monitor the temperature on BMS (Building Management System) for quick responses to abnormalities. (option)
- Integrated with 21 CFR Part 11 compliant LC DataKeeper, suitable for GMP audits (option)



Manipulation via PC (option)



Real-time monitoring via mobile devices (LC GreenBox: option)



Ensuring User Safety

- Effectively removes fumes from the inside of the chamber via the top vent hole (ON4-03)
- Safe surface even when operating at max temperatures (less than 70°C at 250°C)
- Implemented with the top-rated overheating prevention system (Patent 10-0397583)
- Over Temperature Limiter
- Complaint to IEC Class II protection standards and temperature protection in line with DIN 12880 Class 3.1



Removes fume from the inside of the chamber



Safe surface even at maximum temperature

Convenient Structure and Functions

- Logs the last 12 events, including run times, stops, and errors
- Double stackable with stacking set (option) maximizes space utilization (-05 / -15 models only)
- 「Hands-free™」 door allows both hands free while holding samples



Logs the recent 12 events



Increased space utilization by double stacking (stacking set : option)
(※ When double stacking, the minimum control temperature of the upper chamber may be limited.)

Specification

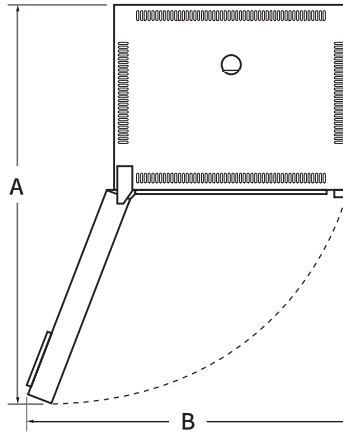
Model	Solid door (without window)	ON4-03S	ON4-05S	ON4-10S	ON4-15S
	Window door	ON4-03SW	ON4-05SW	ON4-10SW	ON4-15SW
Chamber volume (L / cu ft)		26 / 0.92	58 / 2.05	110 / 3.88	147 / 5.19
Temperature	Range (°C / °F)	Amb.+15 ~ 250°C / Amb.+27 ~ 482°F			
	Fluctuation at 100°C (°C / °F)	±0.4 / ±0.72	±0.5 / ±0.9	±0.5 / ±0.9	±0.5 / ±0.9
	Variation at 100°C (°C / °F)	±2.8 / ±5.04	±2.6 / ±4.68	±3.6 / ±6.48	±3.5 / ±6.3
	Heating time to 100°C (min.) ¹⁾	25	39	22	21
	Recovery time at 100°C (min.)	17	19	10	9
Control panel		3.5 inch TFT Color LCD			
Communication interface		USB-B, RS-232 (option)			
Function	Recently event record	12 ea			
Dimensions	Interior (W x D x H, mm / inch)	273 x 270 x 350 / 10.75 x 10.63 x 13.78	340 x 390 x 422 / 13.4 x 15.35 x 16.61	441 x 420 x 597 / 17.36 x 16.54 x 23.5	500 x 446 x 659 / 19.69 x 17.56 x 25.95
	Exterior (W x D x H, mm / inch)	478 x 527 x 604 / 18.8 x 20.75 x 23.78	558 x 648 x 684 / 21.97 x 25.5 x 26.93	663 x 677 x 859 / 26.1 x 26.65 x 33.82	728 x 704 x 914 / 28.66 x 27.7 x 36.0
	Net weight (kg / lbs)	33 / 72.8	53 / 116.8	63 / 138.9	73 / 160.9
Shelves	Quantity of shelves (standard/max.)	2 / 4	2 / 5	2 / 8	2 / 9
	Max. Load per shelf (kg / lbs)	20 / 44.09			
Number of air change per hour at 100°C		16			
Electrical requirements	230V, 50/60Hz, A	3.2	3.5	5.7	7.4
Cat. No.	Solid door (without window)	AAH15045K	AAH15065K	AAH15075K	AAH15085K
	Window door	AAH15145K	AAH15165K	AAH15175K	AAH15185K
Electrical requirements	120V, 60Hz, A	6	6.7	10.9	14.2
Cat. No.	Solid door (without window)	AAH15046U	AAH15066U	AAH15076U	AAH15086U
	Window door	AAH15146U	AAH15166U	AAH15176U	AAH15186U

1) Heating time is defined as the time taken to reach 98% of the set temperature.

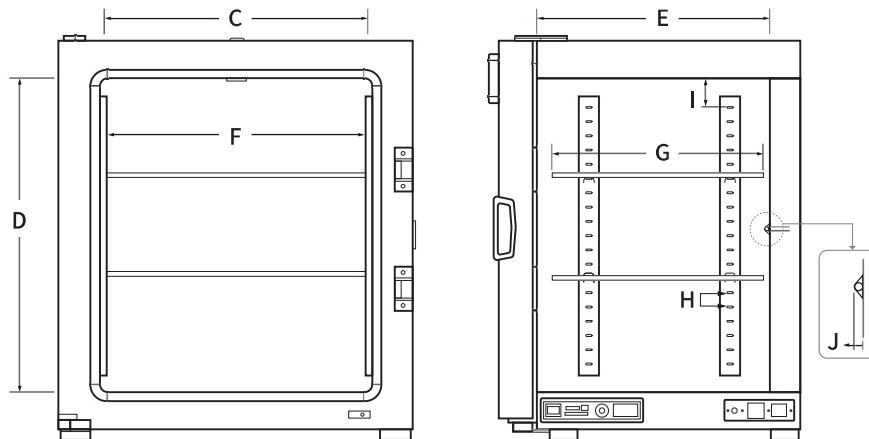
※ Technical data according to DIN 12880

Dimensions (OF4/ON4)

Exterior



Interior



(unit: mm / inch)

Model	OF4-03	ON4-03	OF4-05	ON4-05	OF4-10	ON4-10	OF4-15	ON4-15
A: Maximum depth with door opened	868 / 34.2		1060 / 41.7		1185 / 46.7		1271 / 50.0	
B: Maximum width with door opened	695 / 27.4		809 / 31.9		958 / 37.7		1050 / 41.3	
C: Interior width¹⁾	300 / 11.8	273 / 10.7	380 / 15.0	340 / 13.4	485 / 19.1	441 / 17.4	550 / 21.7	500 / 19.7
D: Interior height¹⁾	400 / 15.7	350 / 13.8	480 / 18.9	422 / 16.6	655 / 25.8	597 / 23.5	710 / 28.0	659 / 25.9
E: Interior depth¹⁾	210 / 8.3	270 / 10.6	330 / 13.0	390 / 15.4	350 / 13.8	420 / 16.5	376 / 14.8	446 / 17.6
F: Shelf width	266 / 10.5		346 / 13.6	333 / 13.1	451 / 17.8	434 / 17.1	516 / 20.3	493 / 19.4
G: Shelf depth	195 / 7.7		315 / 12.4		335 / 13.2		361 / 14.2	
H: Gap between shelf racks	30 / 1.2		30 / 1.2		30 / 1.2		30 / 1.2	
I: Gap between uppermost shelf and interior ceiling¹⁾	80 / 3.1	50 / 2.0	90 / 3.5	60 / 2.4	88 / 3.5	57 / 2.2	85 / 3.3	59 / 2.3
J: Space for sensor installation	3.8 / 0.15		3.8 / 0.15		3.8 / 0.15		3.8 / 0.15	

1) ON4 uses a multi-path convection method, which causes differences in internal dimensions.