OVENS

Forced Convection Ovens.
Economy Forced Convection Ovens.
Vacuum Ovens.

Selection Guide

Convection Ovens

Description		Operating Temp. Range (℃/℉)	Chamber Volume (L /cu ft)	Temperature Fluctuation at 100℃[±℃/℉]	Temperature Variation at 100℃[±℃/℉]	Page
Forced [Mechanical]	OF-02G	Amb. +10 to 250 / Amb. +18 to 482	60 / 2.1	0.5 / 0.9	1.0 / 1.8	48
	OF-12G		102 / 3.6	0.6 / 1.08	1.3 / 2.3	
	OF-22G		151 / 5.3	0.8 / 1.44	1.7 / 3.1	
Economy Forced [Mechanical]	OF-01E	Amb. +10 to 220 / Amb. +18 to 428	52 / 1.8	0.4 / 0.72	3.3 / 5.94	50
	OF-11E		100 / 3.5		3.3 / 5.94	
	OF-21E		150 / 5.3		2.3 / 4.14	
Natural (Gravity)	ON-02G	Amb. +15 to 250 / Amb. +27 to 482	52 / 1.8	0.3 / 0.54	5.9 / 10.62	51
	ON-12G		91 / 3.2		7.5 / 13.5	
	ON-22G		135 / 4.8		6.9 / 12.42	
Economy Natural (Gravity)	ON-01E	Amb. +15 to 220 / Amb. +27 to 428	52 / 1.8	0.3 / 0.54	6.5 / 11.7	52
	ON-11E		100 / 3.5	0.4 / 0.72	4.1 / 7.38	
	ON-21E		150 / 5.3	0.5 / 0.9	7.3 / 13.14	

Vacuum Ovens

Description		Operating Temp. Range (℃/℉)	Chamber Volume (L /cu ft)	Temperature Fluctuation at 100℃[±℃/℉]	Temperature Variation at 100℃[±℃/℉]	Page
Vacuum	OV-11	Amb. +5 to 250 / Amb. +9 to 482	28 / 1.0	0.1 / 0.18	3.7 / 6.66	54
	OV-12		65 / 2.3	0.3 / 0.54		

Accessories & Options

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General Applications

General applications	Forced, Nature convection ovens & Vacuum		
	OF-Series	ON-Series	OV-Series
General Aging and Curing	•		
Agricultural Genetic	•		•
Annealing	•	•	•
Asphalt Testing	•	•	
Conditioning	•	•	
Contamination-Free storage of semiconductors and other sensitive electronic components			•
Desiccating			•
Digestion of Proteins and Starches	•		
Drying of Plant Tissue		•	
Drug Metabolism	•	•	
Electronic Burn-in	•	•	
Epoxy and Plastic Curing	•	•	
Fine Chemical Precipitation		•	
General Baking	•	•	
General Heating	•	•	
Glassware Drying	•	•	
Ideal for General Drying			•
Life and Exposure Studies	•	•	
Ordnance Material Testing	•	•	
Out-gassing Solids and Liquids			•
Paper Drying	•	•	
Plating			•
Precise Moisture Determination	•		•
Preheating	•	•	
Rubber Drying	•	•	
Serum Protein Analysis	•	•	
Silicon Wafer Drying			•
Stability and QC/ Batch Testing	•	•	
Sterilization	•	•	
Suspended Solids Evaluation	•	•	
Textile Drying	•	•	
Vacuum Embedding			•
Volatile Resins and Polymers Testing			•
Vulcanization Studies	•	•	

Technical Benefits

Safety functions

1) Self-protecting cut-off function and signal :
   - For over temperature, automated cut the power supply for heater and controller orderly before the unit shuts down.
   - 2 separated over-current fuses for user safety.

2) Time setting function for automated run / off :
   - Integrated time setting: Delayed ON / OFF. (from 1 min to 99 hr 59 min)
   - Operating settable function: After a power interruption, select automated run or manual run.

3) Door-open warning alarm (except for OV series) :
   - Intermittent tone and optical signal alarm 5 min. after automated cut - off.
   - Heating element and fan automatically stop when door opening to minimize heat loss and protect operator.

Optimum control performance

1) Professional control electronics and program control :
   - Microprocessor PID temperature control with very simple calibration and auto-tuning features.
   - Frequently use 3 different temperatures memorable for convenient use.
   - Selectable measuring temperature in ℃ or ℉.

2) Applicable control display considering MMI (Man Machine Interface) network system :
   - Very similar key arrangement throughout the whole temperature chambers, bath circulators and shakers series.
   - Operator-friendly controller with the splash-proof / easy-to-clean keypads and clear LED displays.
   - A speed lock key prevents accidental resetting of parameters conveniently.

Ideal construction

1) High quality 304 stainless steel inner chamber and dirt-repellent powder coating external surface. (except for OV series)

2) Perfectly sealed door gasket minimizes heat loss and fully insulated chambers keep exterior at a safe temperature.

3) Adjustable stainless steel and electro polished wire shelves for better air-flowing and easy cleaning.

Lab Companion
Best Products for Reliable Results

Forced Convection Ovens

Go to JEIO TECH .com
Further information on Temperature Chamber products is readily available on our website.

OF-22G
with optional viewing window

Forced Convection Ovens

Intensive drying performance with a powerful air-flow.

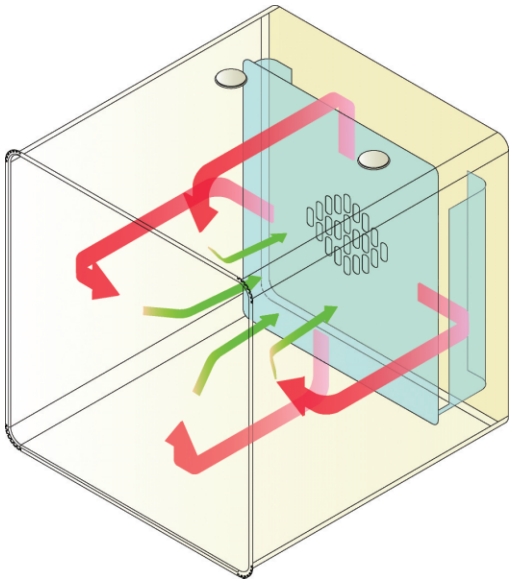
OF-G series has a quiet and powerful air-flow for high air exchange rates and short rise times that guarantee intensive drying performance, especially for material with high moisture content.

Operating features

- +10℃ above room temperature to 250℃.
- Microprocess PID control / Auto-tuning / Calibration.
- Digital timer: 1 min ~ 99 hr 59 min, delayed ON / OFF.
- Over-temperature limiter / Door opening alarm.
- 3 different temperature values memorable without auto-tuning.
- Digital LED display (1℃ resolution) with touch-sensitive keypads.
- RS-232 interface available.

Constructional features

- Forced-air convection with a noiseless sirocco fan which ensures good mixing and strong dispersion.
- Optimized sample monitoring with threefold tempered safety glass window. (optional)
- Adjustable fan speed with analog dial to prevent powder sample blowing. (optional)
- Dual-wall door opens to 180° and features double rack door handle.
- Rounded inner chamber corners for easy cleaning and better air-flowing.
- Corrosion-resistant incoloy sheath heating and stainless steel interior.
- Adjustable 2 top ventilation slides to control inner air, vapor circulation. (dia 38mm / 1.5")



Convection pattern of OF-G series

Included Accessories
- 2 wire shelves

Optional Accessories
- Tempered viewing windowz
- Fan speed adjuster
- Perforated shelves

see page 53

Specifications & Ordering Informations

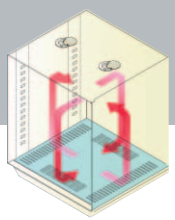
Model		OF-02G	OF-12G	OF-22G
Chamber volume (L / cu ft)		60 / 2.1	102 / 3.6	151 / 5.3
Temperature	Range (℃ / ℉)	Amb. +10 to 250 / Amb. +18 to 482		
	Fluctuation[1] (±℃ / ℉) at 100 ℃	0.5 / 0.9	0.6 / 1.08	0.8 / 1.44
	Variation[1] (±℃ / ℉) at 100 ℃	1.0 / 1.8	1.3 / 2.3	1.7 / 3.1
Dimension	Interior dimensions (W×D×H) (mm / inch)	400×360×420 / 15.7×14.2×16.5	480×410×520 / 18.9×16.1×20.5	550×460×600 / 22×18×23.6
	Exterior dimensions (W×D×H) (mm / inch)	577×642×760 / 22.7×25.3×30	657×692×870 / 25.9×27.2×34.3	727×742×974 / 28.7×29.2×38.3
	Net weight (Kg / lbs)	53 / 117	63 / 139	72.5 / 160
Electrical Requirements (230V)		50 / 60Hz, 4.4A	50 / 60Hz, 6.1A	50 / 60Hz, 7.4A
Cat. No.		AAH12155K	AAH12165K	AAH12175K
Electrical Requirements (120V)		50 / 60Hz, 6.8A	50 / 60Hz, 8.4A	50 / 60Hz, 10.1A
Cat. No.		AAH12155U	AAH12166U	AAH12176U

1) Technical data (according to DIN 12880)

Economy Forced Convection Ovens

Full features performance for general purpose lab ovens.

OF-E series features a fast drying with vertical air-flow.



OF-11E

Included Accessories • 2 wire shelves
Optional Accessories • Perforated shelves

see page 53

Operating features

- +10℃ above room temperature to 220℃.
- Microprocess PID control / Auto-tuning / Calibration.
- Digital timer: 1 min to 99 hr 59 min, delayed ON / OFF.
- Over-temperature limiter / Door opening alarm.
- 3 different temperature values memorable without auto-tuning.
- Digital LED display (1℃ resolution) with touch-sensitive keypads.

Constructional features

- Forced-air convection with a fan for better variation and high drying performance.
- Space saved larger capacities in a small footprint with convenient door handle.
- Corrosion-resistant incoloy sheath heater and stainless steel chamber.
- Adjustable 2 top ventilation slides to control inner air, vapor circulation. (dia 38mm / 1.5")

Specifications & Ordering Informations

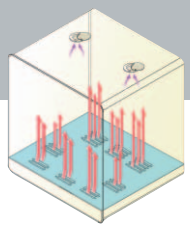
Model		OF-01E	OF-11E	OF-21E
Chamber volume (L / cu ft)		52 / 1.8	100 / 3.5	150 / 5.3
Temperature	Range (℃ / ℉)	Amb. +10 to 220 / Amb. +18 to 428		
	Fluctuation[1] (±℃ / ℉) at 100℃	0.4 / 0.72		
	Variation[1] (±℃ / ℉) at 100℃	3.3 / 5.94	3.3 / 5.94	2.3 / 4.14
Dimension	Interior dimensions (W×D×H) (mm / inch)	375×370×370 14.8×14.6×14.6	455×430×510 18×17×20	585×460×555 23×18.1×21.9
	Exterior dimensions (W×D×H) (mm / inch)	530×535×737 20.9×21.1×29	610×595×877 24×23.4×34.5	740×625×922 29.1×24.6×36.3
	Net weight (Kg / lbs)	36 / 79.4	47 / 103.6	59 / 130
Electrical Requirements (230V)		50 / 60Hz, 4.3A	50 / 60Hz, 6.0A	50 / 60Hz, 7.4A
Cat. No.		**AAH14012K**	**AAH14022K**	**AAH14032K**
Electrical Requirements (120V)		50 / 60Hz, 6.8A	50 / 60Hz, 8.4A	50 / 60Hz, 10.1A
Cat. No.		**AAH14016U**	**AAH14026U**	**AAH14036U**

1) Technical data. (according to DIN 12880)

Natural Convection Ovens

Ideal for high temperature storage with user-friendly design

ON-G series is used for all sterilization and drying tasks that do not require high drying rates or special time requirements, ideal for drying applications requiring a gentle airflow.



Operating features

- +15℃ above room temperature to 250℃.
- Microprocess PID control / Auto-tuning / Calibration.
- Digital timer: 1 min to 99 hr 59 min, delayed ON / OFF.
- Over-temperature limiter / Door opening alarm.
- 3 different temperature values memorable without auto-tuning.
- Digital LED display (1℃ resolution) with touch-sensitive keypads.

Constructional features

- Gravity-flow convection with vertical airflow for uniform sample heating.
- Optimized sample monitoring with threefold, tempered safety glass window. (optional)
- Dual-wall door opens to 180° and features double rack door handle.
- Rounded inner chamber corners for easy cleaning and better air-flowing.
- Corrosion-resistant incoloy sheath heater and stainless steel interior.
- Adjustable 2 top ventilation slides to control inner air, vapor circulation. (dia 38mm / 1.5")

ON-22G with optional viewing window

Included Accessories • 2 wire shelves

Optional Accessories • Tempered viewing windows
• Perforated shelves

see page 53

Specifications & Ordering Informations

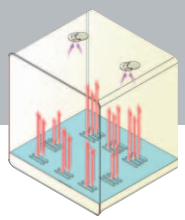
Model		ON-02G	ON-12G	ON-22G
Chamber volume (L / cu ft)		52 / 1.8	91 / 3.2	135 / 4.8
Temperature	Range (℃ / ℉)	Amb. +15 to 250 / Amb. +27 to 482		
	Fluctuation[1] (±℃ / ℉) at 100 ℃	0.3 / 0.54		
	Variation[1] (±℃ / ℉) at 100 ℃	5.9 / 10.62	7.5 / 13.5	6.9 / 12.42
Dimension	Interior dimensions (W×D×H) (mm / inch)	400×360×365 / 15.7×14.2×14.4	480×410×465 / 18.9×16.1×18.3	610×460×485 / 24×18×19
	Exterior dimensions (W×D×H) (mm / inch)	577×542×760 / 22.7×21.3×30	657×592×870 / 25.9×23.3×34.3	785×642×897 / 30.9×25.3×35.3
	Net weight (Kg / lbs)	49 / 108	59 / 130	68 / 150
Electrical Requirements (230V)		50 / 60Hz, 4.3A	50 / 60Hz, 6.0A	50 / 60Hz, 7.4A
Cat. No.		AAH11135K	AAH11145K	AAH11155K
Electrical Requirements (120V)		50 / 60Hz, 4.3A, 6.7	50 / 60Hz, 6.0A, 8.3	50 / 60Hz, 7.3A, 10.0
Cat. No.		AAH11136U	AAH11146U	AAH11156U

1) Technical data. (according to DIN 12880)

Economy Natural Convection Ovens

Full features performance for general purpose lab ovens.

ON-E series is a economical warm storage up to 220℃.



ON-11E

Included Accessories • 2 wire shelves
Optional Accessories • Perforated shelves

see page 53

Operating features

- +15℃ above room temperature to 220℃.
- Microprocess PID control / Auto-tuning / Calibration.
- Digital timer: 1 min to 99 hr 59 min, delayed ON / OFF.
- Over-temperature limiter / Door opening alarm.
- 3 different temperature values memorable without auto-tuning.
- Digital LED display (1℃ resolution) with touch-sensitive keypads.

Constructional features

- Gravity-flow convection, ideal in areas where a spill may occur.
- Space saved larger capacities in a small footprint with convenient door handle.
- Corrosion-resistant incoloy sheath heater and stainless steel chamber.
- Adjustable 2 top ventilation slides to control inner air, vapor circulation. (dia 38mm / 1.5")

Specifications & Ordering Informations

Model		ON-01E	ON-11E	ON-21E
Chamber volume (L / cu ft)		52 / 1.8	100 / 3.5	150 / 5.3
Temperature	Range (℃ / ℉)	Amb. +15 to 220 / Amb. +27 to 428		
	Fluctuation[1] (±℃ / ℉) at 100 ℃	0.3 / 0.54	0.4 / 0.72	0.5 / 0.9
	Variation[1] (±℃ / ℉) at 100 ℃	6.5 / 11.7	4.1 / 7.38	7.3 / 13.14
Dimension	Interior dimensions (W×D×H) (mm / inch)	375×370×370 / 14.8×14.6×14.6	455x430x510 / 18x17x20	585×460×555 / 23×18.1×21.9
	Exterior dimensions (W×D×H) (mm / inch)	530×535×737 / 20.9×21.1×29	610×595×877 / 24×23.4×34.5	740×625×922 / 29.1×24.6×36.3
	Net weight (Kg / lbs)	34 / 75	46 / 101.4	59 / 130
Electrical Requirements (230V)		50 / 60Hz, 4.3A	50 / 60Hz, 6.0A	50 / 60Hz, 7.4A
Cat. No.		**AAH15015K**	**AAH15025K**	**AAH15035K**
Electrical Requirements (120V)		50 / 60Hz, 6.7A	50 / 60Hz, 8.3A	50 / 60Hz, 10.0A
Cat. No.		**AAH15016U**	**AAH15026U**	**AAH15036U**

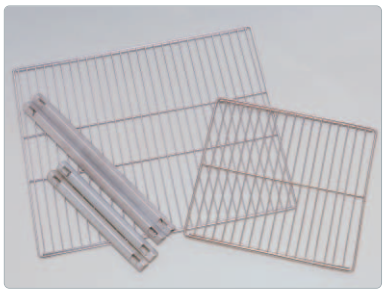
1) Technical data. (according to DIN 12880)

Accessories & Options for Ovens / Incubators

Wire Shelves

Stainless steel and electro polished shelf system is removed easily without using tools for easy cleaning.

Product group	Models	Description			Cat. No.
		Included	Maximum	W×L (mm / inch)	
Ovens	OF-02G	2	8	366×316 / 14.4×12.4	EDA8136
	OF-12G	2	12	446×366 / 17.6×14.4	EDA8135
	OF-22G	2	14	516×416 / 20.3×16.4	EDA8134
	ON-02G	2	8	366×316 / 14.4×12.4	EDA8136
	ON-12G	2	12	446×366 / 17.6×14.4	EDA8135
	ON-22G	2	12	576×419 / 22.7×16.5	EDA8137
	OF / ON-01E	2	10	366×316 / 14.4×12.4	EDA8136
	OF / ON-11E	2	14	446×366 / 17.6×14.4	EDA8135
	OF / ON-21E	2	15	576×419 / 22.7×16.5	EDA8137
Incubators	IB-05G	2	8	366×316 / 14.4×12.4	EDA8136
	IB-15G	2	12	446×366 / 17.6×14.4	EDA8135
	IB-25G	2	12	576×419 / 22.7×16.5	EDA8137
	IB-01E	2	11	366×316 / 14.4×12.4	EDA8136
	IB-11E	2	14	466×490 / 17.6×19.3	EDA8220
	IB-21E	2	15	566×466 / 22.3×17.6	EDA8219
	IL-11 / 11A	2	12	566×466 / 22.3×17.6	EDA8219
	IL-21 / 21A	3	26	466×490 / 17.6×19.3	EDA8220
	ILP-02	1	6	195×310 / 7.7×12.2	EDA8223
	ILP-12	2	11	305×299 / 12.0×11.8	EDA8221

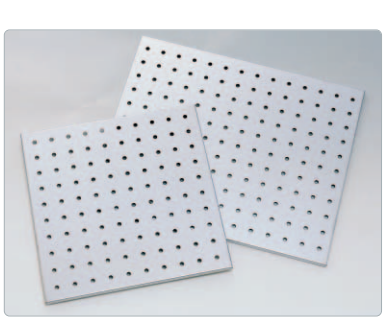


Wire Shelves

Perforated Shelves

Stainless steel shelf system is removed easily without using tools for easy cleaning.

Product group	Models	Description		Cat. No.
		Maximum	W×L (mm / inch)	
Ovens	OF-02G	8	366×316 / 14.4×12.4	AAA12531
	OF-12G	12	446×366 / 17.6×14.4	AAA12532
	OF-22G	14	516×416 / 20.3×16.4	AAA12533
	ON-02G	8	366×316 / 14.4×12.4	AAA12531
	ON-12G	12	446×366 / 17.6×14.4	AAA12532
	ON-22G	12	576×419 / 22.7×16.5	AAA12535
	OF / ON-01E	10	365×310 / 14.4×12.4	AAA14501
	OF / ON-11E	14	445×360 / 17.6×14.4	AAA14502
	OF / ON-21E	15	575×410 / 22.7×16.5	AAA14503
Incubators	IB-05G	8	366×316 / 14.4×12.4	AAA12531
	IB-15G	12	446×366 / 17.6×14.4	AAA12532
	IB-25G	12	576×419 / 22.7×16.5	AAA12535
	IB-01E	11	366×316 / 14.4×12.4	AAA12531
	IB-11E	14	466×490 / 17.6×19.3	AAA22522
	IB-21E	15	566×466 / 22.3×17.6	AAA22521
	IL-11 / 11A	12	566×466 / 22.3×17.6	AAA22521
	IL-21 / 21A	26	466×490 / 17.6×19.3	AAA22522
	ILP-02	6	195×310 / 7.7×12.2	AAA24501
	ILP-12	11	305×299 / 12.0×11.8	AAA24502



Perforated Shelves

Stacking Kits

Stackable 2 steps up to maximize space efficiency with exclusive stacking kits. (Only for IB-G, IB-E series)

Product group	Models	Description	Cat. No.
Incubators	IB-05G	Stacking kits for stackable chambers	AAA21521
	IB-15G	Stacking kits for stackable chambers	AAA21522
	IB-25G	Stacking kits for stackable chambers	AAA21523
	IB-01E	Stacking kits for stackable chambers	AAA26501
	IB-11E	Stacking kits for stackable chambers	AAA26502
	IB-21E	Stacking kits for stackable chambers	AAA26503

Stackable Chamber

Tempered Viewing Windows

Optimized sample monitoring with threefold, tempered safety glass window. (Only for OF-G, ON-G series)

Product group	Models	Description	Cat. No.
		Thickness, W×L (mm / inch)	
Ovens	OF / ON-02G	5,150×280 / 0.2, 5.9×11	AAA12611
	OF/ ON-12G, 22G	5,150×380 / 0.2, 5.9×15.0	AAA12612

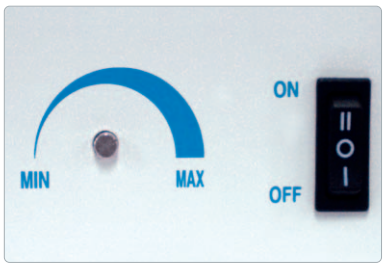
Tempered Viewing Windows

Fan-Speed Adjuster

Adjustable inner air circulation speed, which protects spreading out powder sample. (Only for OF-G series)

Product group	Models	Description	Cat. No.
Ovens	OF/ 02G, 12G, 22G	Analog dial control	AAA12701

※ In addition to providing standard accessories, we will manufacture customized accessories to meet your specific requirements. Contact us for details.



Fan Speed Adjuster

Vacuum Ovens

Optimal vacuum oven with wide temperature range for various test applicationsa.

OV series is ideal for separating a solvent from a solution without high temperature drying on a phase of the substance containing humidity or other solvents. Also, for drying solvent with high boiling point because vacuum condition makes boiling points be low to dry solvent easily.

OV-11

Included Accessories
- Plate shelve, 3.0mm (0.12") : 2 for OV-11 / 3 for OV-12.

Optional Accessories
see page 55
- Safety cover.
- Viton gasket.
- Vacuum pumps and Oil mist trap.
- Cold trap baths and U-type glass trap.

Operating features

- +5℃ above room temperature to 250℃.
- Vacuum range: 0 to 0.1MPa, analog gauge.
- Microprocess PID control / Auto-tuning / Calibration.
- Digital timer: 1 min to 99 hr 59 min, delayed ON / OFF.
- Over-temperature limiter / Door opening alarm.
- 3 different temperature values memorable without auto-tuning.
- Digital LED display (1℃ resolution) with touch-sensitive keypads.
- RS-232 interface available.

Constructional features

- Separately equipped vacuum and vent ports the narrow vent line to control vacuum rate and inert atmospheres slowly / the wider vacuum line to produce a vacuum quickly.
- Tight seal at a vacuum level by equipped door gasket and a push-button latch.
- Block type heaters heat the chamber evenly and good transmission by anodized aluminum plate shelve.
- Heat-tempered full view window permits continuous monitoring.
- Excellent space efficiency and user-friendly all-in-one type operating panel.
- Available very persistent Viton (Fluorine rubber) door gasket upon request. (optional)

Specifications & Ordering Informations

Model		OV-11	OV-12
Chamber Volume (L / cu ft)		28 / 1.0	65 / 2.3
Vacuum range		0~0.1MPa, Analog	
Nozzle size (mm / inch)		Vacuum ø 10 / 0.4, Vent ø 10 / 0.4	
Temperature	Range (℃ / ℉)	Amb. +5 to 250 / Amb. +9 to 482	
	Fluctuation[1] (℃ / ℉) at 100℃	0.1 / 0.18	0.3 / 0.54
	Variation[1] (℃ / ℉) at 100℃	3.7 / 6.66	
Dimension	Interior dimensions (W×D×H) (mm / inch)	302×305×302 / 11.9×12×11.9	402×405×402 / 15.8×15.9×15.8
	Exterior dimensions (W×D×H) (mm / inch)	680×453×495 / 26.8×17.8×19.5	780×557×595 / 15.8×15.9×15.8
	Net weight (Kg / lbs)	63 / 139	103 / 227
Electrical Requirements (120V)		50 / 60Hz, 5.3A	50 / 60Hz, 6.1A
Cat. No.		AAH13115K	AAH13125K
Electrical Requirements (230V)		50 / 60Hz, 10A	50 / 60Hz, 11.7A
Cat. No.		AAH13116U	AAH13126U

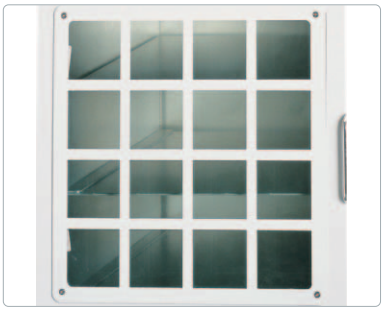
1) Technical data. (according to DIN 12880)

Accessories & Options for Vacuum Ovens

Safety Covers

Preventing door glass explosion for user safety with a netted steel frame and polycarbonate sheet covering.

Models	Description	Cat. No.
OV-11	Safety Cover	AAA13603
OV-12	Safety Cover	AAA13604

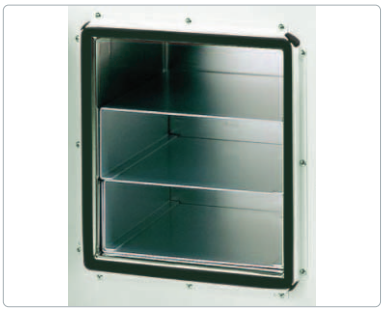


Safety Covers

Gaskets

Available very persistent viton (Fluorine rubber) door gasket upon request.

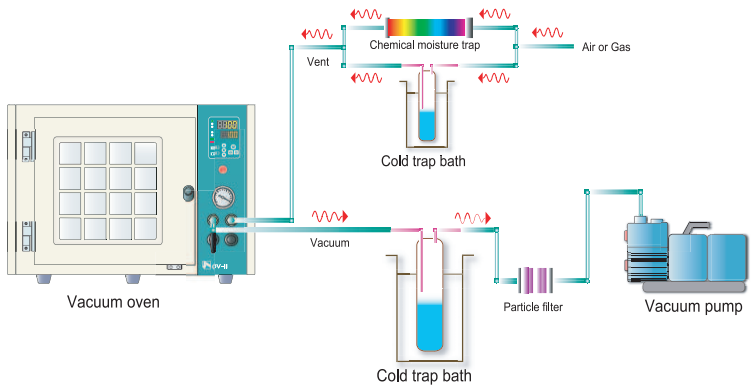
Models	Description	Cat. No.
OV-11	Silicone Gasket	FAA5146
	Viton (Fluorine rubber) Gasket	FAA5187
OV-12	Silicone Gasket	FAA5147
	Viton (Fluorine rubber) Gasket	FAA5188



Viton Gaskets

Related products for Vacuum Ovens

(Organization chart for use of Vacuum oven with Pump and Cold trap bath)



Vacuum Pumps

Direct connecting oil sealed and backward flow preventive equipped rotary vacuum pumps, which are essentially used with vacuum ovens to get high-degree vacuuming condition. Oil mist trap to prevent oil inflowing is optional.

(refer to page. 56 for more specific information)

Models	Electrical Requirements	Cat. No.
MVP-6	230V, 50/60Hz	BEH73005K
	120V, 60Hz	BEH73006U
Related accessory	Oil Mist Trap	BEH73501

Vacuum Pumps

Cold Trap Baths

Preventing vacuum pumps in a condition of vacuuming as a cold trap to exclude water (vapor). Included 2 U-type glass traps. (refer to page. 18 for more specific information)

Models	Electrical Requirements	Cat. No.
CTB-10	230V, 60Hz	AAH62011K
	230V, 50Hz	AAH62012K
Related accessory	U-type Glass Trap	AAA62501

Cold Trap Baths

※ In addition to providing standard accessories, we will manufacture customized accessories to meet your specific requirements. Contact us.