Thermo Scientific Precision Ovens

Performance, quality and value for sample heating and drying

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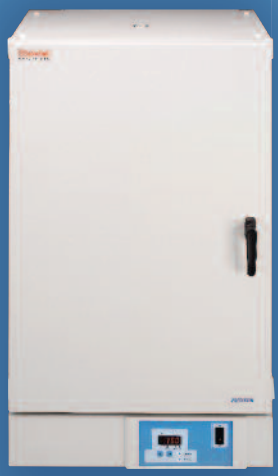


Global Leadership in Quality and Reliability

For more than 50 years, Thermo Scientific products have been trusted by the world's leading biotechnology, pharmaceutical, academic, industrial and clinical laboratories. Our solutions deliver the performance, quality and reliability required by researchers and clinicians worldwide.

Thermo Scientific Precision Ovens

The new Thermo Scientific Precision oven series provides a complete range of sample heating and drying solutions that deliver exceptional performance, quality and value.

Our Precision® ovens are suited for all of your laboratory heating and drying processes – from basic drying to high-performance temperatures from ambient +5°C up to 325°C.
Our ovens include:

- **Precision High-Performance Ovens:**
  Ultra-precise temperature stability and recovery
- **Precision Premium Ovens:**
  Exceptional temperature control
- **Precision Standard Ovens:**
  Everyday sample drying and heating
- **Precision Compact Ovens:**
  Space-savings design, basic applications

	Precision High-Performance Ovens	Precision Premium Ovens	Precision Standard Ovens	Precision Compact Ovens
Chemical resistance studies		•	•	
Drug metabolism studies	•	•		
Dry content analysis	•	•		
Tissue drying		•	•	
Drying and/or baking non-flammable crystalline chemicals			•	•
Drying filter paper strips or rounds			•	•
Fine chemical precipitation			•	
Glassware drying			•	•
Moisture determinations	•	•		
Paper drying			•	
Pre-heating crucibles or other containers			•	•
Proteins and starch digestion		•		
Textile drying			•	•
Total solids drying		•		

Thermo Scientific Precision High-Performance Ovens

Precise Temperature Stability and Recovery

Our Precision high-performance ovens are built for drying applications requiring high temperatures, ultra-precise temperature stability and reproducibility with a very broad temperature range of ambient +15°C to 325°C.

Three Sizes

1.4 cu. ft. (39 L) holds seven adjustable shelves (two included*)
4.0 cu. ft. (113 L) holds 11 adjustable shelves (two included*)
9.5 cu. ft. (269 L) holds 12 adjustable shelves (two included*)
(*Additional shelves are sold separately)

Excellent Temperature Stability and Uniformity

High-quality construction and high-efficiency insulation provide temperature uniformity as precise as ± 0.5°C with excellent stability in the face of frequent air exchange.

Mechanical Convection for Precise Heating

Mechanical convection provides uniform heating, precise temperature control and fast drying using a blower that circulates heated air in a horizontal airflow pattern.

Precise Temperature Sensitivity

Highly responsive RTD sensor provides temperature sensitivity of ±0.1°C or better.

High efficiency insulation ensures uniformity ±0.5°C at 100°C and ±2.5°C at 300°C.

Turbo blowers for efficient drying are side mounted within the stainless steel chamber.

Conforms to Industry Standards

Complies with ASTM E145 Type IIA, ASTM D-2436, and UL 746B performance/uniformity standards.

Advanced Microprocessor PID Controls

Intuitive microprocessor PID controls deliver detailed information on current temperature set-points.

Over-Temperature Protection

Built-in 12-hour mechanical timer along with user-adjustable safety thermostat allows for power cut-out in case of over-temperature.

Energy-Efficient Design

High-limit safety with built-in circuit breaker protects the oven from power surges. A fiberglass door gasket prevents heat loss and low-density heating elements ensure long life.

Easy Cleaning

Stainless steel interior with a solid chamber floor ensures easy cleaning. All non-tip shelves can be quickly and easily dismounted for thorough cleaning.

Two Specialty Units

Model 605P: Extra baffle provides low air flow for precise drying and testing of materials with minimal disruption of volatile components.

Model 625S: Features a rear blowout panel with retaining cage and positive action front-door catches for volatile material testing.

Models	**605**	**605P**	**625**	**625S**	**645**
Chamber Volume	1.4 cu. ft. / 39 L	1.4 cu. ft. / 39 L	4.0 cu. ft. / 113 L	4.0 cu. ft. / 113 L	9.5 cu. ft. / 269 L
Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Temperature Display	Two lines, 4-digit LED	Two lines, 4-digit LED	Two lines, 4-digit LED	Two lines, 4-digit LED	Two lines, 4-digit LED
Temperature Range	Amb. +15 °C to 325°C	Amb. +15 °C to 325°C	Amb. +15 °C to 325°C	Amb. +15 °C to 325°C	Amb. +15 °C to 325°C
Uniformity at 100 °C	±0.5°C	±0.5°C	±0.5°C	±0.5°C	±0.5°C
Uniformity at 200 °C	±1.0°C	±1.0°C	±0.9°C	±0.9°C	±1.0°C
Uniformity at 300 °C	±2.5°C	±2.5°C	±2.2°C	±2.2°C	±2.1°C
Sensitivity	±0.1°C	±0.1°C	±0.1°C	±0.1°C	±0.1°C
Heat-up Time to 325 °C	60 minutes	60 minutes	50 minutes	50 minutes	45 minutes
Recovery Time [1]	2.5 minutes	2.5 minutes	4 minutes	4 minutes	4 minutes
Air Changes (Max)	128/hour	128/hour	195/hour	195/hour	155/hour
Dimensions (W x H x D)					
Chamber	14 x 13 x 13 in. (35.6 x 33 x 33 cm)	14 x 13 x 13 in. (35.6 x 33 x 33 cm)	19 x 19 x 19 in. (48.3 x 48.3 x 48.3 cm)	19 x 19 x 19 in. (48.3 x 48.3 x 48.3 cm)	36 x 24 x 19 in. (91.4 x 61 x 48.3 cm)
Exterior	38.5 x 25 x 24 in. (97.8 x 63.5 x 61 cm)	38.5 x 25 x 24 in. (97.8 x 63.5 x 61 cm)	45 x 29 x 28 in. (114.3 x 73.7 x 71.1 cm)	45 x 29 x 32 in. (114.3 x 73.7 x 83.8 cm)	65 x 36 x 31 in. (165.1 x 91.4 x 78.7 cm)
Electrical Specs (50 / 60Hz)					
115V	2500 Watts / 20.8 Amps	2500 Watts / 20.8 Amps	–	–	–
208 / 230V	2500 Watts / 10.9 Amps	2500 Watts / 10.9 Amps	3700 Watts / 16.1 Amps	3700 Watts / 16.1 Amps	4800 Watts / 20.9 Amps
Max. BTU/Hr	8538	8538	12,636	12,636	16,393
Shelves *	2 supplied, 7 max	2 supplied, 7 max	2 supplied, 11 max	2 supplied, 11 max	2 supplied, 12 max
Net Weight	230 lbs. (104.3 kg)	230 lbs. (104.3 kg)	252 lbs. (114.3 kg)	292 lbs. (132.5 kg)	415 lbs. (188.2 kg)
Catalog Number					
115V	**6050**	**6052**	–	–	–
208 / 230V [3]	**6051**	**6053**	**6054**	**6055**	**6056**

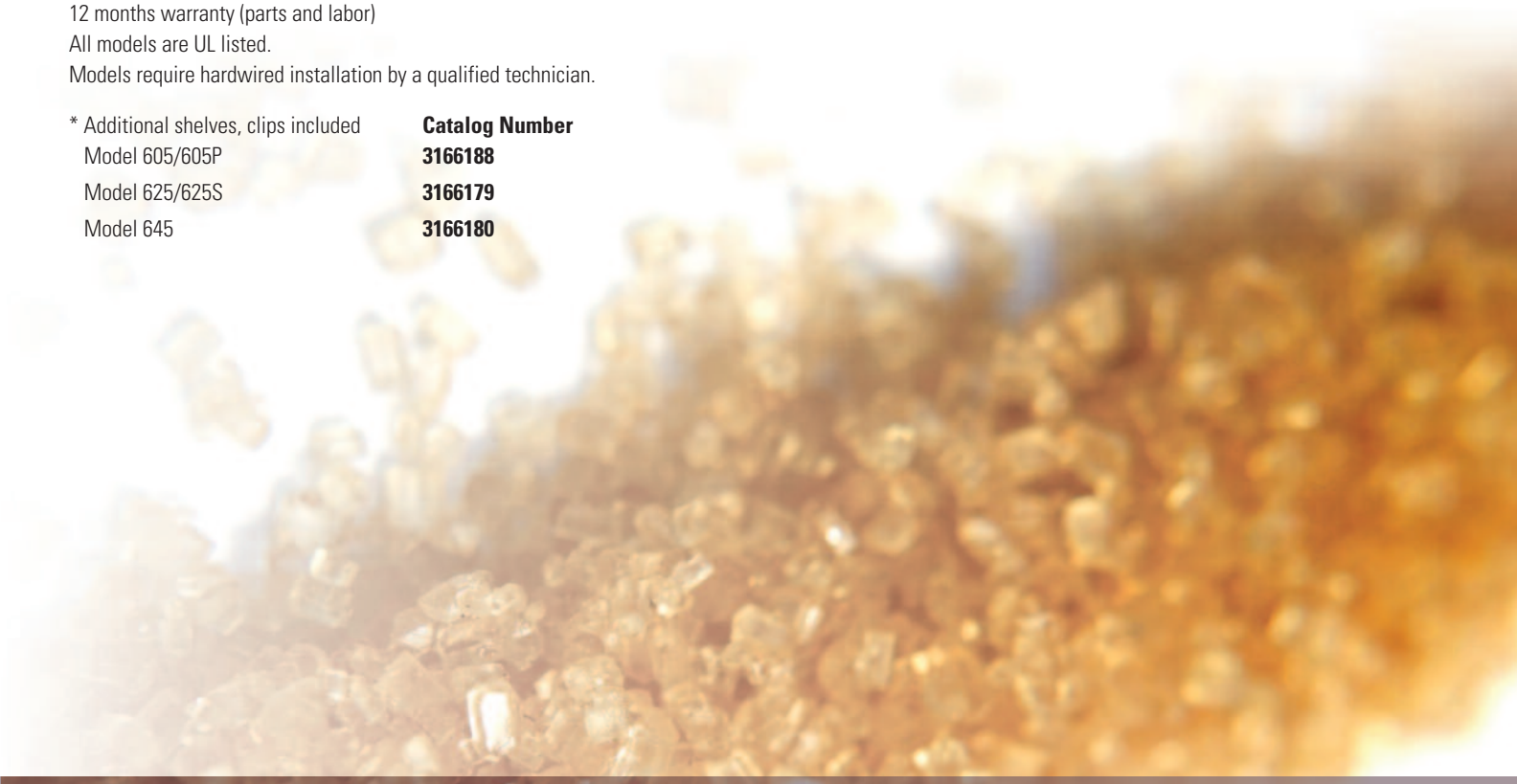
[1] At 200 °C with 30-second door opening.

[2] Spacing between shelves is 1.6 in. (40 mm).

[3] 50/60Hz

12 months warranty (parts and labor)
All models are UL listed.
Models require hardwired installation by a qualified technician.

* Additional shelves, clips included	**Catalog Number**
Model 605/605P	**3166188**
Model 625/625S	**3166179**
Model 645	**3166180**



Thermo Scientific Precision Premium Ovens

Exceptional Temperature Control

Featuring advanced microprocessor controls and temperature stability, our Precision premium ovens are ideal for your precise heating applications with a temperature range of 50°C to 275°C.

Advanced Microprocessor Controls

Intuitive microprocessor controls deliver detailed information on current temperature and set-points.

Setting the oven temperature is simple with no tuning required. Settings are stored in memory when oven is off.

Choice of Mechanical or Gravity Convection Models

Mechanical convection provides uniform heating, precise temperature control and fast drying using a blower that circulates heated air in a horizontal airflow pattern.

Gravity convection models offer gentle drying with low turbulence convection that moves the air vertically through the oven chamber to heat samples.

Excellent Temperature Uniformity

Temperature uniformity at 200°C proficient to ±3°C

Over-Temperature Protection

Visual over-temperature alarms and built-in safety backup maintains temperature control at 5°C above setpoint should the primary control fail. Thick wall and door insulation maintain safe exterior temperature to prevent burns.

Energy-Efficient Design

A circuit breaker protects the oven from power surges. A silicone gasket on the oven door prevents heat loss and low-density heating elements ensure long life.

Easy Cleaning

Enamel-painted steel exterior and a stainless-steel interior are easy to clean. Doors open 180° for unhindered access.

Three Sizes

2.5 cu. ft. (71 L) holds five adjustable shelves (one included*)
3.75 cu. ft. (106 L) holds eight adjustable shelves (one included*)
5.0 cu. ft. (142 L) holds 11 adjustable shelves (two included*)
(*Additional shelves are sold separately)

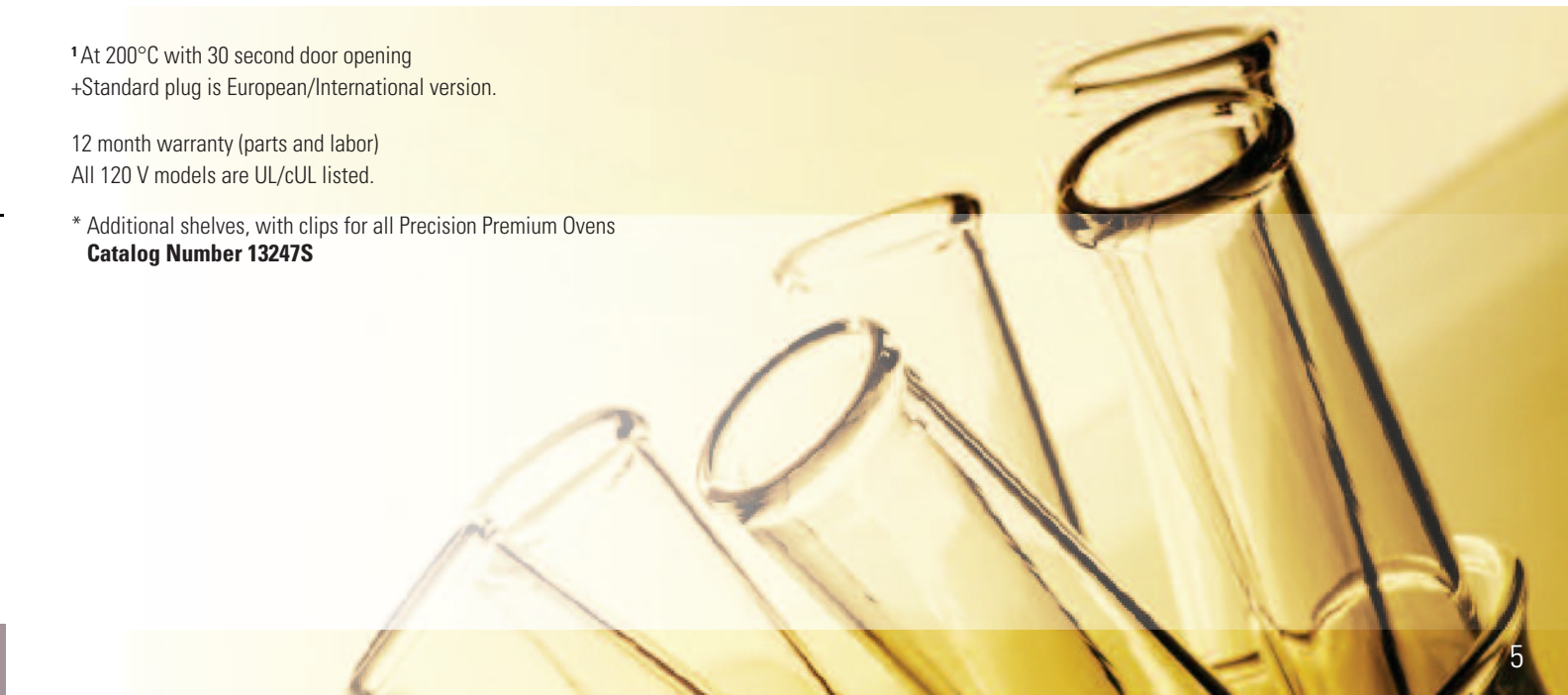
Precision Premium Ovens • Specifications and Ordering Information

	Gravity Convection Models			Mechanical Convection Models		
Chamber Volume	2.5 cu.ft. / 71 L	3.75 cu.ft. / 106 L	5 cu.ft. / 142 L	2.5 cu.ft. / 71 L	3.75 cu.ft./ 106 L	5 cu.ft./ 142 L
Convection	Gravity	Gravity	Gravity	Mechanical	Mechanical	Mechanical
Temperature Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
Temperature Display	LED	LED	LED	LED	LED	LED
Temperature						
Range	50°C to 275°C	50°C to 275°C	50°C to 275°C	50°C to 275°C	50°C to 275°C	50°C to 275°C
Uniformity at 200°C	±4°C	±4°C	±4°C	±3°C	±3°C	±3°C
Sensitivity	±0.5°C	±0.5°C	±0.5°C	±0.5°C	±0.5°C	±0.5°C
Recovery Time[1]	2 minutes	3 minutes	4 minutes	2 minutes	2 minutes	2.5 minutes
Dimensions: (W x H x D)						
Chamber	18 x 13.5 x 18 in. (46 x 34 x 46 cm)	18 x 20 x 18 in. (46 x 51 x 46 cm)	18 x 26.5 x 18 in. (46 x 67 x 46 cm)	18 x 13.5 x 18 in. (46 x 34 x 46 cm)	18 x 20 x 18 in. (46 x 51 x 46 cm)	18 x 26.5 x 18 in. (46 x 67 x 46 cm)
Exterior	25.8 x 26 x 23.5 in. (65 x 66 x 60 cm)	25.8 x 33 x 23.5 in. (65 x 84 x 60 cm)	25.8 x 39.3 x 23.5 in. (65 x 100 x 60 cm)	25.8 x 26 x 23.5 in. (65 x 66 x 60 cm)	25.8 x 33 x 23.5 in. (65 x 84 x 60 cm)	25.8 x 39.3 x 23.5 in. (65 x 100 x 60 cm)
Electrical Specs						
120 Volts	1300 Watts/11 Amps	1800 Watts/15 Amps	1800 Watts/15 Amps	1300 Watts/11 Amps	1800 Watts/15 Amps	1800 Watts/15 Amps
240 Volts	1300 Watts/5.5 Amps	1800 Watts/7.5 Amps	1800 Watts/7.5 Amps	1300 Watts/5.5 Amps	1800 Watts/7.5 Amps	1800 Watts/7.5 Amps
BTU Output	1325	2025	2140	2750	2925	3095
Shelves*	1 supplied, 5 max	1 supplied, 8 max	2 supplied, 11 max	1 supplied, 5 max	1 supplied, 8 max	2 supplied, 11 max
Shipping Weight	115 lbs. / 52 kg	130 lbs. / 59 kg	145 lbs. / 66 kg	120 lbs. / 54 kg	127 lbs. / 58 kg	135 lbs. / 61 kg
Catalog Number						
120V	**PR305045G**	**PR305055G**	**PR305065G**	**PR305045M**	**PR305055M**	**PR305065M**
+240V	**PR305040G**	**PR305050G**	**PR305060G**	**PR305040M**	**PR305050M**	**PR305060M**

[1] At 200°C with 30 second door opening
+Standard plug is European/International version.

12 month warranty (parts and labor)
All 120 V models are UL/cUL listed.

* Additional shelves, with clips for all Precision Premium Ovens
Catalog Number 13247S



Thermo Scientific Precision Standard Ovens

Uniform, Gentle Drying for Everyday Needs

Featuring electronic controls and gravity convection, our Precision standard ovens are ideal for your everyday laboratory heating and drying needs with a temperature range of 50°C to 225°C.

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Uniform, Gentle Heating

Gravity-convection features a vertical air circulation pattern with low air turbulence to ensure even heating and accurate temperature – perfect for drying samples, such as fine powders, requiring low turbulence air flow.

Easy-to-Use Electronic Controls

Electronic control allows quick and easy temperature setting. Indicator lights clearly display power on-off settings. A port on top of the oven allows you to insert monitoring sensors.

Quick Temperature Recovery

Fast temperature recovery in minutes, after oven door is opened.

Over-Temperature Protection

Thick fiberglass insulation maintains interior heat while keeping exterior and door handle at a safe temperature. Built-in safety backup maintains temperature control at 5°C above setpoint should the primary control fail.

Energy-Efficient Design

A circuit breaker protects the oven from power surges in order to maximize energy efficiency.

Simple-to-Use and Clean

Durable, powder-coated steel exterior and stainless-steel interior are easy to clean and corrosion resistant.

Doors open 180° for easy access and feature two grabber-type latches.

Chamber Volume	2.5 cu.ft. / 71 L	3.75 cu.ft. / 106 L	5 cu.ft. / 142 L
Convection	Gravity	Gravity	Gravity
Temperature Control	Electronic	Electronic	Electronic
Temperature Display	LED	LED	LED
Temperature			
Range	50°C to 225°C	50°C to 225°C	50°C to 225°C
Uniformity at 200°C	±5°C	±5°C	±5°C
Sensitivity	±0.5°C	±0.5°C	±0.5°C
Recovery Time[1]	2 minutes	4 minutes	4 minutes
Dimensions: (W x H x D)			
Chamber	18 x 13.5 x 18 in. (46 x 34 x 46 cm)	18 x 20 x 18 in. (46 x 51 x 46 cm)	18 x 26.5 x 18 in. (46 x 67 x 46 cm)
Exterior	25.8 x 26 x 23.5 in. (65 x 66 x 60 cm)	25.8 x 33 x 23.5 in. (65 x 84 x 60 cm)	25.8 x 39.3 x 23.5 in. (65 x 100 x 60 cm)
Electrical Specs			
120 Volts	1300 Watts / 11 Amps	1300 Watts / 11 Amps	1300 Watts / 11 Amps
240 Volts	1300 Watts / 5.5 Amps	1300 Watts / 5.5 Amps	1300 Watts / 5.5 Amps
BTU Output	1325	2025	2140
Shipping Weight	115 lbs. / 52 kg	125 lbs. / 57 kg	140 lbs. / 64 kg
Catalog Number			
120 Volts	**PR305145G**	**PR305155G**	**PR305165G**
+240 Volts	**PR305140G**	**PR305150G**	**PR305160G**

[1] At 200°C with 30 second door opening
+ Standard plug is European/International version.

12 month warranty (parts and labor)
All 120V models are UL/cUL listed.

Three Sizes
2.5 cu. ft. (70.8 L) holds five adjustable shelves (one included*)
3.75 cu. ft. (106.2 L) holds eight adjustable shelves (one included*)
5.0 cu. ft. (141.6 L) holds 11 adjustable shelves (two included*)
(*Additional shelves are sold separately)

* Additional shelves for all Precision Standard Ovens **Catalog Number 13247S**

Thermo Scientific Precision Compact Ovens

Compact Design, Economical Operation

Featuring a compact design, our Precision compact ovens are ideal for your drying and baking applications with a temperature range of ambient +5°C to 210°C.

Efficient, Space-Savings Design

Compact footprint conserves valuable bench top space.

Over-Temperature Protection

Pre-set high temperature safety thermostat ensures over-temperature protection. Pilot light visually indicates oven operation status.

Choice of Mechanical or Gravity-Convection Models

Mechanical-convection models provide uniform heating, precise temperature control and fast drying. Models also feature a hydraulic thermostat, LED display and a stainless steel chamber.

Gravity-convection models offer gentle drying with low turbulence convection that moves the air vertically through the oven chamber to heat samples. Gravity models feature bimetallic thermostat and aluminum chamber.

Durable Construction

Features a double wall interior with 1" silica-based insulation and powder-coated, cold-rolled steel exterior.

	Gravity Convection Models		Mechanical Convection Models
Chamber Volume	0.7 cu.ft. / 20 L	1.7 cu.ft. / 48 L	1.7 cu.ft. / 48 L
Convection	Gravity	Gravity	Mechanical
Temperature Control	Bimetallic thermostat	Bimetallic thermostat	Hydraulic thermostat
Temperature			
Range	Ambient +5°C to 210°C	Ambient +5°C to 210°C	Ambient +5°C to 210°C
Uniformity at 100°C	±5°C	+5°C	±7°C
Time to Reach 200°C	52 minutes	52 minutes	30 minutes
Dimensions: (W x H x D)			
Chamber	10 x 11.3 x 11.5 in. (25 x 29 x 29 cm)	16 x 16.2 x 11.5 in. (41 x 41 x 29 cm)	16 x 16 x 11.5 in. (41 x 41 x 29 cm)
Exterior	12.5 x 18 x 13.5 in. (32 x 46 x 34 cm)	18.5 x 22.5 x 13.5 in. (47 x 57 x 34 cm)	18.4 x 25 x 15.6 in. (47 x 64 x 40 cm)
Electrical Specs			
120V	500 Watts / 4.2 Amps	800 Watts / 6.7 Amps	1200 Watts / 10.0 Amps
240V	500 Watts / 2.1 Amps	800 Watts / 3.3 Amps	1200 Watts / 5.0 Amps
Shipping Weight	35 lbs. / 16 kg	57 lbs. / 26 kg	80 lbs. / 36 kg
Catalog Number			
120V	**PR305215G**	**PR305225G**	**PR305225M**
+240V	**PR305210G**	**PR305220G**	**PR305220M**

+ Standard plug is European/International version.

12 month warranty (parts and labor)
All models are UL/cUL listed.

Two Sizes
0.7 cu. Ft. (20 L) includes one fixed and two adjustable shelves*
1.7 cu. Ft. (48 L) includes one fixed and two adjustable shelves*
(*Additional shelves are sold separately)

* Additional shelf kit for 0.7 cu.ft units (PR305215G, 10G)
Catalog Number 3510-8Q
Additional shelf kit for 1.7 cu.ft gravity convection units (PR305225G, 20G)
Catalog Number 3511-8Q
Additional shelf kit for 1.7 cu.ft mech. convection units (PR305225M, 20M)
Catalog Number 3515M-8Q

Available only in North America

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