



PRODUCT BROCHURE · YAMATO SCIENTIFIC

Yamato High Temperature Natural Convection Oven Programmable 13.75L

SKU DR-201-BASE · Thermal Processing · Natural Convection Ovens



QUICK VIEW

Shop the Yamato High Temperature Natural Convection Oven Programmable 13.75L (DR-201-BASE). +10°C To 300°C range. Authorized distributor. Request a q...

VOLTAGE

115V, 220V

TEMPERATURE RANGE

+10°C to 300°C

SIZE / CAPACITY

**0.49 Cu. Ft. /
13.75L**

SHIP WEIGHT

111 lb

SOURCING

**Authorized U.S.
distributor**

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High Temperature Natural Convection Oven

DR201-115V / DR201-220V

Operating temp. range 300~700°C

Temp. distribution accuracy $\pm 25^{\circ}\text{C}$ (at 700°C)

Internal capacity 13.75L

Maximum operation temperature up to 700°C

■ Operation and functions

- Programmable natural convection oven with high accuracy control at high temperature range
- Can be used as an electric furnace for ashing and sintering, but also as an incubator and drying oven
- Temperature, measured temperature and overheat prevention temperature can be digitally set by operation menu and $\blacktriangle/\blacktriangledown$ keys
- Easy programmable operation, fixed temperature, quick auto stop, auto stop, program auto start, auto start
- Equipped with sub-functions such as overheating prevention temperature prevention temperature setting, key lock function, program repeat function, calibration offset

■ Safety features

- Self-diagnostic functions (automatic overheat prevention, temperature sensor failure, heater disconnection, SSR short circuit, main relay failure, memory error, internal communication error, abnormal temperature reading), Overcurrent ELB, Overheat prevention device

■ Specifications

Model	DR201-115V	DR201-220V
System	Natural convection	
Temp. control range	300~700°C	
Temp. control accuracy	$\pm 5^{\circ}\text{C}$ (at 700°C)	
Temp. fluctuation	10°C (at 700°C)	
Temp. distribution accuracy	$\pm 25^{\circ}\text{C}$ (at 700°C)	
Temp. gradient	30°C (at 700°C)	
Temp. rise time	~70min. (Room temp. +5°C~700°C)	
Temp. fall time	~150min. (700°C to 300°C)	
Interior material	Stainless steel sheet metal	
Exterior material	Chromium-free electrogalvanized steel sheet, baked-on finish	
Heat insulating material	Ceramic fiber rock wool	
Heater type / capacity	Iron-chrome wire heater / 1.3kW	
Temp. controller	PID control by microcomputer	
Temp. setting method	Digital setting with menu keys and $\blacktriangle/\blacktriangledown$ keys	
Temp. display	Temp. reading display: Green 4 digit LED digital	
	Temp. setting display: Red 4 digit LED digital	
Timer function	0 to 99 hrs 59 mins. and 100 hrs. to 999 hrs 50min.	
Timer resolution	1 minute increments under 99 hours and 59 minutes, 10 minutes after 100 hours.	
Wait function	Timer wait function (ON/OFF setting)	
Operation modes	Fixed temperature, program, program auto start, auto start, quick auto stop, auto stop	
Program modes	6 patterns (PrG1: 30 steps, PrG2-3: 15 steps, PrG4-6: 10 steps) step weight function, repeat function, step hold function, step skip function	
Additional functions	Calibration offset, keypad lock, auto resume mode select	
Sensor	K thermocouple (W sensor)	
Safety devices	Self-diagnostic functions (automatic overheat prevention, temp. sensor failure, heater disconnection, SSR short circuit, main relay failure, memory error, internal comm. error, abnormal temp. reading), overcurrent ELB, overheat prevention device	
Internal dimension (WxDxH)	250 x 250 x 220 mm	
External dimension (WxDxH)	520 x 443 x 612 mm (protrusions excluded)	
Internal capacity	13.75L	
Shelf load capacity	15 kg / pc. Total load capacity 30 kg	
Shelf rest step number	3 steps	
Shelf rest pitch	33 mm	
Power source (50/60Hz)	AC115V 11.5A (with plug) AC220V 6.0A (with plug)	
Weight	~36 kg	
Shelf plate	Perforated stainless steel plate	
Included accessory	2 pcs. shelf plate	



13.75L

■ Optional items

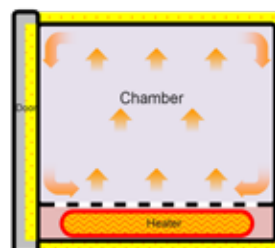
No.	Description	Product code
1	Stand ONS60	212802
2	Shelf plate 1pc.	212808
3	Seismic mat (set of 4 pcs.)	296902
4	External alarm output terminal*	281283
5	Time-up output terminal*	281284
6	Temperature output terminal (4-20mA)	281285

Some options are required to be installed at the factory. Contact YSA for options 4-6.

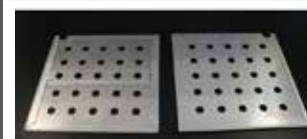
* External alarm terminal and time-up output terminal cannot be installed at the same time

Method

[Side view]



Accessories

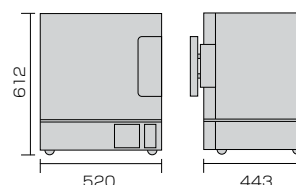


Shelf plate



ONS stand

Dimensions (mm)



⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components