

Laboratory Constant Temperature Drying Oven

DS401/411/601/611



DS401/601

Natural convection type, high safety oven.

Due to high precision control system, high performance temperature control is realized, and the CO₂ discharge, power discharge also displayed at the monitor.

Model			
401	411	601	611
Operating Temperature Range			
Room temp. +5deg.C to 260deg.C			
Temp. Distribution Accuracy			
±5deg.C (at 260deg.C)			
Internal Capacity (L)			
99		162	

- Available Various Functions.
- Incorporates with maximum 99 steps, 99 patterns program controller with repeat function.
- Loaded with Total Operation Hours Timer.
- Data acquisition from internal test device is easy because of cable holes.

■ Specifications

Model	DS401	DS411	DS601	DS611
Performance				
Circulation Type	Natural Convection			
Operating Temp.	Room Temp. +5 to 260deg.C			
Temp. Adjustment Accuracy	±1deg.C (at 260deg.C)			
Temp. fluctuation	±1.5deg.C (at 260deg.C)			
Temp. Distribution Accuracy	±5deg.C (at 260deg.C)			
Temp. gradient	20deg.C (at 260deg.C)			
Max. Temp. Reaching Time	Approx. 70 min		Approx. 90 min	
Components				
Interior Material	Stainless Steel			
Exterior Material	Cold Rolled Steel Plate with Melamine Resin Baked Finish			
Heat Insulating Material	Glass Wool			
Heater	SUS Pipe heater 1.2kW		SUS Pipe heater 1.36kW	
Sensor	K-Thermocouple (for temp. adjustment and overheat prevention)			
Cable Hole	I.D. 33mm (Right Side)			
Exhaust Port	I.D. 33mm x 2 (Top Side)			
Observation Window	250 x 280mm Tempered Glass x 2 pcs			
Controller				
Temp. Control System	PID Control by Micro Computer			
Temp. Setting	Digital Setting by UP/DOWN Key			
Temp. Display	Digital Display by Green LED			
Other Display	Temp. Pattern Display for Operating Display by LED			
Timer	1min. to 9hrs.59min. or 100hrs. to 999hrs.			
Timer Resolution	1min. or 1hrs.			
Operating Function	Fixed Temp. Operation, Automatic Start, Automatic Stop, Program Operation , Quick automatic stop			
Additional Function	Timer Function (Actual Timer within 24hrs.), Total Operation Hours Timer (to 65535hrs.), calendar time (24 hours), calibration offset, Power discharge, CO2 discharge, power failure return mode, user configuration information			
Heater Circuit Control	Triac Zero-cross Type			
Safety Device				
Safety Countermeasure	Self Diagnosis Function (Abnormal Temp. Sensor, Heater Wire Broken, Triac Short Circuit, Automatic Overheat Prevention), Independent Overheating Prevention, Key Lock, Electric Leakage Breaker			
Standard				
Internal Dimension	W450 x D490 x H450mm		W600 x D540 x H500mm	
External Dimension	W560 x D600 x H820mm		W710 x D650 x H870mm	
Internal Capacity	99L		162L	
Shelf Max. Load	Approx. 15kg/shelf			
Shelf Support QT/Pitch	11pcs./30mm		13pcs./30mm	
Power (50/60Hz)	AC100V12.5A(15A)	Single Phase		Single Phase
		AC200V6.5A (15A)		AC200V7.4A (15A)
Weight	Approx. 51kg		Approx. 64kg	
Accessory				
Shelf/Support	Stainless Punching Metal 2pcs./4pcs.			

*The performance shown here is the value under the condition of the ambient temperature of 23deg.C±5deg.C, humidity of 65%RH±20%.

*The projection is not included for Internal dimensions and External dimensions.

■ Control Panel



■ Interior



■ Exhaust port



■ Cable Hole

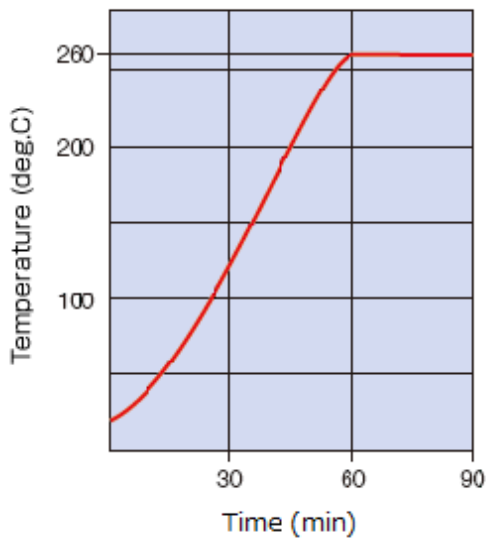


■ Shelf (with 2 support)

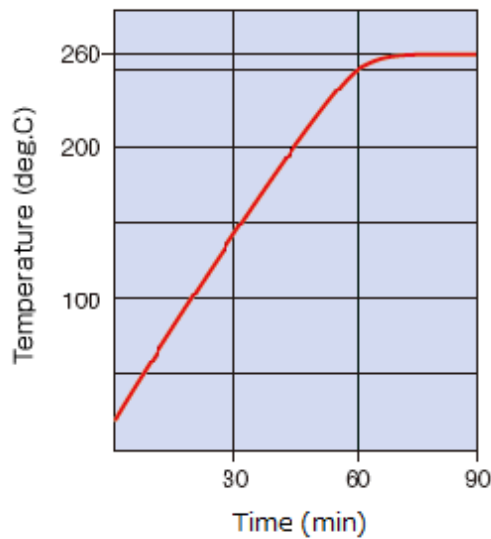


■ Temperature rising curve (AC100V, room temp 23deg.C)

DS401



DS601



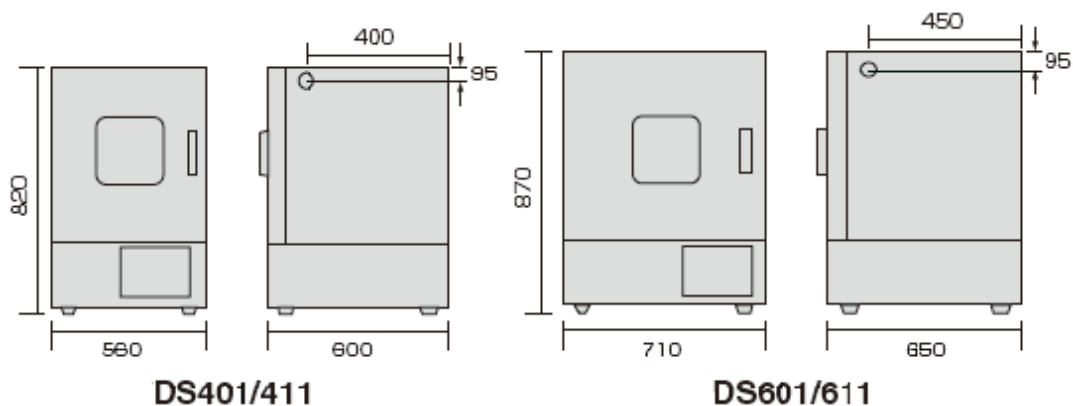
■ Optional items

Remark	Description	Model No.	Product Code
○	Stand: ON61 (for DS401/601)	DS Series	211856
○	Stand: OT42 (for DS401)	DS Series	212348
○	Stand: OT62 (for DS601)	DS Series	212349
	Stacking support (with cooling fan) for DS401/411, OD40	DS Series	212822
	Stacking support (with cooling fan) for DS601/611, OD60	DS Series	212823
	Shelf with support 2 pcs., Stainless punching metal shelf (loading up to 15kg/shelf) for DS401/411	DS Series	212246
	Shelf with support 2 pcs., Stainless punching metal shelf (loading up to 15kg/shelf) for DS601/611	DS Series	212266
	External communication adapter set OIN90	DS Series	211880
●	Cable Port, 25mm dia ODK32	DS Series	281121
●	Cable Port, 50mm dia ODK34	DS Series	281122
●	External communication terminal ODS16	DS Series	212981
●	Temp. output terminal ODS18	DS Series	212982
●	External alarm output terminal ODS22	DS Series	212983
●	Time up output terminal ODS24	DS Series	212984
●	Operation signal output terminal ODS26	DS Series	212985
●	Event output terminal ODDS28	DS Series	212986

Note:

1. The item marked "●" in the column of "Remark" shall be ordered together with the main unit.
 2. The transportation cost will not be required if the order is together with main unit except the item marked "○".
- In case you order the item marked "○" together with the main unit, please ask Yamato to obtain the correct transportation cost.

■ Dimensional Drawing (mm)



DS401/411

DS601/611