

## Forced Convection Ovens | Precision, Horizontal

## DF411C/611C, DH411C/611C

Operating temp. range	DF: RT+10~260°C	DH: RT+10~360°C	Temp. distribution accuracy	DF: ±1.5°C (at 260°C)	DH: ±2.5°C (at 360°C)	Internal capacity	91L	216L
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## High-precision constant temperature ovens for thermal processing.



## ■ Features

- Easy operation, available for fixed temp., program, quick auto stop, auto stop and auto start operations.
- Digital setting through special function menu keys and up/down keys. 6 modes with 90 segments program controller.
- Overheating protection, deviation correction and key locking through submenu keys.
- Quick exhaust and cooling through exhaust dampers.

## ■ Safety

- Equipped with self-diagnostic circuit (temperature sensor anomaly, heater disconnection protection, automatic overheating preventer, SSR short-circuit protection), overheating preventer, overcurrent leakage protection, key lock and other safety functions.

## ■ Specifications

Model		DF411C	DF611C	DH411C	DH611C	
System		Forced convection and ventilation				
Performance	Operating temp. range	Room temp. +10~260°C		Room temp. +10~360°C		
	GB standard	Temp. fluctuation	±0.1°C (at 260°C)		±0.2°C (at 360°C)	
		Temp. deviation	±1.5°C (at 100°C), ±2°C (at 200°C), ±3°C (at 260°C)		±1.5°C (at 100°C), ±2°C (at 200°C), ±3°C (at 300°C), ±4°C (at 360°C)	
	JTM standard	Temp. adjusting accuracy	±0.1°C (at 260°C)		±0.2°C (at 360°C)	
		Temp. distribution accuracy	±1.5°C (at 260°C)		±2.5°C (at 360°C)	
Max. temp. reaching time	Approx. 60 min (to 260°C)		Approx. 80 min (to 360°C)			
Composition	Interior material	Stainless steel plate				
	Exterior material	Cold rolled steel plate with chemical proofing coating				
	Insulating material	Glass fiber		Rock wool		
	Heater	Stainless steel heating tubes with fins				
		2.1KW	3.0KW	2.7KW	3.75KW	
	Fan blade/motor	Axial fan blades, motor 20W×1				
	Cable port	I.D. 30 mm, located on the back				
Other additional mechanisms	Exhaust dampers (manual)					
Controllers	Temp. control method	3-stage PID				
	Temp. setting method	Digital setting through special function menu keys and up/down keys				
	Temp. display method	Achieved temp. display: Green 4-digit LED digital display				
		Setting temp. display: Red 4-digit LED digital display				
	Timer	1 min.~99 h 59 min. and 100~999 h 50 min (including timer waiting function)				
	Operation functions	Fixed temp. operation, auto start, auto stop, program operation				
	Program mode	Program operation 6 modes with a total of 90 segments (30 segments×1, 15 segments×2, 10 segments×3)				
	Additional functions	Deviation correction, key lock, power failure compensation				
Heater circuit control	SSR drive					
Sensors	K thermocouple (Temp. controller and overheating protector)					
Safety device	Self-diagnostic circuit (temperature sensor anomaly, heater disconnection protection, automatic overheating preventer, SSR short-circuit), independent overheating preventer, overcurrent leakage protection, key lock functions					
Specifications	Internal dimensions (W×D×H mm)	450×450×450	600×600×600	450×450×450	600×600×600	
	External dimensions (W×D×H mm)	1050×630×850	1200×780×1000	1050×630×850	1200×780×1000	
	Internal capacity	91L	216L	91L	216L	
	Shelf load	30kg/layer				
	Shelf layers/shelf support spacing	9 layers/45mm	9 layers/60mm	9 layers/45mm	9 layers/60mm	
	Power supply (50/60Hz) rated current	AC220V 10A	AC220V 14A	AC220V 12.5A	AC220V 17.5A	
	Weight	Approx. 112kg	Approx. 156kg	Approx. 112kg	Approx. 156kg	
Accessories	Shelf	Stainless steel wire mesh plate				
		2 pcs	3 pcs	2 pcs	3 pcs	
Supports	4 pcs	6 pcs	4 pcs	6 pcs		
Options	Stand	OP42/45C	OP62/65C	OP42/45C	OP62/65C	
	Others	Shelf (1 shelf with 2 supports), cable port (30/50mm), micro printer, data logger, combination warning light (standby/running/fault), automatic door, viewing window, external communication function (RS485), temperature output terminal (4~20mA), external alarm output terminal, time-up output terminal, centralized monitoring software, touch screen controller				

1 Sterilizers

2 Granulation and Spray Dryers

3 Muffle Furnaces

4 Ovens

5 Incubators

6 Plasma Equipment

7 Water Purifiers

8 Baths

9 Water Circulators

10 Rotary Evaporators

11 Freeze Dryers &amp; Cold Traps

12 Stirrers &amp; Shakers

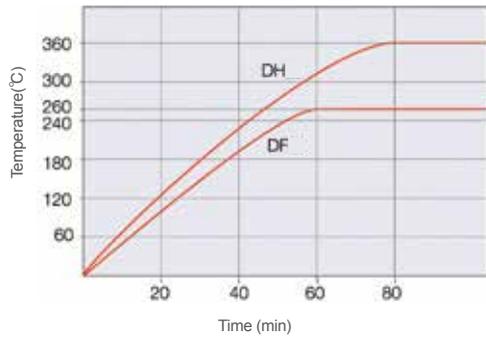
13 Washers

14 Analysis and Test Devices

15 Options

- Forced Convection
- Automatic Overheating Preventer
- Overheating Preventer
- Self-diagnostic Function
- Key Lock Function
- Power Failure Compensation Function
- Overcurrent Leakage Circuit Breaker
- CE Certification

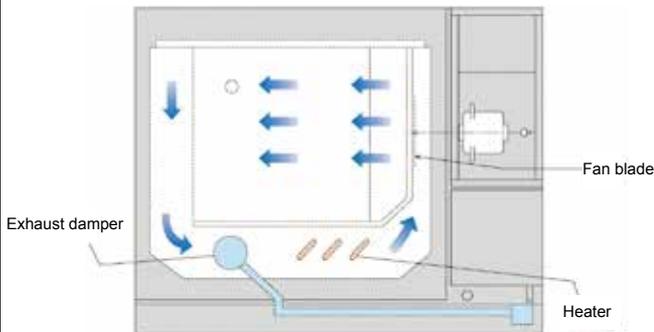
### Temperature rise curve



### Control panel



### Structural diagram



### Internal chamber

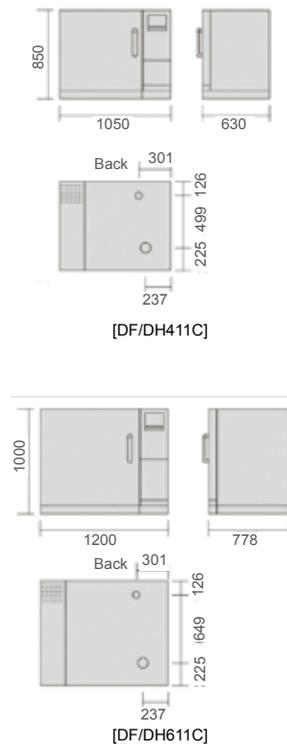


### Options



- ① Exhaust pipe
- ② Data logger
- ③ Observation window

### Dimension diagram (mm)



- Sterilizers 1
- Granulation and Spray Dryers 2
- Muffle Furnaces 3
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- Plasma Equipment 6
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- Baths 8
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