Forced Convection Ovens | Energy-saving, Variable Airflow

DNF401C/411C/601C/611C/811C/911C

Operating temp. range	RT+10~260℃

Temp. uniformity	±1.5% (at 260℃)

Internal capacity	90L	150L	300L	540L

Variable airflow, power consumption reduced by over 30%, an environmentally friendly constant temperature oven that reduces CO_2 emissions.

Features

- Equipped with variable airflow mechanism: 10-step variable airflow + airflow [0] (stop)(401C/411C/601C/611C) , 10-step variable airflow (811C/911C).
- Achieve 30% energy-saving during constant temperature operation through airtight thermal insulation in the chamber (compared to previous products).
- Maximum temperature reach time shortened by up to 15 min (compared to previous products). Standby time and recovery time are also reduced, achieving operational efficiency.
- High airtightness prevents dust and debris from entering the chamber.
- Fixed temp. operation, 99 segments program operation, auto stop operation, auto start operation.
- Temperature and time setting displays, deviation corrections, etc., can be achieved through the VFD fluorescent display.
- Various optional features allow for system upgrades based on user needs.

Safety

- Equipped with self-diagnostic circuits, independent overheating preventers with digital settings, overcurrent leakage protection, key locks, and other safety functions.

Specifications

Model				DNF401C	DNF411C	DNF601C	DNF611C	DNF811C	DNF911C
System				Forced convection + natural convection				Forced convection	
Performance	Forced air (airflow 10)	Operating temp. range		Room temp. +10~260℃					
		GB standard	Temp. fluctuation	±0.5℃ (at 260℃ max airflow setting)					
			Temp. uniformity	±1.5% (at 260℃ max airflow setting)					
		JTM standard	Temp. adjusting accuracy	±0.5℃ (at 260℃ max airflow setting)					
			Temp. distribution accuracy	±2.5℃ (at 260℃ max airflow setting)					
		Max. temp. reaching time		Approx. 90 min				Approx. 60 min	Approx. 100 min
	Natural convection (airflow 0)	Operating temp. range		Room temp. +25~120℃					
		Temp. adjusting accuracy		±0.3℃ (airflow 0 at 120℃)					
		Temp. distribution accuracy		±3℃ (airflow 0 at 120℃)					
		Max.temp. reaching time		Approx. 25 min					
Composition	Interior material			Stainless steel plate					
	Exterior material			Cold rolled steel plate with chemical proofing coating					
	Insulating material			Centrifugal glass wool					
	Heater			Stainless steel heating pipe					
				0.6kW×2		0.83kW×2		1.35kW×2	1.65kW×2
	Forced air motor			DC brushless motor (600~1500rpm) variable (10 segments)					
				30W					30W×2
	Cable port			Inner diameter 33mm (upper on the right)					
	Intake vent			Inner diameter 33mm (lower on the right)					One on each side
	Exhaust vent			Inner diameter 50mm×1, located on the back					Inner diameter 50mm×2, located on the back
Controllers	Temp. control method			PID control					
	Temp. setting method			Digital setting through special function menu keys and ▲/▼ keys					
	Temp. display method			Achieved temp. display: Green 4-digit LED digital display					
				Setting temp. display: Orange 5-digit LED digital display					
	Timer/timer resolution			1 min~99 hours 59 min/1 min					
	Operation functions			Fixed temp. operation, auto start, quick auto stop, auto stop, program operation					
	Program mode			Program operation max 99 segments, repeat operation function					
	Additional functions			Power/accumulated running time function (65535 hours), clock display, deviation correction function, cumulative power consumption, CO_2 emission, heater output, cumulative power-on time, power failure recovery mode selection, user defined information login, variable airflow function (DNF411C/611C)					
	Sensors			K thermocouple (Temp. controller)					
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		600×500×500		600×500×1000	1090×500×1000
	External dimensions (W×D×H mm)			580×646×897		730×695×947		730×695×1685	1220×695×1685
	Internal capacity			90L		150L		300L	540L
	Shelf load			15kg/layer					
	Shelf layers/shelf support spacing			11 layers/30mm		13 layers/30mm		29 layers/30mm	29 layers/30mm×2 columns
	Power supply (50/60Hz) rated current			AC115V 11A	AC220V 6A	AC115V 15A	AC220V 8A	AC220V 13A	AC220V 16A
	Weight			Approx. 61kg		Approx. 90kg		Approx. 135kg	Approx. 210kg
Accessories	Shelf			Stainless punching mesh plate					
				2 pcs				4 pcs	8 pcs
	Supports			4 pcs				8 pcs	16 pcs
Options	Stand			ON61C				-	
	Stacking fittings			ODN26C		ODN28C		-	
	Others			Shelf (1 shelf with 2 supports) , cable port (30/50mm), data logger, combination warning light (standby/running/fault), viewing window, external communication function (RS485), temperature output terminal (4~20mA), external alarm output terminal, time-up output terminal					

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

Control panel

Internal chamber

[DNF601C/611C]

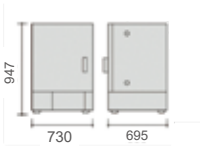
[DNF911C]

Damper operation

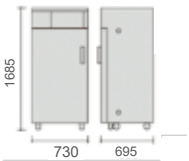
Exhaust vent (back of main unit)

Dimension diagram (mm)

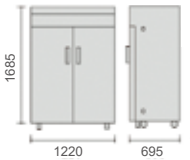
[DNF401C/411C]



[DNF601C/611C]



[DNF811C]



[DNF911C]