

**Industrial & Laboratory Fine Ovens**  
**DFS710/810, DHS710/810**



DFS710/DHS810

Large volume type. Various heat treatments and characteristic tests of temperature are possible owing to the accurate temperature control and the large range of temperature. As the input system of the control panel is dialogical, anyone can input easily.

- A 16-segment program operation is possible.
- Forced hot air circulation and ventilation by a damper.
- Safety measures are enriched, including self-diagnosis function and an independent superheating prevention device.

**Large-capacity type. Optimum for various temperature characteristic tests.**

Model	
DFS	DHS
Operating Temperature Range	
Room temp. +15 to 260 deg.C	Room temp. +15 to 360 deg.C
Temp. Distribution Accuracy	
±2.0deg.C (at260deg.C)	±3.0deg.C (at360deg.C)
Internal Capacity	
418L/558L	

## ■ Specifications

Model	DFS710	DFS810	DHS710	DHS810
<b>Performance</b>				
Circulation method	Forced air circulation and ventilation		Forced air circulation and ventilation	
Operating temperature range	Room temp. +15 to 260deg.C		Room temp. +15 to 360deg.C	
Temp. adjustment accuracy	±0.2deg.C(at 260deg.C)		±0.3deg.C(at 360deg.C)	
Temp. distribution accuracy	±2.0deg.C(at 260deg.C)		±3.0deg.C(at 360deg.C)	
Max. temp. reaching time	Approx. 40 min.		Approx. 50 min.	
<b>Components</b>				
Interior material	Stainless steel		Stainless steel	
Exterior material	Cold rolled steel plate with melamine resin baking finish		Cold rolled steel plate with melamine resin baking finish	
Heat insulating material	Glass wool		Glass wool	
Heater	Stainless pipe heater with fan		Stainless pipe heater with fan	
	4.5kW	5.4kW	5.4kW	6.0kW
Fan type	Scirocco fan		Scirocco fan	
Motor	Condenser type, 100 W		Condenser type, 100 W	
Cable hole	50 mm I.D. (left side)		33 mm I.D. (left side)	
<b>Controller</b>				
Temp. controller	PID control by microprocessor		PID control by microprocessor	
Temp. setting method	Digital setting with UP/DOWN key		Digital setting with UP/DOWN key	
Temp display method	Digital display by green LED and orange LED		Digital display by green LED and orange LED	
Other display	Operation monitor (operation condition graphic display by LED patterns)		Operation monitor (operation condition graphic display by LED patterns)	
Timer	1 min. to 99 Hrs. 59 min		1 min. to 99 Hrs. 59 min.	
Min. division	1 min. or 1 Hrs.		1 min. or 1 Hrs.	
Operation function	Fixed temperature operation, auto-start operation, auto-stop operation, program operation		Fixed temperature operation, auto-start operation, auto-stop operation, program operation	
Additional functions	Variable wind velocity function, Calendar timer (max. 24 Hrs.), Integration time (max. 65535 Hrs.), Time display, Amount of electricity saved / carbon dioxide emission / heater operation amount display (Switching display), Power fail recovery mode selection, Store and recall user settings, External communication terminal (RS485)		Variable wind velocity function, Calendar timer (max. 24 Hrs.), Integration time (max. 65535 Hrs.), Time display, Amount of electricity saved / carbon dioxide emission / heater operation amount display (Switching display), Power fail recovery mode selection, Store and recall user settings, External communication terminal (RS485)	
Heater circuit control	Triac zero-cross control		Triac zero-cross control	
Temp. sensor	K-thermocouple (double sensor)		K-thermocouple (double sensor)	
<b>Safe Device</b>				
Safety countermeasures	Self diagnosis functions(sensor, fan, heater, triac, automatic overheating prevention), Independent overheating prevention, Key lock function, Electric leakage breaker, Door switch, Switch for control box		Self diagnosis functions(sensor, fan, heater, triac, automatic overheating prevention), Independent overheating prevention, Key lock function, Electric leakage breaker, Door switch, Switch for control box	
<b>Standard</b>				
Internal dimensions (W×Dmm)	620×750	620×750	620×750	620×750
	(Hmm)	900	1200	900
External dimensions (W×Dmm)	770×965	770×965	770×965	770×965
	(Hmm)	1,580	1,880	1,580
Internal capacity	418 L	558 L	418 L	558 L
Shelf plate with standard load	Approx. 30kg/piece		Approx. 30kg/piece	
Shelf rest step number	27 steps	37 steps	27 steps	37 steps
	30 mm		30 mm	
Power source 50/60Hz	200V	200V	200V	200V
	single phase	Three phase	three phase	three phase
	23A	AC17A	AC17A	19A
weight (Approx.)	175 kg	190 kg	175 kg	190 kg
<b>Accessories</b>				
Shelf plate	Stainless steel wire, 2 pcs.		Stainless steel wire, 2 pcs.	
Shelf bracket	4 pcs.		4 pcs.	

## ■ Control Panel



## ■ Optional items

Remark	Description	Option Model	Main Unit Model No.	Item Code
	Stainless wire shelf (with support 2 pcs., loading up to 30 kg/shelf)	-	DFS/DHS Series	211064
	Stainless punching metal shelf (loading up to 15kg/shelf)	-	DFS/DHS Series	211099
	Stainless punching metal shelf (loading up to 15kg/shelf)	ODT14	DFS/DHS Series	212925
•	Automatic Damper	ODH32	DFS/DHS Series	212987
•	Exhaust Duct (80mm dia)	ODH34	DFS/DHS Series	212988
•	Emergency stop switch	ODH36	DFS710	212989
•	Emergency stop switch	ODH62	DFS810/DHS710	212970
•	Digital Recorder, 6 points, sensors are not included	ODH38	DFS/DHS Series	212990
•	Power Cord (10m./pc)	ODH42	DFS810/DHS710/DHS810	212991
•	Power Cord (10m./pc)	ODH58	DFS710	212992
•	External Communication Terminal (RS485)	ODH44	DFS/DHS Series	212993
	External Communication Adapter (changeable to RS232C)	OIN90	DFS/DHS Series	211880
•	Temperature Output Terminal	ODH46	DFS/DHS Series	212994
•	External Alarm Output Terminal	ODH48	DFS/DHS Series	212995
•	Time-up Output Terminal	ODH52	DFS/DHS Series	212996
•	Operation Signal Output Terminal	ODH54	DFS/DHS Series	212997
•	Event Output Terminal	ODH56	DFS/DHS Series	212998
	Additional Sensor (K thermocouple)	ODT48	DFS/DHS Series	212946
	Silicon plug (with one hole)	ODT52	DFS/DHS Series	212947
	Exhaust flange	ODF46	DFS/DHS Series	281087
•	Cable Port, 25mm dia	ODH66	DFS/DHS Series	212972
•	Cable Port, 50mm dia	ODH68	DFS/DHS Series	212973
•	Cable Port, 100mm dia	ODH72	DFS/DHS Series	212974

### Note:

The item marked "•" in the column of "Remark" shall be ordered together with the main unit.

### Shelf (with 2 support)



Stainless Wire (Weight Tolerance 30kg/pc)



Stainless Punching Metal (Weight Tolerance 15kg/pc)



Stainless mesh basket shelf (loading up to 15kg/shelf)