

Clean Oven

Class 100

DE411/611, DT411/611

Operating temp. range RT +30°C~260°C DE411/611 RT +30°C~360°C DT411/611

Temp. distribution accuracy ±2.5°C (at 260°C) DE/DT411 ±4.0°C (at 360°C) DE/DT611

Internal capacity 91L DE/DT411 216L DE/DT611

Clean oven suitable for temperature test in dust-free environment.

V-type controller improves the display visibility and operability of the operation panel, with Power consumption / CO₂ discharge monitor functioning as standard.

- Adoption of anti-fouling caster (preventing wheel contamination during transportation)
- Improvement of visibility of HEPA filter replacement timing by three color indication.
- Improvement of safety by phase-reversal relay, detecting of incorrect wiring of power supply when installing.
- Cable diameter changed from 30mm I.D to 33mm I.D when compare with conventional equipments.
- More options when compare with conventional equipments.



Specifications

Product Code	212610	212611	212612	212613
Model	DE411	DE611	DT411	DT611
Circulation method	Forced air circulation			
Operating temperature range	Room temperature +30~260°C		Room temperature +30~360°C	
Max. temp. reaching time*1	Approx. 70 min. (at 260°C)		Approx. 80 min. (at 360°C)	
Temp. adjustment accuracy*1	±0.3°C (at 260°C) JTM K05		±0.3°C (at 360°C) JTM K05	
Temp. fluctuation*1	1.0°C (at 260°C) JIS		1.0°C (at 360°C) JIS	
Temp. distribution accuracy*1	±2.5°C (at 260°C) JTM K05		±4.0°C (at 360°C) JTM K05	
Temp. gradient*1	10°C(at 260°C) JIS		20°C (at 360°C) JIS	
Clean level	Class 100 (when the temperature is stable)			
Interior / Exterior material	Stainless steel / Cold rolled steel plate with melamine resin baking finish			
Heat insulating material	Glass wool			
Heater	Stainless pipe heater			
Fan type / Fan motor	Sirocco fan / Condenser type motor			
Differential pressure meter	Analog type (0~300 Pa)			
Cable hole / Exhaust port	33mm I.D. ×1 / 61mm O.D.×1			
Filter	Heat resistant HEPA filter (dust collect : more than 99.97% at 0.3μm)			
Caster	Wheel Dia. 50mm anti-fouling caster			
Temp. controller	PID control by micro processor			
Temp. setting method	Digital setting with UP/DOWN key			
Temp display method	Digital display			
Other display	Operation monitor (operation condition graphic display by LED patterns)			
Timer	1 min. to 99 Hrs. 59 min			
Operation function	Fixed temp., Auto-start, Auto-stop, Quick auto stop, program (Max.99 steps, 99 patterns, repeat)			
Additional functions	Calendar timer (max. 24 Hrs.), Calibration off-set function, Integration time (max. 65535Hrs.), Display the amount of power consumption / CO ₂ discharge / Heater operation amount, Power failure recovery mode, User setting information save and recall			
Heater circuit control	Triac zero-cross control			
Temp. sensor	K-thermocouple (double sensor)			
Safety countermeasures	Self diagnosis functions (Sensor, Fan, Heater, Relay, Triac, Automatic overheat prevention), Independent overheat prevention, Key lock function, Electric leakage breaker, Door switch, Reverse phase protection			
Internal dimensions	W450×D450×H450mm	W600×D600×H600mm	W450×D450×H450mm	W600×D600×H600mm
External dimensions*2	W700×D1,025×H1,570mm	W850×D1,175×H1,720mm	W700×D1,025×H1,570mm	W850×D1,175×H1,720mm
Internal capacity	91L	216L	91L	216L
Shelf rest step number	12 steps	17 steps	12 steps	17 steps
Power source (50/60Hz)	AC220 / 380V Three-phase			
Weight	Approx. 200 kg	Approx. 270 kg	Approx. 200 kg	Approx. 270 kg

The length of the power cord is about 4 meters outside the unit

*1 Conditions: temperature and humidity : 23°C±5°C, 65%RH±20%, no load, circulating operation (damper fully closed)

*2 Do not include protrusions.

Forced convection
circulation

Auto overheat
prevention

Independent
overheat protector

Self-diagnosis

Key lock

Power outage
compensation

Overcurrent
ELB

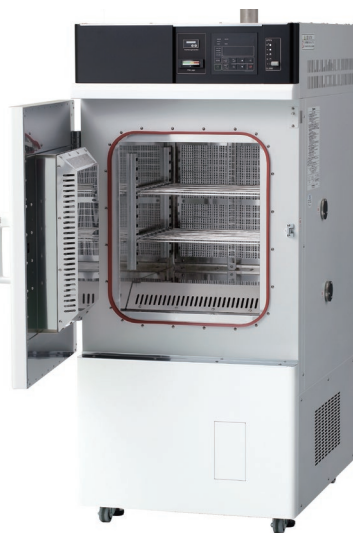
Control Panel



Digital Recorder (Option)

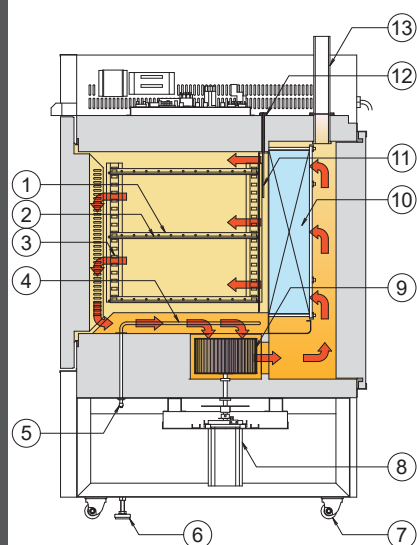


Interior



DE411

Structure diagram



- ① Shelf bracket ② Shelf ③ Shelf support
- ④ Heater ⑤ Heater terminal ⑥ Leveling foot
- ⑦ Caster ⑧ Fan motor ⑨ Sirocco fan
- ⑩ HEPA filter ⑪ Temp. control sensor
- ⑫ Flange for temp. control sensor
- ⑬ Exhaust port

Optional Items

No.	Description	Option Model No.	Main Unit Model No.	Product Code
①	Stainless wire shelf (with support 2 pcs., loading up to 30 kg/shelf)		DE/DT411	212686
②	Stainless wire shelf (with support 2 pcs., loading up to 30 kg/shelf)		DE/DT611	212687
③	Stainless punching metal shelf (loading up to 15kg/shelf)		DE/DT411	212688
④	Stainless punching metal shelf (loading up to 15kg/shelf)		DE/DT611	212689
⑤	Stainless mesh basket shelf (loading up to 15kg/shelf)	ODT12	DE/DT411	212924
⑥	Stainless mesh basket shelf (loading up to 15kg/shelf)	ODT14	DE/DT611	212925
⑦	Additional temp. sensor (K thermocouple)	ODT48	All models	212946
⑧	Silicone stopper (with 1 hole)	ODT52	All models	212947
⑨	*Exhaust port for clean room (O.D. 80mm, duct is not included)	ODT16	DE/DT411	212926
⑩	*Exhaust port for clean room (O.D. 80mm, duct is not included)	ODT18	DE/DT611	212927
⑪	*Automatic damper	ODT22	DE/DT411	212928
⑫	*Automatic damper	ODT24	DE/DT611	212929
⑬	*N ₂ gas injection unit 50L/min	ODT26	DE/DT411	212930
⑭	*N ₂ gas injection unit 50L/min	ODT28	DE/DT611	212931
⑮	*Emergency stop switch	ODT32	DE/DT411	212935
⑯	*Emergency stop switch	ODT34	DE611	212936
⑰	*Emergency stop switch	ODT36	DT611	212937
⑱	*Digital recorder, 6 points, sensors are not included	ODT38	DE/DT411	212938
⑲	*Digital recorder, 6 points, sensors are not included	ODT42	DE/DT611	212939
⑳	*High performance HEPA filter, Class 100 in all heating conditions max temp: 200°C	ODT68	DE411	212954
㉑	*High performance HEPA filter, Class 100 in all heating conditions max temp: 200°C	ODT70	DE611	212955
㉒	*Power cord change, 10m	ODT44	All models	212940
㉓	*External communication terminal (RS485)	ODT54	All models	212948
㉔	*External communication adapter set	OIN90	All models	211880
㉕	*Temperature output terminal (4-20mA)	ODT56	All models	212949
㉖	*External alarm terminal	ODT58	All models	212950
㉗	*Time-up output terminal	ODT62	All models	212951
㉘	*Operation signal output terminal	ODT64	All models	212952
㉙	*Event output terminal	ODT66	All models	212953

* Please specify when ordering main unit.

Shelf / Bracket



①②

Stainless punching metal
(Loading up to 15kg/pc)



③④

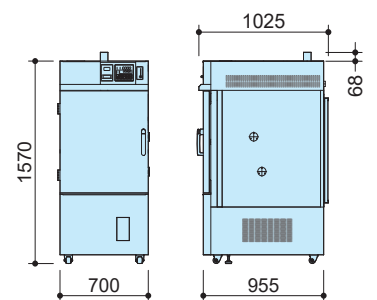
Stainless wire
(Loading up to 30kg/pc)



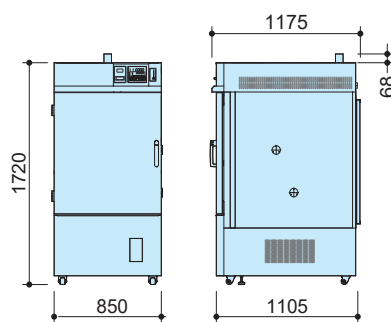
⑤

Stainless mesh basket shelf
(loading up to 15kg/shelf)
(Placed on top of the standard shelves)

Dimensions (Unit:mm)



DE/DT411



DE/DT611