

Industrial & Laboratory Clean Ovens, Class100

DE411/611, DT411/611



DE411/DT611

- The cleanliness class 100 is achieved when the temperature is stable at 260deg.C (DE) and 360deg.C (DT).
- Program operation (Max.99 steps, 99 patterns, repeat operation) is available.

Cleanliness class 100.

High-performance machines are lined up, which prevent the production of fine dust when the temperature on the inside is stable, as well as when the temperature is going up or down.

| Model | |
|-----------------------------|--------------------------|
| DE | DT |
| Operating Temperature Range | |
| 260 deg.C | 360 deg.C |
| Temp. Distribution Accuracy | |
| ±2.5 deg.C (at260 deg.C) | ±4.0 deg.C (at360 deg.C) |
| Clean Level | |
| Class100 | |
| Internal Capacity | |
| 91L / 216L | |

■ Specifications

| Model | DE411 | DE611 | DT411 | DT611 |
|--------------------------------------|---|--------------------------|---------------------------------------|--------------------------|
| Performance | | | | |
| Circulation method | Forced air circulation | | | |
| Operating temperature range | Room temperature +30deg.C to 260deg.C | | Room temperature +30deg.C to 360deg.C | |
| Temp. adjustment accuracy | ±0.3deg.C(at 260deg.C) JTM K05 | | ±0.3deg.C(at 360deg.C) JTM K05 | |
| Temp. fluctuation | ±0.5deg.C(at 260deg.C) JIS | | ±0.5deg.C(at 360deg.C) JIS | |
| Temp. distribution accuracy | ±0.3deg.C(at 260deg.C) JTM K05 | | ±0.3deg.C(at 360deg.C) JTM K05 | |
| Temp. gradient | ±10deg.C(at 260deg.C) JIS | | ±20deg.C(at 360deg.C) JIS | |
| Max. temp. reaching time | Approx. 70 min. | | Approx. 80 min. | |
| Clean level | Class 100 (when the temperature is stable) | | | |
| Components | | | | |
| Interior Material | Stainless steel | | | |
| Exterior | Cold rolled steel plate with melamine resin baking finish | | | |
| Heat insulating material | Glass wool | | | |
| Stainless pipe heater | 2.5kW | 3.6kW | 3.6kW | 5.2kW |
| Fan type | Sirocco fan, Condenser type motor 400W | | | |
| Differential pressure meter | Analog type (0 to 300 Pa) | | | |
| Cable hole | 33 mm I.D. (right side) | | | |
| Additional functions | Exhaust duct (manual type) 61mm O.D. | | | |
| Filter | Heat resistant HEPA filter (dust collect : more than 99.97% at 0.3µm) | | | |
| Controller | | | | |
| 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. and 100 Hrs. to 999 Hrs. | | | |
| 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.), Integration time (max. 65535Hrs.), Clock, Calibration off-set, Display the amount of Power consumption/CO2 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) | | | |
| Safe Device | | | | |
| 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 | | | |
| Standard | | | | |
| Internal dimensions (W x D x Hmm) | 450×450×450 | 600×600×600 | 450×450×450 | 600×600×600 |
| External dimensions (W x D x Hmm) | 700×1,025×1,570 | 850×1,175×1,720 | 700×1,025×1,570 | 850×1,175×1,720 |
| Internal capacity | 91 L | 216 L | 91 L | 216 L |
| Shelf loading | Approx. 30 kg / pc | | | |
| Shelf rest step number / pitch | 12 steps /30mm | 17 steps /30mm | 12 steps /30mm | 17 steps /30mm |
| Power source 50/60Hz | 200V three phase, 8A | 200V three phase, 11A | 200V three phase, 11A | 200V three phase, 15A |
| Weight | Approx. 200 kg | Approx. 270 kg | Approx. 200 kg | Approx. 270 kg |
| Accessories | | | | |
| Shelf plate | Stainless steel, 2 pcs | Stainless steel, 3 pcs | Stainless steel, 2 pcs | Stainless steel, 3 pcs |
| Shelf bracket | 4 pcs | 6 pcs | 4 pcs | 6 pcs |

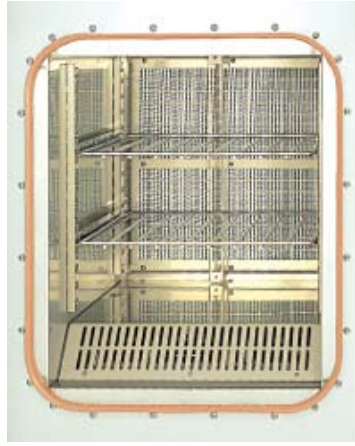
*1 Conditions: temperature and humidity: 23 deg.C±/5 deg.C, 65%RH±/20% (no load)

*2 External dimensions do not include protrusions.

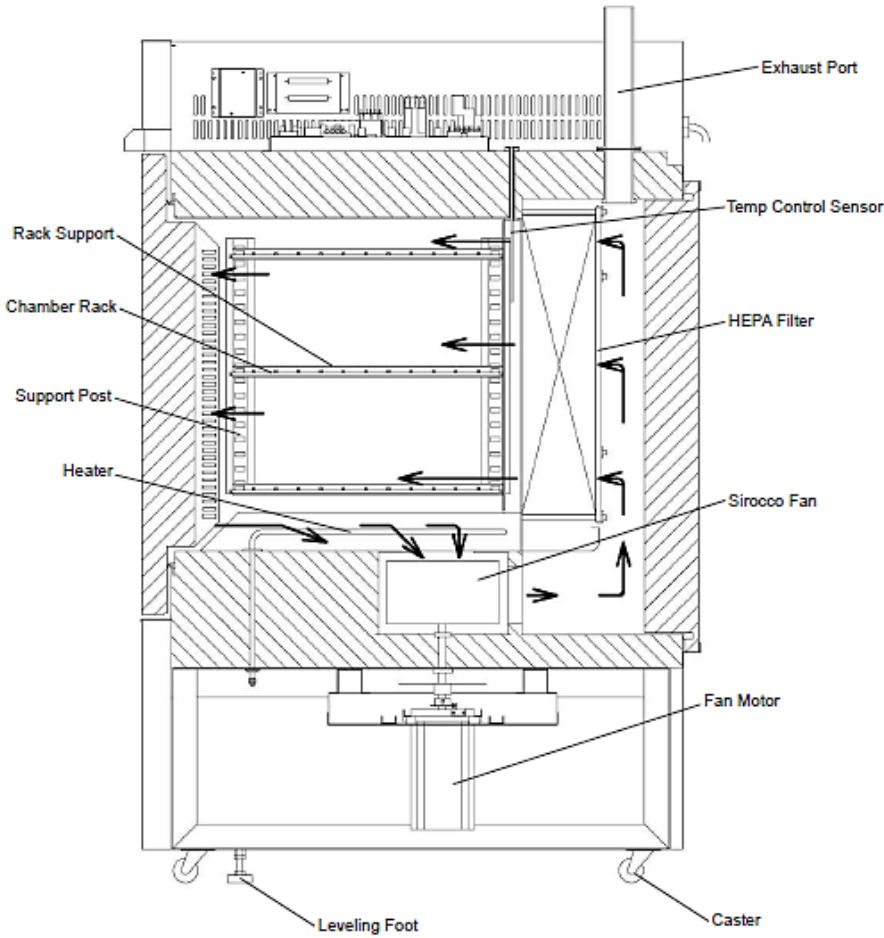
■ Control Panel



■ Interior



■ Interior Structure



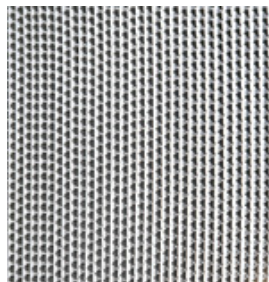
■ Output Terminals



■ Exhaust Duct



■ HEPA Filter



■ Optional Items

| Remark | Description | Model No. | Product Code |
|--------|--|--------------|--------------|
| | Stainless wire shelf (with support 2 pcs., loading up to 30 kg/shelf) | DE/DT411 | 212686 |
| | Stainless wire shelf (with support 2 pcs., loading up to 30 kg/shelf) | DE/DT611 | 212687 |
| | Stainless punching metal shelf (loading up to 15kg/shelf) | DE/DT411 | 212688 |
| | Stainless punching metal shelf (loading up to 15kg/shelf) | DE/DT611 | 212689 |
| | Stainless mesh basket shelf (loading up to 15kg/shelf) | DE/DT411 | 212924 |
| | Stainless mesh basket shelf (loading up to 15kg/shelf) | DE/DT611 | 212925 |
| • | Automatic damper | DE/DT411 | 212928 |
| • | Automatic damper | DE/DT611 | 212929 |
| • | Emergency stop switch | DE/DT411 | 212935 |
| • | Emergency stop switch | DE611 | 212936 |
| • | Emergency stop switch | DT611 | 212937 |
| | Additional temp. sensor (K thermocouple) | DE/DT series | 212946 |
| | Silicone stopper (with 1 hole) | DE/DT series | 212947 |
| • | Power cord change, 10m | DE/DT series | 212940 |
| • | N2 gas injection unit 50L/min | DE/DT411 | 212930 |
| • | N2 gas injection unit 50L/min | DE/DT611 | 212931 |
| • | Temperature output terminal (4—20mA) | DE/DT series | 212949 |
| • | External alarm terminal | DE/DT series | 212950 |
| • | Time-up output terminal | DE/DT series | 212951 |
| • | Exhaust port for clean room (O.D. 80mm, duct is not included) | DE/DT411 | 212926 |
| • | Exhaust port for clean room (O.D. 80mm, duct is not included) | DE/DT611 | 212927 |
| • | Digital recorder, 6 points, sensors are not included | DE/DT411 | 212938 |
| • | Digital recorder, 6 points, sensors are not included | DE/DT611 | 212939 |
| • | High performance HEPA filter, class 100 in all heating conditions (stable, increase, decrease), max temp: 200°C. | DE411 | 212954 |
| • | High performance HEPA filter, class 100 in all heating conditions (stable, increase, decrease), max temp: 200°C. | DE611 | 212955 |
| • | External communication terminal (RS485) | DE/DT series | 212948 |
| | External communication adapter set | DE/DT series | 211880 |
| • | Operation signal output terminal | DE/DT series | 212952 |
| • | Event output terminal | DE/DT series | 212953 |

Note:

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

Shelf (with 2 support)



Stainless wire shelf (loading up to 30 kg/shelf)



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



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