

Industrial & Laboratory Clean Ovens

DES830/DTS830



Large-capacity type, permitting of constant temperature treatment in a class 100 environment.

A space-saving and large volume type. A high by effective type which has achieved dust control under fluctuations of temperature is also in our lineup.

Model	
DES	DTS
Operating Temperature Range	
260deg.C	360deg.C
Clean Level	
Class 100	
Internal Capacity	
327 L	

- The models DES830/DTS830 maintain a purity degree of class 100 in oven only when the temperature is stable.
- Equipped with various functions, including program operations.
- Operation Monitor visualizes Controller Status, Temp and Temp. Changing.
- Incorporates with maximum 99 steps, 99 patterns program controller with repeat function.
- Safety measures are enriched, including self-diagnosis function and an independent overheating prevention device.

■ Specifications

Model	DES830	DTS830
Performance		
Circulation method	Forced convection	
Operating temperature range	Room temperature +30 to 260deg.C	Room temperature +30 to 360deg.C
Temp. control accuracy (JTM K05)	±0.5deg.C (at 260deg.C)	±0.5deg.C (at 360deg.C)
Temp. fluctuation (JIS)	±0.5deg.C (at 260deg.C)	±0.5deg.C (at 360deg.C)
Temp. distribution accuracy (JTM K05)	±2.0deg.C (at 260deg.C)	±5.0deg.C (at 360deg.C)
Temp. gradient (JIS)	±6.0deg.C (at 260deg.C)	±10.0deg.C (at 360deg.C)
Max. temp. reaching time	Approx. 70 min.	Approx. 80 min.
Clean level	Class100 (when the temperature is stable)	
Components		
Interior Material	Stainless steel	
Exterior	Cold rolled steel late with melamine resin baking finish	
Heat insulating material	Glass wool	
Heater	Stainless pipe heater, 6.0kW	Stainless pipe heater, 9.0kW
Fan type	Scirocco fan, condenser type motor 200W x 2	
Differential pressure meter	Analog type (0 to 300Pa)	
Cable hole	33 mm I.D. (right side)	
Filter	Heat resistance HEPA filter	
Controller		
Temp. controller	PID control by micro processor	
Temp. setting method	Digital setting with up-down key	
Temp display method	Digital display	
Timer	Fixed value operation for 1 min. to 99 hr. 59 min. and 24hr. setting	
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, External communication terminal (RS485)	
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	
Standard		
Internal dimensions (W×D×Hmm)	620×480×1,100	
External dimensions (W×D×Hmm)	850×1,080×1,955	
Internal capacity	327 liters	
Shelf plate with standard load	Approx. 30 kg / piece	
Shelf rest step number / pitch	35 steps / 30mm	
Power source 50/60Hz	AC200V, three phase, 19A	AC200V, three phase, 28A
Weight	Approx. 335 kg	
Accessories		
Shelf plate	Stainless steel, 3 pcs	
Shelf bracket	6 pcs	

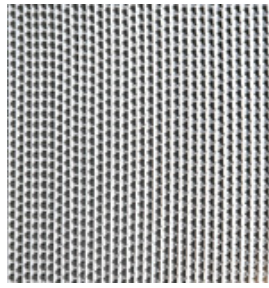
*1 Conditions: temperature and humidity: 23 deg.C±/5 deg.C, 65%RH±/20% (no load)

*2 External dimensions do not include protrusions.

■ Control Panel



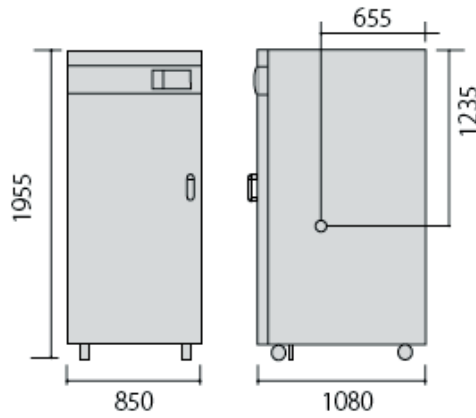
■ HEPA Filter



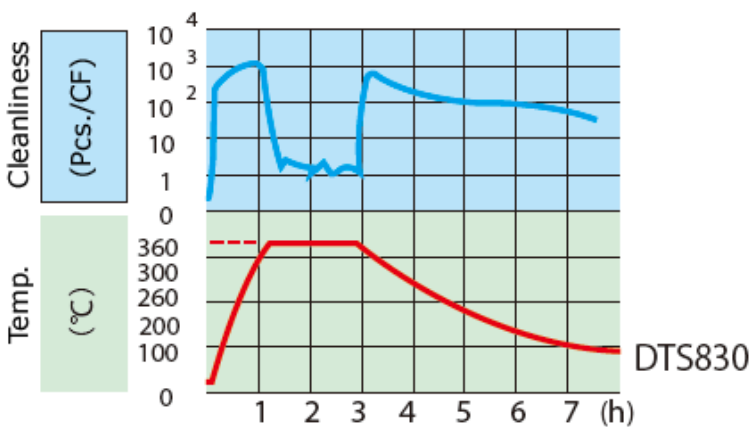
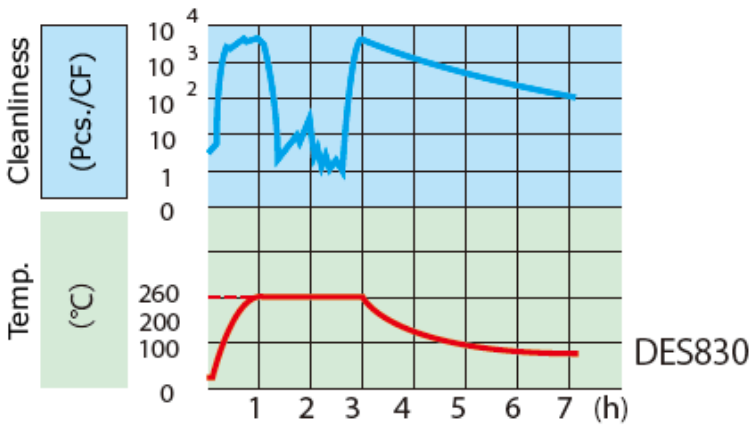
■ Interior



■ Dimension (mm)



■ Performance Curve



■ Optional items

Remark	Description	Model No.	Product Code
	Stainless wire shelf (loading up to 30 kg/shelf)	DES/DTS Series	212678
	Stainless punching metal shelf (loading up to 15kg/shelf)	DES/DTS Series	212679
	Stainless mesh basket shelf (loading up to 15 kg/shelf)	DES/DTS Series	212919
•	Automatic damper : 5 steps	DES/DTS Series	212923
•	Exhaust ducting unit (manual damper)	DES/DTS Series	212921
•	N2 gas injection unit 100L/min	DES/DTS Series	212932
•	Digital recorder, 6 points, sensors are not included	DES/DTS Series	212943
•	Power cord, 10m.	DES830	212945
•	Power cord, 10m.	DTS830	212999
•	Temperature output terminal (4-20mA)	DES/DTS Series	212956
	Silicon plug (with one hole, φ2mm)	DES830	212947
•	External communication adapter set	DES/DTS Series	211880
•	Abnormal alarm display	DES/DTS Series	212957
•	Time up Output Terminal	DES/DTS Series	212958
•	Operation Signal Output Terminal	DES/DTS Series	212959
•	Event Output Terminal	DES/DTS Series	212960
•	Emergency stop switch	DES830	212941
•	Emergency stop switch	DTS830	212942
•	Exhaust port for clean room (O.D. 80mm, duct is not included)	DES/DTS Series	212934
•	High performance HEPA filter, class 100 in all heating conditions (stable, increase, decrease), max temp: 200°C.	DES830	212920

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)