

SINCE 1889



Yamato

Temperature rises and falls quickly, Popular in production applications

Quick heating and cooling oven

DKG611/611V/811/811V

Production efficiency is improved by shortening heating and cooling time.



300 L
DKG811

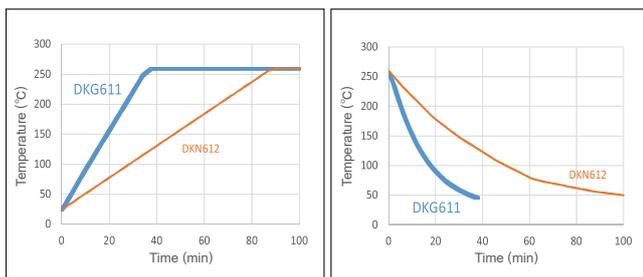


Compared to a standard oven Temperature rise and fall time reduced to approx. 50%

The temperature rises from room temperature to 250 °C in about 85 min. in the standard DKN series ovens, while the DKG 611 rises in about 35 min. (about 2 times faster). It is gaining popularity as an oven that contributes to increased production efficiency.

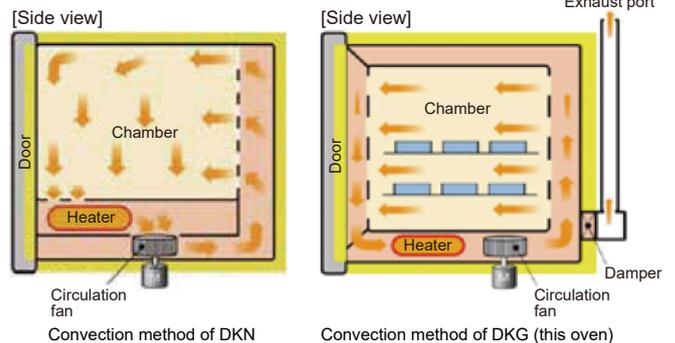
Uses a horizontal air flow system that reduces temperature unevenness even when a large number of samples are placed.

In the method of airflow from top to bottom, the more samples lined up on the shelf, the more uneven the temperature becomes due to uneven convection. The horizontal airflow method allows for uniform convection even when there are a large number of samples to be lined up, thereby minimizing temperature irregularities.



Comparison of temperature rising time

Comparison of temperature decreasing time



Manual damper to adjust the temperature drop time is standard equipment.

Automatic damper that opens fully in conjunction with the end of timer or programmed operation (optional)

V series with packing material changed from silicon to fluoroelastomer (made to order)

Ideal for samples that dislike a small amount of silicon gas generated from the packing

More information about the DKG series ▼



Yamato Scientific Co., Ltd.

Specifications

Model	DKG611	DKG611V	DKG811	DKG811V	
Product code	212896	212897	212898	212899	
System	Forced convection (with air supply and exhaust damper)				
Performance	Operating temperature range	Room temp. +30 to 260°C			
	Temperature adjustment accuracy	JTM K05 ±0.5°C at 260°C			
	Temperature fluctuation	JIS 1°C at 260°C	JIS 2°C at 260°C		
	Temperature distribution accuracy	JTM K05 ±2°C at 200°C / ±2.5°C at 260°C			
	Temperature gradient	JIS 10°C at 260°C	JIS 15°C at 260°C		
	Max. temp. reaching time	Within 45min. (25→260°C)		Within 50min. (25→260°C)	
Structure	Temp. decrease time	Approx. 40min. (260→50°C)		Approx. 50min. (260→50°C)	
	Interior	Stainless steel plate			
	Door packing	Silicon rubber	Fluororubber	Silicon rubber	Fluororubber
	Pipe heater	2.6~3.15kW		3.6~4.36kW	
	Cable port	I.D. 30mm, One at the right side of the main body			
	Air supply port	Bottom of heater room (Open/Close with a manual damper)			
Controller	Exhaust port	φ 80, Upper part of rear of the main body			
	Exhaust damper	Manual damper linked to air supply and exhaust			
	Controller type	VS6 type (PID control)			
	Operation functions	Fixed temp. operation / Program operation / Quick auto stop operation / Auto stop operation / Auto start operation / Program auto start operation			
	program mode	6 patterns (PrG1: 30 steps, PrG2 to 3 : 15 steps, PrG4 to 6 : 10 steps) Step weighting function, Repeat function, Step hold function, Step skip function			
	Additional functions	Calibration offset function / Setting value lock function / Power failure recovery mode selection function			
Safety device	Self-diagnosis function (automatic overheat protection, temperature sensor error, heater disconnection, SSR short circuit, main relay failure, memory error, internal communication error, measurement temperature error) Overheat protector / Overcurrent leakage breaker, Door switch, Thermal fuse, External alarm output terminal				
Standards	Internal dimension	600×500×500mm		600×500×1000mm	
	External dimension	770×696(846)×985mm () includes exhaust duct.		770×696(846)×1674mm () includes exhaust duct.	
	Internal capacity	150L		300L	
	Number of shelf supports/pitch	7 steps / 60mm		15 steps / 60mm	
	Withstand load of shelf	15kg / piece (total load capacity : 35kg)		15kg / piece (total load capacity : 75kg)	
	Power source (50/60Hz) Rated current	AC200~220V single phase, 13.5~15.0A		AC200~220V single phase, 18.5~20.5A	
	Breaker capacity	20A		30A	
	Weight	Approx. 110kg		Approx. 155kg	
Accessory (Shelf / Shelf bracket)	2 pcs.*1 / 4pcs.		4 pcs.*1 / 8 pcs.		

✳ Power plug is not included. *1 The bottom shelf is fixed with screws.

Optional Items

	Product name	Model	Product Code	Applicable model	
				DKG 611(V)	DKG 811(V)
Normal options	Stand	ON62	281540	●	●
	Shelf plate (Stainless steel punching metal 1 pc. / with 2 shelf supports)	-	212266	●	●
factory-installed options *1	Cable hole (inner diameter 25 mm)	ODK22	281558	●	●
	Cable hole (inner diameter 50 mm)	ODK23	281559	●	●
	External communication terminal (RS485)	OA039	281254	●	●
		OA044	281264	●	●
	External communication adapter set (USB/RS485 converter + connection cable included)	OA017	281146	●	●
	Time-up output terminal (No-voltage A contact output)	OA040	281257	●	●
		OA045	281265	●	●
	Temperature output terminal (4 to 20mA)	OA041	281260	●	●
		OA046	281266	●	●
	Independent overheat preventer	OA042	281262	●	●
OA047		281267	●	●	
Auto damper (with time-up output)	OA043	281263	●	●	
	OA048	281268	●	●	

*1 Please contact us regarding the delivery date.

Q & A DKG Series

Q Please tell me about the operation of the optional auto damper.

It is fully open in conjunction with the timer or the time-up output at the end of the program. Please note that the opening degree cannot be set during the program.

Q Is the operating procedure of the controller the same as the previous model

It has been changed to the new VS6 model, but the operation method is the same as before. Operation selection after power failure recovery and timer functions have been added, making it even easier to use.



Caution

The specifications and performance figures of the products listed in this catalog are presented as a user guide under general operating conditions. When using the product, please understand the contents of the instruction manual and use the product correctly. Please note that we cannot be held responsible for any damage to persons or property caused by using the product outside the conditions of use described in the instruction manual.

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