Low Temperature Incubators

Yamato

Forced Convection

Model IN602/802

Model	
602	802

Operating Temperature Range
−10℃～+50℃

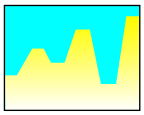
Temp. Distribution Accuracy
±1.0℃ (at37℃)

Internal Capacity	
143ℓ	286ℓ

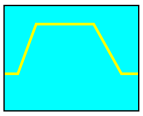
These programmable low temperature incubation chambers can be used for a wide variety of applications, such as storage of culture media, serum, and medicine, as well as for cultivation of microorganisms, and incubation to environmental testing.

- Glass inner doors minimize temperature change when inspecting samples.
- Fixed setting, programmed (maximum 32 steps, repeat, and graduated operation), Auto stop, and Auto start operating modes are possible, along with easy control capabilities.
- Calibration offsetting and integrating time calculation, key lock, and other added functions.
- R404A coolant complies with chloro-flurocarbon regulations.
- Defrosting with either manual control using dedicated keys or automatic control through programmed operation.
- Comprehensive safety features.

Control Panel



Programing operation



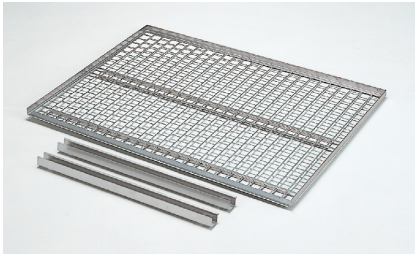
Automatic start & stop

IN602

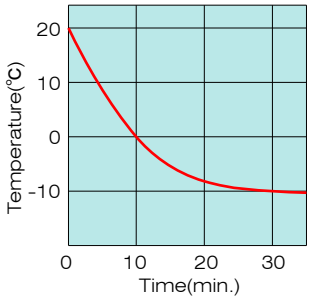
IN802

Interior

Shelf Plate



Temp. Descending Curve



HFC OZONE SAFETY

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Specifications

Model	IN602	IN802
■ Performance		
Circulation method	Forced air circulation	
Operating temperature range	−10～+50℃	
Temp. adjustment accuracy	±0.3℃ / ±0.5℃ (when refrigerator is in the continuous operation) ±1.0℃ (when refrigerator is in the cycle operation)	
Temp. distribution accuracy	±1.0℃ (when refrigerator is in the continuous operation at 37℃)	
Max. temp. reaching time Min. temp. reaching time	+20℃～+50℃ approx. 20 min. +20℃～−10℃ approx. 45 min.	+20℃～+50℃ approx. 30 min. +20℃～−10℃ approx. 65 min.
■ Components		
Interior Material Exterior Material	Stainless steel SUS 304 Electro-galvanized steel plate with baked-on epoxy and melamine resin finish	
Inner door	5mm thick reinforced glass	5mm thick reinforced glass × 2
Heat insulating material	Styro-form (non-freon)	
Refrigerator (medium : R-134a)	Air cooling enclose type, 250W	Air cooling enclose type, 300W
Defrosting mechanism	Manual ON/automatic OFF, Timer or cycle operation	
Fan type 50/60Hz Heater	Axial fan 14W / 13W Iron-chrome wire heater, 550W	Axial fan 14W × 2 / 13W × 2 Iron-chrome wire heater, 750W
Sensor Cable hole	Platinum resistance bulb 32 mm I.D. (the right side)	
■ Controller		
Temp. controller Temp. setting method Temp display method Timer / Min. division	PID control by micro processor Digital setting with up-down key Digital display orange LED 0 min. to 999 Hrs. 59 min / 1 min	
Operation function Program mode	Fixed temperature operation, Program operation, Auto-start, Auto-stop Program operation : Max. 32 steps, Repeat operation	
Additional function	Integrating time function (up to 49,999 hours), Calibration offset function, Time display Fan stop	
Heater circuit control Temp. sensor	Triac zero-cross control K-thermocouple	
■ Safe Device		
Safety countermeasures	Self diagnosis functions (Sensor, Heater, SSR, Automatic overheating prevention, Main relay), Key lock function, Overheat prevention, Electric leakage breaker with over current protection	
■ Standard		
Internal dimensions(W × D × Hmm) External dimensions(W × D × Hmm) Internal capacity	600 × 477 × 500 710 × 645 × 915 143 liters	600 × 477 × 1.000 710 × 645 × 1.630 286 liters
Shelf plate with standard load	Approx. 15 kg / piece	
Shelf rest step number / pitch	13 steps 30 mm	23 steps 30 mm
Power source 50/60Hz	100/230V, single phase, 10.0A/4.5A	100/230V, single phase, 12.0A/5.5A
Weight	Approx. 87 kg	Approx. 130 kg
■ Accessories		
Shelf plate Shelf bracket	Stainless steel, 3 pcs. 6 pcs.	Stainless steel, 5 pcs. 10 pcs.
■ Optional Accessories		
	Stand / Additional shelf plate / External communication terminal(RS485) / Temp. output terminal / External communication adaptor (RC23) / Digital printer / Independent overheating prevention etc.	

SINCE 1889 Yamato

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