

# Programmable Refrigerant Incubator

Forced Air Convection

## IN Series

Operating temp. range -10°C~+50°C

Temp. distribution accuracy ±1.0°C(at 37°C)

Internal capacity 143L (IN602C/612C) 286L (IN802C/812C)

### Standard low temperature incubator

- Large capacity
- Forced circulation with a fan enables high accuracy temperature control and even temperature distribution
- All models come with either an observation window (W) for improved visibility or solid door
- Inner glass door keeps temperature stable during sample observation
- Employment of a large dual-glass door and inner door, forms a triplex glass doors for better heat insulation result (for models with observation window)
- Equipped with various functions such as self-diagnostic (temperature sensor error, heater disconnection, SSR short-circuit, automatic overheat prevention), calibration off-set, clock, timer, overheat prevention device and key lock
- Manual and program defrost operation are both available
- After power failure, unit automatically restarts operation at setting before power failure



(Stand optional)

### Specifications

Model	IN602C	IN612C	IN802C	IN812C
System	Forced air convection			
Operating temperature range	-10°C~+50°C			
Temperature adjustment accuracy	±0.3°C (when refrigerator in continuous operation) ±1.0°C (when refrigerator in cycle operation)			
Temperature distribution accuracy	±1.0°C(when refrigerator in continuous operation at 37°C)			
Maximum temperature reaching time	20~50°C ~20min		20~50°C ~30min	
Minimum temperature reaching time	20~-10°C ~45min (20~-10°C ~55 min for IN602CW / 612CW)		20~-10°C ~65min	
Interior	Stainless steel			
Exterior	Chrome free electronic galvanized plated steel plate chemical proof baking finish			
Heat insulation material	Styrene foam			
Refrigerator	Air-cooled fully closed compressor 275W		Air-cooled fully closed compressor 375W	
Refrigerator medium	R134A			
Defrosting mechanism	Manual ON / Auto OFF, Timer operation, Cycle operation			
Blower fan	Axial fan			
Heater	Iron-chrome wire heater: 550W		Iron-chrome wire heater: 750W	
Sensor	Platinum resistance temperature detector: Pt100Ω (temperature controller), K-thermocouple (overheat prevention device)			
Cable port	I.D.: 32 mm (right side)			
Temperature control	PID control			
Temperature setting	Digital setting with ▲/▼ keys			
Temperature display	Measured temperature: 4-digit orange LED digital display + VFD fluorescent display			
Timer / timer resolution	0min.~999hrs. 59min. / 1min.			
Operation function	Fixed temperature, auto stop, auto start, program (up to 32 steps, repeat operation)			
Additional function	Timer function (accumulated time to 49,999 hrs), calibration off-set function, clock display			
Safety device	Refrigerator overload relay, independent overheat prevention device, over current leakage breaker, self diagnostic functions (temperature sensor error, heater disconnection, SSR short-circuit, automatic overheat prevention), abnormal buzzer alarm			
Internal dimensions (W x D x Hmm)	600 x 477 x 500		600 x 477 x 1,000	
External dimensions (W x D x Hmm)	710 x 645 x 915		710 x 645 x 1,630	
Internal capacity	143L		286L	
Shelf plate load	15kg / pc.			
Shelf rest step number / pitch	13 steps / 30mm		23 steps / 30mm	
Power supply (50/60Hz)	AC115 9A	AC220V 5A	AC115 10A	AC220V 6A
Weight	~89kg		~115kg	
Shelf / Shelf brackets	3 pcs. / 6 pcs.		5 pcs. / 10 pcs.	
Optional items	Stand, additional shelf, cable port (ø30/50mm), recorder, warning light combination (stand-by / operation / error), observation window, external communication function (RS485), temperature output terminal (4-20mA), external alarm output terminal, time up output terminal			

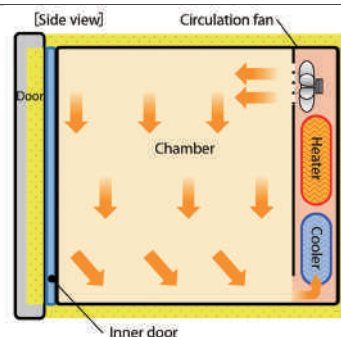
Observation window dimension: W516 x H416mm



143L  
IN602CW

(Stand optional)

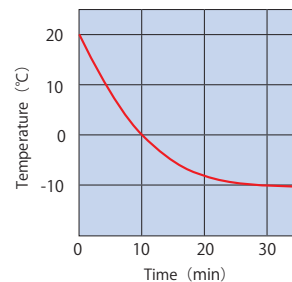
## Method



## Control Panel



## Temperature Drop Curve (IN612C)



## Interior

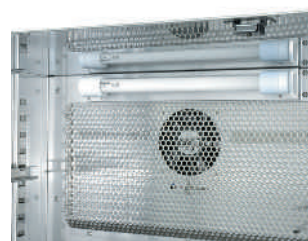


IN602CSW with MK161 shaker installed



IN612C

## Interior Light

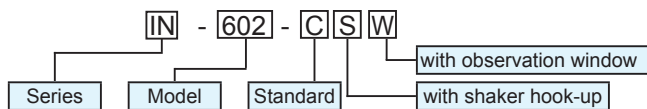


For models with observation window

## Shelf & Bracket Set



## Model Guide



## Examples:

IN-602C: Standard model

IN-602CW: Standard model with observation window

IN-602CSW: Standard model with shaker hook-up and observation window

## Optional items

Description	Product code
Stand for 600 models (ON61)	211856
Metal stacking kit with cooling fan for 600 models (OD60)	212823
Stainless steel punched metal shelf up to 15kg	211221
Stainless steel wire shelf up to 20kg	213464
External communication function (RS422)*	281166
External communication adapter (RS232C)*	281167
Temperature output terminal*	281168
External alarm terminal*	281169
Time up output terminal*	281170
Seismic mat for 600 models	296902
Anti-vibration material	
with support EPM-08	851352
without support EPM-05	851351
Shaker table with slide rail for 600 models	211318

\* Please specify when ordering main unit.

## Dimensions (mm)

