

Low Temperature Incubator (Programmable, Air Jacket)

IL603

Operating temp. range 0~50°C

Internal capacity 159L

Low temperature incubator, ideal for testing incubation experiments.

- The amount of frost to the evaporator has been greatly improved due to our own refrigerator circuit.
- Air jacket structure and inner glass door is equipped.
- Analog output terminal (temperature output 4 to 20 mA, external communication (RS 485)) are equipped as standard.
- A ϕ 50 mm cable hole and a silicone sponge stopper are equipped as standard.



143L
IL603+ON61 (Option)

Specifications

Product code	211156	
Method	IL603	
Circulation method	Natural convection by air jacket	
Operating temp. range / Temp. setting range	0~50°C / -5~55°C	
Temp. control accuracy / Temp. fluctuation*1	JTM K05 $\pm 0.3^{\circ}\text{C}$ / JIS 2.0°C (at 37°C during continuous operation) JTM K05 $\pm 1.0^{\circ}\text{C}$ / JIS 3.0°C (at 37°C cycle operation)	
Temp. distribution accuracy / Temp. gradient*1	JTM K05 $\pm 1.0^{\circ}\text{C}$ / JIS 2.2°C (at 37°C during continuous operation)	
Refrigerator operating range	Setting temperature -5°C~44°C	
Ambient temp. range	5~35°C	
Interior Material	Stainless steel SUS304	
Frost observation window	Transparent acrylic board	
Inner door	5mm thick reinforced glass	
Temp. controller (VS3P type)	PID control by micro processor	
Sensor	Pt100Q(Temperature controller)+K-thermocouple (Overheat preventive device)	
Temp. setting method	Digital setting with key	
Temp display method	Digital display green LED	
Refrigerator / Refrigerant	Air cooling enclose type, 300W / R-134a	
Defrosting mechanism	Hot gas bypass method, Manual ON / Auto OFF, Cycle operation	
Cable hole	50mm I.D.	
Operation function	Fixed temperature operation, Auto-start, Quick auto-stop, Auto-stop, Refrigerator operation mode (continuous operation, cycle operation)	
Safety Device	Earth leakage breaker, Overheat prevention, Delay timer for refrigerator protection, Refrigerator overload relay, Self-diagnosis function (Sensor abnormality, Heater disconnection, SSR short circuit, Auto overheat prevention)	
Additional functions	Key lock function, Calibration offset function, Temperature output terminal, RS485 communication function, Alarm output terminal, Condenser filter	
Internal dimensions	W600×D530×H500mm	
External dimensions*2	W710×D645×H1,008mm	
Internal capacity	159L	
Shelf load capacity	Approx. 15 kg / piece	
Shelf rest step number/pitch	12 steps / 35mm	
Power source (50/60Hz)	AC115V / AC220V Single phase	
Weight	Approx. 105kg	
Accessories	Shelf plate / Shelf bracket	Stainless steel punched metal, 3 pcs. / 6 pcs.
	Door keys	2 pcs.
	Silicone sponge stopper	1 pc.

The length of the power cord is about 2.5m outside the unit.

*1 Conditions: temperature and humidity: 23°C \pm 5°C, 65%RH \pm 20% (no load). In the compressor cycle operation mode, the compressor is turned ON for 12 minutes and OFF for 8 minutes. However, when the operating temperature is 10°C or lower in the cycle operation mode, the mode is automatically switched to the continuous operation mode. *2 Do not include protrusions.

Natural convection
by air jacket

Cable hole

Self-diagnosis

Overheat protector

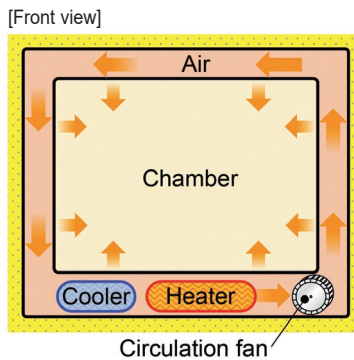
Key lock

Overcurrent
ELB

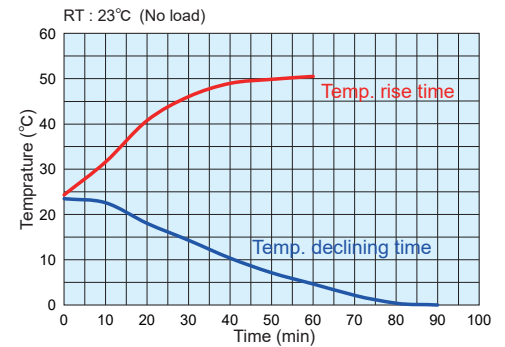
Interior



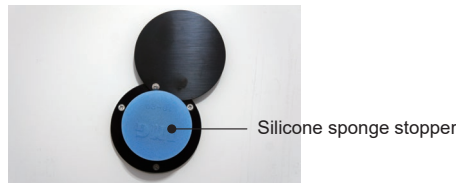
Method



Falling / Rising Temp. Curve



Cable hole (left side)

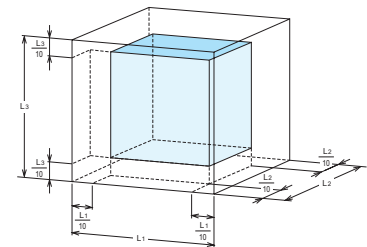


9 points distribution reference data (measured under the following conditions)

		Top right back	Upper left back	Upper right front	Upper left front	Bottom right back	Bottom left back	Bottom right front	Bottom left front	Center
No load	Continuous operation	37.3	37.0	37.5	36.9	36.8	36.5	36.4	35.9	36.9
	Cycle operation	38.4	37.8	38.0	37.8	37.6	37.6	37.6	37.3	37.6
Loaded	Continuous operation	37.6	37.4	37.3	37.4	36.7	35.8	36.7	36.6	36.3
	Cycle operation	37.2	36.9	36.8	36.9	36.3	35.6	36.7	36.3	36.1

Condition

- Above 9 measurement points were taken from the effective internal capacity down-scale by 10%
- Room Temp. 23°C, AC100V, 50Hz, Average temperature during stable setting temp. set at 37°C
- No Load condition : 3 shelves
- Loaded condition : each of the 6 shelves were loaded with 21 Petri Dishes (Total : 126 Petri Dishes)



(°C)

Optional items

No.	Description	Model	Product Code
①	Stand	ON61	211856
②	External communication adapter (USB to RS485 conversion and connection cable)	OIL24	213465
③	External Communication adapter, (RS-232C to RS485 conversion)	ODK18	281349
④	Stainless punching metal shelf (with bracket 2 pcs., loading up to 15kg/shelf)	—	212266
⑤	Stainless wire shelf (with bracket 2 pcs., loading up to 20 kg/shelf)	OIL22	213464
⑥	Drain Water Tray (To be used together with Stand ON61), 4L	OIL26	213466
⑦	Drain Water Bottle (To be fixed to the side of the main unit)	OIL28	213467



Dimensions (mm)

