

Low Temperature Incubator (Energy Saving, Programmable, Air Jacket)

Natural convection by air jacket

ILE800

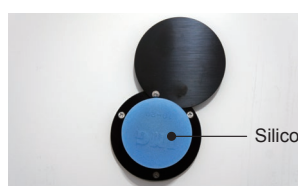
Operating temp. range 0~60°C

Internal capacity 300L

Low temperature incubator, ideal for testing incubation experiments.

- The amount of frost to the evaporator and temperature falling time has been greatly improved due to our own refrigerator circuit and inverter system.
- Air jacket structure and inner glass door is equipped.
- Power consumption reduced about 34% compared with our previous model.
- A ϕ 50 mm cable hole and a silicone sponge stopper are equipped as standard.

Cable hole (left side)



Silicone sponge plug



Specifications

Product code	211144
Model	ILE800
Circulation method	Natural convection by air jacket
Operating temperature range	0~60°C
Setting temp. range	-5~65°C
Temp. control accuracy / Temp. fluctuation*1	JTM K05 $\pm 0.2^{\circ}\text{C}$ / JIS 0.6°C (at 37°C during continuous operation) JTM K05 $\pm 0.3^{\circ}\text{C}$ / JIS 2.0°C (at 37°C cycle operation)
Temp. distribution accuracy / Temp. gradient*1	JTM K05 $\pm 1.0^{\circ}\text{C}$ / JIS 3.0°C (at 37°C during continuous operation)
Refrigerator operating range	Setting temperature -5°C ~ 44°C
Operating ambient temp.	5~35°C
Interior Material	Stainless steel SUS304
Frost observation window	Transparent acrylic board
Inner door	5mm thick reinforced glass
Temp. controller	PID control by micro processor
Sensor	Pt100 Ω (Temperature controller), K-thermocouple (EV control), K-thermocouple (Overheat preventive device)
Temp. setting method	Digital setting with key
Temp display method	Digital display green LED
Refrigerator / Refrigerant	Inverter type compressor / HFC-R410A
Defrosting mechanism	Hot gas bypass method, System manual ON/OFF, Cycle operation
Cable hole	50mm I.D. (Left side)
Operation function	Fixed temperature operation, Auto-start, Auto-stop, Quick auto-stop, Program operation (Max. 99 patterns 99 steps repeat operation), Refrigerator operation mode (continuous operation, cycle operation)
Safe Device	Earth leakage breaker, Independent overheat prevention, Delay timer for refrigerator protection, Refrigerator overload relay, Refrigerator pressure abnormality, Inverter abnormality, Self-diagnosis function (Sensor abnormality, heater disconnection, SSR short circuit, main relay failure, auto overheat prevention)
Additional functions	Key lock function, Calibration offset function, Condenser filter, Door switch
Internal dimensions	W600×D530×H1,000mm
External dimensions*2	W785×D650×H1,765mm
Internal capacity	300L
Shelf load capacity	Approx. 15 kg / piece
Shelf rest step number/pitch	29 steps / 30mm
Power source (50/60Hz)	AC115V / AC220V Single phase, with step-down transformer
Weight	Approx. 150kg
Included accessories	Stainless punching metal shelf, 5 pcs. / 10 pcs. brackets / 2 keys / Silicon sponge plug for cable hole 1 pc.

*1 Conditions: temperature and humidity: $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 65%RH $\pm 20\%$ (no load)

Refrigeration cycle operation mode: Refrigeration system operates for 17 min. ON and 3 min. OFF (Initial value)

*2 Do not include protrusions

Air jacket

Cable hole

Self-diagnosis

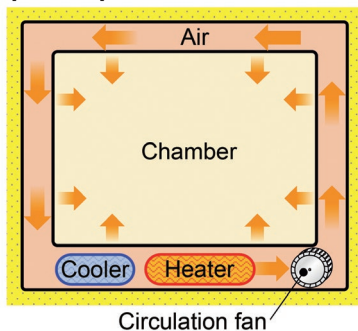
Independent
overheat protectorOvercurrent
ELB

Interior

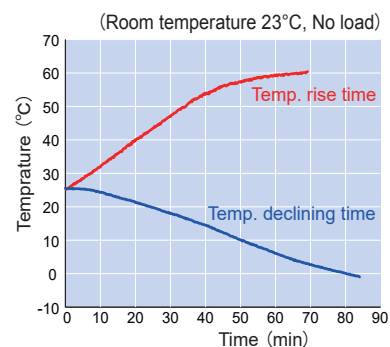


Method

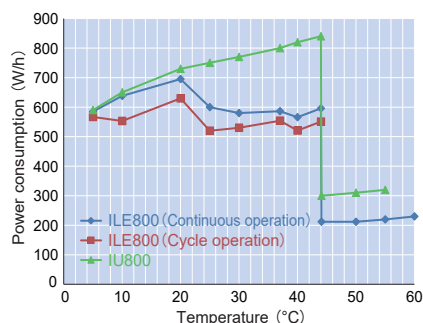
[Front view]



Falling / Rising Temp. Curve



Power Consumption Comparison



Unit : Wh

	30°C	37°C	44°C	50°C*
IU800	770	800	840	310
ILE800 (Continuous operation)	580	580	585	210
ILE800 (Cycle operation)	530	530	535	

* Control of the heater only

CO₂ emissions reduced by approx 770 kg
(When used for one year at 37°C cycle operation)

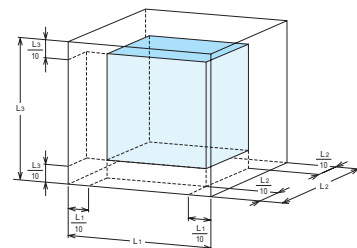
9 points distribution reference data (measured under the following conditions)

		Upper 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	37.9	37.6	38.3	37.7	36.9	36.7	36.6	36.4	37.3
	Cycle operation	37.9	37.7	38.4	37.8	37.0	36.8	36.7	36.5	37.4
Loaded	Continuous operation	38.4	38.3	38.6	38.7	35.9	35.8	36.0	36.1	37.5
	Cycle operation	38.3	38.4	38.8	38.9	36.1	35.9	36.2	36.2	37.6

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 : 5 shelves
- Loaded condition : 7 shelves, 250 petri dishes in total

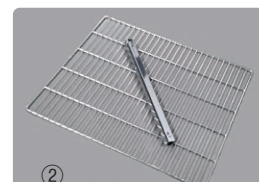
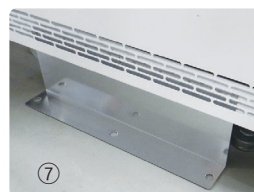
(°C)



Optional items

No.	Description	Product Code
①	Stainless punching metal shelf (With bracket 2 pcs., loading up to 15kg/shelf)	212839
②	Stainless wire shelf (With bracket 2 pcs., loading up to 20 kg/shelf)	OIL22 213464
③	*Temperature output terminal (4-20mA)	OIL12 213460
④	*External alarm terminal (A-contact)	OIL14 213461
⑤	*External communication terminal (RS485 communication terminal)	OIL16 213462
⑥	*External communication adapter set (USB to RS485 conversion and connection cable)	OCI48 211884
⑦	Fall Prevention Bracket (With Anchor Bolt Hole 11mm dia.)	OIL18 213463
⑧	Drain Water Tray (SUS), 4L	OIL26 213466

* Please specify when ordering main unit.

Stainless punching metal shelf
(with bracket 2pcs)Stainless wire shelf
(with bracket 2pcs)

Fall prevention bracket



Drain water tray