

Low Temperature Incubator
Reduces electricity consumption by up to 72%

(compared to conventional models)

Contributes to reducing CO₂ emissions





Model LTE-510 Model LTE-1010

Precise programmed operation from -10 to 60°C

Uses a low-power consumption fan that generates less heat. The control method changes according to room temperature, reducing electricity consumption by up to 72% (compared to conventional models).

Energy-saving operation (ECO. mode) contributes to not only the reduction of electricity consumption but also CO2 emissions.

Two types of control can be selected; ECO. mode for excellent energy-saving operation and CONT. mode for highly accurate temperature control.

Programmed temperature controller with temperature ramp control is built-in. Programs include user programs with up to 8 segments, 1 and 2-step, 24-hour cycle programs, and other operations.

An interior door is provided as standard equipment, allowing clear observation of the inside of the chamber without worrying about temperature changes. Cable holes are provided on the right side of the main body. A shaker, temperature sensor and others can be placed inside the chamber.

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Model		LTE-510	LTE-1010			
Cat. No.		274408	274418			
Convection		Forced convection system				
Performance	Temp. control range	-10 to 60℃				
	Temp. control accuracy	ECO. mode:±1.5℃ (with refrigerator ON-OFF control), ±0.1 to 0.2℃ (with heater control), CONT. mode: ±0.1 to 0.2℃				
	Temp.distribution (w/heater control)	Spatial temperature deviation 0.7°C or less, temperature ramp 1.5°C or less (at 37°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or less, temperature ramp 2.0°C or less (by 2.0°C) Spatial temperature deviation 1.5°C or les				
Functions	Temp. control	ECO. mode: refrigerator ON-OFF, CONT. mode: heater P.I.D. control + refrigerator continuous operation				
	Defrosting	Automatic defrost (auto/timer), Manual defrost				
	Timer	Auto start, Auto stop, Auto start + Auto stop				
	Program	1 and 2-step programs, 24-hour cycle program, temperature ramp (up to 8 steps)				
	Safety functions	Earth leakage/Overcurrent breaker/Variable independent overheat protector, Door switch, Refrigerator: High pressure switch, Overload relay (automatic recovery), Condenser fan: Thermal fuse, Blower fan in cabinet: Burnout prevention circuit, Temperature controller self-diagnostic function (Upper and lower temperature limit alarm, Heater/Sensor disconnection, Power failure, Watch dog, Refrigerator abnormal high pressure, Overheat, Door alarm, Temperature ramp failure, Heater SSR failure)				
Configu- ration	Heater	550W	700W			
	Refrigerator/refrigerant	Air-cooled type, Output 200W / R134a	Air-cooled type, Output 300W / R134a			
Standard	Internal dimensions(mm), capacity	600Wx500Dx500H / 150L	600Wx500Dx1000H / 300L			
	Shelf load capacity, material, number of steps included	Equidistribution Max.15.kg/pc/PE coating x 2pcs	Equidistribution Max.15.kg/pc/PE coating x 4pcs			
	Shelf pitch/number of steps	30mmX11 steps	30mmX27 steps			
	Interior door and decoration	Tempered glass (1pc) / Stainless steel	Tempered glass (2pcs) / Stainless steel			
	Cable hole	1 on right side ID40mm	1 on right side ID40mm			
Ambient temp. range		5 to 35℃				
External dimention (mm)/weight		700 (808)Wx730 (820)Dx890H / Approx. 91kg	700 (808)Wx730 (820)Dx1550H / Approx. 134kg			
Power input/voltage		220VAC, 1kVA, 4.6A, 50/60Hz	220VAC, 1.2kVA, 5.5A, 50/60Hz			

<sup>Specifications are based on room temperature of 20℃ rated power supply voltage, 50Hz with no load.

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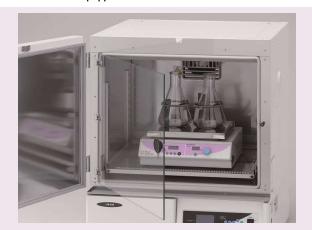
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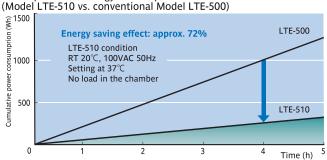
Temperature control</sup> JTM K 07-2007 ("Performance Test Methods and Performance Display Methods for Temperature Test Chambers," Japan Testing Machine Association). *Dimensions in parentheses () include protrusions, including drainage tank rack.

An interior door is equipped. A shaker can be stored inside the chamber



The standard tempered glass interior door minimizes temperature changes inside the chamber and allows a clear view of the chamber. By installing the shelf for shaker (optional), a shaker can be placed inside the chamber and performing shaking culture.

Comparison of energy consumption



Two-tier stacking of LTE-510 is possible



■Running cost comparison Comparison data: CO ₂ emission and electricity cost											
Conventional LTE-500	CO ₂	Emission (kg/yr)	927	Electri-	Cost (yr)	JPY31,588	Max. saving effect approx. 72%				
LTE-510			258			JPY8,816					
LIE-510		Reduction (kg/yr)	669		Reduction (yr)	JPY22,772					
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Conventional LTE-1000		Emission (kg/yr)	1,167	Electri- city	Cost (yr)	JPY39,709	Max. saving effect approx. 71%				
LTE-1010	CO,					JPY11,366					
LIE-1010	_	Reduction (kg/yr)	833		Reduction (yr)	JPY28,343					

**Conditions are for continuous all-night operation 24hour a day, 365 days a year. **CO₂ emission reduction are based on the Tokyo Electric Power Company's emission factor of 0.441 (kg-CO₂/kWh). In CO₂ Emission Factors for FY2020 (recorrected version) from TEPCO Energy Partners website. **Electricity rates are calculated at 15yen/kWh contract power 100VAC, usage 500kW or more, less than 2000kW.

Options



Dedicated stand (For LTE-510) HSS-41C Cat. No.100320



Two-tier stacking metal fixtures (For LTE-510)
Cat. No.274830



LED white fluorescent light for interior observation, mounting plate and ON-OFF switch are included. Cat. No.275590



Hatch clip with keyhole Cat. No.214250 XA padlock is not included.

Fluorescent light unit Model LU-1000

Day/night operation is available for algae culture and plant growth by controlling illumination.

Illumination: Approx. 3,000 Lx (center of chamber, 10Wx4 fluorescent lights) Program function: 24 hours (2 steps) digital

LTE setting temperature range: 5 to 40°C

Power input: 2A, 200VA

Power supply voltage: 100VAC, 50/60Hz

Cat. No. 210430

*When installed on Model LTE-510, the effective height of the chamber becomes 278 mm.

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*The appearance and specifications of the products are subject to change without notice.