

ESCO

WORLD CLASS. WORLDWIDE.

Isotherm®

Low Temperature Incubators

Introducing Esco Isotherm® - world class Low Temperature Incubators from Esco with the technologies and compliance to prove it. Ergonomic, intuitive interfaces, microprocessor PID controls with programming options, pre-heat chamber technology, dual auto-defrosting system, UV disinfection, precisely tuned and tested ventilation and insulation package, all supported by Esco's solutions - based sales and service representatives worldwide.



*Isotherm® Low Temperature Incubators,
Available in 110L and 240L models.*



Isotherm® Low Temperature Incubators

Provide Product Protection

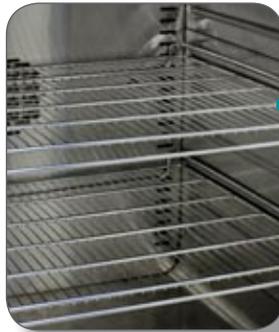
Pre-heat chamber technology

No exposed heating elements located inside the chamber to ensure maximum user safety.

Stable heating and maximum temperature uniformity in the chamber.

Standard temp setting range 0°C up to 100°C for maximum application flexibility.

Secure 2-point door seal and eccentric hinge ensure maximum gasket compression for stable chamber temperature.



Ventilation system

Forced convection design allows rapid temperature response rates, improves uniformity, and reduces fluctuation.

Fan speed and air exchange rates are adjustable.

Low noise during operation.

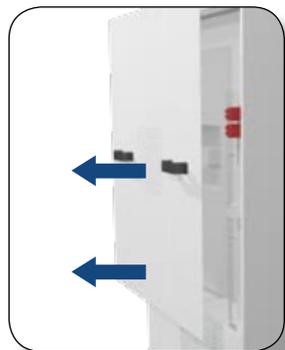
Ventilated stainless steel shelves contribute to uniform air circulation..

Auto-defrosting system

Auto-heating activates and continues for a predetermined time during operation.

Auto-defrosting during operation

Auto-defrosting activates regularly. Influence on temperature fluctuation and uniformity is minimal.



Easy To Service

Diagnostic functions in the microprocessor include historical read-out of temperatures.

Diagnostic menu provides read-out of all sensor inputs and controller settings.

Service can be carried out from the front.

All electronics components are isolated from the work chamber and easily accessible for replacement.

Low service costs.



Side Access port

For temperature validation & mapping.



Isotherm® Low Temperature Incubators,
Model IFC-110-8



Microprocessor PID Control Technology

Soft touch controls for temperature and UV are easy to clean. Tuned PID control ensures fast ramp time, prevents over-shoot and ensures stable temperature once setpoint is achieved.

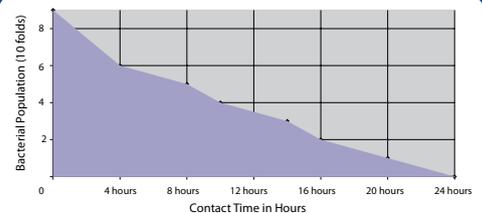


UV disinfection

Auto-running disinfection after startup and during testing process as well, is adjustable to meet different requirements. UV light function stops when door is opened and resumes after it is closed.

Key Features

- Pre-heat chamber technology.
 - No exposed heating elements located inside the chamber to ensure maximum user safety.
 - Stable heating and maximum temperature uniformity in the chamber.
 - Standard temp setting range 0° C up to 100° C for maximum application flexibility.
 - Secure 2-point door seal and eccentric hinge ensure maximum gasket compression for stable chamber temperature.
- Ventilation system.
 - Forced convection design allows rapid temperature response rates, improves uniformity, and reduces fluctuation.
 - Low noise during operation.
 - Ventilated stainless steel shelves contribute to uniform air circulation.
- Microprocessor PID Control Technology.
- Auto-defrosting system
 - Auto-heating activates and continues for a predetermined time during operation.
 - Auto-defrosting during operation - Auto-defrosting activates regularly. Influence on temperature fluctuation and uniformity is minimal.
- UV disinfection
 - Auto-running disinfection after startup and during testing process as well, is adjustable to meet different requirements.
 - UV light function stops when door is opened and resumes after it is closed.
- Easy-to-Clean.
- Easy-to-Service.



Built-In Protection

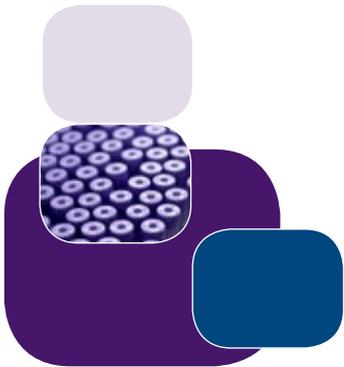
External surfaces are powder coated with Esco **ISOCIDE™** to eliminate 99.9% of surface bacteria within 24 hours of exposure.

General Specifications, Isotherm Low Temperature Incubators (IFC)

| Model | | IFC-110-8 | IFC-240-8 | |
|---|------------------------------|---|---|---------|
| Volume | | 110 litre (3.88 cu.ft) | 240 litre (8.48 cu.ft) | |
| Temperature Range | | 0°C ~ 100°C | | |
| Temperature Variation | At 10°C(±K) | ≤±0.6°C | ≤±0.6°C | |
| | At 15°C(±K) | ≤±0.4°C | ≤±0.4°C | |
| | At 25°C(±K) | ≤±0.3°C | ≤±0.3°C | |
| | At 37°C(±K) | ≤±0.3°C | ≤±0.5°C | |
| Temperature Fluctuation | At 10°C(±K) | ≤±0.3°C | ≤±0.3°C | |
| | At 15°C(±K) | ≤±0.3°C | ≤±0.3°C | |
| | At 25°C(±K) | ≤±0.3°C | ≤±0.3°C | |
| | At 37°C(±K) | ≤±0.3°C | ≤±0.3°C | |
| Heating up time to 37°C from the ambient temperature | | 31 minutes | 37 minutes | |
| Heating up time to 50°C from the ambient temperature | | 33 minutes | 50 minutes | |
| Recovery time after door was opened for 30 sec | At 5°C | 3 minutes | 5 minutes | |
| | At 37°C | 2 minutes | 3 minutes | |
| | At 50°C | 2 minutes | 3 minutes | |
| Cooling down time from 22°C to 0°C | | 90 minutes | 120 minutes | |
| Cooling down time from 22°C to 5°C | | 60 minutes | 80 minutes | |
| Cooling down time from 22°C to 10°C | | 34 minutes | 48 minutes | |
| Heat emission at 37°C set point (compressor on) (Watt) | | 217 | 238 | |
| Heat emission at 37°C set point (compressor off) (Watt) | | 61.8 | 80.7 | |
| Electrical (200-240V, AC, 50/60Hz, 1Ø) | Power* | at 15°C | 400 W | 481 W |
| | | at 25°C | 431 W | 563 W |
| | Cabinet Full Load Amps (FLA) | | 6 A | 6 A |
| | Cabinet BTU | Set Point 15°C | 1364.84 | 1641.23 |
| Set Point 25°C | | 1470.63 | 1921.03 | |
| Incubator Construction | Main Body | Electro galvanized steel with white oven baked epoxy powder-coated finish | | |
| | Chamber | Stainless steel, grade 304 | | |
| Number of Shelves | Standard | 2 | 2 | |
| | Maximum | 4 | 8 | |
| Load Per Shelf | | 30 kg (13.6 lbs) | | |
| Max. Total Load | | 60 kg (27.3 lbs) | | |
| External Dimensions (W x D x H) | | 820 x 730 x 1185 mm (32.3" x 28.7" x 45.6") | 841 x 871 x 1462 mm (33.1" x 34.3" x 53.3") | |
| Internal Dimensions (W x D x H) | | 600 x 480 x 399 mm (23.6" x 18.9" x 15.7") | 645 x 700 x 530 mm (25.4" x 27.6" x 20.9") | |
| Net Weight | | 134 Kg (295.41 lbs) | 164 kg (361.55 lbs) | |
| Shipping Weight | | 166 Kg (365.96 lbs) | 195 kg (429.90 lbs) | |
| Shipping Dimensions, Maximum (W x D x H) | | 878 x 787 x 1425 mm (34.5" x 30.9" x 56.1") | 891 x 933 x 1628 mm (35" x 36.7" x 64.1") | |
| Shipping Volume, Maximum | | 0.98 m ³ (34.60 cu.ft) | 1.35 m ³ (47.67 cu.ft) | |

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- All technical specifications are specified for units with standard equipment at an ambient temperature of 25°C and a voltage fluctuation of ±10%.
- The temperature data is determined in accordance to DIN 12880 standards. All indications are average values, typical for units produced in series.
- Esco reserves the right to alter technical specifications at all times.
- * In order to calculate the current at maximum power consumption, divide maximum power consumption by the voltage.



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