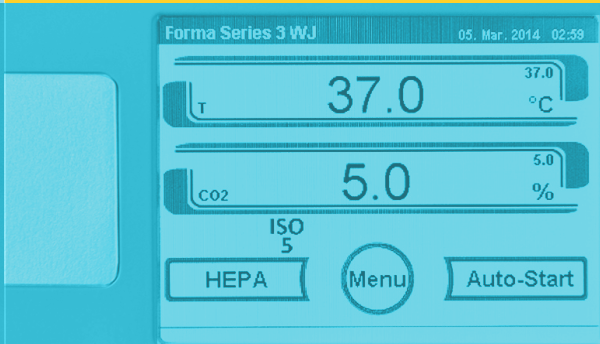




**Thermo Scientific Forma Series 3**  
Water Jacketed CO<sub>2</sub> Incubator



Reliable water jacket technology  
**with effortless touchscreen control**

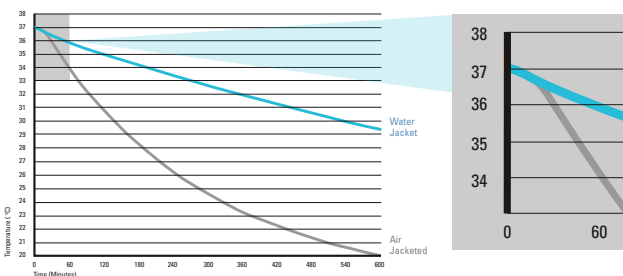


## Reliability with proven water jacket technology.

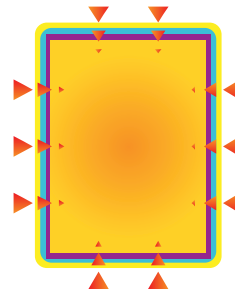
Durable triple-wall construction delivers optimal temperature uniformity. And it's guaranteed for life against leakage. Provides outstanding thermal stability for your valuable cell cultures to protect against ambient temperature swings and unexpected power outages that can ruin your cultures.

### Protect your cultures from the unexpected.

Temperature loss from a power outage or extreme ambient swings can ruin your cultures. Product testing during a power failure in an 18° C (64.4° F) ambient environment showed the water jacketed incubator's temperature gradually dropping just 1° C, from 37° C to 36° C (98.6° F to 96.8° F), in 1 hour and 7.6° C in 10 hours.



Water jacketed incubator temperature versus air jacketed incubator temperature during a power failure in an 18° C ambient environment.



**Water Jacket**  
Unique triple-wall construction provides outstanding temperature stability supplied by dual layers of water and high-quality insulation.

**Specifications**

**Temperature**

Control	±0.1°C
Range	5°C above ambient to 55°C (131°F)*
Uniformity	±0.2°C @ 37°C (98.6°F)**
Tracking Alarm	+/-1°C

**Temperature Safety**

Sensor	Precision thermistor
Controller	Independent analog electronic
Setability	0.1°C

**CO<sub>2</sub>/O<sub>2</sub>**

CO <sub>2</sub> /O <sub>2</sub> Control	Better than ±0.1%
CO <sub>2</sub> Range	0–20%
O <sub>2</sub> Range	1–20%
Inlet Pressure	15 PSIG (1.0 bar)
CO <sub>2</sub> Sensor	T/C or IR
O <sub>2</sub> Sensor	Fuel cell
Readability & Setability	0.1%
Tracking Alarm	+/-1%

**Humidity**

RH	Ambient to 95% @ 37°C (98.6°F)
Humidity Pan	3.2 qt. (3.0 liters) standard
Display (opt.)	In 1% increments

**Fittings**

Fill Port	3/8" hose (barbed)
Drain Port	1/4" hose (barbed)
Access Port	1.3" (3.3cm) with removable silicone plug with filter
CO <sub>2</sub> Inlet	1/4" hose (barbed)

**Unit Heat Load**

115V/230V	344 BTUH (100 Watt)
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**Shelves**

Dimensions	18.5" x 18.5" (47.0cm x 47.0cm)
Construction	Stainless steel, perforated
Surface Area	2.4 sq. ft. (0.2 sq. m)
Max. per Chamber	40.8 sq. ft. (3.8 sq. m)
Standard, Maximum	4, 17

**Construction**

Water Jacket Volume	11.7 gal. (43.5 liters)
Interior Volume	6.5 cu. ft. (184.1 liters)
Interior	Type 304, mirror finish, stainless steel
Exterior	18 gauge, cold-rolled steel, powder coated
Outer Door Gasket	Four-sided, molded, magnetic vinyl
Inner Door Gasket	Removable, cleanable, feather-edged, silicone

**Electrical**

4110/4120/4130/4140	115V, 50/60 Hz, 3.6 FLA (operating range 90–125V)
4111/4121/4131/4141	230V, 50/60 Hz, 2.0 FLA (operating range 180–250V)
Circuit Breaker/	6 Amps/2 Pole
Power Switch	
Convenience Receptacle	75 Watts max. (one per chamber)
Plug	115V: NEMA 5-15P Plug 230V: CEE 7/7 Plug

Alarm Contacts	Power interruption; deviation of temp, CO <sub>2</sub> , O <sub>2</sub> , RH; customer connections through jack on back of unit
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Data Outputs (opt.)	USB (standard), 4–20 milliamp (optional)
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**Dimensions**

Exterior	26.0"W x 39.5"H x 25.0" USB Port (standard), 4-20 ma (optional)"F-B (66.0cm x 100.3cm x 63.5cm)
Interior	21.3"W x 26.8"H x 20.0"F-B (54.1cm x 68.1cm x 50.8cm)

**Weight**

Net	265 lb (120.2 kg)
Net Operational	365 lb (165.6 kg)
Shipping (Motor)	324 lb (147.0 kg)

**Ordering Information**

Cat. No.	CO <sub>2</sub>	O <sub>2</sub>	Voltage
4110	T/C	No	115
4111	T/C	No	230
4120	IR	No	115
4121	IR	No	230
4130	T/C	Yes	115
4131	T/C	Yes	230
4140	IR	Yes	115
4141	IR	Yes	230

All units are UL Listed to United States and Canadian requirements and bear the CE Mark.

\*50°C (122°F) on Model 4120 (4121), 45°C (113°F) on Models 4130 (4131) and 4140 (4141).

\*\*Truncated

See how Thermo Scientific CO<sub>2</sub> incubators provide optimal cell growth.  
Learn more at [www.thermoscientific.com/co2incubators](http://www.thermoscientific.com/co2incubators)



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