

Accel Polar Series - Thermostatic Laboratory Chillers

Thermo - Imlab

**Economical
Compact
Reliable**



● **Thermo Scientific Polar Series**
Thermostatic Laboratory Chillers

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<<< *Thermo Scientific Accel 250
Thematic Laboratory Chiller*

>>> The Perfect Fit: Temperature Control Products for Any Application

As an industry leader in temperature control for over 50 years, we have enabled our customers to optimize their liquid cooling and heating applications while increasing their productivity and reducing their operating costs. Through industry leading service, support and products, we integrate with our clients for partnered success. With countless successful installations around the world, we provide product and applications expertise to meet the most demanding temperature control requirements. From bio-tech and pharmaceutical to printing and semiconductor, world class companies and industry leaders continue to make Thermo Fisher Scientific their first choice when it comes to temperature control.

With one of the most comprehensive product portfolios in the temperature control industry, we provide our customers with a scalable product offering that ranges from bench top research through large process manufacturing. We continually promote the use of customer feedback in the development of our products and services to ensure that we fulfill our customers' every need. Our new and innovative products represent a giant leap forward in performance, configurability and technology and provide unparalleled advantages including:

- **A Perfect Fit:** Whatever your application or your budget, you can configure the most flexible, cost-effective temperature control system that suits your specific requirements.
- **R&D Focus:** We know you continually face new challenges, which is why our Research and Develop team focuses on developing innovative products based on your real world feedback.
- **Global Service and Support:** With our extensive global footprint no matter where you are located, service and support is just a click or phone call away.

To learn more about our extensive line of temperature control products and services, visit our website at: www.thermoscientific.com/tc

>>> Polar Series Product Features



- Intuitive digital controller for ease of use
 - Unique integrated fill port, drain, and level indicator tube ensure accessibility and trouble-free operation
 - Air-cooled refrigeration system eliminates need for external water source
- Small internal reservoir eliminates evaporation
- Optional USB port for serial communication
- Extremely quiet operation—less than 58 dBA



Cover protects against inadvertent dislodging of the fill tube



All units include funnel accessory for easy filling



Site tube on the front of the unit allows quick indication of the fluid level



Flexible fill tube on the front panel allows quick draining of the unit



>>> Polar Series Product

Introducing the NEW Thermo Scientific Polar series; designed with customer input for closed and open loop applications up to 500 watts. Each easy-to-use, thermostatic control laboratory chiller offers full range cooling for quick ramp-up and cool-down of your application.

These plug-and-play, closed-system circulators are ideal for temperatures from -10°C to +80°C. Designed for ease of maintenance, all operational and preventative maintenance takes place through the front panel interface.

Featuring a unique fill-drain and level indication for draining the unit, filling the unit and identifying the fluid level.

The product was designed with a strict focus on quiet operation and has a dB rating of less than 58.

Internal reservoir minimizes fluid evaporation and optimizes chiller performance while the unit's compact design maximizes work space and increases efficiency in the laboratory. The Polar laboratory chillers include a built-in energy-saving feature which limits power consumption for efficient operation in certain heating applications.

Compact Plug-and-Play Design

All user interface points are located on the front of the unit for quick and easy handling.

Ideal for diverse applications within the following markets

- Chemical reaction control
- Separations
- Life science instrumentation
- Mass spectroscopy
- Molecular spectroscopy
- Atomic spectroscopy
- Surface science
- Materials characterization
- Laboratory automation
- General laboratory instrumentation



	Accel 250	Accel 500
Heating Capacity		
50 Hz at +20°C	2 kW / 6829 BTU	2 kW / 6829 BTU
60 Hz at +20°C	1.2 kW / 4097 BTU	1.2 kW / 4097 BTU
Cooling Capacity at +20°C	250 W / 853 BTU	500 W / 1706 BTU
Working Temperature Range	-10°C to +80°C (+14°F to +176°F)	-10°C to +80°C (+14°F to +176°F)
Temperature Stability	±0.1°C	±0.1°C
Force Pump		
Maximum Flow	15 lpm (3.96 gpm)	15 lpm (3.96 gpm)
Maximum Pressure	300 mbar (4.4 psi)	300 mbar (4.4 psi)
Force / Suction Pump		
Maximum Flow	21 lpm (5.5 gpm)	21 lpm (5.5 gpm)
Maximum Pressure	805 mbar (11.7 psi)	805 mbar (11.7 psi)
Reservoir Volume	2.8 liters (0.74 gallons)	2.8 liters (0.74 gallons)
Unit Weight	30 kg (66 lb)	30 kg (66 lb)
Physical Dimensions (H x W x D)	24.8 x 9.1 x 19.2 in (62.0 x 23.2 x 48.7 cm)	24.8 x 9.1 x 19.2 in (62.0 x 23.2 x 48.7 cm)
Voltage Options		
115 V / 60 Hz	Available	Available
100 V / 50-60 Hz	Available	Available
208-230 V / 60 Hz	Available	Available
230 V / 50 Hz	Available	Available
Compliance	CE	CE

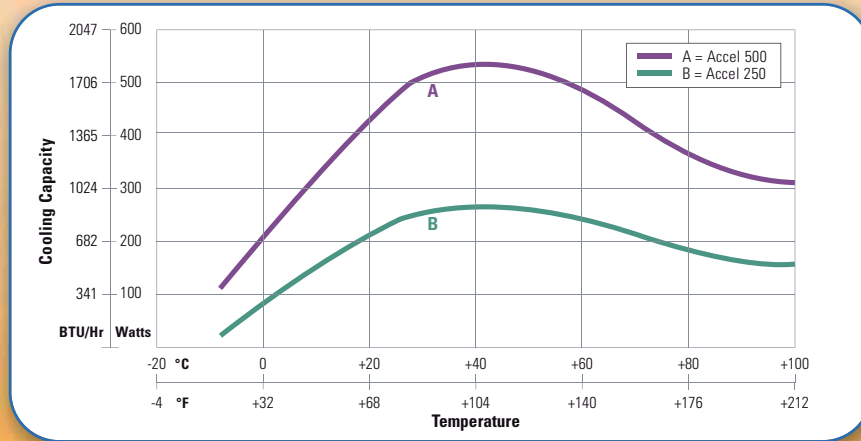
Specifications obtained at sea level using water (above +5°C) and 50/50 EG/Water (-5°C) as the recirculating fluid at a +20°C process setpoint, +20°C ambient condition, at nominal operating voltage. Other fluids, process temperatures, ambient temperatures, altitude or operating voltage will affect performance. Cooling capacity based on units with force pump at max flow. Other pumps and flow rates will affect cooling capacity performance. Pump specifications are nominal values of ±10%. 100 V / 50-60 Hz units are de-rated by -15% for maximum pressure and maximum flow. Specifications are for reference only and are subject to change.

Specifications and Performance Curves

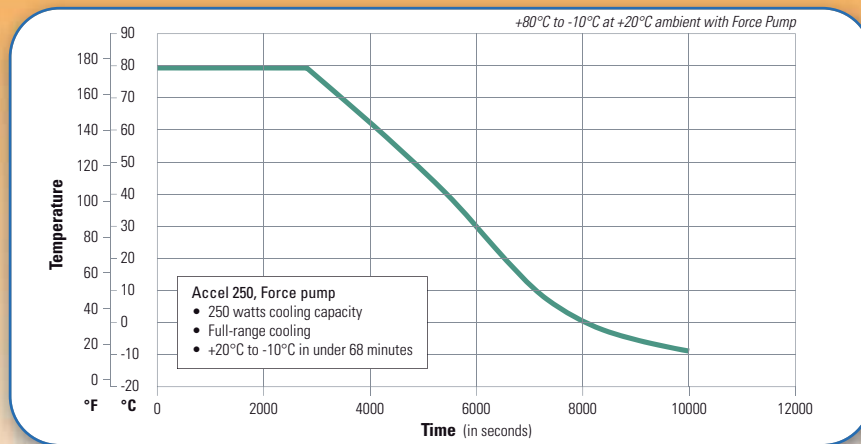
An intuitive user interface allows the user to choose between five temperature set-points. Remote temperature control and communication are available on selected models for remote operation, monitoring and data logging.

Multiple options are available for increased flow and pressure to ensure the user has the perfect fit for their application. Choose between 250 or 500 watts of cooling, a force or force/suction pump, and USB communication.

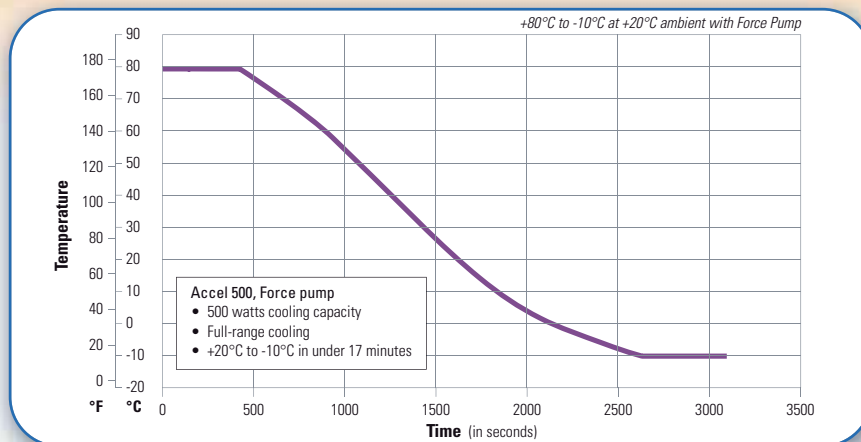
>>> Cooling Capacity for Polar Series Thermostatic Laboratory Chiller



>>> Time to Temperature for Thermo Scientific Accel 250 Thermostatic Laboratory Chiller



>>> Time to Temperature for Thermo Scientific Accel 500 Thermostatic Laboratory Chiller



Specifications obtained at sea level using water (above +5°C) and 50/50 EG/Water (<-5°C) as the recirculating fluid at a +20°C process setpoint, +20°C ambient condition, at nominal operating voltage. Other fluids, process temperatures, ambient temperatures, altitude or operating voltage will affect performance. Cooling capacity based on units with force pump at max flow. Other pumps and flow rates will affect cooling capacity performance. Specifications are for reference only and are subject to change.

>>> **Polar Series Part Numbers**

Accel 250 Thermostatic Laboratory Chiller	115 V / 60 Hz	100 V / 50-60 Hz	220-230 V / 50 Hz	220 V / 60 Hz
Accel 250 Force Pump	223111800	223111600	223111100	223111900
Accel 250 Force Pump with USB	223112800	223112600	223112100	223112900
Accel 250 Force / Suction Pump	223211800	223211600	223211100	223211900
Accel 250 Force / Suction Pump with USB	223212800	223212600	223212100	223212900

Accel 500 Thermostatic Laboratory Chiller	115 V / 60 Hz	100 V / 50-60 Hz	220-230 V / 50 Hz	220 V / 60 Hz
Accel 500 Force Pump	223121800	223121600	223121100	223121900
Accel 500 Force Pump with USB	223122800	223122600	223122100	223122900
Accel 500 Force / Suction Pump	223221800	223221600	223221100	223221900
Accel 500 Force / Suction Pump with USB	223222800	223222600	223222100	223222900

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