



Thermal cycler

PowerFlex Thermal Cycler

Exceptional performance, compatibility, and productivity

The Applied Biosystems™ PowerFlex™ Thermal Cycler combines the proven reliability and performance that scientists have come to expect from our instruments with flexible configuration and control features designed for today's lab workflows. Building on our legacy of innovation, the PowerFlex thermal cycler leverages the latest block technology and connectivity options to balance high-end performance with exceptional usability. These innovations enable faster ramp rates, greater thermal accuracy and uniformity, and an intuitive interface for easy protocol setup and monitoring.

Features include:

- **Precise thermal performance**—7°C/sec block ramp rate, $\pm 0.15^\circ\text{C}$ accuracy, and uniformity of $< 0.4^\circ\text{C}$ at 95°C and $< 0.3^\circ\text{C}$ at 72°C
- **Compatibility with all PCR plate types**—96-well block format fits fully-skirted, semi-skirted, and non-skirted plastic plates
- **Boosted productivity**—independent block control; intuitive 10.1-inch touchscreen; simulation mode for easy protocol transition; Smart Help for fast, data-driven troubleshooting

Easy temperature optimization

The PowerFlex Thermal Cycler features Applied Biosystems™ VeriFlex™ Blocks technology, utilizing multiple Peltier elements to optimize PCR temperature with high precision. VeriFlex™ Blocks allow fine temperature control using six independently controlled zones, enabling precise optimization and higher PCR success rates.

Independent control

With 3 x 32-well block format, each block can be controlled separately. Multiple users can use the instrument at the same time irrespective of their protocols or three different protocols can be set by one user to increase lab productivity.

Simulation mode

Simulation mode allows running the protocols under the same conditions as a different thermal cycler. This minimizes the need to re-optimize protocols when transitioning to a new thermal cycler.

Secure remote access

The Thermo Fisher™ Connect Platform enables secure remote access anytime, anywhere from a mobile device or desktop computer. The platform allows design and share protocols, download experimental report files, schedule an instrument run, or check run status remotely. Access is secure and private available on all cloud enabled instruments.

Smart Help

With Smart Help functionality service or technical support tickets can be sent directly from the thermal cycler. Log files and run history can be automatically attached, enabling faster diagnosis and resolution.

Reliability

Components used to manufacture our thermal cyclers must pass rigorous testing for repeated stress, environmental conditions, including low and high temperature and humidity, as well as shock and vibration testing according to International Safe Transit Association (ISTA) standards.

High-throughput workflows

The PowerFlex Thermal Cycler is engineered with advanced block design to enable integration into automated workflows. It supports a wide range of plastic consumables—from single tubes to semi- and fully-skirted plates—enabling flexibility across formats and PCR workflows. Its precise temperature, block format variety and fully skirted plate compatibility make it ideal for high-throughput applications.

Instrument specification	PowerFlex Thermal Cycler 96-well, 0.2 mL	PowerFlex Thermal Cycler 3x32-well, 0.2 mL
Max. block ramp rate	7.0°C/sec	
Max. sample ramp rate	6.0°C/sec	
Temperature accuracy	±0.15°C (35–99.9°C)	
Temperature range	0–100.0°C	
Heated cover temperature range	30–110°C	
Temperature uniformity	<0.4°C at 95°C	
Dimensions (H x W x D)	26 x 30 x 52 cm (10.2 x 11.9 x 20.3 in.)	
Weight	13 kg (28.7 lb)	15 kg (33 lb)
PCR volume range	1–100 µL	
Instrument memory	32 GB on board memory (>1,000 protocols)	
Connectivity	3 USB ports, Ethernet, Wi-Fi*	
Display interface	10.1" TFT touchscreen	
Power	100–240 V, 50–60 Hz, max. 1000 W	
VeriFlex Blocks range	6 temperature zones (up to 10°C zone-to-zone), 30°C range across the block	2 temperature zones (up to 10°C zone-to-zone)
Smart Help	Yes	

* The Applied Biosystems™ High-Power USB Wi-Fi Module (Cat. No. A26774) is needed to connect to Wi-Fi.

Ordering information

Product	Quantity	Cat. No.
PowerFlex Thermal Cycler 96-well	1 instrument	A40008064
PowerFlex Thermal Cycler 3 x 32-well	1 instrument	A40008063
Recommended plastics		
MicroAmp EnduraPlate Optical 96-Well Full-Skirted Plates with Barcode	50 plates	A31728
MicroAmp Clear Adhesive Film	100 films	4306311
MicroAmp TriFlex 3 x 32-Well PCR Reaction Plate	20 plates	A32811
MicroAmp 8-Tube Strip with Attached Domed Caps, 0.2 mL	125 strips	A30589
Sustain Series 96-Well PCR Plate, Semi-Skirted, Flat Deck	25 plates	AB1400SS



Support built around your needs

Service plans are available to help ensure reliable performance and compliance throughout the instrument's lifetime. Our flexible plan options are designed to fit your lab's needs:

- **AB Repair Center Service**—depot repair conducted by experienced professionals using genuine OEM parts.
- **Rapid Exchange Service**—minimize downtime with fast, hassle-free instrument replacement.
- **AB Repair Center featuring onsite Multiplex Dynamic Temperature Verification (MDTV) and Planned Maintenance (PM)**—a comprehensive depot repair that includes a planned maintenance solution.

Learn more about our support offerings:

- Qualifications: thermofisher.com/iqoqpq
- Rapid Exchange Service: thermofisher.com/rapidexchange
- AB Repair Center: thermofisher.com/abrepaircenter
- MDTV: thermofisher.com/mdtv

Discover more at thermofisher.com/powerflex

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