# Thermal Cycling




mrc

# THERMAL CYCLER PCR


## PCR-300, Polymerase Chain Reaction

**Features:**

- Adjustable pressure hot lid, to prevent volatilizing & dewing
- Hot lid with pressure alarm device, to prevent damaging test tube by too much pressure
- Convenient & flexible module replacement mode.
- Innovative module wire socket design achieves module replacement without wire
- The unique left-right design for amplification area & operating area makes operator more convenient & safe.

| Model | PCR-300 |
|---|---|
| Capacity | 64x0.2ml, 36x0.5ml |
| Temp. range | 4°C-99°C |
| Maximum Heating rate | ≥2.5°C/s |
| Uniformity | 95°Ch≤±0.5°C (20 seconds later)<br>20°C~72°Ch≤±0.3°C (20 sec. later) |
| Maximum Cooling rate | ≥2.5°C/s |
| Temp. display Accuracy | 0.1°C |
| Accuracy | ≤±0.2°C |
| Temperature fluctuation | ≤±0.1°C |
| Heated lid temp. | 105°C |
| Stored program no. | 100 |
| Max. program unit | 9 |
| Max. cycle steps | 9 |
| Max. no. of cycle | 99 |
| Max. constant temp. time | 59m 59s |
| Max. constant temp. preservation time | 99h 59m |
| Display | 4.0" LCD |
| Size (mm) | 370x249x180 |
| Weight | 4.8kg |


## PCRG-400, Gradient Thermal Cycler

**Features:**

- Convenient and flexible module replacement mode.
- Large size super-high-definition LCD screen.
- Intuitive, friendly user interface makes program easier and faster.
- Memory function in case of power-down.
- Low noise, low energy consumption, long application life.
- Solemn, elegant appearance, innovative model.
- Unique rotating stall heat-regulating function.
- Optimal panel design for human ,more convenient operation.
- Hot lid could be stopped at any angle.
- Handle-module, more secure and convenient module replacement, improving using efficiency and expanding using years.

| Model | PCRG-400 |
|---|---|
| Capacity | 96x0.2ml, 54x0.5ml,<br>96x0.2ml+77x0.5ml, 384well |
| Temp. range | 0°C-99°C (Rt≤30°C) |
| Maximum Heating rate | ≥4.0°C/s |
| Heating/cooling rate | 1.0°C/s-4°C/s (Adjustable) |
| Uniformity | ≤±0.3°C (95°C) ≤0.2°C (20-75°C) |
| Maximum Cooling rate | ≥3.5°C/s |
| Accuracy | ≤±0.2°C |
| Gradient temp range | 30~99°C |
| Gradient spread | 2~30°C |
| Gradient Uniformity | ≤0.2°C |
| Heated lid temp. | 30~115°C |
| Environment model | Manually select |
| Temp control | block, tube, calculated |
| Stored program no. | 200 |
| Max. no. of cycle | 99 |
| Display | 5.7" LCD |
| Communication | USB2.0, Rs232 |
| Size (mm) | 380(L) x 270(M) x 250(H) |
| Weight | 7.2kg |

### Instrument working condition:

- Ambient temperature: 5°C-30°C
- Relative humidity: <90%
- Power supply: AC110V±22V, 220V±22V, 250VA, 50Hz±10Hz.

### Instrument storage condition:

- Ambient temperature: -20°C-55°C
- Relative humidity: <90%.

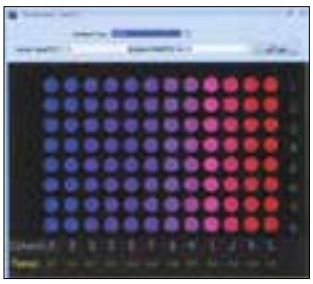
PCRSG-500

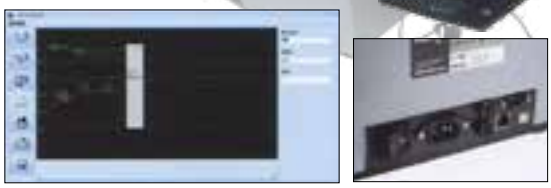


## PCRSG-500, Smart Gradient PCR

**Features:** Convenient and flexible module replacement mode • Sealed sample design for low temperature preservation,clean and dry • Two-stage hot lid pressure regulator, ensures good sealing performance • Gold-plated or silver-plated module, improves the efficiency of heat conduction, makes the experiment more effective • Large size and color super-high-definition LCD screen • Intuitive and user-friendly interface, makes programming quick and easy • Infinitely adjustable lid knob, suitable for various types of the tube • Memory function in case of power-down • Low noise, low energy consumption, long application life • Hot lid could be stopped at any angle • Metal material lid, more reliable and safe • Hard disk and mouse can be linked • Linked with PC for its multiple control • Windows operating system.

- Convenient, free-charge program upgraded.
- Long distance trouble judgment.
- Achieve Circulation nesting.
- 110-220v international general voltage.









### Reliable guarantee for the accuracy of the temperature

Temperate extended control mode which is closer to required experiment temperature control and is able to effectively avoid the system error caused by the disaccord of the temperature points among the instrument's display temperature, actual block temp. and the temperature required for reagents. So as to improve the accuracy of the experiment and ensure the high efficiency. Strict temperature control debugging program makes sure that each instrument can meet the needs of different experiment. 12 channel temp. probes detect simultaneously, which ensure the homogeneity of sample temp. The hermetic-space technique can efficiently eliminate PCR margin reaction. The technique of outside temperature probe tracing the inside curve testing can effectively ensure the accuracy of sample temperature.

| Model | PCRSG-500 |
|---|---|
| Capacity | 96x0.2mL(A) ,54x0.5mL(B), 96x0.2mL+77x0.5ml(C), 384well(D) |
| Temp range | 0°c-99°c (Rt≤30°c) |
| Max. Heating rate | ≥ 4.5°c/s |
| Max. Cooling rate | ≥ 4°c/s |
| Heating / Cooling rate | 0.1°c/s ~ 4°c/s (Adjustable) |
| Uniformity | ≤ ±0.2°c (After 10s) |
| Accuracy | ≤ ±0.1°c |
| Gradient temp rang | 30~99°c |
| Gradient spread | 1~30°c |
| Hot lid temp | 20~110°c |
| Environment model | automatic identification |
| Temp control | block, tube (10~100μl can be used), calculated |
| Stored program | 1000 |
| Max. no. of cycle | 999 |
| Display | 5.7'LCD |
| Communication | USB2.0, Rs232, RJ45, LAN |
| Size (mm) | 380mm(L)x270mm(M)x250mm(H) |
| Weight | 7.8kg |

PCR-200

## PCR-200, Mini PCR

**Features:** Small-sized and easy to program with intuitive user interface • The lid adopts the high temperature resistant material and applicable to various types of test tube • Memory function in case of power-down • Two control mode: PCR or control through PC operation software • It is benefit for students to understand with the animation presentation capabilities of the PC operating software • Achieve Circulation nesting.

| Model | PCR-200 |
|---|---|
| Capacity | 25x0.2mL(A), 9x0.5mL(B), 16x0.2mL+9x0.5ml(C). |
| Temp range | 0°c~99.9°c(Rt≤30°c) |
| Max. Heating rate | ≥2°c/s |
| Max. Cooling rate | ≥2°c/s |
| Uniformity | ≤ ±0.3°c(constant 20s) |
| Accuracy | ±0.2°c |
| Temp control | block |
| Stored program | 3 |
| Max. no. of cycle | 99 |
| Display | 12864LCD |
| Communication | Serial Port |
| Size (mm) | 160mm(L)x140mm(M)x120mm(H) |
| Weight | 2.2kg |

# THERMAL CYCLER PCR


## RPCR-M8, Real-Time PCR svstem

RPCR-M8 Real-Time PCR System is a robust, unique and as precise as any large-scale apparatus. Our system provides you with precise test results quickly and cost-effectively anywhere, anytime.

### Operation System:

### Work Flow:

PCR reaction mix preparation | Running Real-time PCR | Setting program | Analysis

### Features:

- Portable: 12V DC, energy efficient.
- User friendly: Simple interface.
- Small footprint: From desktop to laptop, only 2.1 Kg.
- High sensitivity: As low as 1 copy.
- Sample capacity: 8x0.2ml PCR tubes
- Two channels: SYBR/FAM, ROX/Texas Red
- Open system: Compatible with most commercial reagents.

| Model | RPCR-M8 | |
|---|---|---|
| **Optical** | Light Source | High power LED |
| | Detector | Photediode |
| **Thermology Parameters** | Heating/cooling model | Peltier |
| | Romping Rate (Max.) | 3°C/S |
| | Thermal Uniformity | ±0.2°C |
| | Thermal Accuracy | ±0.2°C |
| | Temperature Range | 4-100°C |
| | Sample Format | 8 Wells |
| **Operational** | Reaction Volume | 10-150μL |
| | Warm Up Time | 1 Min |
| | Sensitivity of Detection | 1 Copy |
| | High Resolution Melt | Supported Resolution to 0.5°C |
| | Multiplexing | Detect Upto 2Dyes Simultaneously. 470/520nm (SYBR/FAM) and 565/625nm (ROX/Texas Red) |
| **Physical** | Dimensions (LxWxH) | 205x190x98mm |
| | Net Weight | 2.1kg |
| **Computer Configuration** | PC Requirement | WIN2000; XP; WIN7; WIN8 |
| **Environmental Requirement** | Ambient Temperature | Operation Temp: 15-30°C |
| | | Storage Temp: 10-60°C |
| | Ambient Humidity | Operation Humidity: 15-90% |
| | | Storage Humidity: 5-95% |
| | Power Supply | 12V, 10A |


RTPCR-96P

## RTPCR-96P, Real Time PCR System

### Features:

- Whole block scanning and formulated line scanning mode, 96-well double-color scanning takes only 5.5s
- 6 channels fluorescence detection, no cross talk between different channels.
- Unique bottom detection, compatible to reaction volume down to 5μl
- New automatic hot lid, automatic open and close which is prevent reagent evaporation
- LED excitation light source with super long service life
- New TE module with special technique to ensure long service life
- Available for a variety of scientific research and clinical applications.

| Model | RTPCR-96P | | | | | |
|---|---|---|---|---|---|---|
| Sample Capacity | 96x0.2ml PCR plate, 12x8-strip tubes, 96x0.2ml single tube (Transparent Bottom) | | | | | |
| Reaction system | 5~100μl | | | | | |
| Dynamics Range | 1-1010 | | | | | |
| Medical instrument registration certificate | G.X.Z. 20153400273 | | | | | |
| Excitation Wavelength | 300~800nm | | | | | |
| Emission Wavelength | 500~800nm | | | | | |
| Detection path | F1 | F2 | F3 | F4 | F5 | F6 |
| Suitable probe. dye | FAM, SYBR GREEN I | HEX/VIC/TET/JOE/ CY3/NED/TAMRA | ROX, TEXAS-RED | Cy5 | Cy5.5 | Reserved path |
| Module temp. range | 4-105°C (resolution: 0.1°C) with SOAK Low Temp. storage Function | | | | | |
| Ramp Rate | 4.0°C/s (max.) | | | | | |
| Temp. Control accuracy | ±0.1°C | | | | | |
| Temp. uniformity | ≤ ±0.3°C | | | | | |
| Temp. control mode | Block mode andTube Mode (Automatic control based on liquid level) | | | | | |
| Operation mode | Continuous operation | | | | | |
| Gradient Temp. Range | 1-36°C | | | | | |
| Hot-lid Temp. Range | 30-110°C (Adjustable, Defaultby 105°C and Automatic Hot-lid) | | | | | |
| Fluorescence intense Detection Repeatability | 5% | | | | | |
| Scanning Mode | Full plate scanning and designated line scanning | | | | | |
| Programming | Max. 20 Segments for Each Program, Max 99 Cycles | | | | | |
| Operation Mode | Continuous | | | | | |
| Scanning time | 5.5s | | | | | |
| Special function | Absolute quantitative automatic analysis, relative quantification, SNP Analysis, melting curveanalysis,6 independent temperature zones, HRMmulti-channel crosstalk calibration, background correction, auto gain, customized parameters... | | | | | |
| Operation system | Microsoft: Windows7/Windows8.1/Windows10 Software: excel2000/2002/2003/2007/2012 | | | | | |
| Min computer configuration | RAM: 512M, hard ware space: 10GB CPU: Pentium 4 virtual memory ≥ 1000MB | | | | | |
| Power supply | 100-240V 50/60Hz 600W | | | | | |
| Dimension (LxWxH) | 410x386x352mm | | | | | |
| Port method | Support USB and RS232 data port and Bluetooth port | | | | | |
| Certification | Ferrotec Peltier/CE/EMC/RoHS2.0/PICC Product quality liability insurance/IVD/MET | | | | | |
| Packing size | 720x680x640mm | | | | | |
| Gross Weight | 55KG | | | | | |