unicorn

Thermal Cycler

COMPANY INTRODUCTION

For decades, we have specialized in thermal cyclers with proven performance and unmatched combination of features, just right for PCR procedures (Polymerase Chain Reaction) carried out in every laboratory, whether you run only a few samples per week or perform high-throughput processes.

Unicorn's conventional and real-time thermal cyclers are designed to meet critical requirements for various PCR applications. Hundreds and thousands of our product are in daily use around the globe, helping scientists, health professionals and laboratory managers achieve high level of accuracy and consistency in their work.

Its Peltier-based temperature heating and cooling technology guarantees precise control and extremely fast ramp rates compared with other suppliers. Unicorn thermal cyclers have different block configurations and equipped with additional functions like conventional gradient, dynamic gradient and 2-D gradient etc. The newest and compact industrial design ensures low footprint, suitable for small laboratories.

We believe in giving our customers a choice in how they use our thermal cyclers supported by excellent service and support. Our dedication to PCR is a guarantee that we will continue to provide better solutions with better services for many years to come.

PRODUCT FINDER

Model	WATSON D	WATSON	HELIX EXPLORER	HELIX-S	HELIX-3	HELIX-4T	HELIX-96PLUS	LARK
Appearance								
Quantity of blocks	2	1	1 or 2	1	3	1	1	1
Types of blocks	3	5	5	4	2	1	1	2
Block description	64*0.2ml (Block A) +32*0.2ml (Block B)	96*0.2ml 384well 6*16*0.2ml	96*0.2ml 96*0.2ml+77*0.5ml (48*0.2ml)*2 48*0.2ml+30*0.5ml 384well	96*0.2ml 96*0.2ml+77*0.5ml 60*0.5ml 384well	3*32*0.2ml	IN-SITU	96×0.2ml (6 independent 16 well block)	16*0.2ml(4×4) 32*0.2ml(4*8)
Conventional gradient	WATSON D(B)	WATSON-A WATSON-A(F) WATSON-384	All models	All models	HELIX-3G	n/a	n/a	LARK-32
Dynamic gradient	n/a	WATSON-B	n/a	n/a	n/a	n/a	6 temperature zones in total	n/a
2-D gradient	"WATSON D(P) WATSON D''	WATSON-C	n/a	n/a	n/a	n/a	n/a	n/a
Control panel	10.1 inches	10.1 inches	8 inches	8 inches	8 inches 800*600TFT	8 inches 800*600TFT	8 inches 800*600TFT	5inches 800*480 65K
Ramp rate	WATSON D(P) 8℃/s	WATSON -C 8℃/s WATSON-A(F) 6℃/s WATSON-A 5℃/s	5℃/s	4.5℃/s	5℃/s	4℃/s	6℃/s	5℃/s
Consumable compatibility	0.2ml tubes 8-strip tubes	0.2ml tubes 8-strip tubes semi-skirted /non-skirted PCR plate 384 PCR plate	0.1/0.2/0.5ml tubes 8-strip tubes semi-skirted /non-skirted PCR plate 384 PCR plate	0.1/0.2/0.5ml tubes 8-strip tubes semi-skirted /non-skirted PCR plate 384 PCR plate	0.2ml tubes 8-strip tubes	IN-SITU	0.2ml tubes 8-strip tubes	0.2ml PCR tube 8-strip tubes
Reaction volume	5-120ul	5-80ul 5-30ul(384well)	10-200ul(0.5) 10-120ul(0.2) 10-80ul 10-30ul(384well)	10-200ul(0.5) 10-120ul(0.2) 10-80ul 10-30ul(384well)	5-120ul	IN-SITU	10-120ul	5-80ul
Program storage	20000	20000	10000	10000	10000	10000	10000	10000
Page	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18

WATSON-D
SERIES THERMAL CYCLER
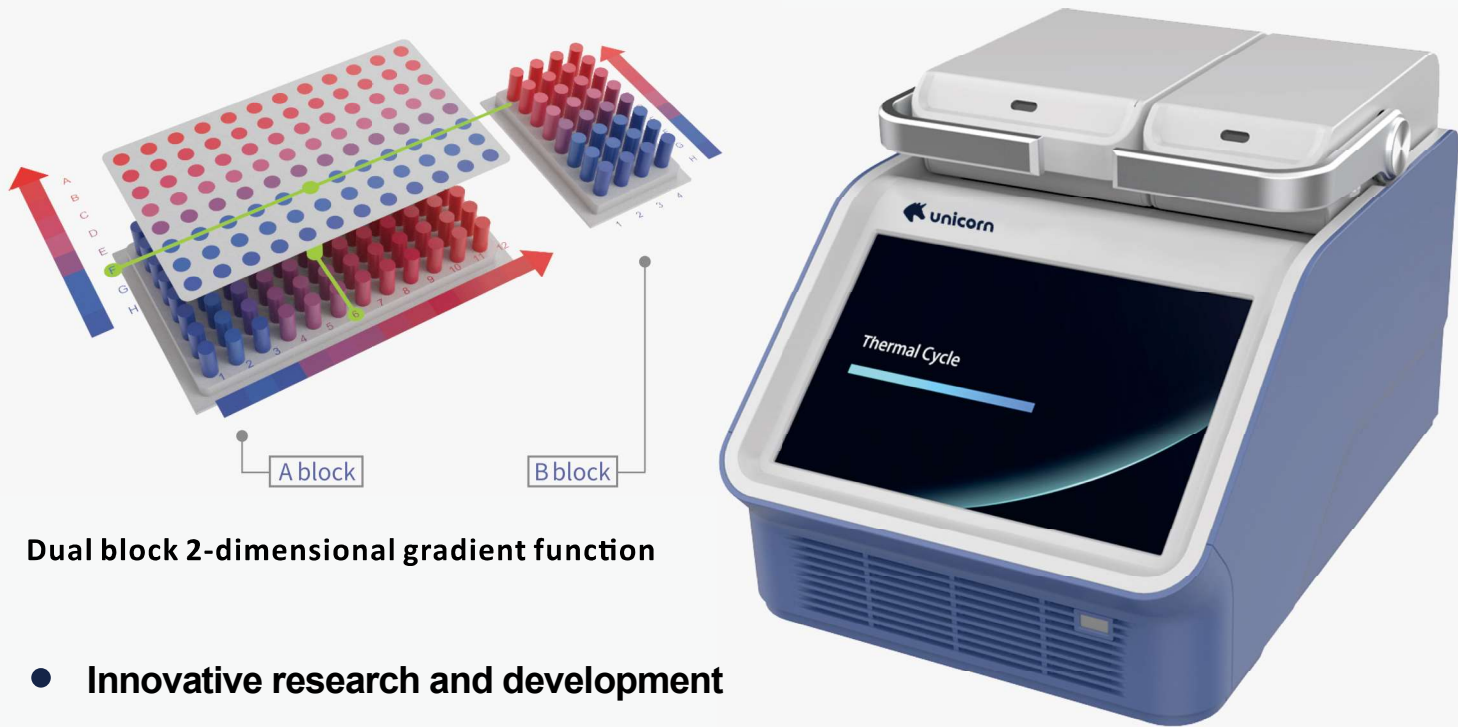
Dual block 2-dimensional gradient function

- **Innovative research and development**
- **Dual block 2-dimensional PCR**
- **Multiple gradinet exploration function**

Introduction：

WATSON-D/D+ series thermal cycler has Android operation system and 10.1 inch capacitive touch screen. Independent operation of double blocks. Air channel is in front and back and it allows machine placed side by side. Self-adapting pressure hot lid makes closing lid and tightening lid in one step. It has long service life peltier heating units and max. ramping rate is 8℃/S. Wifi module is built in and user can control many units of PCR through mobile App.
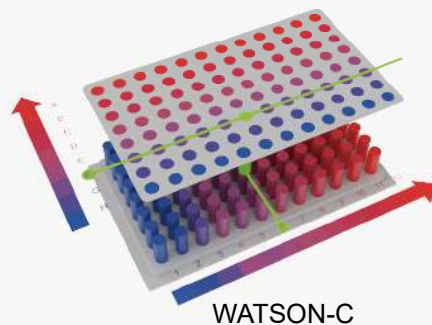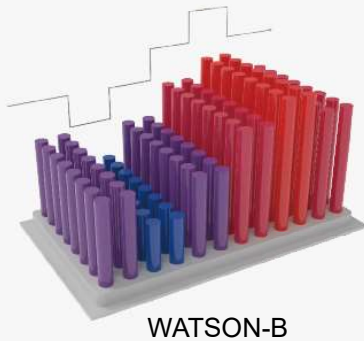
Features:

- Long service life Peltier heating units.
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 8℃/s, can save your precious time.
- Double blocks design, 64 well block on the left can set two-dimensional gradient, 32 well module on the right can set conventional gradient.
- Self-adapting pressure hot lid makes closing lid and tightening lid in one step.
- Air channel is in front and back and it allows machine placed side by side.
- It has Android operation system and 10.1 inch capacitive touch screen. It has graphical menu navigation interface and operation is very simple.
- Built-in 11 standard program file template, can quickly edit the required files.

- The running program and left time can be displayed in real time , allow to edit file when program is running.
- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- Support USB to store and copy PCR data, user can control PCR by USB mouse.
- Update software by USB and LAN.
- WIFI module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
- Email notification after experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	WATSON-D(B)		WATSON-D		WATSON-D(P)	
Capacity	64×0.2ml（A Block）＋ 32×0.2ml（B Block）					
Tube	0.2ml tube, 8 strips					
Reaction Volume	5-120μl					
Temperature Range	0-105℃					
MAX. Ramp Rate	5℃/s		5℃/s		8℃/s	
Uniformity	≤±0.2℃					
Accuracy	≤±0.1℃					
Display Resolution	0.1℃					
Temperature Control	Block/Tube					
Ramping Rate Adjustable	0.1-5℃		0.1-5℃		0.1-8℃	
Gradient Temp. Range	30∼105℃					
Gradient Type	Norm al Gradient (A BLOCK)	Norm al Gradient (B BLOCK)	Two-Dimen sional Gradient	Norm al Gradient	Two-Dimen sional Gradient	Norm al Gradient
Gradient Spread	1-30℃	1-30℃	Horizontal:1-30℃ Vertica:1-30℃	1-30℃	Horizontal:1-30℃ Vertica:1-30℃	1-30℃
Hot Lid Temperature	30-115℃					
Number of Programs	20000 +(USB FLASH)					
Max. No. of Step	40					
Max. No. of Cycle	200					
Time Increment/Decrement	1 Sec - 600 Sec					
Temp. Increment/Decrement	0.1-10.0℃					
Pause Function	Yes					
Auto Data Protection	Yes					
Hold at 4℃	Forever					
Touchdown Function	Yes					
Long PCR Function	Yes					
Language	English					
Computer Software	Yes					
Mobile phone APP	Yes					
LCD	10.1 inch， 1280×800 pels					
Communication	USB2.0 , WIFI					
Dimensions	385mm× 270mm× 255mm (L×W×H)					
Weight	11kg		11kg		18kg	
Power Supply	100-240VAC ,50/60Hz , 600 W		100-240VAC ,50/60Hz , 600 W		100-240VAC ,50/60Hz , 1200 W	

WATSON
SERIES THERMAL CYCLER

WATSON-A
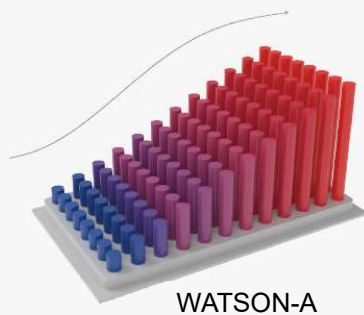
WATSON-B

WATSON-C

Introduction

WATSON series thermal cycler has Android operation system and 10.1 inch touch screen. Operation is very smooth and simple. Air channel is in front and back and it allows machine placed side by side. Self-adapting pressure hot lid makes closing lid and tightening lid in one step. It has long service life peltier heating units and max. ramping rate is 8℃/S and cycle times is more than 1000,000. Wifi module is built in and user can control many units of PCR through mobile App.

Features

○ Long service life Peltier heating units.
○ Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
○ High heating and cooling rate, max. Ramping rate 8 ℃/s, can save your precious time.
○ Self-adapting pressure hot lid makes closing lid and tightening lid in one step.
○ Air channel is in front and back and it allows machine placed side by side.
○ It has Android operation system and 10.1 inch capacitive touch screen. It has graphical menu navigation interface and operation is very simple.
○ Built-in 11 standard program file template, can quickly edit the required files.

○ The running program and left time can be displayed in real time , allow to edit file when program is running.
○ One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
○ Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
○ Automatic restart after power failure. When power is restored it can continue to run unfinished program.
○ Support USB to store and copy PCR data, user can control PCR by USB mouse.
○ Update software by USB and LAN.
○ WIFI module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
○ Email notification after experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	WATSON-A	WATSON-A(F)	WATSON-A(384)	WATSON-B	WATSON-C
Capacity	96×0.2ml	96×0.2ml	384 well	6×16×0.2ml	96×0.2ml
Tube	0.2ml tube, 8 strips, Half skirt 96 wells plate, No skirt 96 wells plate	0.2ml tube, 8 strips, Full skirt 96 wells plate, Half skirt 96 wells plate, No skirt 96 wells plate	384 PCR microplate	0.2ml tube, 8 strips, Half skirt 96 wells plate, No skirt 96 wells plate	
Reacton Volume	5-80µl	5-80µl	5-30µl	5-80µl	5-80µl
Temperature Range	0-105℃				
Max. Ramp Rate	5℃/s	6℃/s	5℃/s	6℃/s	8℃/s
Uniformity	≤±0.2℃				
Accuracy	≤±0.1℃				
Display Resolution	0.1℃				
Temp. Control	Block/Tube				
Ramp Rate Adjustable	0.1-5℃/s	0.1-6℃/s	0.1-5℃/s	0.1-6℃/s	0.1-8℃/s
Gradient Temp. Range	30～105℃				
Gradient Type	Normal Gradient	Normal Gradient	Normal Gradient	Dynamic Gradient	2-Dimensional Gradient
Gradient Speed	1-42℃	1-42℃	1-42℃	6 zone, each zone is 0.1-5℃	Horizontal: 1-30℃ Vertical: 1-24℃
Hot Lid Temperature	30-115℃				
Number of Programs	20000 +(USB FLASH)				
Max. No. of Step	30	30	30	40	40
Max. No. of Cycle	200				
Time Incre./Decre.	1 Sec - 600 Sec				
Temp. Incre./Decre.	0.1-10.0℃				
Pause Function	Yes				
Auto Data Protection	Yes				
Hold at 4℃	Forever				
Touchdown Function	Yes				
Long PCR Function	Yes				
Language	English				
Computer Software	Yes				
Mobile Phone App	Yes				
LCD	10.1 inch，1280×800 pels				
Communication	USB2.0 , WIFI				
Dimensions	385mm× 270mm× 255mm (L×W×H)				
Weight	10KG	10KG	10KG	10KG	17KG
Power Supply	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,750w	100-240VAC, 50/60Hz,750w	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,1200w

HELIX EXPLORER
SERIES THERMAL CYCLER

- Powerful features
- Various blocks can be chosen
- Android system for easy operation

Introduction

HELIX EXPLORER series thermal cycler uses customized Marlow(US) peltier. Its maximum ramping rate is 5 ℃/s and cycle times is more than 1000,000. The product combines a variety of advanced technologies: Android operating system, colored touch screen, run dual block independently, Built-in WIFI module, mobile APP and PC software control function, big storage capacity and email alert function. All above functions allow PCR's excellent performance and meet higher experiment's need.

Features

- 8 pcs long service life Peltier heating units and form 4 circuits to control 4 temperature zones and allow double block gradient function;
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance;
- High heating and cooling rate, max. Ramping rate 5 ℃/s, can save your precious time;
- Two blocks independently controlled and can run 2 different PCR programs simultaneously;
- Stepless adjustable hot lid with pressure-protection, fit tubes of different heights to avoid tube melt and evaporation;
- Android operating system, capacitive touch screen, high-definition TFT display (8", 800×600 pixels, 16 colors) with graphical interface provides easy use for setting up and monitoring.
- Built-in 11 standard program file template, can quickly edit the required files;

- The running program and left time can be displayed in real time , allow to edit file when program is running;
- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA;
- Internal flash memory for 10000 typical PCR files in free configurable folders;
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need;
- Automatic restart after power failure. When power is restored it can continue to run unfinished program;
- GLP report records every step to provide accurate data support for experiment result analysis;
- User Login Management, three-tier permission, password protection function to ensure data security;
- Support U disk to get PCR data, to update software, and USB mouse can also be used to control the PCR instrument;
- Built-in WIFI module, one machine can control multiple PCR machines at the same time through mobile APP or PC software;
- Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	HE9612T	HE9632T	HE4852T	HE4832T	HE4834T
Capacity	96×0.2ml	96×0.2ml+77×0.5ml	Double 48×0.2ml	48×0.2ml+30×0.5ml	48×0.2ml+30×0.5ml
Tube	0.1/0.2ml tube, 8 strips, 96 well plate	0.1/0.2/0.5ml tube	0.1/0.2/0.5ml tube, 8 strips, 96 well plate	0.1/0.2/0.5ml tube, 8 strips	0.1/0.2/0.5ml tube, 8 strips
Reacton Volume	10-120µl	10-80µl, 10-120µl	10-80µl, 10-120µl	Left block:10-120µl, Right block:10-200µl	10-30µl
Temperature Range			0-105℃		
Max. Ramp Rate	5℃/s	5℃/s	5℃/s	5℃/s	5℃/s
Uniformity			≤±0.2℃		
Accuracy			≤±0.1℃		
Display Resolution			0.1℃		
Temp. Control			Block/Tube		
Ramp Rate Adjustable	0.1-5℃/s	0.1-5℃/s	0.1-5℃/s	0.1-5℃/s	0.1-5℃/s
Gradient Temp. Range			30～105℃		
Gradient Type	Normal Gradient	Normal Gradient	Normal Gradient	Normal Gradient	Normal Gradient
Gradient Speed	1-30℃	1-30℃	1-30℃	1-30℃	1-30℃
Hot Lid Temperature			30-115℃		
Number of Programs			10000+(USB FLASH)		
Max. No. of Step	30	30	30	30	30
Max. No. of Cycle			200		
Time Incre./Decre.			1 Sec - 600 Sec		
Temp. Incre./Decre.			0.1-10.0℃		
Pause Function			Yes		
Auto Data Protection			Yes		
Hold at 4℃			Forever		
Touchdown Function			Yes		
Long PCR Function			Yes		
Language			English		
Computer Software			Yes		
Mobile Phone App			Yes		
LCD			8 inch, 800×600 pels		
Communication			USB2.0 , WIFI		
Dimensions			390mm×270mm×255mm (L×W×H)		
Weight	9KG	9KG	9KG	9KG	9KG
Power Supply	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,600w	100-240VAC, 50/60Hz,600w

HELIX-S
SERIES THERMAL CYCLER
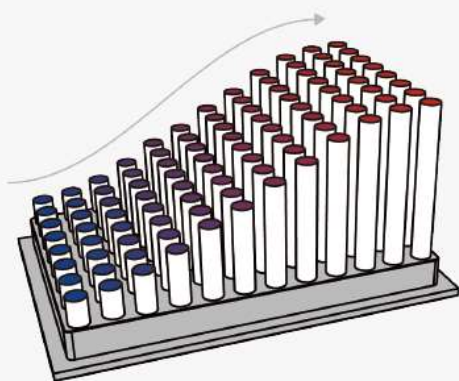
Gradient Function

- **Intelligent thermal cycler**
- **Fast ramp rate to save time**
- **Built-in WIFI module**

Introduction

HELIX-S series thermal cycler uses uses long service life peltier. Its max. ramping rate is 4.5 ℃/s and cycle times is more than 1000,000. The product combines a variety of advanced technologies:Android system; Color capacitive touch screen; several block as options; built-in WIFI module, mobile APP and PC software control function; email notification function; big storage capacity and etc. All above functions allow PCR's excellent performance and meet higher experiment's need.

Features

- Six pieces of long service life Peltier heating units and form 3 circuits to control 3 temperature zones;
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 4.5 ℃/s, can save your precious time.
- Stepless adjustable hot lid, fit tubes of different heights to avoid tube melt and evaporation.
- Android operating system, capacitive touch screen, high-definition TFT display (8", 800×600 pixels, 16 colors) with graphical interface provides easy use for setting up and monitoring.
- Built-in 11 standard program file template, can quickly edit the required files.
- Folder management, user can build directory.
- The running program and left time can be displayed in real time, allow to edit file when program is running.

- Internal flash memory for 10000 typical PCR files in free configurable folders.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- GLP report records every step to provide accurate data support for experiment result analysis.
- User Login Management, three-tier permission, password protection function to ensure data security.
- Support U disk to get PCR data, to update software, and USB mouse can also be used to control the PCR instrument;
- Built-in WIFI module, one machine can control multiple PCR machines at the same time through mobile APP or PC software;
- Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	HE9612T-S	HE9632T-S	HE6022T-S	HE3842T-S
Capacity	96×0.2ml	96×0.2ml+77×0.5ml	60×0.5ml	384well
Tube	0.1/0.2ml tube, 8 strips, 96 well plate	0.1/0.2ml/0.5ml tube, 8 strips, 96 well plate	0.5ml tube	384 well plate
Reacton Volume	10-120µl	10-80µl, 10-120µl	10-200µl	10-30µl
Temperature Range	0-105℃			
Max. Ramp Rate	4.5℃/s	4.5℃/s	4.5℃/s	4.5℃/s
Uniformity	≤±0.2℃			
Accuracy	≤±0.1℃			
Display Resolution	0.1℃			
Temp. Control	Block/Tube			
Ramp Rate Adjustable	0.1-4.5℃/s	0.1-4.5℃/s	0.1-4.5℃/s	0.1-4.5℃/s
Gradient Temp. Range	30∼105℃			
Gradient Type	Normal Gradient	Normal Gradient	Normal Gradient	Normal Gradient
Gradient Speed	1-30℃	1-30℃	1-30℃	1-30℃
Hot Lid Temperature	30-115℃			
Number of Programs	10000+(USB FLASH)			
Max. No. of Step	30			
Max. No. of Cycle	200			
Time Incre./Decre.	1 Sec - 600 Sec			
Temp. Incre./Decre.	0.1-10.0℃			
Pause Function	Yes			
Auto Data Protection	Yes			
Hold at 4℃	Forever			
Touchdown Function	Yes			
Long PCR Function	Yes			
Language	English			
Computer Software	Yes			
Mobile Phone App	Yes			
LCD	8 inch, 800×600 pels			
Communication	USB2.0, LAN, WIFI			
Dimensions	390mm×270mm×255mm (L×W×H)			
Weight	9KG			
Power Supply	100-240VAC, 50/60Hz,600w			

HELIX-3 / HELIX-3G
SERIES THERMAL CYCLER
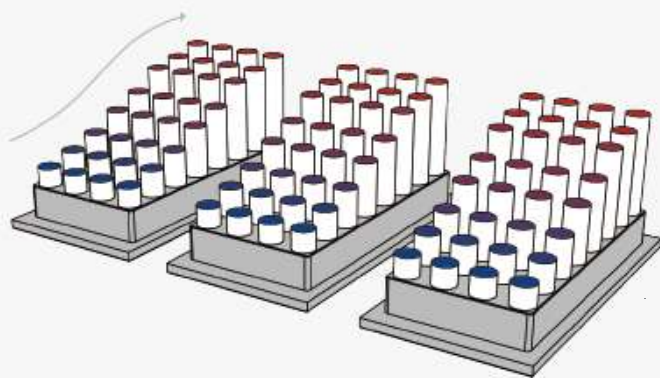
Triple Block Gradient

- **Intelligent and innovative design**
- **Triple block gradient PCR**
- **Fast ramp rate saving your time**

Introduction

HELIX-3/HELIX-3G thermal cycler uses long service life peltier. Its max. Ramping rate is 5 ℃/s and cycle times is more than 1000,000. The product combines a variety of advanced technologies: Android system; Color capacitive touch screen; 3 blocks can run gradient experiments independently; built-in WIFI module, mobile APP and PC software control function; email notification function; big storage capacity and etc. All above functions allow PCR's excellent performance and meet higher experiment's need.

Features

- 6 long service life Peltier heating units and form 3 circuits to control 3 temperature zones.
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 5 ℃/s, can save your precious time;
- 3 blocks independently controlled and can run 3 different PCR gradient programs simultaneously.
- Stepless adjustable hot lid with pressure-protection, fit tubes of different heights to avoid tube melt and evaporation.
- Android operating system, capacitive touch screen, high-definition TFT display (8", 800×600 pixels, 16 colors) with graphical interface provides easy use for setting up and monitoring.
- Built-in 11 standard program file template, can quickly edit the required files.
- Folder management, user can build directory.

- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
- Internal flash memory for 10000 typical PCR files in free configurable folders.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- GLP report records every step to provide accurate data support for experiment result analysis.
- User Login Management, three-tier permission, password protection function to ensure data security.
- Support U disk to get PCR data, to update software, and USB mouse can also be used to control the PCR instrument;
- Built-in WIFI module, one machine can control multiple PCR machines at the same time through mobile APP or PC software;
- Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	HELIX-3	HELIX-3G
Capacity	3×(32×0.2ml)	
Tube	0.2ml tube, 8 strips	
Reacton Volume	5-120μl	
Temperature Range	0-105℃	
Max. Ramp Rate	5℃/s	
Uniformity	≤±0.2℃	
Accuracy	≤±0.1℃	
Display Resolution	0.1℃	
Temp. Control	Block/Tube	
Ramp Rate Adjustable	0.1-5℃/s	
Gradient Temp. Range	n/a	30~105℃
Gradient Type	n/a	Normal Gradient
Gradient Speed	n/a	1-30℃
Hot Lid Temperature	30-115℃	
Number of Programs	10000+(USB FLASH)	
Max. No. of Step	30	
Max. No. of Cycle	200	
Time Incre./Decre.	1 Sec - 600 Sec	
Temp. Incre./Decre.	0.1-10.0℃	
Pause Function	Yes	
Auto Data Protection	Yes	
Hold at 4℃	Forever	
Touchdown Function	Yes	
Long PCR Function	Yes	
Language	English	
Computer Software	Yes	
Mobile Phone App	Yes	
LCD	8 inch, 800×600 pels	
Communication	USB2.0, LAN, WIFI	
Dimensions	390mm×270mm×255mm (L×W×H)	
Weight	9KG	
Power Supply	100-240VAC, 50/60Hz,600w	

HELIX-4T IN-SITU
SERIES THERMAL CYCLER

IN SITU Block

- **Cutomization of different chip specifications**
- **Used for in situ gybridization or gene chip assay**
- **Colored touch screen, easy for operation**

Introduction

HELIX-4T IN-SITU thermal cycler uses uses long service life peltier. Its max. ramping rate is 4 ℃/s and cycle times is more than 1000,000. The product combines a variety of advanced technologies: Android system; Color capacitive touch screen; several block as options; built-in WIFI module, mobile APP and PC software control function; email notification function; big storage capacity and etc. All above functions allow PCR's excellent performance and meet higher experiment's need.

Features

- Six pieces of long service life Peltier heating units and form 3 circuits to control 3 temperature zones;
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 4 ℃/s, can save your precious time.
- Stepless adjustable hot lid, fit tubes of different heights to avoid tube melt and evaporation.
- Android operating system, capacitive touch screen, high-definition TFT display (8", 800×600 pixels, 16 colors) with graphical interface provides easy use for setting up and monitoring.
- Built-in 11 standard program file template, can quickly edit the required files.
- Folder management, user can build directory.
- Running program and left time can be displayed in real time, allow to edit file when program is running.

- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
- Internal flash memory for 10000 typical PCR files in free configurable folders.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- GLP report records every step to provide accurate data support for experiment result analysis.
- User Login Management, three-tier permission, password protection function to ensure data security.
- Support U disk to get PCR data, to update software, and USB mouse can also be used to control the PCR instrument;
- Built-in WIFI module, one machine can control multiple PCR machines at the same time through mobile APP or PC software;
- Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	HELIX-4T
Capacity	120×80mm
Temperature Range	0-105℃
Max. Ramp Rate	4℃/s
Uniformity	≤±0.2℃
Accuracy	≤±0.1℃
Display Resolution	0.1℃
Temp. Control	Block/Tube
Ramp Rate Adjustable	0.1-4℃/s
Hot Lid Height Adjustable	Stepless Adjustable
Hot Lid Temperature	30-115℃
Number of Programs	10000+(USB FLASH)
Max. No. of Step	30
Max. No. of Cycle	200
Time Incre./Decre.	1 Sec - 600 Sec
Temp. Incre./Decre.	0.1-10.0℃
Pause Function	Yes
Auto Data Protection	Yes
Hold at 4℃	Forever
Touchdown Function	Yes
Long PCR Function	Yes
Language	English
Computer Software	Yes
Mobile Phone App	Yes
LCD	8 inch, 800×600 pels
Communication	USB2.0, LAN, WIFI
Dimensions	390mm×270mm×255mm (L×W×H)
Weight	9KG
Power Supply	100-240VAC, 50/60Hz,600w

HELIX-96PLUS
SERIES THERMAL CYCLER
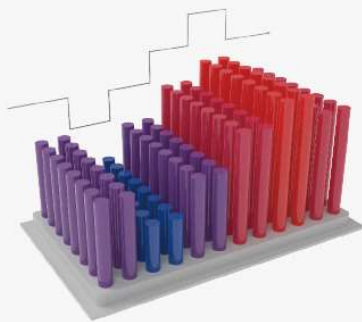
Gradient Optimization

- **Six independent temperature zones**
- **Optimization of gradient function**
- **Colored touch screen, easy for operation**

Introduction

HELIX-96PLUS thermal cycler uses customized Marlow(US) peltier. Its max. Ramping rate is 6 ℃/s and cycle times is more than 1,000,000. The product combines a variety of advanced technologies: WINCE system; color touch screen; 6 independently controlled temperature zones; PC on-line function; printing function; big storage capacity and support USB device. All above functions allow PCR's excellent performance and meet higher experiment's need.
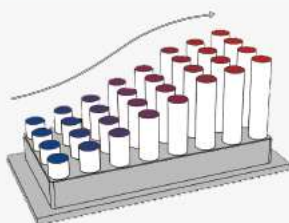
Features

- Six pieces of long service life Peltier heating units and can independently control 6 temperature zones;
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 6 ℃/s, can save your precious time;
- Stepless adjustable hot lid, fit tubes of different heights to avoid tube melt and evaporation.
- Windows interface, 8" (800×600, 16 colors) TFT color touch-screen with graphical display provides easy use for setting up and monitoring.
- Built-in 11 standard program file template, can quickly edit the required files.
- Folder management, user can build directory.
- The running program and left time can be displayed in real time, allow to edit file when program is running.

- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
- Internal flash memory for 10000 typical PCR files in free configurable folders.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- GLP report records every step to provide accurate data support for experiment result analysis.
- User Login Management, three-tier permission, password protection function to ensure data security.
- Compatible with devices such as Mouse and Keyboard and capable to transfer data and perform software updates via USB Drive.
- Support USB and LAN to update software.
  One computer can control many sets of PCR via network connection.
- Min type Bluetooth printer as an option, easily record information.
  Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	HELIX-96PLUS
Capacity	96×0.2ml (6 independent 16 well block)
Temperature Range	4-100℃
Max. Ramp Rate	6℃/s
Uniformity	≤±0.3℃
Accuracy	≤±0.1℃
Display Resolution	0.1℃
Temp. Control	Block/Tube
Ramp Rate Adjustable	0.1-6℃/s
Gradient Temp. Range	30-100℃/s
Gradient Spread	Temperature difference of adjacent temperature zone is 0.1-5℃. 6 temperature zones in total.
Hot Lid Height Adjustable	Stepless Adjustable
Hot Lid Temperature	30-115℃
Number of Programs	10000+(USB FLASH)
Max. No. of Step	30
Max. No. of Cycle	100
Time Incre./Decre.	1 Sec - 600 Sec
Temp. Incre./Decre.	0.1-10.0℃
Pause Function	Yes
Auto Data Protection	Yes
Hold at 4℃	Forever
Touchdown Function	Yes
Long PCR Function	Yes
Language	English
Computer Software	Yes
Mobile Phone App	Yes
LCD	8 inch, 800×600 pels
Communication	USB2.0, LAN
Dimensions	390mm×270mm×255mm (L×W×H)
Weight	9KG
Power Supply	85-264VAC, 47-63Hz,600W

LARK
SERIES THERMAL CYCLER

Gradient function

LARK-16

LARK-32G

- **Compact design with small footprint**
- **Android system for intuitive operation**
- **WIFI module built-in, cell phone App control**

Introduction

LARK series thermal cycler uses long service life peltier. Its max. Ramping rate is 5 ℃/s and cycle times is more than 1000,000. The product combines a variety of advanced technologies: Android system; color touch screen; gradient function; WIFI module built-in; support cell phone APP control; email notification function; big storage capacity and support USB device.

Features

- Long service life Peltier heating units.
- Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
- High heating and cooling rate, max. Ramping rate 5 ℃/s, can save your precious time.
- Scalable hot lid fits tubes of different heights.
- TFT color capacitive touch screen (5 inches, 800×480 pels), graphical menu navigation interface, very easy to operate.
- Built-in 11 standard program file template, can quickly edit the required files.
- Folder management, user can build directory.

- The running program and left time can be displayed in real time , allow to edit file when program is running.
- One-click quick incubation function can meet experiment's needs such as denaturation, enzyme cutting/enzyme-link and ELISA.
- Hot lid temperature and hot lid work mode can be set to meet different experiment's need.
- Automatic restart after power failure. When power is restored it can continue to run unfinished program.
- Support USB to store and copy PCR data, user can control PCR by USB mouse.
- Update software by USB and LAN.
- WiFi module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
- Support email-alert function when experiment is over.

TECHNICAL SPECIFICATIONS

Model No.	LARK-16	LARK-32G
Capacity	16×0.2ml(4×4 layout)	32×0.2ml(4×8 layout)
Tube	0.2ml tube	0.2ml tube, 8 strips
Reacton Volume	5-80µl	
Temperature Range	4-100℃	
Max. Ramp Rate	5℃/s	
Uniformity	≤±0.2℃	
Accuracy	≤ ±0.2℃	
Display Resolution	0.1℃	
Temp. Control	Block/Tube	
Ramp Rate Adjustable	0.1-5℃/s	
Gradient Temp. Range	n/a	30-100℃
Gradient Type	n/a	Normal Gradient
Gradient Speed	n/a	1-30℃
Hot Lid Temperature	30-115℃	
Number of Programs	10000+(USB FLASH)	
Max. No. of Step	30	
Max. No. of Cycle	100	
Time Incre./Decre.	1 Sec - 600 Sec	
Temp. Incre./Decre.	0.1-10.0℃	
Pause Function	Yes	
Auto Data Protection	Yes	
Hold at 4℃	Forever	
Touchdown Function	Yes	
Long PCR Function	Yes	
Language	English	
Computer Software	Yes	
Mobile Phone App	Yes	
LCD	5 inch, 800×480 pels, 65K color	
Communication	USB2.0, WIFI	
Dimensions	267mm×190mm×115mm (L×W×H)	
Weight	2.5KG	2.6KG
Power Supply	100-240VAC, 50/60Hz,120W	100-240VAC, 50/60Hz,200W