HCS Scientific & Chemical Pte Ltd

Equipment
CO² Incubator

BPN-CRH Series

Faster Recovery of CO2
IR sensor fast detection for CO2
Recovers within 10 minute if the door is open for more than 30 seconds
Return to 5% of set CO2 concentration within 5 minutes

UV Sterilization System
UV lamp located at the back of the wall periodically disinfect the incubator.
Effective in eliminating bacteria in the tank which could potentially contaminate cell culture

High Efficiency filter
CO2 inlet equipped with high efficiency microfilter for filtration of bacteria or particles in CO2 greater or equal to 0.3μm

Automatic wind circulation
Circulating wind automatically adjust the speed suitable for optimal cell growth

HEPA high efficiency filter (Optional)
Easy to assemble HEPA filter that can filter out bacteria and ust particle from external air, eliminating and preventing external air from contaminating

Ergonomical design
Stackable for easy use of laboratory space
LCD display temperature, CO2 concentration, relative humidity and menu-driven operation interface

Security Function
Independent temperature alarm system. Sound and light alerts operator to ensure safety operation
Alarm includes Low, high and over temperature, low, high CO2 Concentration
Door facilitation such as door opened for long time, UV sterilization status

BPN-CRH Series

Wireless Alarm System
The perfect combination of smart phone and instrument monitoring alert system.

Microcomputer controller
Large-screen LCD display with microcomputer PID control and simultaneous display of temperature, CO2 concentration, relative humidity and operation,fault indication, menu-based operation

Data record and fault diagnosis display (optional)
All data can be downloaded to the computer through the RS485 port for storage. When a fault occurs, the data can be retrieved from the computer and diagnosed.

Wireless alarm system (SMS alarm system) (optional)
System collects the fault signal in time and send to designated receiver's mobile phone through the SMS to ensure timely troubleshooting and recovery.

Model	BPN-40CRH	BPN-80CRH(UV)	BPN-150CRH(UV)	BPN-240CRH(UV)
Power	AC220V/50HZ			
Input Power	350W	500W	700W	1000W
Heating Method	Air jacketed microcomputer PID control			
Temperature Range	RT+3~50°C			
Ambient Temperature	+5~30°C			
Temp. Accuracy	±0.1°C			
CO2 Range	0~20%			
CO2 Accuracy	±0.1% (IR Sensor)			
CO2 Recovery Rate	(30 seconds opened door 5%)≤3 min			
Temperature Recovery	(30 seconds opened door to 37°C) ≤8 mins			
Relative Humidity	≥90%			
Capacity	40L	80L	150L	240L
Internal Dimension WxDxH (mm)	400×286×350	400×450×500	480×530×610	600×630×670
External Dimension WxDxH (mm)	590×440×576	590×687×790	670×767×880	788×837×940
Standard Tray	2		3	
Disinfect Method	90°C Thermal Disinfection			

BPN-CH/CW Series

BPN-CH/CW Series

Model	BPN-50CH(UV) BPN-80CH(UV)	BPN-150CH(UV) BPN-190CH(UV)	BPN-240CH(UV)	BPN-30CW(UV) BPN-80CW(UV)	BPN-150CW(UV)
Power	AC220V/50HZ				
Input Power	400W/450W	700W/900W	1000W	250W/680W	950W
Heating Method	Air jacketed			Water Jacketed	
Temperature Range	RT+3~50°C				
Ambient Temperature	+5~30°C				
Temp. Accuracy	±0.2°C			±0.1°C	
CO2 Range	0~20%				
CO2 Accuracy	±0.1% (IR Sensor)				
CO2 Recovery Rate	(30 seconds opened door 5%)≤3 min				
Temperature Recovery	(30 seconds opened door to 37°C) ≤8 mins				
Relative Humidity	≥90%				
Capacity	50L/80L	150L/190L	240L	26L/80L	150L
Internal Dimension WxDxH (mm)	400×350×350 400×450×500	480×530×610 520×530×690	600×630×670	290×290×310 400×400×500	500×500×650
External Dimension WxDxH (mm)	580×450×540 590×657×870	670×710×950 708×710×1030	788×837×940	440×410×544 550×520×764	650×615×914
Standard Tray	2	3	3	2	3
Disinfect Method	UV Light Disinfect Method				

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Equipment
CO² Incubator

BPN-RHP/RWP Series

Color Touch Screen Display

Data record and fault diagnosis display (optional)
All data can be downloaded to the computer via the RS485 port.

Wireless alert system (SMS alarm system) (optional)
User can receive alert message when the equipment has any technical issues.

IR Sensor

IR Sensor detects changes in CO2 concentration, high accuracy measurement which is not influenced by other conditions. CO2 Set concentration (5%) is recovered within ≤ 3 minutes after the door is closed 30 seconds after opening.
Under the condition of frequent door opening, the concentration is able to recover and maintain in a stable manner.

Safety Features

High/Low Temperature alert
Door Temp. sensor alert
Power failure/loss alert
Sterilization status display
Interior Temp. Sensor alert
CO2 Concentration alert
Extended opened door alert

Temperature & Monitoring

PT100 probe ensures accurate temperature reading in the incubator.
Temperature recovery within 3 minutes after opening the incubator door
Outer box has heating function which allows door to follow the box temperature to prevent condensation which would obstruct observationand possibility of microbial contamination
Independent ambient temp. detector, adjust accordingly to experiment ambient temp. prevent temperature overshoot within tank
Temperature protection system automatically cut off heating, and sound and light alarm will be trigger when temperature is out of range.
Power failure alert triggers when there is any power failure or loss

BPN-RHP/RWP Series

90°C high thermal disinfectant method [RHP]
Eliminate microbial contamination caused by bacteria,mold, mycoplasma, and other microorganism on cell culture.
Simple operation with just a button for sterilization, process takes 18 hours to ensure full and efficient sterilization.

Ultraviolet sterilization system (RWP)
Ultraviolet lamp located at the back of the tank which will effectively kill bacteria within the tank.

High efficiency filtering
CO2 inlet is equiped with microbial high-efficiency filter, filtering particles ≥0.3μm, the filtration efficiency is up to 99.99%, effectively filtering CO2.
Optional HEPA high efficiency filter which can filter out bacteria and dust particle from the external air, easy to assemble and disassemble without tools.

Model	BPN-40RHP	BPN-80RHP	BPN-150RHP	BPN-190RHP	BPN-240RHP	BPN-60RWP	BPN-170RWP	BPN-240RWP
Power	AC220V/50HZ							
Input Power	350W	450W	700W	900W	1000W	500W	700W	1000W
Heating Method	Air jacketed					Water Jacketed		
Temperature Range	RT+5~50°C							
Ambient Temperature	+5~30°C							
Temp. Accuracy	±0.1°C							
CO2 Range	0~20%							
CO2 Accuracy	±0.1% (IR Sensor)							
CO2 Recovery Rate	(30 seconds opened door 5%)≤3 min							
Temperature Recovery	(30 seconds opened door to 37°C) ≤8 mins							
Relative Humidity	≥90%							
Capacity	40L	80L	150L	190L	240L	60L	170L	240L
Internal Dimension WxDxH (mm)	400×286×350	400×450×500	480×530×610	520×530×690	600×630×670	380×290×550	530×460×720	600×520×780
External Dimension WxDxH (mm)	590×440×576	590×687×790	670×770×880	708×710×1030	790×840×940	534×530×790	684×700×960	754×760×1020
Standard Tray	2		3		2		3	
Disinfect Method	90°C Thermal Disinfection						UV Disinfectant Method	

Standing Large CO2 Incubator

Carbon dioxide monitoring and control system
Infrared sensor monitors CO2 with high speed and precision, not affected by temperature and humidity.
CO2 concentration recovers quickly and kept stable when door is open and closed.
CO2 inlet equipped with high efficient micro-filter for particle ≥ 0.3μm, effectively filter 99.99% bacteria and dust particles
CO2 oscillation temporary stops when door is open, and easy to pull the tray along the rails for easy,fast,safe cleaning

Automatic Control of Circulating fan
Automatic circulating fan that will decrease when temperature in the tank is at a constant temperature, circulating wind speed will be adjusted to suit for cell growth.

Ergonomically designed
Door equipped with hollow tempered observation window, convenient for observing without opening the door.
Door has heating function which prevent condensation to stop possibility of microbial contamination due to condensate
Large LCD display with various parameter display, simple operation interface that is easy to operate.
Operation interface has password lock function
Environmentally friendly design compressor and circulating wind speed, high efficiency, low energy consumption and low noise.
Equipped with Rs-485 interface and usb data transfer interface

Inner lining and shaker surface made of 304 stainless steel, electrochemically treated to resist corrosion and prevent bacterial growth
Left side of cabinet equipped with 25mm test hole.
User-set parameters are stored in cased of power failure, original setting can be reused
Microcomputer PID control temperature and oscillation frequency with timing function.
Environmentally friendly components, fluorine-free refrigerant

Safety and Alert features

UV lamp sterilization at the back wall which will periodically disinfect the tank
Independent alarm system, sound and light alarm alert to ensure safe operation
High/Low temperature alert
CO2 Concentration alert
Extended opened door alert
Circulating wind, heating, shaker are automatically stopped when door is open
Unique control speed circuit ensure smooth start of shaker and prevent damage to instrument
Automatic circulating fan to avoid sample evaporation due to excessive cirulation during test

Standing Large CO2 Incubator

Specification

Model	Floor Standing CO2 Incubator		Large CO2 Incubator	
	BPNZ-100CS (Single) BPNZ-100CD (Double)	BPNZ-300CS (Single) BPNZ-300CD (Double)	BPNZ-500CS (Single) BPNZ-500CD (Double)	BPNZ-700CS (Single) BPNZ-700CD (Double)
Temperature Range	4~65°C			
Temp. Accuracy	0.1°C			
Average Range	±0.6°C (Test point at 37°C)			
Shaker Frequency	40~300rpm			
Shaker Frequency Accuracy	±1rpm			
Vibration Amplitude	20mm		26mm	
CO2 Sensor	Infrared Sensor			
CO2 Range	0~20%			
CO2 Accuracy	±0.1%			
Display	LCD Display			
CO2 Recovery Rate	(30 seconds opened door 5%)≤3 min			
Temperature Recovery	(30 seconds opened door to 37°C) ≤8 mins			
Relative Humidity	≥90%			
Controller	Microcomputer PID Control			
Timer	0~5999min			
Tray Dimension (mm)	400×300	500×350	750×460	920×500
Power	AC220V 50HZ			
External Dimension WxDxH (mm)	635×714×1055	725×720×1150	1030×875×1370	1200×875×1370