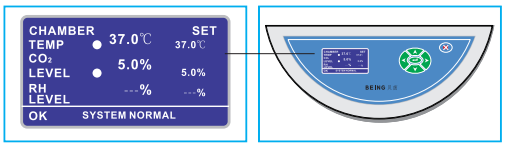
BPN-CRH series air jacket CO_2 incubator LCD type

LCD screen controller

- LCD screen, micro computer PID control that can display temp. CO_2 concentration, related humidity, operation failure reminder and menue operation are easily to observe and use.



CO_2 concentration sensor

- You may need to open door frequently during experiment, infrared sensor is the best choice under this circumstances. Our infrared sensor is very sensitive to CO_2 concentration varies and it will be not affected by inside of incubator chamber conditions, measured accurately. It doesn't like traditional thermal probe that will be sensitive to chamber temp., and humidity that lead to incorrect CO_2 concentration data.
- If open the door for 30s and close the door, within 3 min the CO_2 concentration can resume to the set value 5%.Even if there are many people use the same machine and frequently open and close door, the inside chamber can still maintain CO_2 concentration stable and uniform.

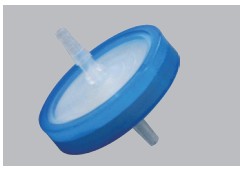
Temperature control and monitoring system

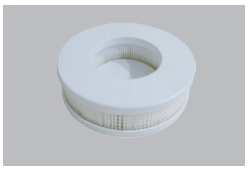
A.Incubator temperature control system

- PT100 temp. sensor keeps inside chamber temperature accurate. It can adjust the heating power according to the temp. differences between actual temp. in the chamber and set temp. to make sure temp. in the chamber is accurate. It can resume experiment temp. in 3 min after user open and close door to take samples.

B.Door heating system

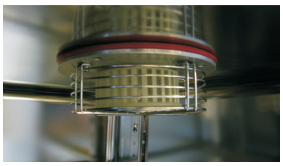
- Outer door ring has heating function. The temperature of door ring will be a little bit higher than temp. in the chamber to prevent condensed water coming from the inner glass door. It facilitates observe the experiment process, also it avoid the biological pollution possibility due to the condensed water from the inner glass door.





C.Over temp. protection system

- It is an independent backup temp. control system besides the CO_2 incubator temp. control system. When the incubator temp. control system failed and caused temp. lose control, the chamber temp. reaches to the over temp. limiter set value, over temp. protection system will cut down the heating and alarm audible with light.



Pollution proof control

A.90 degree high temp. high humidity sterilization system (RHP)

- It can thoroughly sterilize the chamber (Including temp. sensor, CO_2 concentration sensor, fan, shelves and brackets etc) with high temp and high humidity. It eliminates bacteria, mold, mycoplasma etc microbiology those will pollute the microorganisms cell culture and provides a safe experiment environment.

B.HEPA efficient filters

- The CO_2 gas quality is a important factor to judge cell culture in the CO_2 incubator. HEPA high efficient filters can filter bacteria and dust in the air. It eliminates cross contamination from outer air to incubator chamber air and keep the chamber inside aseptic. Close the door for 5 min, inside air can fast resume to hundred grade clean. HEPA air filter is easy to disassemble without any special instruments.C.Micro biological HEPA filter.
- CO_2 access port equips micro biological HEPA filter, it can filters diameter ≥0.3um Particles like CO_2 gas bacteria and dust, the efficient reaches to 99.99%.

Cycle fan speed adjustable automatically

- Cycle fan speed can be adjusted automatically. When chamber temp. is stable, the fan speed will be lower down, the speed will be adjusted to a suitable speed that the cell can growth. It avoids the fast fan speed that evaporating the samples.

CO_2 inlet control system

- We supply pressure release valve together with the equipment. It can control the pressure stable.
- The system has pressure protection function, it prevents over pressure or low pressure to the pipes.

Safe Functions

- High and low temp. and over temp. alarm
- Door temp. sensor failure alarm
- CO_2 condensation too high or too low alarm
- Door open too long alarm
- Chamber sensor failure alarm
- Over temp sensor failure alarm
- Independent temp. limiter alarm
- Disinfection and sterilization status reminder

Documentation and failure diagnostic display (Option)

- All data can be stored through RS485 port, if any failures, user can read the diagnostic message and data from computer at any time.

Technical parameter

Model	BPN-40CRH	BPN-80CRH	BPN-150CRH	BPN-190CRH	BPN-240CRH
Electrical requirement	AC220V/50Hz				
Input power	350W	500W	750W	750W	950W
Heating power	Air jacket micro computer PID contro				
Temp. control range	RT+5 - 55℃				
Work environment temp	+5 - 30℃				
Temp. accuracy	±0.1℃				
CO_2 control range	0 - 20%				
CO_2 control accuracy	±0.1% (IR sensor)				
CO_2 restore time	(Door open 30s, recovery to 5%) ≤3min				
Temp. restore time	(Door open 30s, recovery to 37℃) ≤ 8min				
Related humidity	Nature vaporate > 95% (Can equip with related humidity digital display)				
Volume	40L	80L	155L	190L	240L
Chamber size W×D×H(mm)	400×286×350	400×450×500	480×530×610	520×530×390	600×630×670
Overall size W×D×H(mm)	590×440×576	590×687×790	670×767×880	708×710×1030	790×837×940
Standard shelves qty	2pcs		3 pcs		
Sterilization	UV sterilization+HEPA filter				

Note: All parameters are measured at 25℃