

# FURTHER PROGRESS

in Evaluation Accuracy and User-friendliness









# **HAST Chambers** PC-R9 series

A new programmable high precision temperature and humidity controller enables more precise HAST evaluation. It is possible to control equipment with the latest touch panel, and to remotely control equipment through an external terminal device.



### New programmable high precision temperature and humidity controller

It became possible to obtain more precise HAST evaluation with this controller compared to the conventional devices.



#### Remote operation

It is possible to remotely control equipment by using such external devices as a smartphone or tablet. Even when many PC-R9s are used or even when a PC-R9 is installed in a wide place, they can be monitored and controlled by a small number of operators.





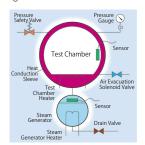
..... Remote Operation 4



#### Dual vessel structure that has many advantages

The dual vessel structure consists of two chambers where a test chamber and a steam generator are separated and independent. The advantage of the dual vessel structure compared to the single vessel structure is as follows.

- · Working temperature and humidity range is wide.
- · Usable space is large.
- · An agitating fan is unnecessary. Maintenance of a bearing is unnecessary.
- · Contamination of a chamber caused by wear of a bearing does not occur.



#### USB port

Temperature and humidity data can be stored in the external memory via a USB port.



#### Chamber cleaning mode

A cleaning mode which removes dirt of a chamber interior is provided.

#### Air-HAST function (option)

#### Optional devices and accessories

- 6-channel dotting recorder Digital recorder
- Bias terminal (40, 60) Basket
- Automatic water supply system to polyethylene tank
- · Direct water supply system to steam generator
- Over-temperature prevention device for test chamber , etc.

## Specifications

Specifications		
Model	PC-304R9	PC-422R9
Outside dimension	W710×D950×H1620 mm	W710×D950×H1620 mm
Chamber size	Ф300xD522 mm (34.5 L)	Ф420xD657 mm (84.4 L)
Effective chamber size	Ф220xD350 mm (12 L)	Ф340xD475 mm (40 L)
Weight (approx)	260 kg	280 kg
Power supply	1 φ 220V 50/60Hz 2.3kW	1 φ 220V 50/60Hz 3.0kW
Heater capacity	Steam generator 1.5kW	Steam generator 1.5kW
	Test chamber 0.6kW	Test chamber 1.3kW
Operation mode	Program operation, Fixed value operation	
Program operation	150 patterns, 1500 steps (maximum)	
Test mode	HUM (unsaturated), STD (saturated)	
Temperature control method	PID control,	SCR drive
Working temperature range	105.0 - 151.4°C (at 100%RH)	105.0 - 133.3°C (at 100%RH)
	110.0 - 157.5°C (at 85%RH)	110.0 - 140.0°C (at 85%RH)
	118.0 - 162.5°C (at 65%RH)	118.0 - 150.0°C (at 65%RH)
Temperature control accuracy	±0.5℃	
Temperature distribution accuracy	±0.5°C (at 100%RH) ±1.0°C (at 85%RH)	
Working humidity range	65 - 100%RH	
Humidity control accuracy	±3%RH (at 85%RH)	
Working pressure range	0.019 - 0.393MPa	0.019 - 0.208MPa
Pressure vessel category	Small sized pr	essure vessel
Continuous operation time	Up to 500 hours	
Time setting range	1 minute - 999 hours 59 minutes	
Temporary power failure compensation	approx. 4 minutes	
Temperature rise time	approx. 70 minutes (time to 120℃/85%RH)	
Exhaust mode	EXHT MODE Selector switch MODE 1:Slow cooling with the set humidity maintained MODE 2:Cooling with the moisture maintained MODE3:Quick exhaust	
Bias terminal	20 (Applied voltage:125V, within total 30W)	
Time signal terminal	4	
Emergency stop button	 Equipped	
Chamber material	SUS316L (Electrolytic polishing)	
Water supply method	A water supply tank is built in, and initial supply of water into the steam generator is performed automatically	
Door operation	Drawer type door, Door clamping device driven by motor	
Safety devices and alarms	Pressure safety valve Over-pressure prevention device Over-current and earth leakage breaker Abnormal water supply detection device Protection for settings Door safety system (Door lock system during operation, Door lock-open confirmation system) Low water cut off device Circuit breaker for heater, Fuse, Thermal fuse Hot water drainage treatment system, Negative pressure prevention system Self-diagnosis function of sequence controller	
Supplied accessories	Lid gasket x 2 Drainage hose x 2 Water supply/drainage hose x 1 Auxiliary water supply tank x 1 Power supply switch key x 2 Power supply cord x 1 Operation Manual	

- The size of protrusions is not included in the outside dimension.
- The above performance values were obtained when the ambient temperature was normal and there was nothing in the test chamber.

Specifications and appearance are subject to change without notice due to continuous product improvement.



Manufacturer:

AYAMA Manufacturing Corp.

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