CCG/PCG-Series, (Programmable) Bench Top Constant Temperature & Humidity Chamber, 80 or 120 Liter

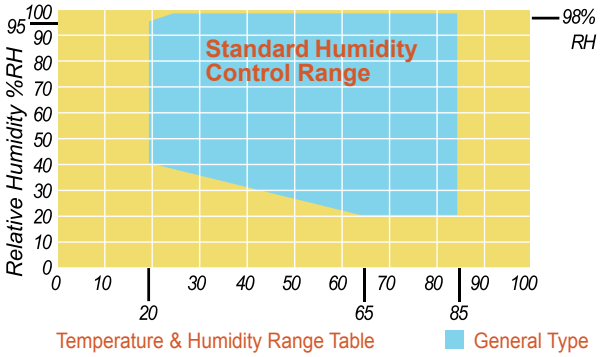
Benchtop Temperature&Humidity Test Chambers offer flexibility, uniformity and control accuracy required for cost effective testing for a variety of products. Ideal for testing smaller products such as computer components, automobile sensors or cellular phones, these chambers combine superior performance with compact design that is perfect for research and development or personal point-of-use testing. Available in two sizes, the Benchtop serie chambers allow you to cost effectively select the exact chamber that best meets your environmental test criteria. These chambers can be mounted in an instrument rack or will easily sit on a laboratory benchtop. This humidity chambers include an removable water storage tank, avoiding the need for water hook-ups.

PCG-80 PROGRAMER

Features:

- Viewing window with interior light.
- Stainless steel access port with plug, for convenient access to test items.
- Easily accessible service areas.
- Stainless steel internal and external chamber.
- Solid state heating switching.
- Refrigeration system: high efficency , maximum reliability and low vibration and low noise. The air cooled refrigeration is working with CFC free refrigerant. The total cooling circuits is working with solenoid valve bypass technique ensuring that the compressor will only be disconnected if cooling capacity has not been required for a prolonged period.
- Heating system: low mass electric resistance heater is located directly in front of the recirculating air blower.
- The PID microprocessor controllers with the solid state relays allows extremely precise & constant control.
- Adjustable stainless steel shelves.
- Optional 100mm chart recorder.

Humidity Controlable Range (at room temp. 20°C)



Temperature & Humidity Range Table — General Type

CCG-80: **Fix point PID control LED display.**
PCG-80: **5 Programs. 50 steps. 999 cycles. LCD display**

CCG-80 CONTROLLER

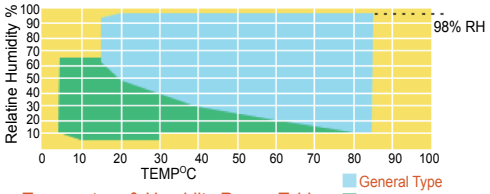
Model Controller	CCG-80	CCG-120
Model Programmer	PCG-80	PCG-120
Temp. range	-20°C~100°C	
Humid. range	20%~98% R.H	
Temp&Humid. constancy	±0.5°C±2.5% R.H	
Temp&Humid. uniformity	±1°C±3%R.H	
Heating up time	20°C~100°C within 30 min	
Pull down time	20°C~-20°C within 60 min	
Volume (Liter)	80liter	120liter
Interior dimensions(mm)	W400xD400xH500	W500xD400xH600
Exterior dimensions(mm)	W860xD810xH810	W960xD810xH970
Interior/Exterior material	Stainless steel plate (SUS304)/(SUS304) tough powder-coated	
Insulation	Rigid polyurethane foam	
Refrigeration system	Single stage refrigeration	
Safety devices	Refrigerator overload relay, refrigeration high pressure switch, protection relay protection fuse, boil dry protector, overheat protector, alarm viewing window	
Accessories	Shelves (freely adjustable) 2pcs. Chamber lamp	
Power source	AC220V 50/60Hz 1Φ	


LG-60

Temp.&Humidity Environmental Chamber

Temperature and Temperature/Humidity test chambers provide superior performance over a wide range of applications. From prototyping to durability to product component screening tests, the chambers has been designed to meet quality standards while still offering flexibility uniformity and control accuracy for cost-effective testing.
Available in a multitude of chamber sizes, MRC is sure to have the exact chamber that best meets your environmental test criteria. For testing smaller products or for customers with limited space, MRC offers chambers starting at 36liter capacity up to 800 liters. MRC Test Chambers are able to perform both high and low temperature tests. Many of these chambers have a temperature range of -70°C to +150°C.
Hermetically sealed compressors provide moderate temp. change rates while allowing the chamber to consume less power than comparable chambers.
Temperature/Humidity models are equipped with a reliable, accurate and efficient full range humidity system capable of simulating conditions from 20 to 98% RH.

Humidity Controlable Range (at room temp. 20°C)



Temperature & Humidity Range Table


CONTROL PANEL

Features: Adjustable stainless steel shelves • Optional 100mm chart recorder • Over / under temp. protection devices • Automatic water level control • Volumes from 36 litre up to 800 litres • Viewing window with interior light • Stainless steel access ports with plug, for convenient access to test items • Swivel casters for mobility • Easily accessible service areas • Stainless steel internal and external chamber • Solid state heating and humidity switching • Stainless steel humidity generator with viewing window • Low water level humidity heater protection • Wet Dry bulb humidity sensor • Refrigeration system: high efficiency, maximum • reliability and low vibration & low noise.
The air cooled refrigeration is working with CFC free refrigerant. The total cooling circuits is working with solenoid valve bypass technique ensuring that the compressor will only be disconnected if cooling capacity has not been required for a prolonged period • Heating system: low mass electric resistance heater is located directly in front of the recirculating air blower. The PID microprocessor controllers with the solid state relays allows extremely precise and constant control.

Model Programer	HP-30	HP-40	HP-50	HP-60	HP-80	FP-40	FP-50	FP-60	FP-80	LP-40	LP-50	LP-60	LP-80	TP-50	TP-60	TP-80
Model Controller	HG-30	HG-40	HG-50	HG-60	HG-80	FG-40	FG-50	FG-60	FG-80	LG-40	LG-50	LG-60	LG-80	TG-50	TG-60	TG-80
Internal Dimensions (mm) W	300	400	500	700	1000	400	500	700	1000	400	500	700	1000	500	700	1000
H	400	500	600	850	1000	500	600	850	1000	500	600	850	1000	600	850	1000
D	300	400	500	700	800	400	500	700	800	400	500	700	800	500	700	800
External Dimensions (mm) W	720	930	1030	1230	1530	930	1030	1230	1530	930	1030	1230	1530	1030	1230	1530
H	1060	1310	1410	1660	1810	1310	1410	1660	1810	1310	1410	1660	1810	1410	1660	1810
D	620	810	910	1210	1310	810	910	1210	1310	810	910	1210	1310	910	1210	1310
Volume (liters)	36	80	150	416	800	80	150	416	800	80	150	416	800	150	416	800
Temperature Range	0°C~100°C(150°)					-20°C~100°C(150°)				-40°C~100°C(150°)				-70°C~100°C(150°)		
Humidity & Temp. Uniformity	±0.5°C ±3%RH				±1°C ±5%	±0.5°C ±3%RH			±1°C ±5%	±0.5°C ±3%RH			±1°C ±5%	±0.5°C ±3%RH		±1°C ±5%
Temp. Rising Speed	0°C~100°C about 20min					-20°C~100°C about 35min				-40°C~100°C about 40min				-70°C~100°C about 60min		
Cooling Speed	20°C~0°C about 20min					20°C~-20°C about 45min				20°C~-40°C about 60min				20°C~-70°C about 90min		
Freezing System	Simoleon type full airtight air-cooled refrigeration system									Binary full airtight air-cooled refrigeration system						
Humidity Range	20%~98%RH						Temp. &humid. stability			±0.2% ±2%RH						
Temp. & Humidity Adjustment	Balancing temperature & humidity adjustment method						External material			SUS304#Stainless steel						
Internal Material	SUS304#Stainless steel						Humidification			Surface Steam type, stainless heating humidifier, with humidity water shortage power interruption & thermal protection						
Temp. Preservation	Material rock wool hard PU polyurethane foams						Temperature preservation heating system			Stainless steel heating type humidifiner						
Circulation System	Fan forced recycling convection						Xeransis system			refrigeration invisible heat xeransis method						
Water Supply System	Front-positioned water tank, fully automatic water supply control, recycling filter re-utilization with water shortage alarm device															
Safety Device	Power leakage & overload protective device, compressor overload protective device, over-temperature & over-humidity circuit breaker protection, water shortage protection, humidifier over-heating protection, temperature limit protective device.															
Standard Accessory	2xStainless steel adjustable board sets, vacuum glass perspective window, testing aperture, operating room light,motion wheel, control indicator															
Optional Accessory	Recorder							Power		AC220V, 1PH, 50/60Hz						

High/Low Constant Temperature Chamber

Viewing window with interior light • Stainless steel access ports with plug, for convenient access to test items • Swivel casters for mobility • Easily accessible service areas • Stainless steel internal and external chamber • Solid state heating switching • Refrigeration system: high efficiency , maximum reliability & low vibration and low noise. The air cooled refrigeration is working with CFC free refrigerant. The total cooling circuits is working with solenoid valve bypass technique ensuring that the compressor will only be disconnected if cooling capacity has not been required for a prolonged period • Heating system: low mass electric resistance heater is located directly in front of the recirculating air blower. The PID microprocessor controllers with the solid state relays allows extremely precise and constant control • Adjustable stainless steel shelves • Optional 100mm chart recorder • Over / under temperature protection devices • Volumes from 36 litre up to 800 litres.

Option: Programmable Temperature Chamber's & Recorder

16 Programs of 16 Segments Type C

TYPE C

2 Programs of 8 Segments Type B

TYPE B

Model	HC-30	HC-40	HC-50	HC-60	HC-80	FC-40	FC-50	FC-60	FC-80	LC-40	LC-50	LC-60	LC-80	TC-50	TC-60	TC-80
Internal Dimensions (mm) W	300	400	500	700	1000	400	500	700	1000	400	500	700	1000	500	700	1000
Internal Dimensions (mm) H	400	500	600	850	1000	500	600	850	1000	500	600	850	1000	600	850	1000
Internal Dimensions (mm) D	300	400	500	700	800	400	500	700	800	400	500	700	800	500	700	800
External Dimensions (mm) W	720	930	1030	1230	1530	930	1030	1230	1530	930	1030	1230	1530	1030	1230	1530
External Dimensions (mm) H	1060	1310	1410	1660	1810	1310	1410	1660	1810	1310	1410	1660	1810	1410	1660	1810
External Dimensions (mm) D	620	810	910	1210	1310	810	910	1210	1310	810	910	1210	1310	910	1210	1310
Volume (liters)	36	80	150	416	800	80	150	416	800	80	150	416	800	150	416	800
Temperature Range	0°C~100°C(150°)					-20°C~100°C(150°)				-40°C~100°C(150°)				-70°C~100°C(150°)		
Temperature Uniformity	±0.5°C				±1°C	±0.5°C			±1°C	±0.5°C			±1°C	±0.5°C		±1°C
Temp. Rising Speed	0°C~100°C about 20min					-20°C~100°C about 35min				-40°C~100°C about 40min				-70°C~100°C about 60min		
Cooling Speed	20°C~100°C about 20min					20°C~-20°C about 45min				20°C~-40°C about 60min				20°C~-70°C about 90min		
Temperature Stability	±0.2°C															
Freezing System	Simoleon type full airtight air-cooled refrigeration system									Binary full airtight air-cooled refrigeration system						
Internal Material	SUS304#Stainless steel															
External Material	SUS304#Stainless steel															
Temp. Preservation	Material rock wool hard PU polyurethane foams															
Circulation System	Fan forced recycling convection															
Temp. Preservation Heating System	Stainless steel heating type humidifiner															
Safety Device	Power leakage & overload protective device, compressor overload protective device, over-temperature & over-humidity circuit breaker protection, water shortage protection, humidifier over-heating protection, temperature limit protective device.															
Standard Accessory	2 x Stainless steel adjustable shelves, vacuum glass perspective window, testing aperture, operating room light, motion wheel, control indicator															
Optional Accessory	Recorder															
Power	AC220V, 1PH, 50/60Hz															