

# CLIMATIC CHAMBER



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Accredited Laboratory

**JSR**

[주] 제이에스리서치  
JS Research Inc.

# Climatic CHAMBER

## TEMPERATURE & HUMIDITY

## Environmental Control

### JSCH-Series Table Top



Temperature Range  
- 20 °C ~ 120 °C



Humidity Range  
40 % ~ 95 % RH



Program Controller  
LCD Display  
10 Patterns 100 Segments



[OPTION] RS-232C or 485  
Serial Interface  
Multi-Drop up to 31 Instruments

### JSRH-Series Premium Model



Temperature Range  
- 40 °C ~ 150 °C



Humidity Range  
35 % ~ 98 % RH



Touch Screen  
5.6" Color TFT Display  
120 Patterns 1200 Segments



RS-232C or 485 Serial Interface  
Multi-Drop up to 31 Instruments



Data Storage  
SD or MMC Card



Temp. & Humidity  
Trend Data Recording

MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSCH-070CP	70 L	10 °C ~ 80 °C	60 ~ 90 % RH
JSCH-100CP	100 L		
JSCH-070CPL	70 L	-20 °C ~ 120 °C	40 ~ 95 % RH
JSCH-100CPL	100 L		

MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSRH-150CP	150 L	-20 °C ~ 150 °C	35 ~ 98 % RH
JSRH-250CP	250 L		
JSRH-500CP	500 L		
JSRH-800CP	800 L		
JSRH-150CPL	150 L	-40 °C ~ 150 °C	35 ~ 98 % RH
JSRH-250CPL	250 L		
JSRH-500CPL	500 L		
JSRH-800CPL	800 L		

## JSTH-Series Floor Standing



Temperature Range  
- 20 °C ~ 120 °C



Humidity Range  
50 % ~ 95 % RH



Program Controller  
LCD Display  
10 Patterns 100 Segments



[OPTION] RS-232C or 485  
Serial Interface  
Multi-Drop up to 31 Instruments

## Battery Test Chamber Drug Stability Chamber



Temperature Range  
+0 °C ~ 70 °C



Humidity Range  
30 % ~ 85 % RH



Constant Temperature  
Controller



Touch Screen  
5.6" Color TFT Display  
120 Patterns 1200 Segments



RS-232C or 485 Serial Interface  
Multi-Drop up to 31 Instruments



Temp. & Humidity  
Trend Data Recording

MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSTH-150CP	150 L	10 °C ~ 80 °C	60 ~ 90 % RH
JSTH-250CP	250 L		
JSTH-500CP	500 L		
JSTH-800CP	800 L		
JSTH-150CPL	150 L	-20 °C ~ 120 °C	50 ~ 95 % RH
JSTH-250CPL	250 L		
JSTH-500CPL	500 L		
JSTH-800CPL	800 L		

MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSBS-150C	150 L	+0 °C ~ 70 °C	-
JSBS-250C	250 L		
JSBS-420C	420 L		
JSBS-520C	552 L		
JSDS-300C	300 L	+10 °C ~ 70 °C	30 ~ 85 % RH
JSDS-420C	420 L		
JSDS-960C	964 L		

# Climatic CHAMBER

# TEMPERATURE & HUMIDITY Environmental Control

## JSC-950 JSRH-Basic Control

## JSC-2500 JSRH-Optional Control



### 5.6" TFT-LCD

- ▶ High Resolution 640 x 480
- ▶ 64 MB internal memory including trend data, set up parameter storage



### 5.7" TFT-LCD

- ▶ High Resolution 640 x 480
- ▶ SD Memory Card Data in internal memory including trend data, set up parameter saved in SD memory Card



### Programming

- ▶ 120 Patterns 1200 Segments up to 999 hour 59 min 59 sec
- ▶ 9 Zone PID Groups



### Programming

- ▶ 120 Patterns 1200 Segments up to 999 hour 59 min 59 sec
- ▶ 9 Zone PID Groups



### Data Transfer

- ▶ Uploading data, pattern, parameter from memory to PC
- ▶ Data monitoring PC Software



### Monitoring

- ▶ Displays real time trend graph
- ▶ Displays recorded trend graph
- ▶ Records data into memory



### Pattern Editing

- ▶ Saved pattern can be recalled as graphical interface
- ▶ Easy uploading and downloading parameters and patterns



### Easy-to-Use

- ▶ User interface allows easy pattern program editing
- ▶ Displays graphical pattern



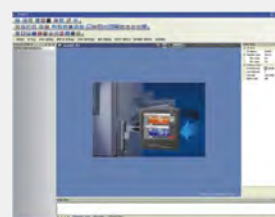
### PC Software

- ▶ Control and Monitoring software
- ▶ RS-232C or RS-485 Multi-Drop Communication



### Pattern Editing

- ▶ Saved pattern can be recalled as graphical interface
- ▶ Easy uploading and downloading parameters and patterns



### PC Software

- ▶ Control and Monitoring software
- ▶ SD Memory Card Data Handling
- ▶ RS-232C or RS-485 Multi-Drop Communication

## Convenience

## Optional Accessories

### ▶ Access Port



- ▶  $\Phi$  50 mm with screw cap to connect cables in the chamber
- ▶  $\Phi$  50 mm의 액세스 포트 편리하게 챔버 내부로 각종 케이블을 연결

### ▶ Chart Recorder



- ▶ Temperature and humidity trend monitoring and data storage
- ▶ 온습도 데이터 기록과 보관을 위한 6채널 차트 레코더

### ▶ Easy Maintenance



- ▶ Easy to access maintenance system
- ▶ 유지보수를 위한 편리한 점검구

### ▶ Chamber Light



- ▶ Helps convenient monitoring of chamber during operation (JSRH-models only)
- ▶ 작동 중 챔버의 내부를 손쉽게 관찰 하기 위한 조명등 (JSRH-모델)

### ▶ Water Tank



- ▶ Built-in water tank for humidifier (JSRH-models only)
- ▶ 가습을 위한 내장형 급수탱크 (JSRH-모델)

### ▶ Glass Window Heater



- ▶ Removes fog and frost to keep clear view (JSRH-models only)
- ▶ 김서림을 방지하는 열선 투시창 (JSRH-모델)



# Climatic CHAMBER

## TEMPERATURE & HUMIDITY

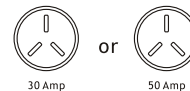
## JSRH-Series Premium










### Specifications

<b>Temp. Range</b>	- 40 °C (- 20 °C) ~ 150 °C
<b>Accuracy</b>	± 0.3 °C at 20°C (JSRH-250)
<b>Uniformity</b>	± 0.7 °C at 20°C (JSRH-250)
<b>Humidity Range</b>	35 % ~ 98 % RH
<b>Accuracy</b>	± 0.4 % at 60 % (JSRH-250)
<b>Uniformity</b>	± 1.5 % at 60 % (JSRH-250)
<b>Control</b>	5.7" Touch Screen TFT-LCD Programmable Control 120 Patterns 1200 Segments RS-232C or RS-485 Multi-Drop SD Memory Card Trend Data Recording
<b>Sensor</b>	Temperature Class A Pt-100 Ω Sensor Humidity Electronic Sensor
<b>Safety</b>	Over-Temperature Cut-Off Over Current Cut-Off
<b>Material</b>	Body : Epoxy Powder Coated Steel Chamber : Stainless Steel 304
<b>Electric</b>	JSRH-150, JSRH-250 220 ± 10% VAC 50/60Hz 1-Phase JSRH-500, JSRH-800 220 ± 10% VAC 50/60Hz 1-Phase or 380 ± 10% VAC 50/60Hz 3-Phase 4-Wire

Plug config.



-  Temp. - 40 °C ~ 150 °C
-  Humidity 35 % ~ 98 % RH
-  Program Controller  
120 Patterns 1200 Segments
-  Touch Screen  
5.7" Color TFT Display
-  RS-232C or 485 Serial Interface  
Multi-Drop up to 31 Instruments
-  Data Storage  
SD or MMC Card
-  Temp. & Humidity  
Trend Data Recording

## Control Accuracy

- ▶ 5.7" TFT-LCD Touch Screen Programmable PID Controller
  - ▶ 120 Patterns memory 1200 Segments 999 times repeatable
  - ▶ RS-232C or RS-485 Multi-Drop serial communication up to 31 instruments and PC software
  - ▶ SD memory card to save parameter, patterns and trend data logging
  - ▶ Maximum 9 zone PID group for different temperature and humidity range for better control accuracy
  - ▶ Temperature calibration and auto-tuning function
  - ▶ Class A Pt-100 Ω sensor and electronic humidity sensor
- ▶ 해상도 ±0.1 °C, 0.1% RH의 정밀한 18-bit PID 컨트롤러
  - ▶ 120패턴 저장 메모리 1200세그먼트, 999회 또는무한 반복운전
  - ▶ RS-232C, RS-485 다중 통신 지원으로 31대 까지 PC 제어 지원
  - ▶ 디지털 레코더 기능. SD 메모리카드에 각종 파라미터, 패턴, 온습도 데이터 저장
  - ▶ 작동되는 온습도 구간별로 9개의 zone PID 제어
  - ▶ 온도보정, 오토튜닝 기능 내장
  - ▶ Class A Pt-100 Ω 온도 센서, 전자습도센서

## Performance

- ▶ Wide range of temperature and humidity control
  - ▶ High performance control system allows long term stability and reliability test at different temperature and humidity
- ▶ 광범위한 온도와 습도 제어능력으로 다양한 조건에서 시험을 수행하는데 적합
  - ▶ 고성능 온습도 제어능력으로 다양한 온도와 습도의 변화를 요구하는 장기간의 안정성, 신뢰성 테스트에 적합

## Ordering Information

	JSRH-150CP	JSRH-250CP	JSRH-500CP	JSRH-800CP
Control Range	- 20 °C ~ 150 °C ( without humidity) 35 % ~ 98 % RH			
	JSRH-150CPL	JSRH-250CPL	JSRH-500CPL	JSRH-800CPL
Control Range	- 40 °C ~ 150 °C ( without humidity) 35 % ~ 98 % RH			
Chamber Volume (Capacity)	150 L	252 L	448 L	800 L
Temperature Accuracy at 20.0°C	± 0.2 °C	± 0.3 °C	± 0.3 °C	± 0.4 °C
Uniformity at 20.0°C	± 0.7 °C	± 0.7 °C	± 1.0 °C	± 1.2 °C
Humidity Accuracy at 60.0 %	± 0.3 %	± 0.4 %	± 0.4 %	± 0.8 %
Uniformity at 60.0 %	± 1.0 %	± 1.5 %	± 1.8 %	± 2.5 %
Dimensions Inner	500 x 500 x 600	600 x 600 x 700	800 x 700 x 800	1000 x 800 x 1000
W x D x H mm Outer	1030 x 905 x 1505	1130 x 1005 x 1655	1380 x 1135 x 1805	1530 x 1235 x 2035
No. of Shelves / Maximum No.	2 / 19	2 / 23	3 / 27	3 / 35
Cable Port	Φ 50 mm			
Water Tank	Built-in Water Tank			
Heater Capacity	4.5 kW	4.8 kW	5.5 kW	6.0 (7.0) kW
Refrigeration System	CFC Free Air Cooled Compressor			
Power Rating	25.0 (31.7) Amp	26.4 (33.1) Amp	30.0 (37.5) Amp	36.8 (40.1) Amp
Power Plug	30 AMP	30 AMP	50 AMP	50 AMP

Specifications in ( ) for CPL series

## Convenience

- ▶ Outer door with double gasket and compression door lock
  - ▶ Φ 50mm access port for easy connection of cables
  - ▶ Triple layered sight glass window with heater
  - ▶ Chamber light helps convenient monitoring of chamber during operation
  - ▶ Built-in water tank for humidifier
- ▶ 이중 도어패킹과 밀착력이 뛰어난 원터치 압착 도어 잠금 장치
  - ▶ Φ 50 mm의 액세스 포트는 편리하게 챔버 내부로 케이블 연결
  - ▶ 김서림을 방지하는 삼중 유리 열선 투시창
  - ▶ 작동 중 챔버의 내부를 손쉽게 관찰 하기 위한 조명등
  - ▶ 전면에 가습용 물통을 내장하여 물 공급 및 보충이 편리함

## Safety

- ▶ DUAL OVER TEMP. CUT-OFF
- ▶ MAX TEMP CUT-OFF
- ▶ LOW WATER LEVEL ALARM
- ▶ OVER CURRENT CUT-OFF : Electrical Leakage Breaker

## Accessories

Art No.	Descriptions
OEC-006	JSC-2500 Touch Screen Controller Option
OER-010	6-Channel Chart Recorder
<b>Perforated Shelf, Stainless Steel 304</b>	
PHS-A06	for JSRH-150 W470 x D480 mm
PHS-A09	for JSRH-250 W570 x D580 mm
PHS-A19	for JSRH-500 W770 x D680 mm
PHS-A16	for JSRH-800 W970 x D780 mm