

# CLIMATIC CHAMBER



**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

| 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    |                 |              |

### 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     |
|-------------|----------|-----------------|--------------|
| 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  
35 % ~ 98 % 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 | 520 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

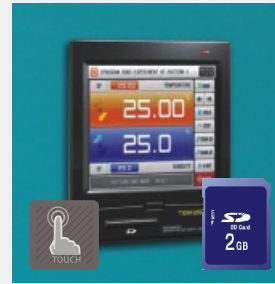
### JSC-950 JSRH-Basic Control

### 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



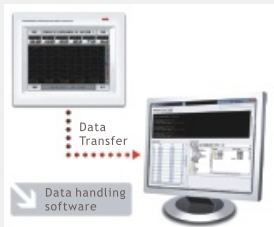
#### Programming

- ▶ 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



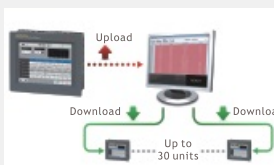
#### Data Transfer

- ▶ 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



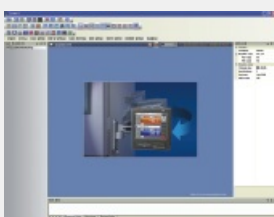
#### Pattern Editing

- ▶ 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



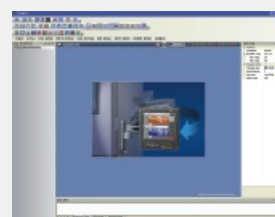
#### PC Software

- ▶ 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

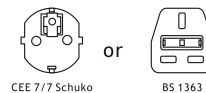
## TEMPERATURE & HUMIDITY JSCH-Table Top Series



### Specifications

|                       |   |
|-----------------------|---|
| <b>Temp. Range</b>    | - 20 °C ~ 120 °C (+10 °C ~ 80 °C)   |
| <b>Accuracy</b>       | ± 0.2 °C at 20°C (JSCH-070)   |
| <b>Uniformity</b>     | ± 0.6 °C at 20°C (JSCH-070)   |
| <b>Humidity Range</b> | 40 % ~ 95 % RH  |
| <b>Accuracy</b>       | ± 0.3 % at 60 % (JSCH-070)  |
| <b>Uniformity</b>     | ± 1.0 % at 60 % (JSCH-070)  |
| <b>Control</b>        | Graphic LCD Programmable Control<br>10 Patterns 100 Segments<br>RS-232C or RS-485 Multi-Drop [OPTION] |
| <b>Sensor</b>         | Temperature Class A Pt-100 Ω Sensor<br>Humidity Electronic Sensor                                     |
| <b>Safety</b>         | Over-Temperature Cut-Off<br>Over Current Cut-Off  |
| <b>Material</b>       | Body : Epoxy Powder Coated Steel<br>Chamber : Stainless Steel 304                                     |
| <b>Electric</b>       | 220 ± 10% VAC 50/60Hz 1-Phase   |

#### Plug config.



|  |   |
|--|---|
|  | Temp. - 20 °C ~ 120 °C  |
|  | Humidity 40 % ~ 95 % RH   |
|  | Program Controller<br>10 Patterns 100 Segments                    |
|  | RS-232C or 485 Serial Interface<br>Multi-Drop up to 9 Instruments |



## Control Accuracy

- ▶ Graphic LCD Programmable PID Controller
  - ▶ 10 Patterns memory 100 Segments 999 times repeatable
  - ▶ RS-232C or RS-485 Multi-Drop serial communication up to 9 instruments and PC software [OPTION]
  - ▶ Maximum 6 zone PID group for different temperature and humidity range for better control accuracy
  - ▶ Temperature calibration and auto-tuning function
  - ▶ Class A Pt-100  $\Omega$  sensor and electronic humidity sensor
- ▶ 해상도  $\pm 0.1$  °C, 0.1% RH의 정밀한 PID 컨트롤러
  - ▶ 10패턴 저장 메모리 100세그먼트, 999회 또는무한 반복운전
  - ▶ RS-232C, RS-485 다중 통신 지원으로 9대 까지 PC 제어 지원
  - ▶ 작동되는 온습도 구간별로 6개의 zone PID 제어
  - ▶ 온도보정, 오토튜닝 기능 내장
  - ▶ Class A Pt-100  $\Omega$  온도 센서, 전자습도센서

## Performance

- ▶ Ideal for ambient range temperature and humidity test
  - ▶ Optimized control system for ambient conditions allows long term stability and reliability test at constant temperature and humidity condition
- ▶ 좁은 온도와 습도 범위에서 최상의 제어 능력을 발휘하도록 설계되어 일반적인 조건의 테스트에 적합
  - ▶ 최적화된 온습도 제어능력으로 고정된 온도와 습도에서 장기간의 안정성, 신뢰성 테스트에 적합

## Convenience

- ▶ Outer door with double gasket and compression door lock
  - ▶  $\Phi$  50mm access port for easy connection of cables
  - ▶ Built-in water tank for humidifier
- ▶ 이중 도어패킹과 밀착력이 뛰어난 원터치 압착 도어 잠금 장치
  - ▶  $\Phi$  50 mm의 액세스 포트는 편리하게 챔버 내부로 케이블 연결
  - ▶ 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                                 |
|---------|--|
|         | <b>Perforated Shelf, Stainless Steel 304</b> |
| PHS-A21 | for JSCH-070 W370 x D330 mm                  |
| PHS-A22 | for JSCH-100 W470 x D345 mm                  |

## Ordering Information

|                                | JSCH-070CP                           | JSCH-100CP       |
|--------------------------------|--------------------------------------|------------------|
| Control Range                  | 10 °C ~ 80 °C ( without humidity)    | 60 % - 90 % RH   |
|                                | JSCH-070CPL                          | JSCH-100CPL      |
| Control Range                  | - 20 °C ~ 120 °C ( without humidity) | 40 % - 95 % RH   |
| Chamber Volume (Capacity)      | 70 L                                 | 100 L            |
| Temperature Accuracy at 20.0°C | $\pm 0.2$ °C                         | $\pm 0.3$ °C     |
| Uniformity at 20.0°C           | $\pm 0.6$ °C                         | $\pm 0.8$ °C     |
| Humidity Accuracy at 60.0 %    | $\pm 0.3$ %                          | $\pm 0.4$ %      |
| Uniformity at 60.0 %           | $\pm 1.0$ %                          | $\pm 1.2$ %      |
| Dimensions Inner               | 400 x 350 x 500                      | 500 x 365 x 550  |
| W x D x H mm Outer             | 650 x 885 x 1070                     | 750 x 900 x 1120 |
| No. of Shelves / Maximum No.   | 2 / 20                               | 3 / 24           |
| Cable Port                     | $\Phi$ 50 mm                         |                  |
| Water Supply                   | Built-in Water Tank                  |                  |
| Heater Capacity                | 1.6 kW                               | 2.0 kW           |
| Refrigeration System           | CFC Free Air Cooled Compressor       |                  |
| Power Rating                   | 10.8 Amp                             | 12.7 Amp         |
| Power Plug                     | CEE 7/7 Schuko                       | CEE 7/7 Schuko   |