

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

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
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



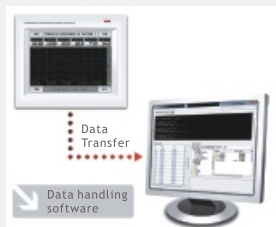
5.6" TFT-LCD

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



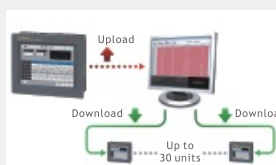
Programming

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



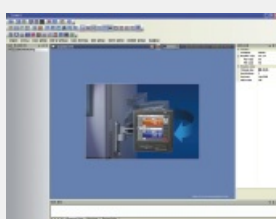
Data Transfer

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



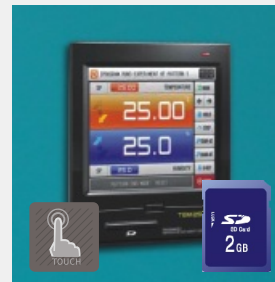
Pattern Editing

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



PC Software

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



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



Monitoring

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



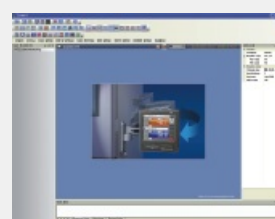
Easy-to-Use

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



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



- ▶ Φ 50 mm with screw cap to connect cables in the chamber
- ▶ Φ 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)

Stability CHAMBER

TEMPERATURE HUMIDITY CONTROL



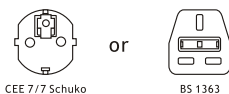
Battery Charge/Discharge Test Chamber

이차전지 충방전 테스트 챔버

JSBS-Series Temperature Chamber
designed for Secondary or Rechargeable
Battery Charge/Discharge test
with cable port,
sliding battery rack system.
Capacity : 150 L, 250 L, 420 L, 520 L

Temp. Range	+ 0 °C ~ 70 °C
Accuracy	± 0.2 °C at 20.0°C (JSBS-520C)
Uniformity	± 0.5 °C at 20.0°C (JSBS-520C)
Control	Microprocessor PID Control Auto START / STOP Timer
Sensor	Class A Pt-100 Ω Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel Chamber : Stainless Steel 304 Door with Tempered Safety Glass Window Inner Glass Door Cable Port Sliding Battery Rack System Built-in Caster for easy transport
Electric	220 ± 10% VAC 50/60Hz 1-Phase

Plug config.



CEE 7/7 Schuko

BS 1363

Control Accuracy

- ▶ ± 0.1 °C and ± 1% RH resolution Digital PID Controller
- ▶ Temperature, humidity calibration, auto-tuning function
- ▶ Class A Pt-100 Ω sensor, Electronic humidity sensor
- ▶ 정밀한 PID 컨트롤러는 온도와 습도를 ±0.1 °C, ±1% RH 제어
- ▶ 온도, 습도보정, 오토튜닝 기능 내장
- ▶ Class A Pt-100 Ω 온도 센서, 전자식 습도센서



Temperature & Humidity Drug Stability Chamber 의약품 안정성 테스트 챔버

JSDS-Series Temperature & Humidity
Chamber designed for Drug Stability
Test for pharmaceutical industry
meets the requirement of
ICH Guideline Q1A (Stability Testing).

Temp. Range	+10 °C ~ 70 °C
Humidity Range	30 % ~ 85 % RH
Control	Microprocessor PID Constant Temp. & Humidity RS-232C or RS-485 [OPTION]
Sensor	Temperature Class A Pt-100 Ω Sensor Humidity Electronic Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off Low Water Level Cut-Off
Material	Body : Epoxy Powder Coated Steel Chamber : Stainless Steel 304 Inner Glass Door Side Glass Window Including PVC Coated Wire Shelf Built-in Caster for easy transport
Electric	220 ± 10% VAC 50/60Hz 1-Phase

Plug config.



30 Amp

Optional Controller

- ▶ **JSC-950** 5.6" TFT-LCD Touch Screen Temp. and Humidity Controller
 - > 120 Patterns 1200 Segment Program Memory
 - > RS-232C or 485 Serial Port with Monitoring and Control Software
 - > Realtime monitoring, graph rendering and data storage
 - > 64 MB internal memory to collect 60 days temp. and humidity data
- ▶ **JSC-2500** 5.7" TFT-LCD Touch Screen Temp. and Humidity Controller
 - > 120 Patterns 1200 Segment Program Memory
 - > RS-232C or 485 Serial Port with Monitoring and Control Software
 - > Realtime monitoring, graph rendering and data storage
 - > SD memory card to collect temp. and humidity data and parameter

Battery Stability Chamber

- ▶ Ideal for cellular phone or mobile instrument's Secondary or Storage Battery charge/discharge test in a constant temperature environment
- ▶ Double layered tempered safety glass window on door for easy observation of cells under testing
- ▶ Inner glass door with high density silicone packing and air-tight door lock
- ▶ Φ100 mm cable access port for easy connection of wire
- ▶ Customized sliding battery rack system

- ▶ 모바일 기기의 이차 전지 또는 충전지의 충방전 및 내구성을 항온상태에서 테스트 하는데 적합
- ▶ 이중 강화유리 도어 투시창으로 도어를 열지않고 샘플 관찰
- ▶ 내부 유리 도어와 고밀도 실리콘 패킹, 밀착식 도어락은 챔버의 기밀성이 뛰어나
- ▶ Φ50 mm 액세스 포트는 편리하게 챔버 내부로 케이블 연결
- ▶ 용도에 따른 주문형 슬라이딩 Battery 랙 시스템



Ordering Information

	JSBS-520C	JSDS-300C	JSDS-420C	JSDS-960C
Chamber Volume (Capacity)	520 L	300 L	432 L	964 L
Dimensions Inner	650 x 850 x 1000	500 x 500 x 1200	600 x 600 x 1200	1200 x 600 x 1200
W x D x H mm Outer	850 x 1155 x 1760	690 x 835 x 1985	790 x 935 x 1985	1390 x 935 x 1985
Temperature Range	+0°C ~ 70°C		+10°C ~ 70°C	
Accuracy	± 0.2 °C at 25.0°C		± 0.3 °C at 20.0°C 60% RH	
Uniformity	± 0.5 °C at 25.0°C		± 1.0 °C at 20.0°C 60% RH	
Humidity Range	-		30 ~ 85% RH	
Accuracy	-		± 3.0 % RH at 20.0°C 60% RH	
Uniformity	-		± 6.0 % RH at 20.0°C 60% RH	
Chamber Observation Light	-	3 x 36W FPL	3 x 36W FPL	4 x 36W FPL
	-		On/Off Switch	
Controller	Digital PID Controller		Digital PID Control	
Sensors	Class A Pt-100 Ω Sensor		Class A Pt-100 Ω Sensor / Electronic Humidity Sensor	
Construction	Glass window W400 x H500 mm Inner Glass Door		Two side observation window Double layer vacuum sealed Inner Glass Door	
No. of Shelves / Maximum No.	Sliding Rack	3 / 35	3 / 35	6 / 70
Heater Rating	1.5 kW	3.1 kW	3.5 kW	6.0 kW
Refrigeration System			CFC Free Air Cooled Compressor	
Power Rating	20 Amp	21 Amp	25 Amp	43 Amp
Plug Configuration	CEE 7/7 Schuko	30 Amp	30 Amp	50 Amp

Drug Stability Chamber

- ▶ Temperature and humidity control chamber for drug stability test meets ICH Guideline Q1A (Stability Test)
- ▶ Inner glass door with high density silicone packing and air-tight door lock
- ▶ Side glass window and light system allows easy observation of samples under long term testing
- ▶ Removable and height adjustable shelf by 25mm spacing
- ▶ Auto-defrost system, user settable interval and time
- ▶ Built-in casters for easy transport

- ▶ 의약품 안정성 챔버는 ICH Guideline Q1A(안정성테스트)에 적합하도록 설계
- ▶ 내부 유리 도어와 고밀도 실리콘 패킹, 밀착식 도어락은 기밀성이 뛰어나
- ▶ 이중 강화유리 측면 투시창으로 도어를 열지 않고 장시간 테스트가 요구되는 샘플을 확인
- ▶ 25mm 간격으로 높이 조절 가능한 선반
- ▶ 제상 간격 및 시간을 조절할 수 있는 자동 제상 시스템
- ▶ 바퀴를 장착하여 설치 및 이동이 편리함

Accessories

Art No.	Descriptions
OEC-006	JSC-2500 Touch Screen Controller Option
OEC-007	JSC-950 Touch Screen Controller Option
OER-010	6-Channel Chart Recorder
	PVC Coated Wire Shelf
PHS-C05	for JSDS-300C W470 x D480 mm
PHS-C13	for JSDS-420C W570 x D580 mm
PHS-C15	for JSDS-960C W570 x D545 mm