

## COMMODITY DESCRIPTION

H.S. No	Item No	Description	Unit	Quantity
		<b>Refrigerated Circulation Bath</b>	<b>set</b>	<b>1</b>

**A. Model :** JSRC-13CL

**B. Product Description :** Refrigerated Circulation Bath

**C. Manufacturer / Origin :** JS Research Inc. / Korea

**D. Application :**

Heated/Refrigerated circulating open bath system capable of reaching temperature as low as -40 °C and heating up to 12 °C for a wide variety of laboratory heating and cooling applications. Internal circulation of thermal fluid within the bath allows precise uniformity within  $\pm 0.1$  °C. Circulation pump enables to circulates heated or refrigerated thermal fluid to external equipments such applications as reactor, condenser, rotary evaporator or controlling the temperature of laboratory equipment such as chromatography columns, viscometers, and densitometers. External circulation pump capacity 10 liters/min. in flow rate and 0.5 bar in pressure

**E. Photo**



**JSRC-xxCL Refrigerated Circulation Bath**

## **F. Feature**

### **Controller JSC-0D Digital PID Controller**

- ✓  $\pm 0.1$  °C Digital PID Controller with LED Display
- ✓ Automatic START/STOP timer
- ✓ Adjustable timer scale 99min 59sec / 99hr 59min / 99day 23hr or continuous operation
- ✓ Temperature calibration
- ✓ Auto-tuning function
- ✓ Class A Pt-100 $\Omega$  sensor

### **Construction**

- ✓ Durable epoxy powder coated metallic casing
- ✓ Corrosion resistant Seamless Stainless Steel 304 bath
- ✓ Corrosion resistant Stainless Steel 304 sheath immersion heater
- ✓ Corrosion resistant Stainless Steel 304 lid

### **Performance**

- ✓ Temperature range from -40 to 120 °C
- ✓ Excellent control accuracy within  $\pm 0.1$  °C and thermal uniformity within  $\pm 0.3$  °C
- ✓ High efficiency heating and cooling system allows short heat-up and cool-down times
- ✓ Corrosion resistant Stainless Steel 304 sheath immersion heater and cooling coil controls bath temperature quickly and precisely
- ✓ Stainless steel immersion circulation pump circulates thermal fluid within the bath for higher temperature uniformity or circulates thermal fluid to external closed loop with flow rate 10 liter/min and 0.5 bar in pressure

### **Convenience**

- ✓ Easy to clean Electro-Polished Seamless Stainless Steel 304 Bath
- ✓ Perforated stainless steel heater and pump cover
- ✓ Drain for easy emptying of the bath fluid
- ✓ Supplied with stainless steel flat cover to help reduce heat losses and evaporation
- ✓ Easy to connect  $\varnothing 9$  mm hose barb fitting for external circulation
- ✓ Dust accumulation in refrigeration system is easily cleaned by removable venting grill

### **Safety**

- ✓ DUAL OVER TEMP. CUT-OFF  
Digital system cut-off heater and AUDIO VISUAL ALARM in case +2 °C above set temperature  
Analog system cut-off heater 10% above set temp.
- ✓ MAX TEMP CUT-OFF heater and AUDIO VISUAL ALARM when +1 °C above maximum limit
- ✓ SENSOR DISCONNECTION ALARM
- ✓ LOW WATER LEVEL CUT-OFF
- ✓ OVER CURRENT CUT-OFF : Fuse
- ✓

## G. Specifications

Bath Capacity	11 Liters
Inner Dims. (W x D x H)	240 x 300 x 150 mm
Usable Dims. (W x D x H)	240 x 120 x 150 mm
Outer Dims. (W x D x H)	370 x 450 x 730 mm
Temp. Range	-40°C ~ +120°C
Accuracy	±0.1°C at -10°C
Uniformity	±0.3°C at -10°C
Heating	Stainless Steel 304 Immersion Heater
Cooling	CFC Free air cooled compressor
Circulation Pump	Flow Rate : 10 liter/min Pressure : 0.5 bar
Control	Microprocessor PID control Auto START / STOP Timer
Sensor	Class A PT-100 Ω Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off Low water level cut-off
Material	Body : Epoxy Powder Coated Steel Bath : Seamless Stainless Steel 304 Pump : Stainless Steel 304
Electrical Requirement	220 ± 10% VAC, 50/60Hz, 1-Phase
Heater Capacity	800 Watt
Power Rating	7.1 amps
Plug Configuration	CEE 7/7 Schuko or BS 1363

## H. Standard Accessories

Flat Lid, Stainless Steel 304	: 1 EA
Power Cord	: 1 EA
Instruction Manual	: 1 EA
Warranty Card	: 1 EA

## I. Options & Accessories

## J. Warranty

1 Year full coverage warranty