

PSC Series Pharmaceutical Stability Test Chamber

0~65°C | 25~95%RH/±3%RH

LAB1ST PSC Series Pharmaceutical Stability Test Chamber is designed to provide precise and reliable stability testing environments for pharmaceuticals.

With a temperature range of 0°C to 65°C and humidity control from 25% to 95% RH, this series supports long-term, accelerated, and strong light exposure testing. Its robust design and advanced control systems make it ideal for pharmaceutical laboratories and R&D facilities.



1000L / 1500L

Features

> Energy-Efficient & Eco-Friendly Design

- Fluorine-free refrigeration system for high efficiency, low energy consumption, and environmental sustainability.

> Advanced Control & Monitoring System

- 5-inch Touchscreen Programmable Controller featuring a user-friendly interface supporting 100 programs, 1000 segments, and 999 cycles, with maximum duration of 99 hours 59 minutes per segment
- Dual International Brand Compressors with automatic switching for continuous, uninterrupted operation (Note: PSC-80L model equipped with one independent fully-enclosed compressor)
- Advanced PID Auto-Tuning ensures precise and stable temperature and humidity control
- Microcomputer Servo Controller with digital temperature and humidity display for accurate real-time monitoring
- Frost-Free Continuous Operation technology eliminates defrost cycles, preventing temperature and humidity fluctuations during critical tests
- Bilingual Interface (Chinese/English) with real-time curve display

> Superior Chamber Design & Construction

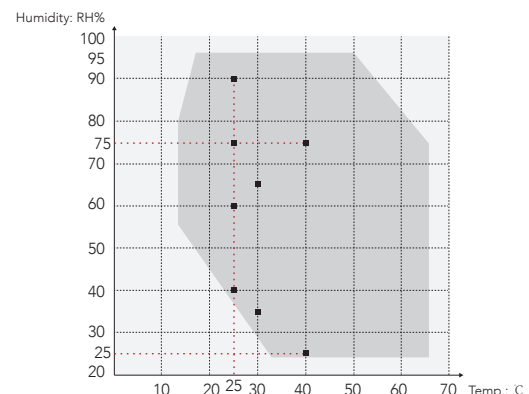
- High-Grade 304 Stainless Steel Interior featuring smooth, radiused corners for effortless cleaning and optimal contamination control
- Advanced Airflow Duct System delivering exceptional air circulation uniformity throughout the entire workspace
- 25mm Access Port conveniently located on the left side for easy sensor integration and monitoring

> Compliance with International Standards

- Comprehensive Testing Protocol Support – Fully compliant with ICH and other international regulatory guidelines for pharmaceutical stability testing, including:

- Accelerated Testing: 40°C ±2°C / 75%RH ±5%RH or 30°C ±1°C / 60%RH ±5%RH (180 days)
- Long-Term Testing: 25°C ±2°C / 60%RH ±5%RH or 30°C ±2°C / 60%RH ±5%RH (365 days)
- Accelerated Testing for Semi-Permeable Packaging (e.g., LDPE infusion bags, plastic ampoules, ophthalmic containers): 40°C ±2°C / 25%RH ±5%RH
- Long-Term Testing for Semi-Permeable Packaging: 25°C ±2°C / 40%RH ±5%RH or 30°C ±2°C / 35%RH ±5%RH
- Strong Light Exposure Test: 4500 ±500Lx (10 days)

Temperature and Humidity Range of Pharmaceutical Testing Chamber



**> Comprehensive Safety & Alarm System**

- Independent Temperature Limit Alarm with audible and visual alerts for immediate hazard notification
- Multi-Level Protection System including compressor overheat, fan overheat, over-temperature, over-pressure, overload, and water shortage protection
- Dual-Direction Alarms for both high/low temperature and humidity deviations from set parameters
- Password-Protected Screen Lock to prevent unauthorized access and operation
- Hierarchical Access Management featuring multi-user accounts with three permission levels (Administrator, Operator, Visitor), supporting personalized login with detailed operation logs for audit trail compliance
- Automatic Safety Shutdown that stops air circulation and heating when chamber door is opened, preventing temperature overshoot and ensuring operator safety

> Reliable Components & Sensors

- Internationally Renowned Brand Components for temperature/humidity controllers, compressors, and circulating fans.
- High-Temperature Resistant Humidity Sensor eliminates frequent replacement of wet wicks.

> Data Recording & Communication

- Standard RS485 Communication & Embedded Printer for real-time data logging and remote monitoring.
- PC Software Support for programming, monitoring, and remote control.
- Fault Diagnosis Display for clear and immediate error identification.

Specification

Model	PSC-80L	PSC-150L	PSC-250L	PSC-500L	PSC-800L	PSC-1000L	PSC-1500L
Temp. Control Range	0~65°C						
Temp. Fluctuation/Uniformity	±0.5°C/±2°C	±0.5°C/±2°C	±0.5°C/±2°C	±0.5°C/±2°C ~ ±3°C	±0.5°C/±2°C ~ ±3°C	±0.5°C/±2°C ~ ±3°C	±0.5°C/±2°C ~ ±3°C
Humidity Range/Deviation	25~95%RH, ±3%RH						
Timer Range	Each segment 1~99 hours						
Temp. & Humidity Control Method	Balanced temperature and humidity control method						
Refrigeration System/Method	Two independent sets of fully hermetic compressors, auto-switch, international brand (PSC-80L model equipped with one independent fully-enclosed compressor)						
Controller	Programmable touch screen controller						
Sensor	Pt100 platinum resistor; Capacitive humidity sensor						
Ambient Operating Temp.	+5 ~ 30°C						
Power Supply	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC220V 50HZ	AC380V 50HZ
Operating Power (approx.)	~650 W	~680 W	~750 W	~1400 W	~2720 W	~2800 W	~4800 W
Rated Power	2000 W	2800 W	3000 W	3750 W	3400 W	3500 W	6000 W
Chamber Volume	80 L	150 L	250 L	500 L	800 L	1000 L	1500 L
Inner Dimensions (W×D×H, mm)	400×400×500	550×405×670	600×500×830	670×725×1020	730×750×1480	730×890×1480	1550×590×1650
External Dimensions (W×D×H, mm)	550×790×1080	690×805×1530	740×890×1680	850×1100×1930	870×1085×2065	870×1220×2065	2110×890×2000
Standard Shelves/Trays	2 pcs	3 pcs	3 pcs	4 pcs	4 pcs	4 pcs	4 pcs
Built-in Printer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Safety Devices	Compressor overheat protection, Fan overheat protection, Over-temperature protection, Compressor overpressure protection, Overload protection, Water shortage protection						
Communication Interface	485 interface						
Test Port	25mm test port						

Performance parameters are tested under no-load conditions at an ambient temperature of 20°C and ambient humidity of 50% RH. Operating power is measured under stable operating conditions at 25°C and 65% RH.

Options**Paperless Recorder** (Universal Type)International Brand SDR100
Paperless Recorder (2/4/6 Channels)**Wired Monitoring and Alarm System****UV Sterilization System****3Q Validation and Calibration Services****USB Interface** for Data Export

Labfirst Scientific Instruments (Shanghai) Co., Ltd.
No.248 Guanghua Road, Minhang District, Shanghai, China

CALPHA INDUSTRIES INC.
10 Corporate Park Ste 330, Irvine, California 92606, USA

LSI PROCESS EQUIPMENT CO., LTD.
701 West Georgia Street, Suite 1500, Vancouver, British Columbia, V7Y 1C6, Canada

Tel: +86-13524020331 / +1-844-452-2178

sales@lab1st.com
www.lab1st.com
eshop.lab1st.com