Benchtop Low Temperature Chamber

1. Main Technical Parameters

Canden Model Number	HCS1
1.1 Test area size	9" ×13" ×13" (D×W×H)
1.2 Test area capacity	30 Liter/1 CU.FT
1.3 External size	34"×20"×25" (D×W×H)
1.4 Temperature range	- 32 ~ 130℃
1.5 Temperature fluctuation	±0.3℃
1.6 Controller	Color touch screen programmable controller
1.7 Test data record	History test data record is recorded, and can be downloaded to user's USB
1.8 Working mode	Fix & Programmable & Cycling
1.9 Remote control	User can monitor and control the chamber on computer
1.10 Power	110~120V, 2Kw

2. Chamber Structure	
2.1 External material	SPCC cold-rolled electrostatic sprayed steel plate
2.2 Test area material	SUS304 stainless steel plate
2.3 Insulation material	Superfine glass wool
2.4 Door	Single-door, flat handlebars
2.5 Door seal	Resistant-to-high-temperature silicone rubber
2.6 Door Window	An automatically defrosting vacuum view window on the door
2.7 Test Area Light	One proof-defrost light
2.8 Specimen Shelf	2 levels of stainless steel shelves

3. Heating System	
3.1 Controlling part	SSR solid-sate relay
3.2 Heater	Stainless-steel heater, and electric relay with over-heat protection

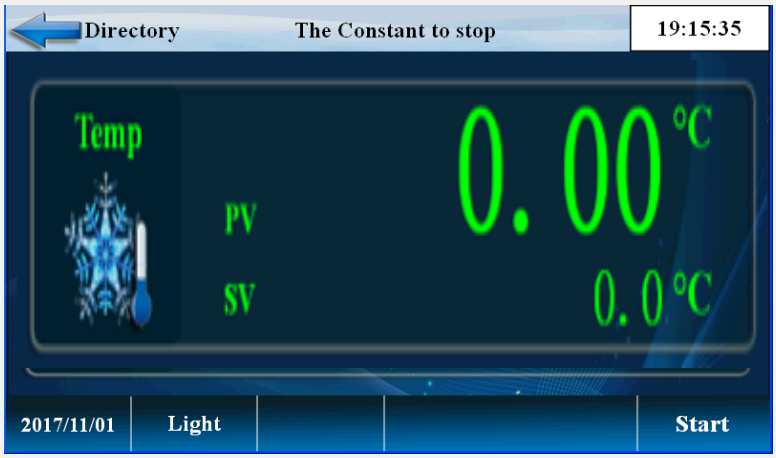
4. Cooling System	
4.1 Compressor	SECOP totally-closed hermetic compressor made in E.U.
4.2 Refrigerant	Environmentally friendly refrigerant
4.3 Cooling mode	Air-cooling
4.4 Evaporator	Domestically-made evaporative condenser
4.5 Condenser	Domestically-made condenser
4.6 Other cooling parts	expansion relief valve electromagnetic control valve drying filter pressure controller

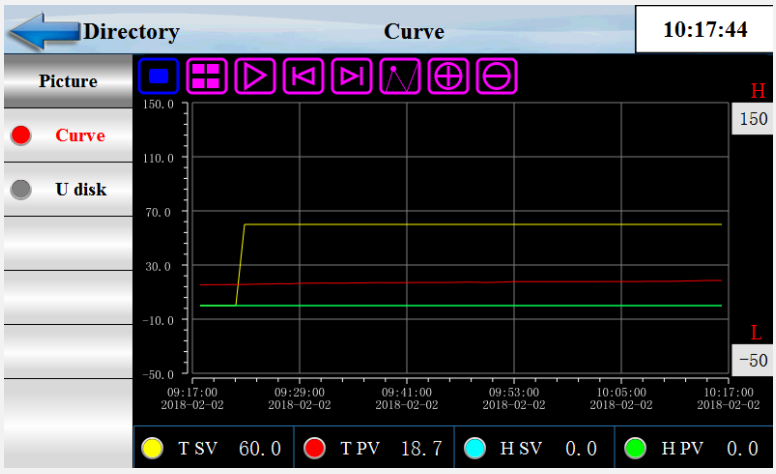
5. Air Circulation System	
5.1 Blower	Stainless steel long-axial fan
5.2 Air circulation mode	Compulsory blower air circulation

6. Controlling & Measuring System

6.1 Temperature Controller

The temperature controller is LCD-Touch-Screen temperature controller. It has also the PID function of the controller can automatically control the temperature and correct the deviations. It can store the test data as well.



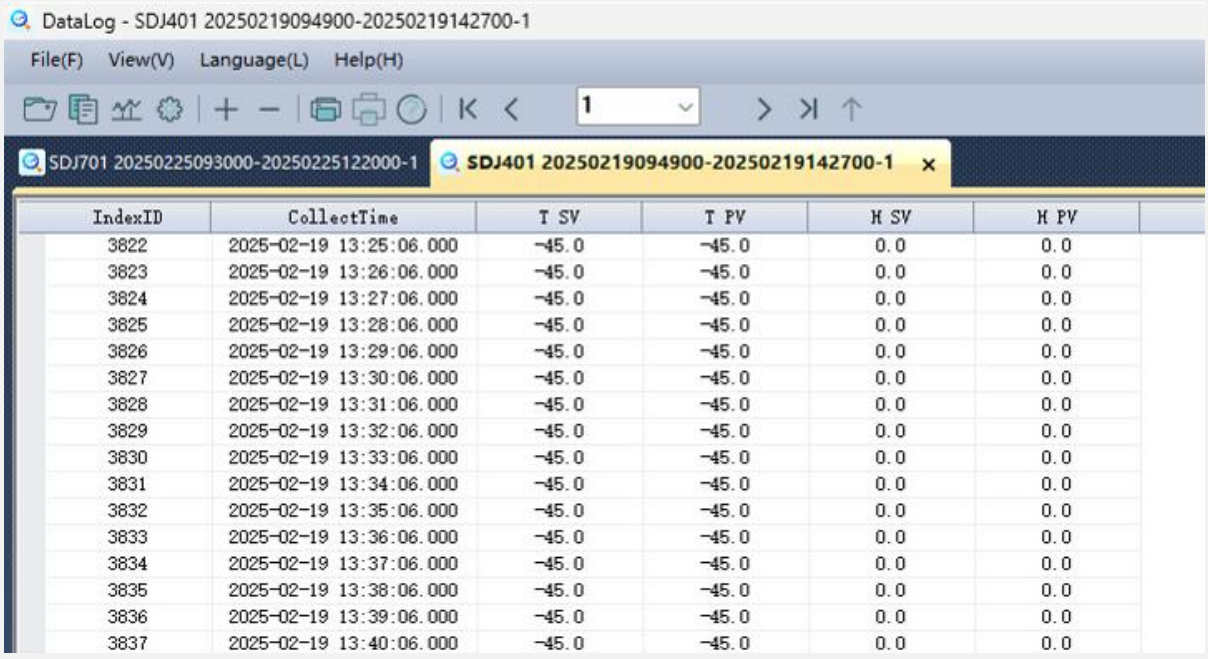


6.2 Controller language	**English, Chinese and digits**
6.3 Controller display	target temperature real temperature operating time

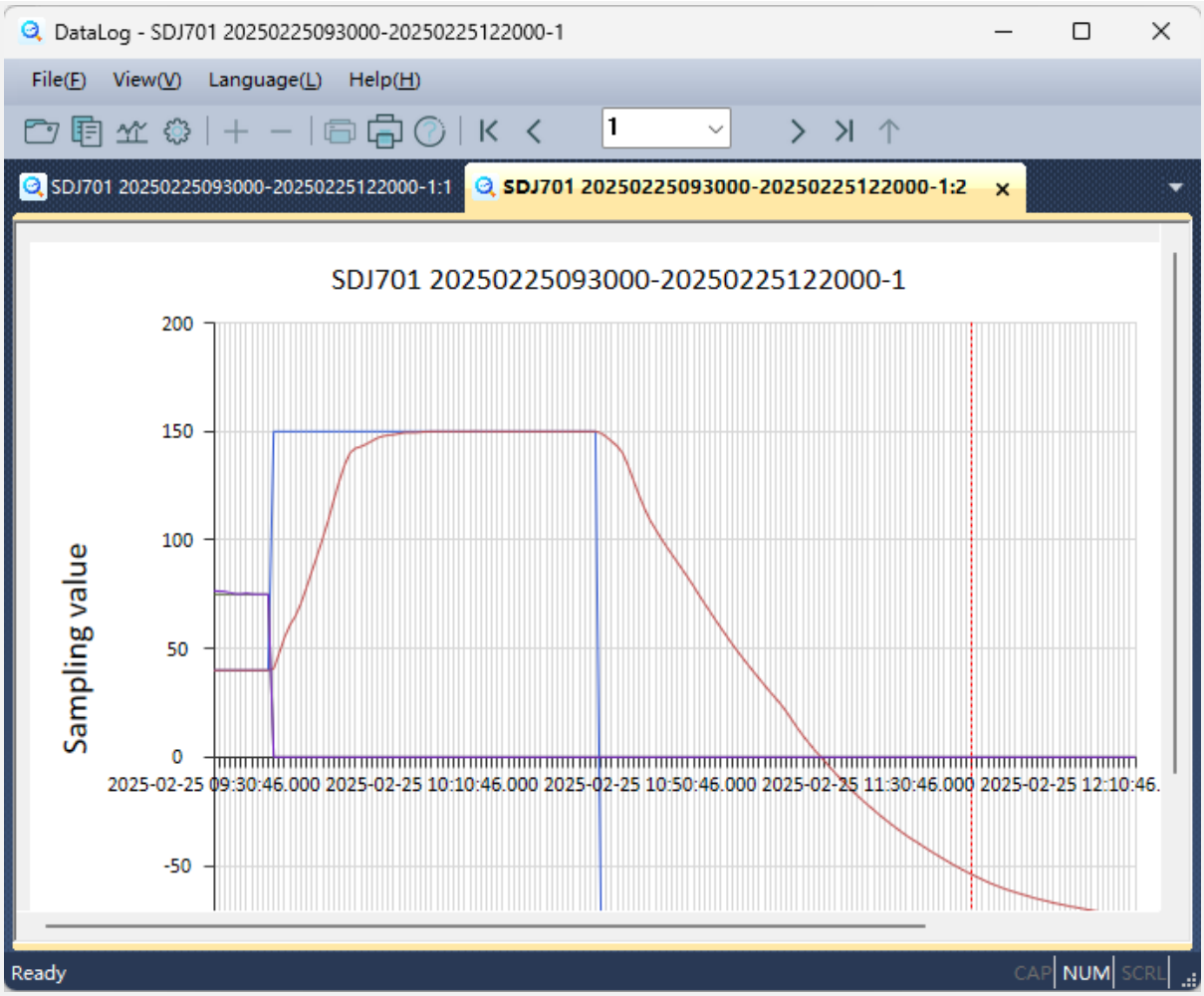
	alarm program curves ……
6.4 Setting accuracy	Temperature:0.1℃ Time:1min
6.5 Operating mode	**Constant and programmable**
6.6 Program volume	Maximum 100 programs Each program has maximum 100 steps, each step has maximum 30000 hours. Each program and step can be linked or cycled together

7. Test Data Record

History test data is stored in controller and can be downloaded to USB.



IndexID	CollectTime	T SV	T PV	H SV	H PV
3822	2025-02-19 13:25:06.000	-45.0	-45.0	0.0	0.0
3823	2025-02-19 13:26:06.000	-45.0	-45.0	0.0	0.0
3824	2025-02-19 13:27:06.000	-45.0	-45.0	0.0	0.0
3825	2025-02-19 13:28:06.000	-45.0	-45.0	0.0	0.0
3826	2025-02-19 13:29:06.000	-45.0	-45.0	0.0	0.0
3827	2025-02-19 13:30:06.000	-45.0	-45.0	0.0	0.0
3828	2025-02-19 13:31:06.000	-45.0	-45.0	0.0	0.0
3829	2025-02-19 13:32:06.000	-45.0	-45.0	0.0	0.0
3830	2025-02-19 13:33:06.000	-45.0	-45.0	0.0	0.0
3831	2025-02-19 13:34:06.000	-45.0	-45.0	0.0	0.0
3832	2025-02-19 13:35:06.000	-45.0	-45.0	0.0	0.0
3833	2025-02-19 13:36:06.000	-45.0	-45.0	0.0	0.0
3834	2025-02-19 13:37:06.000	-45.0	-45.0	0.0	0.0
3835	2025-02-19 13:38:06.000	-45.0	-45.0	0.0	0.0
3836	2025-02-19 13:39:06.000	-45.0	-45.0	0.0	0.0
3837	2025-02-19 13:40:06.000	-45.0	-45.0	0.0	0.0



User can monitor and control the chamber on computer. No software is required.

8. Other Controlling and Measuring System	
8.1Temperature Sensor	Pt100 temperature sensor
8.2 Other controlling part	AC contactor; relay; breaker;

9. Safety device
(1) Over-heat protection
(2) Over-load of fan
(3) Over-load of compressor
(4) Short-circuit protection
(5) Over pressure of compressor
(6) Ground protection

10. Operation Ambient Condition	
10.1 Ambient temperature	＜30℃
10.2 Power supply	110~120V, 1P

Note: Canden is distributor for this model. Model is manufactured in china.