

Pharmaceutical Stability Test Chamber

In order to conduct ICH Q1A (R2) and ICH Q1B tests

Stability Test (ICH Guideline Q1A (R2))

- Supports long-term stability testing with an energy-saving inverter refrigeration system and PID control, ensuring stable temperature and humidity while reducing energy consumption.
- Maintains the same temperature and humidity control range regardless of lamp On/Off status.
- Enables continuous operation without defrosting, even during 5°C long-term stability testing.
- Optional recorder supports test record management.
- Inner glass door allows internal observation and sample access during testing.

Photostability Testing (ICH Q1B Option 2)

- VIS and UV-A light sources compliant with ICH guidelines can be independently controlled inside the chamber.
- Light sensors accurately measure actual and accumulated light exposure values and display them on the controller.
- Displays accumulated exposure time for VIS/UV-A and the remaining time to reach the target value for convenient test management.
- Auto lamp-off function turns off the lamps when the preset target value for each light type is reached.

Structural Functional Features

- Specially manufactured filters and optimized lamp arrangement deliver uniform illuminance throughout the vertical area.
- Stable horizontal airflow ensures consistent temperature and humidity, even with large sample loads.
- External humidification system improves stable humidity control and keeps the test space clean and easy to maintain.
- Excellent insulation and sealing ensure stable temperature and humidity reproducibility during repeated long-term testing.
- Space-saving slim design.
- Double-sealed door structure provides enhanced airtightness.

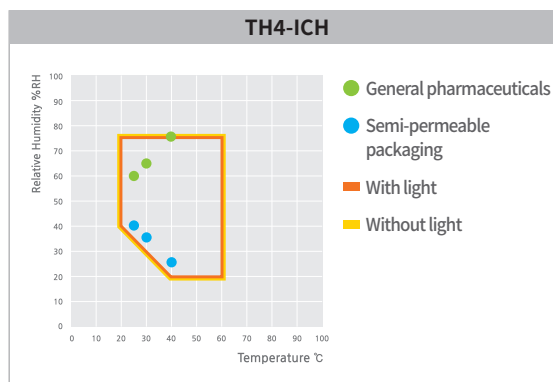
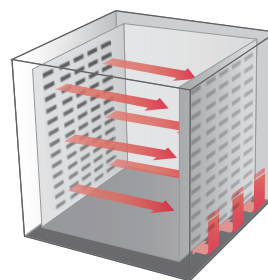
Use Convenience Features

- 7-inch color touchscreen provides intuitive and convenient operation.
- Integrated controller enables simultaneous control of temperature, humidity, illuminance, and UV.
- Operating status can be checked in graph format.
- Multi-Timer™ enables efficient schedule management by separately managing sample information and end times for samples with different test start dates.
- User access management allows only authorized users to access the system.
- User-friendly maintenance alerts notify the operator of condenser filter cleaning, lamp replacement, and calibration schedules.



TH4-ICH-400

with Wire Shelves 2ea, Φ50 Cable Port (standard), Recorder (Option)



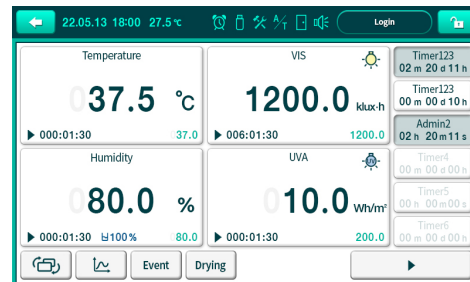
- Patented Level-Checker™ monitors and controls the water level in the humidification tank in real time, allowing the operator to check the water level on the controller.
- Easy Cap water inlet enables convenient water filling.
- Water can be replenished while the unit is operating.
- Direct water connection device is included as standard, eliminating the need for frequent manual water replenishment.
- Door with key lock is included as standard for enhanced security.
- Two Ø50 cable ports are included as standard for convenient connection between test samples and external devices.
- Removable condenser grille allows easy cleaning and helps maintain refrigeration efficiency.
- Sliding shelf structure allows easy access to samples placed deep inside the chamber.
- Casters provide convenient mobility and secure installation.

Multi-Function Control and Communication System

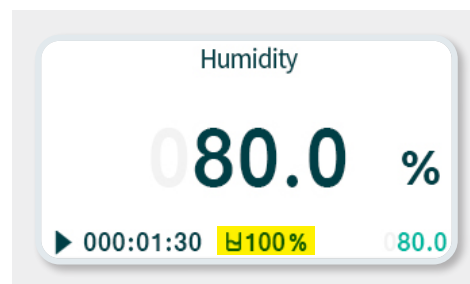
- Supports both fixed control and program control.
- Allows various test conditions with 10 programs, 10 steps, and up to 99 repeat cycles.
- Saves program information and backs up set values.
- Temperature/humidity auto-tuning and temperature calibration support reliable control.
- Calibration functions are available for temperature, humidity, VIS, and UV-A.
- PID control divided into 16 zones enables more precise and stable control.
- Data can be stored in internal memory and USB external memory.
- RS-232 port is included as standard, and RS-485 port is available as an option.
- Dedicated PC monitoring software is included as standard for equipment control, data monitoring, and data storage (Up to 4 units can be connected)
- LC Connected mobile monitoring system enables monitoring anytime, anywhere via a mobile app when connected with LC GreenBox. (LC GreenBox required)
- Supports Jeio Tech LC DataKeeper, a data integrity software in compliance with FDA 21 CFR Part 11, for GMP audit readiness. (Option)

Outstanding Safety

- A-OT, Advanced Over Temperature Limiter (Electronic over-temperature cut-off system with an independent precision temperature sensor and controller for safer and more reliable protection)
- B-OT, Backup Over Temperature Limiter (Backup over-temperature cut-off system designed to provide protection even in the event of electronic system failure)
- Simplified direct water line and electrical circuit minimize possible failures.
- Surface temperature remains below 60°C even when the unit is operated at its maximum temperature.
- Low water level in the humidification tank triggers a warning and system shutdown.
- Door-open condition triggers a warning and system shutdown.
- UV and fluorescent lamps automatically turn off when the external door is opened, protecting the operator.
- Overcurrent and electrical leakage protection.
- Circuit protectors are installed for each heater for enhanced safety.



7-inch display that controls temperature, humidity, illuminance, and UV



Level-Checker™ for real-time water level monitoring



Inner glass door made of tempered glass



Specially manufactured filter for uniform illuminance



Sliding shelf for convenient sample access



Specification

Model		TH4-ICH-400	TH4-ICH-400A
Interior dimensions			
Chamber volume (L / cu ft)		400 / 14.13	400 / 14.13
Width (mm / inch)		595 / 23.43	595 / 23.43
Depth (mm / inch)		710 / 27.95	710 / 27.95
Height (mm / inch)		960 / 37.8	960 / 37.8
Quantity of shelves (standard/max.)		2 / 2	2 / 8
Distance between lamp and shelf (mm / inch)		150 / 5.91	-
Distance between shelves (mm / inch)		-	90 / 3.54
Max. load per shelf (kg / lbs)		20 / 44.1	20 / 44.1
Permitted total load (kg / lbs)		65 / 143.3	65 / 143.3
Cable port (Ø, mm / inch)		50 / 1.97	50 / 1.97
Water tank capacity (L / cu ft)		12 / 0.42	12 / 0.42
Weight (kg / lbs)		270 / 595.25	270 / 595.25
Tempertaure data			
Range without humidity	without light	0 to 70	0 to 70
	with light	5 to 70	-
Fluctuation ($\pm$ °C / °F)		0.5 / 0.9	0.5 / 0.9
Gradient (°C / °F) ¹⁾		<3.0 / <5.4	<3.0 / <5.4
Humidity data			
Range (%RH)		20 to 75	20 to 75
Fluctuation ($\pm$ %RH)		2	2
Recovery time 25°C/60% (30s door open) (min)		4	4
Light data (ICH Q1B option 2)			
Cool white at 25°C (Lux)		12000	-
Ultraviolet-A at 25°C (W/m ²)		8	-
Uniformity of Visible light ($\pm$ %)		10	-
Uniformity of Ultraviolet-A light ($\pm$ %)		10	-
Typical time 1.2 million Lux-hr (hr)		100	-
Typical time 200 W-hr/m ² (hr)		25	-
Electrical data & Ordering information			
Plug type ²⁾		Industrial (3pin)	Industrial (3pin)
Power consumption (A)		20	18
Cat. No.		AAHC4030K	AAHC4031K

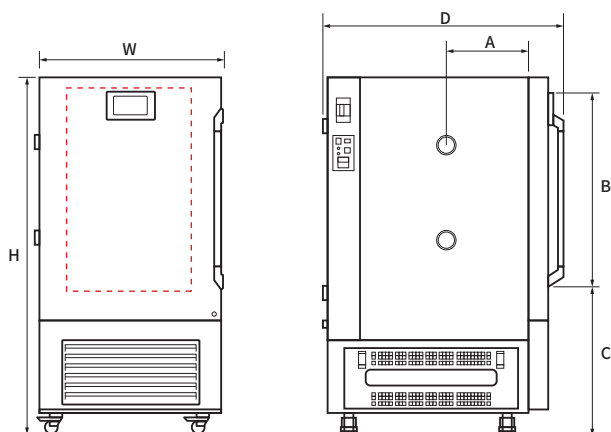
※ Above specifications are based on DIN 12880 and IEC 60068 standards.

※ Ambient conditions of the device shall be within 18-30°C (Recommended: 20°C), 85%RH or less, and 2000m or less above sea level.

※ DI water specification is pH 6.2-7.2 and electrical conductivity $\leq 20 \mu\text{S/cm}$.

1) Gradient is the maximum temperature deviation between the highest and lowest values among the 9 temperature sensors

2) Check the plug type and the electrical capacity of the installation site



Dimension

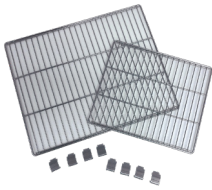
Model	TH4-ICH-400/400A
W (mm / inch)	860 / 33.9
D (mm / inch)	1150 / 45.3
H (mm / inch)	1715 / 67.5
A (mm / inch)	394 / 15.5
B (mm / inch)	996 / 39.2
C (mm / inch)	685 / 27

Accessories Page 312

Shelves, Signal Lamp, Recorder, Water Purifier, LC GreenBox, LC DataKeeper

Accessories

Wire Shelf



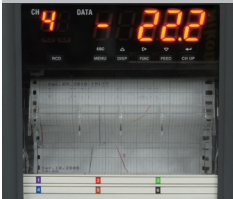
- Excellent ventilation structure.
- Stainless steel.
- Includes 2ea as standard.

Perforated Shelf



- Suitable for high-load samples.
- Excellent maintenance as made of stainless steel.

Recorder (Paper)



- Up to 6 channels supported.
- Set recording range and speed.
- Paper width: 100 mm.

Recorder (Digital)



- Paperless. (5.7" LCD display)
- Up to 6 channels supported.
- Data stored in internal/external memory.

Cable Port



- Both cap and silicone plug are included as standard in Ø50 mm cable port.
- It is available to add Ø50 mm, Ø80 mm.

Signal Lamp



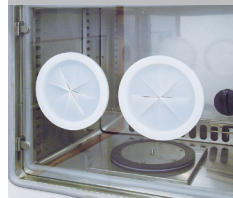
- Figuring out equipment status remotely.
- Run/Stand-by/Error displayed by color.

Water Purifier



- Water purifier composed of particle filter and carbon filter.
- Solid steel box construction.

Inner Glass Door



- Minimized temperature and humidity changes and observation of internal samples enabled.
- Hand-in port is provided as standard. (selectable when purchasing)

Stand (1 Stage)



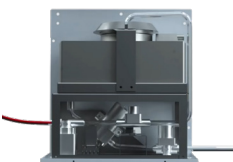
- Dedicated stand for small appliances.
- Provides lower drawer and loading space.
- Casters provided as standard for moving/fixing.

Stand (2 Stage)



- Placing of two compact devices vertically.
- Minimized installation space for different temperature and humidity tests.

Direct Water System



- Direct connection of distilled water to direct water line of the equipment from a water supply pipe.
- Useful for long-term testing.

Model	Cable Port (ø50)	Cable Port (ø80)	Wire Shelf	Perforated Shelf	Signal Lamp	Recorder (Paper)	Recorder (Digital)	Water Purifier	Direct Water System	Inner Glass Door	Stand (1 stage)	Stand (2 stage)
TH3-KE-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-KE-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-KE-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH3-ME-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-ME-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-ME-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH3-PE-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-PE-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-PE-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH-KH-180	AAA8T610	AAA8T6111	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH-KH-300	AAA8T610	AAA8T6111	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-KH-408	AAA8T610	AAA8T6111	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-G-800	AAA8T610	AAA8T611	00EDA0008215	AAA80602-4	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81550	N/A	N/A
TH-G-1000	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81550	N/A	N/A
TH-G-1500	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH3-G-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-10	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH3-G-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-12	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH3-TG-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-10	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH3-TG-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-12	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH3-TG-800	AAA8T610	AAA8T611	00RTE0001631	AAA80602-13	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH3-TG-1000	AAA8T610	AAA8T611	00RTE0001620	AAA80602-14	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH3-TG-1500	AAA8T610	RTE1663	00RTD0001305	AAA80602-15	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH3-DG-150	AAA8T610	AAA8T611	00EDA0008251	AAAC6501	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6511	N/A	N/A
TH3-DG-300	AAA8T610	AAA8T611	00RTD0001280	AAAC6502	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6512	N/A	N/A
TH3-DG-400	AAA8T610	AAA8T611	00EDA0008250	AAAC6503	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6513	N/A	N/A
TH3-E-200	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH3-E-400	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH4-ICH-400	N/A	N/A	RTE1840	AAA80605-1	AAA80550	AAA8T504	AAA8T506	BMD08142	N/A	N/A	N/A	N/A

LC GreenBox (only TH3, TH4 models)

- Real-time monitoring of device operation via mobile app, LC Connected.
- Up to 4 devices can be connected at once.

Description	Dimension (W x D x H, mm / inch)	Cat. No.
LC GreenBox	156 x 94 x 34 / 6.1 x 3.7 x 1.3	AAHQ1011K



LC DataKeeper (only TH3, TH4 models)

- High-integrity software compliant with FDA 21 CFR Part 11
- Integrated with Jeio Tech equipment for GMP audits

Description	Cat. No.
LC DataKeeper-Basic	SSA11001
LC DataKeeper-Pro	SSA11002

※ Trial version is available for 30 days, offering the same features as the Basic version, and can be requested through the website.

