Temperature (Humidity)Chamber FD Series

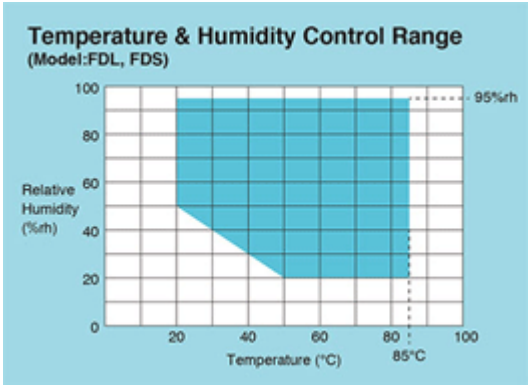
This is the successor model to Faster Temp. (& Humid.) Chamber SM series and Low Temp. (& Humid.) Chamber FM series.

The FD series is desirable for testing large assemblies and completed products such as lithium-ion battery modules, EV powertrain, PV modules and avionics components, etc.
The right solution to meet your applications and various test standards such as MIL, ISO, IEC, and LV 124.

Features

- Size variations are available in the range from 1m3 to 12m3, depending on your application.
- Additional safety features are also available for the LiB tests.
- Tests in-situ or full-size samples are possible even for EV powertrains and instrument clusters, not requiring you to prepare test coupons or reduce-size test pieces.
- Photovoltaic modules durability, reliability tests according to IEC/JIS standards.
- Ideal for secondary battery charge / discharge testing with inner size flexible design.

Test area



Temperature-Humidity control range (Model:FDS,FDL)

Main specifications

Model	FDU	FDL	FDG	FDS
Temperature (humidity) control	Balanced temperature control	Balanced temperature	Balanced temperature control	Balanced temperature

system	system	humidity control system	system	humidity control system
Temperature range	-40°C ~ +180°C	-40°C ~ +180°C	-70°C ~ +180°C	-70°C ~ +180°C
Humidity range	-	20 ~ 95%	-	20 ~ 95%
Temperature change rate (Reference example)	-18°C ⇔ 158°C 3°C/min or more (No specimen, average, during the test -40°C ⇔ +180°C)		-45°C⇔155°C 3°C/min or more (No specimen, average, during the test -70°C ⇔ +180°C)	

※Temperature change rate shown above are a reference case. This may not be possible due to the internal volume.

Reference dimensions

Size variation	01800	02400	03375	04500	08000	11000
W(mm)*1	1200	2000	1500	2000	2000	2500
H(mm)*1	1000	1200	1500	1500	2000	2000
D(mm)*1	1500	1000	1500	1500	2000	2200
Inside capacity(L)	1800	2400	3375	4500	8000	11000

* We can meet various customers requirements by combining temperature and humidity performance with the chamber dimensions shown above.

*1 Excluding partial protrusions.

* The specifications will be adjusted according to customer requirements for the thermal cycle test (IEC 61215 10.11, JIS C 8990), humidity freeze test (IEC 61215 10.12, JIS C 8990), and damp heat test (IEC 61215 10.13, JIS C 8990).

* This series supports hot-spot testing when combined with a solar simulator.

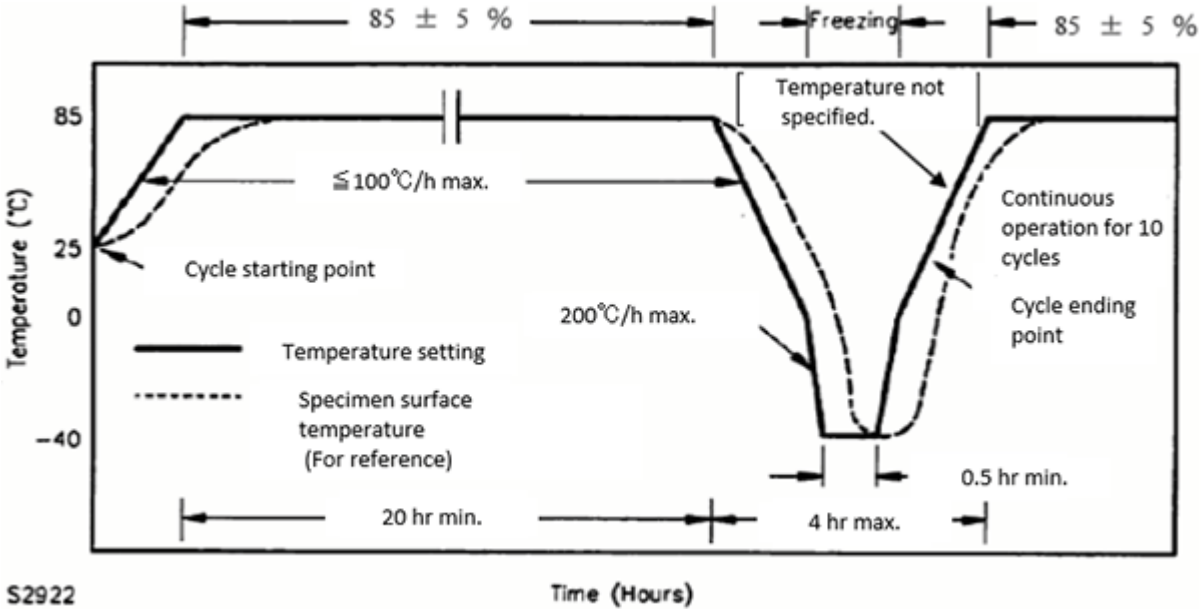
* These models can also support DML testing (IEC 61215 10.16, JIS C8990) when combined with the mechanical load test.

Examples

· Condensation freezing/ thermal cycle (IEC61646 Eddition 2.0 2998-05)	Specimen: 15 panel modules of L1195 × W1335 × T36 mm Supports the continuous operation with specimens under the condition of +85°C/85%rh for 1,000 hour Lowest attainable temperature -60°C
· Condensation freezing/ thermal cycle (IEC61646 Edition 2.0 2998-05)	Specimen: 15 panel modules of L1800 × W1300 × T50 mm/L1482 × H985 × T50 mm * The height of the guide plate can be adjusted to the module size to be put in the chamber. Lowest attainable temperature -60°C

* Reference IE61645 Edition 2.0 2998-05

Condensation Freezing Cycle Test



CAUTION

Use the following options if there is a possibility that acetic acid or phthalic acid may be generated from the specimen during operation at high temperature and humidity.

Options

- Stainless steel evaporator
- Drain pipe stainless steel specifications

Recommended products for customers viewing this product

High-rate Thermal Cycle Chamber	Large Highly Accelerated Stress Test System (HAST Chamber)	PV Thermal-Bias Combo Test System