Quality is more than a word

ESPEC

Temperature (& Humidity) Chamber for Charge-Discharge Testing

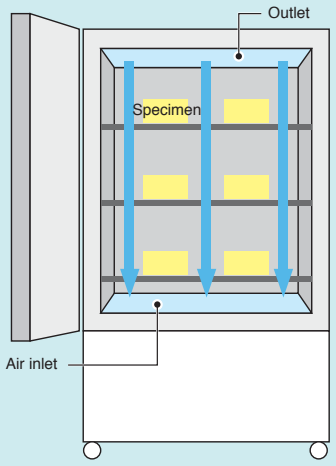
Simple performance & optimal design for charge-discharge testing

Charge-discharge testing is an essential part of the reliability assessment for secondary batteries.
Cells are exposed to a constant temperature environment for an extended period of time while continuously being charged/discharged with high-capacity current.
The Temperature (& Humidity) Chamber for Charge-Discharge Testing provides easy access to specimens and features various safety functions. With uniform temperature distribution in the test area as well as high-precision controls for long-term continuous operation, this chamber is the perfect choice for charge-discharge testing.

Features

- Capacity of vertical airflow from the top is increased so that the air reaches every corner of the test area, realizing more uniform temperature distribution in the test area.
- Includes frost-free function to enable long-term continuous operation under a temperature setting of +15°C or higher, without the need to interrupt for defrosting.
- Two different supply circuits are provided for the driving part (machinery part) and the control part (temperature indicator-controller) of the chamber. In case of failure, the temperature indicator-controller continuously monitors the temperature in the test area even if the machinery part stops operation.
- The chamber comes standard with safety features such as pressure relief vent, emergency stop button, and hand-tighten bolt door lock.
  In addition, you can select optional features like various detectors, fire extinguisher and cable ports to suit your application.
- The chamber will be shipped with three ϕ100mm cable ports on the right side (one for Type 2) as a standard. You can add or have them relocated as necessary.

● **Airflow in vertical direction**



Specifications

	BPU-2	BPU-3	BPU-4	BPL-2	BPL-3	BPL-4
Temperature range	–40 to ＋100°C					
Humidity range	————			20 to 98%rh		
Temperature Heat up time	＋20 to ＋100°C within 35min.					
Temperature Pull down time	＋20 to －40°C within 60min.					
Inside dimensions (W×H×Dmm)	500×750×600	600×850×800	1000×1000×800	500×750×600	600×850×800	1000×1000×800
Outside dimensions (W×H×Dmm)	700×1760×1343	800×1860×1543	1200×2010×1543	700×1760×1343	800×1860×1543	1200×2010×1543
Capacity	225L	408L	800L	225L	408L	800L
Weight	340kg	420kg	610kg	350kg	430kg	620kg

Accessories accessories

- Door lock (hand-tighten bolt)
- Pressure relief vent (φ100 mm)
- External input/output terminal
- Emergency stop pushbutton
- 3-colored light tower
- RS-485
- φ100 mm Cable port on the right side (with rubber plug)
  size 2: ×1, size 3&4: ×3
- Floor load capacity of 100 kg
- Shelf support (M5-tapped)
- Analysis certificate

Options

- 300×300 mm-pressure relief vent
  (replaces the standard vent)
- Automatic CO_2 fire extinguisher (with cylinder)
- Automatic N_2 fire extinguisher
  (jet circuit, starting valve)
- Smoke detector (with suction circuit)
- Thermal detector
  (specifications of thermocouple, analog setter)
- H_2 detector (suction circuit, detector, indicator)
- CO detector (suction circuit, detector, indicator)
- Organic solvent detector
  (suction circuit, detector, indicator)
- Forced air supply/exhaust damper
- Additional cable port (φ50/φ100 mm)
- Heavy-duty shelf & shelf bracket

Configuration

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