

Environmental Test Chambers

HPAF-448 Series Environmental Chambers (Temperature & Humidity Test Chambers)

Features:

Zero-cross DF-PID type temperature and humidity control

Mechanical single-stage compression freezing system

Air cooling full-sealing rotary freezer

Constant pressure expansion valve and automatic expansion valve

Multi-plate fin coil refrigerator

Nichrome wire strip warming heater

Seeds (plug type) humidifying heater

Independent overheat protector, and reverse-phase protection (3-phase model only)

HP-102 (digital display) programmable temperature & humidity controller

HP-102 operation mode/pattern: fixed-value operation, timer (Time-On/Time-Off), programmed operation (6 steps in 1 pattern, 8 steps in 2 patterns, 10 steps in 1 pattern, and 2 linked patterns)

HP-102 digital display (temperature, humidity and time) and seat key input. TFT color LCD (setting, trend graph, operation selectable, error), touch-key input, CF card input (program pattern)

HP-102 temperature & humidity electronic sensor (temperature: Pt 100 Ω , humidity: high polymer electrostatic humidity sensor)

HP-102 Standard functions: self-diagnostic function (17 types), and PC integrated control system (RS - 485 communication)

Observation window

Chamber lamp (60W)

Cable hole with 50 mm internal diameter

Feed-water pump

Shelf plates (2)

Shelf rack holders (2)

Drip tray

Operation manuals



Options:

- Caster
- Self rack
- Large-load shelf rack holder
- Angle frame
- Recorder
- Rotating lamp
- Left-open door
- Internal door
- Different voltage type
- Dry and wet bulb type
- Water-cooling freezer

[Click here to convert specifications to US](#)

Model	Model HPAF-448-20, HPAF-448-40
Voltage	AC200V-3 ϕ (50/60Hz, fluctuations +/-10%)
Maximum Current	30A
Temperature Range	-20 to +150 °C
Temperature Fluctuation Range	+/-3.0 °C (+/-0.5 °C at 100.1 to 150 °C)
Temperature Distribution	+/-3.0 °C (+/-0.75 °C at 100.1 to 150 °C)
Humidity Range	20 to 98% RH (448-20) 40 to 98% RH (448-40)
Humidity Fluctuation Range	+/-2.5% RH
Humidity Distribution	+/-2.0% RH
Temperature Warm-up Time (at 23 °C)	-20 °C to +150 °C Less than Approx. 55 min. (448-20) -40 °C to +150 °C Less than Approx. 55 min. (448-40)
Temperature Cool Down Time (at 23 °C)	+20 °C to -20 °C Less than Approx. 50 min. (448-20) +20 °C to -40 °C Less than Approx. 60 min. (448-40)
External Material	Stainless steel plate (SUS430HL) Hair-line finish
Chamber Material	Stainless steel (SUS304BA) mirror finish
Insulation Material	Glass wool
Freezer Capacity	1.5 kW
Warmer Capacity	4.5 kW
Humidifier Capacity	3.5 kW

Agitation Fan in the Chamber	Sirocco fan 60W X 2
Tank Water Quality	Demineralized water less than 10 μ S/cm
Content Volume	448 L
Inside Dimensions	800W x 700D x 800H mm
Outside Dimensions	1320W x 1240D x 1680H mm
Weight	345 kg

Factory Sales and Technical Support Center

Hastest Solutions Inc., 4423 Fortran Drive, Building 190, San Jose, CA 95134, USA

Tel: 408 945 7861 Fax: 408 262 6699