

Typical Functions/ Options

5 Specimen basket

The basket can be placed on a shelf to hold small specimens.

→P.28



6 Shelf

Shelve(s) can be placed in the sides of the test area to hold specimens.

→P.28



7 Paperless recorder

Records internal temperature and other temperature (and humidity).

→P.32

8 Applying DC power supply

Used to apply voltage to specimens for bias testing. The output mode and interlock conditions can be set for the DC power supply in each step of the temperature and humidity program.

→P.31

9 Right-side cable port

A cable port in the right side of the chamber.

→P.29

* The standard cable port is located in the left side.



10 Specimen temperature control

A temperature sensor, which will be connected directly to specimen. It enhances the accuracy of temperature tests.

→P.30

11 Power meter

Shows the chamber integral power consumption.

→P.32

12 Folding table

A folding table is provided on the right side of the chamber. It can be used to hold measuring instrument, a computer, or other devices connected to the chamber.

→P.32



13 100 V power sockets

Two 100 V power sockets can be used to supply power for specimen and/or measuring instruments. One circuit protector is also equipped.

→P.25

Wide-view door up to +150°C \NEW/

Expand temperature range up to +150°C.
Hand-in ports and roller blind options are available.



Typical Functions/ Options

Safety of Operators and Protection of Specimens



Safety functions depend on the specimen characteristics. A wide variety of options is available to protect the chamber in the case of specimens that generate corrosive substances, to protect the specimens and the chamber during testing, and to ensure the safety of the operator(s).

① Door handle (standard)

Large handle provides a better grip. A double lock provides secure opening and closing.



② Door lock (standard)

Prevents door opening during testing.

③ Status indicator light

Indicator tower provides a view of the chamber status from a remote location. Light color, light status (on, blinking), buzzer on/off can be configured as required.

→P.33



Typical Functions/ Options

④ Specimen power supply control terminal (standard)

If the chamber sends an error alert, the equipment's power supply connected through this terminal is shut down immediately.



⑤ Overheat protector (standard) Additional overheat protector

Specimen protection is enhanced by an additional overheat protector.



⑥ Overcool protector

Operation will stop to protect specimens whenever temperature in the test area drops below a setting temperature for some reason.

⑦ Emergency stop pushbutton

Switch for manual emergency stop of the chamber. Also available with a guard or cover to prevent unintended operation.



⑧ Alarm output terminal

This contact signal terminal is for sending error alerts to a remote location during safety actions.

→P.33

⑨ Power indicator

Indicates the breaker on/off status from the front of the chamber.



⑩ Power key switch

Installation of the power supply key enables management of the chamber use.



⑪ Dehumidifier electrical compartment door switch (standard)

A breaker turns off to protect against electric shock if a door open state is detected.



PR

-20 to +100°C (+150°C/+180°C) • 20 to 98%rh

TEMPERATURE & HUMIDITY CHAMBER

Model	PR-1J	PR-2J	PR-3J	PR-4J	
System	Balanced Temperature and Humidity Control system (BTHC system)				
Performance ¹	Temp. & humidity range	-20 to +100°C/20 to 98%rh ² Refer to diagram of temperature & humidity controllable range on this page.			
	Temp. & humidity fluctuation	±0.3°C/±2.5%rh			
	Temperature variation in space	1.5°C			
	Temperature rate of change	Heat up rate: 3.0°C/min. Pull down rate: 2.0°C/min.		Heat up rate: 3.0°C/min. Pull down rate: 1.0°C/min.	
	Temperature extremes achievement time	Heat up time: from +20 to +100°C 30 min. Pull down time: from +20 to -20°C 40 min.			
	Allowable heat load ³	800 W		1100 W	1250 W
Allowable ambient conditions	0 to +40°C/up to 75%rh				
Construction	Exterior material	Stainless steel plate: 18 Cr stainless steel plate, hairline finish			
	Test area material	Stainless steel plate: 18-8 Cr-Ni stainless steel plate, 2B polish			
	Heater	Nichrome strip wire heater			
	Humidifier	18-12-2.5 Cr-Ni-Mo stainless steel sheathed heater (surface evaporating system)			
	Cooler (dehumidifier)	Plate fin cooler			
	Air circulator	Cross flow fan		Sirocco fan	
	System	Mechanical single-stage refrigeration system			
	Refrigerant	R404A [R-449A is available on request]			
Capacity	120 L	225 L	408 L	800 L	
Chamber total load resistance	100 kg				
Dimensions ⁴	Inside dimensions (W x H x D mm)	500 x 600 x 400	500 x 750 x 600	600 x 850 x 800	1000 x 1000 x 800
	Outside dimensions (W x H x D mm)	910 x 1440 x 873	910 x 1590 x 1073	1010 x 1690 x 1273	1410 x 1840 (1970) x 1273
Weight	260 kg	305 kg	365 kg	480 kg	

¹The performance values are based on IEC60068-3-5:2001 and IEC60068-3-6:2001;

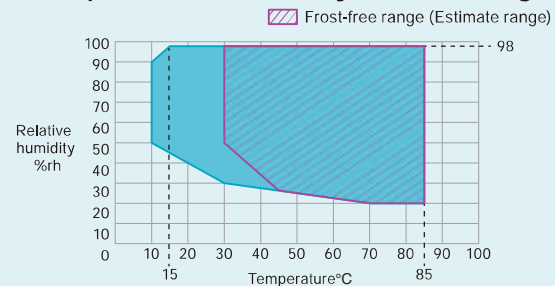
Performance figures are given for a +23°C ambient temperature, relative humidity of 65±20%rh, rated voltage, and no specimen inside the test area.

²Lowest attainable temperature in an ambient temperature of 0 to +30°C

³When temperature in chamber is +20°C

⁴Excluding protrusions. Dimension indicated in () includes protrusion.

● Temperature & Humidity Control Range



* With no specimen and under ambient temperature at +23°C.

* Restrictions on continuous humidity operation at +40°C or lower because of frost on the cooler.

Low GWP Refrigerant



R-449A is available on request.
(PR/PL/PSL/PU/PG only)

PL

-40 to +100°C (+150°C/+180°C) • 20 to 98%rh

LOW TEMPERATURE & HUMIDITY CHAMBER

Model	PL-1J	PL-2J	PL-3J	PL-4J	
System	Balanced Temperature and Humidity Control system (BTHC system)				
Performance ^{*1}	Temp. & humidity range ^{*2} -40 to +100°C/20 to 98%rh Refer to diagram of temperature & humidity controllable range on this page.				
	Temp. & humidity fluctuation ±0.3°C/±2.5%rh				
	Temperature variation in space 1.5°C				
	Temperature rate of change Heat up rate: 3.0°C/min. Pull down rate: 2.0°C/min.				
	Temperature extremes achievement time Heat up time: from +20 to +100°C 30 min. Pull down time: from +20 to -40°C 45 min.				
	Allowable heat load ^{*3} 850 W 1400 W 1500 W 2850 W				
Allowable ambient conditions	0 to +40°C/up to 75%rh				
Construction	Exterior material Stainless steel plate: 18 Cr stainless steel plate, hairline finish				
	Test area material Stainless steel plate: 18-8 Cr-Ni stainless steel plate, 2B polish				
	Heater Nichrome strip wire heater				
	Humidifier 18-12-2.5 Cr-Ni-Mo stainless steel sheathed heater (surface evaporating system)				
	Cooler (dehumidifier) Plate fin cooler		Plate fin cooler, stainless steel tube cooler		
	Air circulator Cross flow fan			Sirocco fan	
	System Mechanical type single-stage compression cooling				
	Refrigerant R404A [R-449A is available on request]				
Capacity	120 L	225 L	408 L	800 L	
Chamber total load resistance	100 kg				
Dimensions ^{*4}	Inside dimensions (W x H x D mm)	500 x 600 x 400	500 x 750 x 600	600 x 850 x 800	1000 x 1000 x 800
	Outside dimensions (W x H x D mm)	910 x 1440 x 873	910 x 1590 x 1073	1010 x 1690 x 1273	1410 x 1840 (1970) x 1273
Weight	270 kg	340 kg	420 kg	610 kg	

*1 The performance values are based on IEC60068-3-5:2001 and IEC60068-3-6:2001;

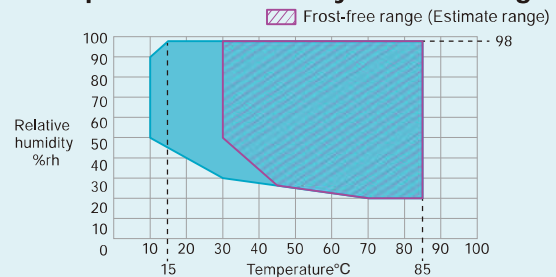
Performance figures are given for a +23°C ambient temperature, relative humidity of 65±20%rh, rated voltage, and no specimen inside the test area.

*2 Lowest attainable temperature in an ambient temperature of 0 to +30°C

*3 When temperature in chamber is +20°C

*4 Excluding protrusions. Dimension indicated in () includes protrusion.

● Temperature & Humidity Control Range



* With no specimen and under ambient temperature at +23°C.

* Restrictions on continuous humidity operation at +40°C or lower because of frost on the cooler.

Low GWP Refrigerant



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