

ETAC.

HIFLEX



Environmental Test Chamber

HIFLEX NEO  **S**
SERIES

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Major characteristic

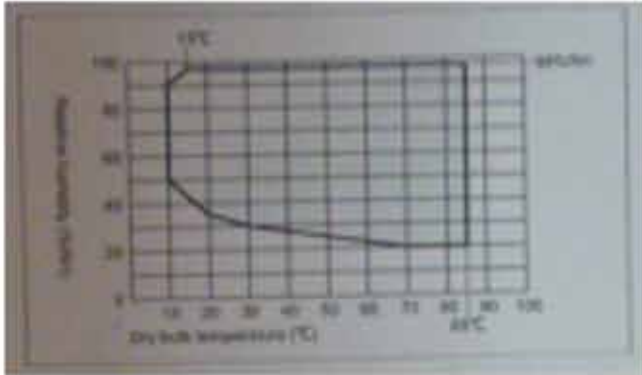
- Compact and space-saving design by stacking plural chamber(s)
Up to 3 (three) kinds of test is operative simultaneously.
- Ready to use with constant operation
Operation key is available at front panel.
- User-friendly comfortable operation via optional smart controller
Not only program operation but also data acquisition by external terminal (tablet, PC etc.) is possible.
- Energy-saving by unique refrigerator system minimizing running cost
- Low noise operation by adopting rotary compressor

Quick Reference

Internal dimensions	W500 x H350 x D350mm			W600 x H600 x D500mm		
Temperature/humidity chamber						
-40°C ~ +100°C 20%RH. ~98%RH	1 chamber	SX410N	With rack	----	----	----
	2 chambers	SX420N	With rack	2 chambers	SX412N	Without rack
	3 chambers	SX430N	Without rack	----	----	----
Low temperature chamber						
-40°C ~ +100°C	1 chamber	SL410N	With rack	----	----	----
	2 chambers	SL420N	With rack	2 chambers	SL412N	Without rack
	3 chambers	SL430N	Without rack	----	----	----

*+150C maximum temperature is available as option.

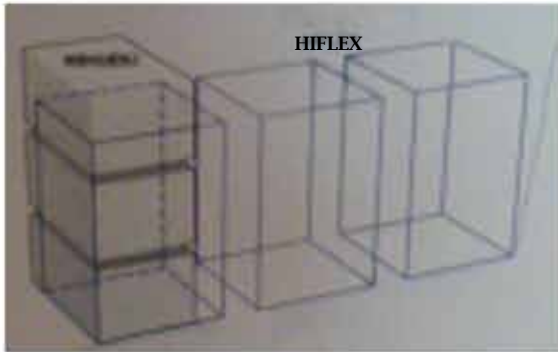
Temp./humid. Controllable range



**Main body control panel
With display**



Space-saving feature



User-Friendly display on external terminal



·Login screen :
To enter user name and password.

·Operation management screen :
To manage test conditions.
Start and end of a test are recorded.

·Operation status check screen :
To display past and current test
Progress status

Valuable option

■ Viewing window (W210xH303mm)
Observation from outside is possible.



■ Additional cable port Square cable port (100x30mm) And round cable port (Ø 50 and Ø 120mm) are available.

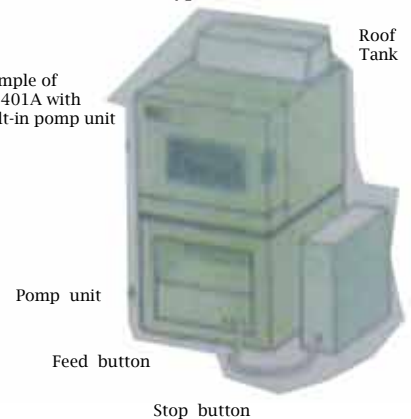


■ Paperless recorder
The data is served in CF Card and transferred to PC



■ Humidification water supply system Pump unit is available to supply humidification water form portable Tank (22L) to roof tank. (SX430N is external type.)

* Example of TH 401A with Built-in pump unit



■ Specification: Temp. /humid chamber (SX type), Temp. chamber (SL type)

Model		SX401N/SL401N	SX402N/SL402N	SX403N/SL403N	SX412N/SL412N
Performance	Temp. range	-40°C ~+100°C [-40°C ~+150°C]			
	Humid. Range (SX only)	20% RH ~ 98% RH			
	Temp. ramp-up time	-40 ~+100 °C [-40 °C ~+150] °C			
		Within 35 min. [within 45 min.]			Within 35 min [35 min.]
	Temp. ramp-down time	+20 ~-40 °C within 60 min.			
	Temp. rate of change (ramp-up)	-26 °C ~+86 °C [-21 °C ~+131] 4.0 °C /min[4.0 °C /min.]			
	Temp. rate of change (ramp-down)	+86 °C ~-26 °C [+131 °C ~-26 °C] 1.5 °C /min. [1.5 °C /min.]			
	Temp. and humid. variation	±0.3°C / ±2.5% RH [±0.5°C (+100.1°C~+150°C)] × Humid. Is only SX.			
	Temp. and humid. Gradient	Temp. Operation : 3.0°C [5.0°C (+100.1°C ~ +150°C)] Temp. / humid. Operation : 2.0°C /5.0% RH Humid. Is only SX.			
	Temp. and humid. Space variation	Temp. Operation : 2.5°C [5.0°C (+100.1°C ~ +150°C)] Temp. / humid. Operation : 1.5°C /5.0% RH Humid. Is only SX.			
Ambient temp	+5°C ~+35°C				
Main body	Internal dimension (W x H x Dmm)	500 x 350 x 350	(500 x 350 x 350) x 2	(500 x 350 x 350) x 3	(600 x 600 x 500) x 2
	Capacity (liter)	61	61 X 2	61 X 3	180 X 2
	External dimension (W x H x Dmm)	660 x 1535 (SL : 1300) x 1035	660 x 2125 (SL : 1890) x 1035	660 x 2155 (SL : 1920) x 1370	760 x 2020 (SL : 1785) x 1930
	Weight (kg)	185 (SL : 180)	325 (SL : 320)	470 (SL : 465)	485 (SL : 480)
	External metal plate	Bonded steel plate			
	Internal metal plate	Stainless plate (SUS304)			
Main unit	Controller	Circulation fan	Sirocco fan		
		Refrigerator	Rotary compressor		
		Refrigerant	R-404A		
		Thermal heater	Nichrome strip heater		
		Humidification heater (SX only)	Sheathed heater (SUS316)		
		Cooling device	Plate n fin coil		
		Control sensor	JIS C 1604 3 wires PT100Ω		
	Interface (option)	Control method	PIC control		
		Display	LED display		
		Display resolution	0.1°C / 1% RH		
		Setting method	Key-in to main body operation panel/Input method by external terminal		
		Ethernet	10BASE-T / 100BASE-TX AUTO-MDIX RJ45 connector x 1 channel		
			USB2.0 TYPE A Type A connector x 2 channel		
Memory capacity	4GB				
Required equipment	Power supply	AC200V, 3Ø, 50 / 60Hz, Fluctuation ±10%			
	Humidification water (SX only)	DI or pure water (0.1~10µS / cm, 0.1 ~ 0.5MPa)			
Max. load current (A)	SX : 15 / SL : 9	SX : 30 / SL : 18	SX : 45 / SL : 27	SX : 46 / SL : 32	
Operation current (A)	SX : 11 / SL : 7	SX : 22 / SL : 14	SX : 33 / SL : 21	SX : 34 / SL : 26	
Heat generation (Kw)	0.43 ~ 1.4	0.86 ~ 2.8	1.3 ~ 4.2	1.7 ~ 6.8	
Protection device	Earth leakage breaker for power supply, Overload relay for fan motor, Boil dry protector, Overheat Protector, Pressure switch for refrigerator, Overload relay for refrigerator, Overheat protector for Refrigerator, Monitoring device for negative phase of primary power source, Overheat protecting Fuse for thermal heater, Overheat protecting fuse of humidification heater (only SX), Overheat Protecting fuse for control circuit, Detector for sensor discontinuance, Alarm function for Temp./ humid. Upper/ lower limit, Power filter alarm, Wick dry alarm (only SX), Water Tank low level alarm (SX only)				
Additional function	Memory back-up function, Pause function, Monitor function, Self-diagnostic function, Power failure Protection function, Instantaneous power failure back-up function, External alarm function, Test and Output function, Time signal output function, Wait function, Specimen power supply interlock function, Timer function, Delayed humidification (only SX), Test end operation function				
Standard feature	Main body	Round cable port (Ø 50, one each left/ right side), Caster and Adjuster, Dust proof filter for Condenser			
	Accessory	Operation manual, Ø 50 cable port silicon stopper (2 pcs), Shelf supporter (2 sets), Wick (only SX)			

Note 1: Description in [] is for only optional 150°C specification **Note 2:** Performance is subject to +23 °C as environment temperature based on JTM K 09. **Note 3:** If environmental temperature is less than +5 °C and more than +35 °C, alarm is happened. **Note 4:** if environmental temperature is more than 32 °C, the performance is not guaranteed. **Note 5:** External include protrusion. **Note 6:** Max. load current (A) is maximum value when all devices is ON. **Note 7:** Operation current (A) is maximum value for normal usage. **Note 8:** Performance specification might be changed depends on option.

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