

ETAC®

HIFLEX NEO ES



*Green
Refrigerant
Compliant*

H I F L E X N E O S e r i e s

CONVENIENT FOOTPRINT/MULTI-STACK
LOW TEMPERATURE AND HUMIDITY CHAMBER

ETAC opens new era for environment-friendly chamber by adopting updated low GWP refrigerant R-448A instead R-404A.

○ Space saving

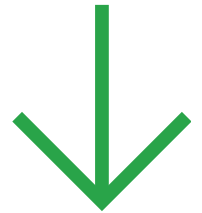
Convenient footprint with sophisticated technology

○ Updated refrigerant R-448A

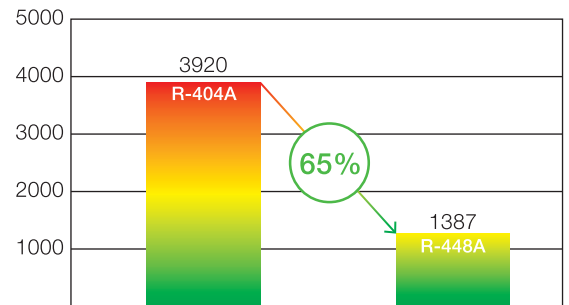
Comparison between R-448A and R-404A.

Low GWP

65% ↓



About 65% reduction of GWP



SXN401-E

SXN402-E

SXN403-E

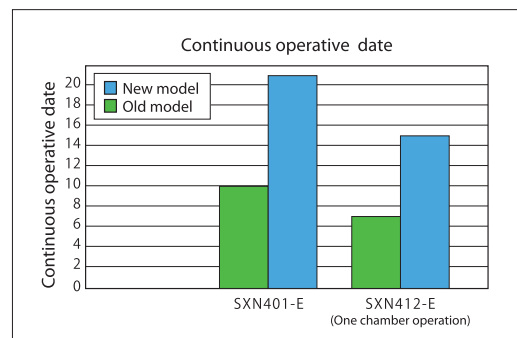
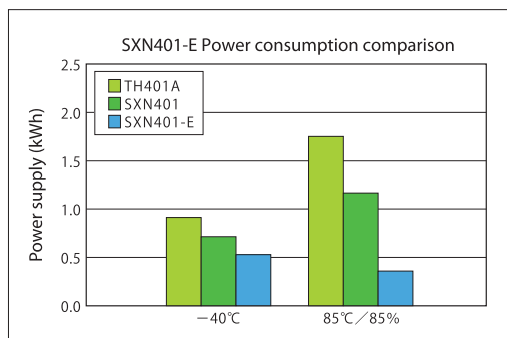
Excellent performance for both energy and humidification water saving.

○ Energy saving

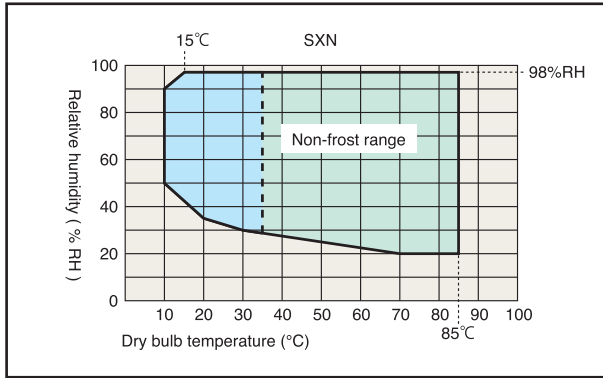
Thanks for cutting edge DC inverter rotary compressor achieving optimization of refrigerant capacity for energy saving. (Our comparison)

○ Humidification water saving

Thanks for state-of-art mechanism for expanding continuous operation with +85C/85%RH more than 2 time than before. *Depends on environment situation at installation site.

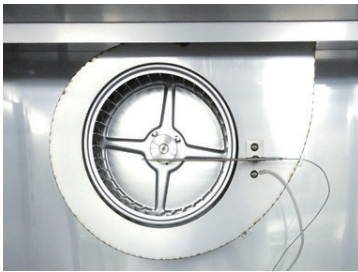


Wide temp./humid. contorlable range up to 98%RH is possible.

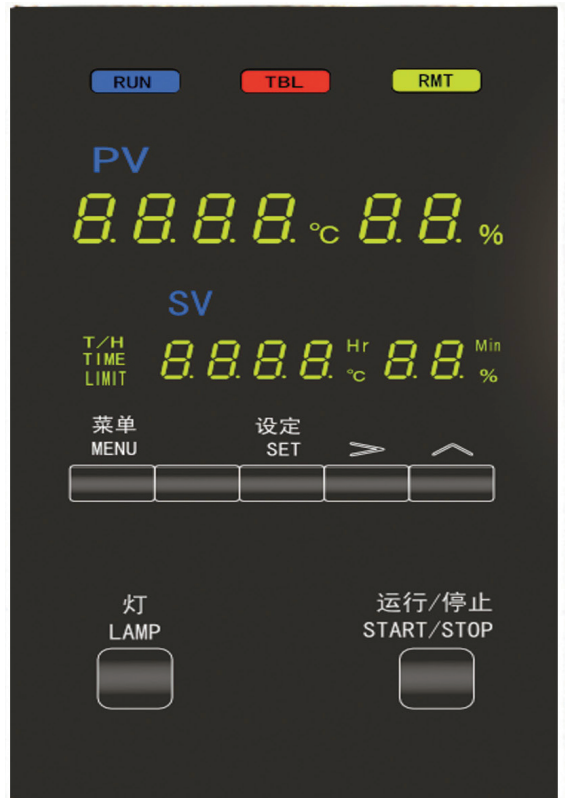


Powerful sirrocco fan

Sirrocco fan achieves excellent uniformity performance with specimen inside.



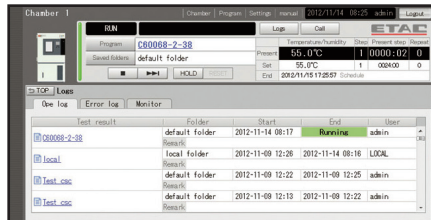
Main body control panel with display



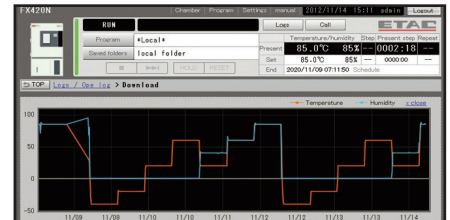
User-Friendly display on external terminal



- Login screen :
To enter user name and password.



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



- Progress status check screen :
To display past and current test
Progress status

Valuable option

- Viewing window (W256xH175mm.)
Observation from outside is possible.



- Additional cable port
Change sentence of cable port
Additional cable port (ø50 and ø120mm.) are available.



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

Model		SXN401-E/SLN401-E	SXN402-E/SLN402-E	SXN403-E/SLN403-E	SXN412-E/SLN412-E	
Performance	Temp. range	-40°C ~ +100°C [-40°C ~ +150°C]				
	Humid. Range (SX only)	20% RH ~ 98% RH				
	Temp. ramp-up time	-40°C ~ +100°C [-40°C ~ +150°C]			Within 35 min. [50 min.]	
		Within 35 min. [within 45 min.]				
	Temp. ramp-down time	+20 ~ -40°C			Within 35 min. [50 min.]	
		Within 55 min.				
	Temp. rate of change (ramp-up)	-26°C ~ +86°C [-21°C ~ +131°C] 4.0°C/min.[4.0°C/min.]				
	Temp. rate of change (ramp-down)	+86°C~-26°C[+131°C~-21°C]			3.0°C/min. [3.0°C]	
		2.5°C/min. [2.5°C]				
	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 ~ +40°C					
Main body	Internal dimension (W × H × Dmm)	500 × 350 × 350	(500 × 350 × 350) × 2	(500 × 350 × 350) × 3	(600 × 600 × 500) × 2	
	Capacity (liter)	61	61 × 2	61 × 3	180 × 2	
	External dimension (W × H × Dmm)	660 × 1285 × 1040	660 × 1885 × 1040	660 × 1955 × 1375	760 × 1855 × 1645	
	Weight (kg)	190	330	475	470	
	External metal plate	Bonded steel plate				
	Internal metal plate	Stainless plate (SUS304)				
Main unit	Circulation fan	Sirocco fan				
	Refrigerator	DC inverter rotary compressor				
	Refrigerant	R-448A				
	Thermal heater	Nichrome strip heater				
	Humidification heater (SX only)	Sheathed heater (SUS316)				
	Cooling device	Plate fin coil				
	Control sensor	JIS C 1604 3 wires PT 100 Ω				
	Controller	Control method	PID 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 (option)				
Interface (option)		Ethernet	10BASE-T/100BASE-TX AUTO - MDIXR J45 connector× 1 channel			
	USB	USB2.0 TYPE A connector × 1 channel				
	Memory capacity	8GB				
Required equipment	Power supply	AC200V, 3Φ, 50/60Hz, Fluctuation ±10%				
	Humidification water (SX only)	DI or pure water (0.1 ~ 10μS /cm, 0.1 ~ 0.5 MPa)				
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 failure alarm, Filter cleaning 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 end output function, Time signal output function, Wait function, Specimen power supply interlock function, Timer function, Delayed humidification function (only SX), Test end operation function					
Standard feature	Main body	Square cable port (one each left/right sides), Caster and adjuster, Dust proof filter for condenser				
	Accessory	Operation manual, Square cable port silicon stopper, Wick (only SX), Portable water tank (401, 402 : 10L, 403 / 412 : 20L)				

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 dimension does not 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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