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Quality is more than a word

**ESPEC**

# Temperature Cycling Chambers

## Global-N Series



**ESPEC NORTH AMERICA, INC.**

# Global Features

## World-standard performance and features on a minimal footprint

The Global-N chambers have temperature change rates from 5 to 20°C per minute. In addition, controlled humidity from 10 to 95% is an available feature. There are four sizes, with interior volumes of 12, 16, 28, and 35 cubic feet (380, 470, 800, and 1000 liters). They are compact, requiring the least amount of floor space for this level of performance.

These chambers feature the classic ESPEC look of stainless steel with a modern style. The control console is on the door, making the footprint of the unit even more compact. A simple, but secure, door latch is easier than ever to use.

## International applications

Global-N chambers meet Mil-Std, JEDEC, IEC, and other international test performance standards. The units can be installed around the world for consistent testing at different facilities, supported by your local ESPEC service group.

## Designed for serviceability and safety

For safety and worldwide compliance, Global-N series are UL 508A certified or CE-marked.

The refrigeration service panels are hinged for fast access. Analog refrigeration gauges help you monitor system performance and pinpoint service needs.

All models feature three levels of overheat protection, plus two levels of overcool protection. The fully-integrated system controller provides alarm messages with specific troubleshooting help to quickly resume testing.

## Standard features:

- Stainless steel exterior and interior
- Foam-insulated door for rigidity and long life
- High performance refrigeration utilizing reliable Scroll compressors (except -15NW models)
- Hinged service panels for easy access
- Unique non-metallic thermal breaks around the doorframe and cable ports
- Specimen power relay for interlocking test samples or external devices to chamber power for safety
- One 4" (100mm) cable port, one shelf & casters included



Innovative high-speed airflow suited for fast temperature cycling applications.



Advanced refrigeration design is especially compact for high performance test chambers.

## SPECIFICATION - 16 CU. FT. / 470 L MODELS

### RANGE -70 TO 180°C Temp-only

	EGNZ16-4NWL EGNZ16-4NAL	EGNZ16-6NWL EGNZ16-6NAL	EGNZ16-7.5NWL
Temperature Range	-70 to 180°C (-94 to 354°F)		
*Cooling Capacity	2.1 kW [2 kW] at -50°C	3.2 kW [3 kW] at -50°C	3.8 kW [3.3 kW] at -50°C
Refrigeration System	Cascade 4 hp Scroll	Cascade 6 hp Scroll	Cascade 7.5 hp Scroll
Heating System	5 kW	8 kW	10 kW
Measured Airflow	500 CFM (850 cubic meters per hour)		
<b>Performance Example (-70°C to 180°C, per IEC 60068 3-5, at supply air)</b>			
*Heating Rate	6°C/m [6°C/m]	13°C/m [13°C/m]	15°C/m [15°C/m]
*Cooling Rate	5.5°C/m [5°C/m]	10.5°C/m [10°C/m]	15.5°C/m [15°C/m]
<b>Site Requirements</b>			
Electrical Supply	460V 3Ø 60Hz [380-415V 3Ø 50Hz]		
*Recommended Service	35 A [35 A]	40 A [45 A]	45 A [50 A]
Cooling Water Maximum with 30°C Inlet	9 GPM (34 LPM) (NWL suffix models)	14 GPM (53 LPM) (NWL suffix models)	19 GPM (72 LPM)
Heat to Room	40,000 BTU/hr (NAL suffix models)	60,000 BTU/hr (NAL suffix models)	—



\*Cooling capacity, ramp rates, and service amps in brackets are for 380V-415V 50Hz power.

### RANGE -70 TO 180°C Temp/Humidity

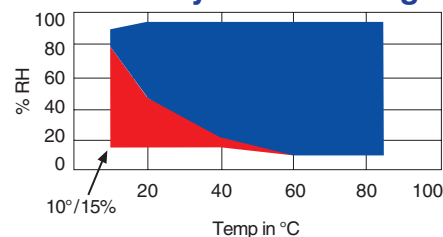
	EGNX16-4NWL EGNX16-4NAL	EGNX16-6NWL EGNX16-6NAL	EGNX16-7.5NWL
Temperature Range	-70 to 180°C (-94 to 354°F)		
*Cooling Capacity	2.1 kW [2 kW] at -50°C	3.2 kW [3 kW] at -50°C	3.8 kW [3.3 kW] at -50°C
Refrigeration System	Cascade 4 hp Scroll	Cascade 6 hp Scroll	Cascade 7.5 hp Scroll
Heating System	5 kW	8 kW	10 kW
Humidity Range	10 to 95% RH per chart below		
Measured Airflow	500 CFM (850 cubic meters per hour)		
<b>Performance Example (-70°C to 180°C, per IEC 60068 3-5, at supply air)</b>			
*Heating Rate	6°C/m [6°C/m]	13°C/m [13°C/m]	15°C/m [15°C/m]
*Cooling Rate	5.5°C/m [5°C/m]	10.5°C/m [10°C/m]	15.5°C/m [15°C/m]
<b>Site Requirements</b>			
Electrical Supply	460V 3Ø 60Hz [380-415V 3Ø 50Hz]		
*Recommended Service	35 A [35 A]	40 A [45 A]	45 A [50 A]
Humidity Water	De-ionized water, 0.2 to 10 µS/cm resistivity		
Cooling Water Maximum with 30°C Inlet	9 GPM (34 LPM) (NWL suffix models)	14 GPM (53 LPM) (NWL suffix models)	19 GPM (72 LPM)
Heat to Room	40,000 BTU/hr (NAL suffix models)	60,000 BTU/hr (NAL suffix models)	—

\*Cooling capacity, ramp rates, and service amps in brackets are for 380V-415V 50Hz power.

### DIMENSIONS - 16 cu. ft. models

Workspace Volume	16 cu. ft. (470L)	
Workspace (WxDxH)	29.5" x 29.2" x 33.5" (749 x 743 x 850 mm)	
Exterior (WxDxH)	NWL suffix models	40.9" x 82.6" x 69.6" (1038 x 2089 x 1768 mm)
	NAL suffix models	40.9" x 82.9" x 83.8" (1038 x 2106 x 2129 mm)

### Humidity Control Range



For EGNL & EGNX models:

Blue = Standard humidity range  
Red = Optional low-humidity range

Guaranteed humidity control range without live load.  
Fluctuation is within ±3%, per IEC 60068 3-6.